

**ADVERTISEMENT FOR ENGINEERING AND RELATED SERVICES
NOVEMBER 30, 2022**

**CONTRACT NO. 4400025625
ENTITY CONTRACT FOR ST. NAZAIRE RD EXT: LA 96 - CORNE RD
STATE PROJECT NO. H.014622.1
F.A.P. NO. H014622
LAFAYETTE 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 MARCH 1, 2022, PROVIDED WITH THE ADVERTISEMENT.**

The contract will be between the selected consultant and **City of Broussard**, referred to as the "Entity".

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> | | | | | | | |
|---|-----------------------|-------|--------|--------|--------|--------|------------------------------------|
| Evaluation Discipline(s) | % of Overall Contract | Prime | Firm B | Firm C | Firm D | Firm E | Each Discipline must total to 100% |
| | | | | | | | 100% |
| | | | | | | | 100% |
| | | | | | | | 100% |
| <p>Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.</p> | | | | | | | |
| 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.

If sub-consultants are used, the prime consultant must perform greater than 50% of the work for the overall contract.

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 type for this contract is negotiated cost plus fixed fee.

Compensation to the consultant for the services specifically set forth herein shall be made on the basis of an estimated cost of **\$518,788** plus a fixed fee of **\$72,298**, for a maximum limitation of **\$591,086**.

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. The selected consultant must submit their QA/QC plan to the DOTD PM within 10 business days of the award notification to the consultant. 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 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 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

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 MARCH 1, 2022, 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 should be identified with **contract number 4400025625 and/or State Project No. H.014622.1**, and must be received by DOTDConsultantAds80@la.gov via email **no later than 3:00 p.m. Central Time on Wednesday, December 21, 2022.**

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.

The purpose of this project is to extend St. Nazaire Rd. from LA 96 to Corne Rd., in Broussard, Louisiana.

The services to be performed by the Consultant under this Contract are described more specifically as follows:

STAGE 1: PLANNING/ENVIRONMENTAL

Part I: Line and Grade Study

Line and Grade Study – The line and grade study shall include, but not be limited to:

- Establishment of design criteria
- Required lane configurations based on level of service
- Develop typical roadway 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, including potential utility conflicts
- Develop cost estimates for right-of-way, utility relocations and construction

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 DOTD policies and manuals. The final refinement to the alignment(s) will be adjusted based on the performance of a constructability review. These reviews will assess if the proposed alignment(s) can be constructed in accordance with DOTD standards (considering maintenance of traffic, etc.). The location of the final alignment(s) should consider:

- Existing roadway conditions
- Maintenance of traffic
- Location of utilities
- Environmentally sensitive areas
- Topographic features
- Developed properties
- Urban constraints
- Railroad crossings

A plan view of the proposed horizontal alignment will be prepared for each alternate. The following geometric data (if applicable) will be displayed on the plan:

- Curve Lengths (L)
- Tangent Lengths (T)
- Curve Radii (R)
- Superelevation rates and transition lengths
- Intersection and/or schematics
- New edge of pavement and shoulder lines
- Baselines and stationing
- Curb lines
- Lane and shoulder dimensions
- Bridge limits
- Existing and relocated utilities, as known
- Major drainage features, if any
- Railroads
- Signalized intersections
- 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.)

C. Deliverables

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 and construction.
- Design Report(s) and design waivers and exceptions
- Electronic files for all plan sheets and displays and others.

Part II: Traffic Study

Traffic Study – The Consultant shall coordinate and perform a traffic study to analyze the effects of the proposed roadway extension along St. Nazaire Road southwest from LA 96 to LA 182 and from LA 182 to Corne Road (terminating at the Acadiana Zoo). These improvements also shall include constructing a new access road connecting St. Nazaire Road to Lake View Drive. Concepts shall be developed in sufficient detail to determine geometric feasibility of the proposed improvements and anticipated right of way (ROW) needs.

The traffic analysis study shall be performed in accordance with all Louisiana Department of Transportation and Development (DOTD) guidelines and policies, including but not limited to the Traffic Engineering Process and Report guidelines, Complete Streets Policy, Engineering Directives and Standards Manual (EDSM), Highway Safety Manual (HSM), DOTDs Design Guidelines and other relevant design manuals and guidelines that can be found on DOTD’s website (www.dotd.la.gov).

Project Research and Data

The Consultant shall perform general research, which may include obtaining information about the need and origin of the project, existing conceptual geometric layouts (if any), transportation plan of the area, and other important issues that may currently exist. The Consultant shall research and obtain copies of all readily available safety data, documents, (crash data, safety reports, assessments, evaluations, etc.), and as-built highway plans for the project corridor and surrounding areas. Findings and impacts identified in these documents associated with the corridor and adjacent roadways shall be incorporated in the study.

1. Project Initiation Meeting

The Consultant shall coordinate a project initiation meeting for this project in Broussard, LA. The Consultant shall be responsible for the coordination of the meeting logistics, including the preparation of an invitee list for the Entity and DOTD approval prior to the meeting invitations being sent out. The purpose of this meeting is to establish the foundation for continued coordination, develop a mutual understanding of the deliverables, agree on the procedures to follow, and discuss the Measures of Effectiveness (MOEs) to be compared for analyses.

Any requests or exchange of information from either party necessary to complete the scope of services shall be done at this meeting. The Consultant shall be responsible for conducting the meeting as well as preparing and distributing meeting minutes to all members present.

Deliverables:

1. Agenda – submitted to the Entity and DOTD one week prior to meeting
2. Kickoff Meeting minutes – submitted within 2 days after meeting

2. Initial Data Collection

All counts should be made when school is in session and should be collected according to the standard engineering practice on a Tuesday, Wednesday, or Thursday, when schools are in session (not during summer vacation, or during holidays). If counts are being taken and weather becomes a factor during the time of counts, note such conditions as well as any accidents that may have occurred.

Three (3) 7-day 24-hour counts with vehicle classifications shall be taken on LA 96 east of St. Nazaire Rd., on LA 182 in between LA 96 and Lakeview Dr., and on US 90 in between the overpass at LA 182 and Corne Rd (count map below displays approximate locations). These counts shall be used to determine the peak periods for analysis.

Deliverables:

Appendix A – Initial Data Collection

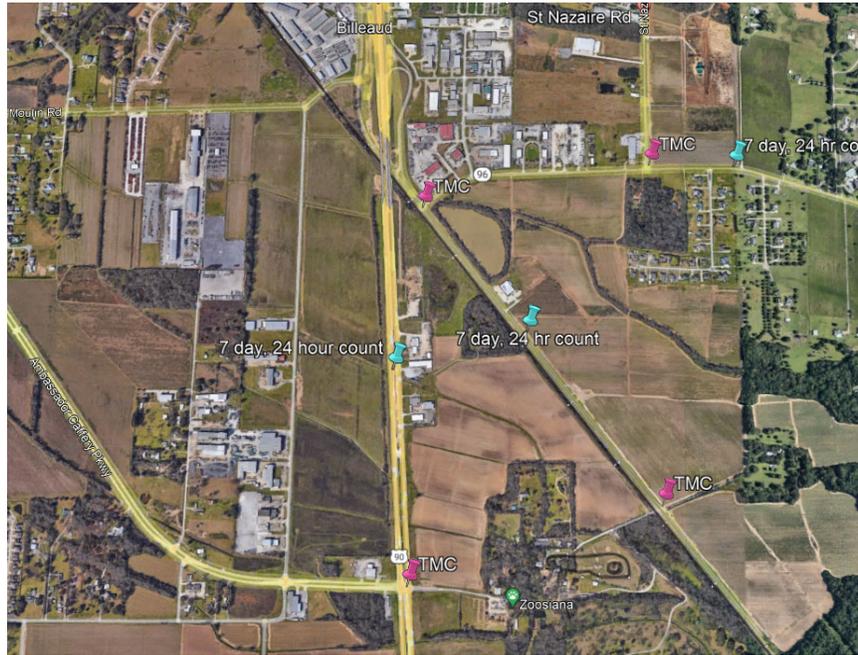
1. Electronic submittal containing the 7-day 24-hour raw counts. The count locations shall be shown on an aerial map.
2. Peak Period Determination Chart with explanation
3. Any documentation, justification, etc. for any count discrepancies
4. QA/QC Documentation

3. Final Data Collection

The Consultant shall adhere to all guidelines and industry standards in capturing data used for analysis. 48-hour counts with vehicle classifications shall be taken at all intersection approaches to help verify TMCs and demand. (24-hour classification counts will be acceptable).

Turning Movement Counts (TMCs) with classifications and demand shall be conducted on each intersection listed below during the AM and PM peak periods. Count all movements, including vehicular, pedestrian, and bicycle. During the observations, please note if, when and how long train is on tracks.

| Locations of TMCs, observations, geometric field check (see count map below) | |
|--|---|
| 1 | LA 96 @ LA 182 |
| 2 | LA 96 @ St. Nazaire Road |
| 3 | LA 182 @ Lakeview Road |
| 4 | US 90 @ Corne Road/Ambassador Caffery Parkway |



Growth Rate Determination

Shall utilize the Acadiana MPO travel demand models. These models will be the currently approved existing model and the future fiscally constrained model. The existing model does not have to be 2022 and the future does not have to be 2042.

Deliverables:

1. **Chapter 1** – Explanation of the methodology for collecting data.
2. **Appendix B** – Final Data Collection

All data should be submitted electronically in addition to any hard copies noted below:

- a. Growth Rate Determination – Justification of growth rate determination and any sources that were used to obtain the growth rate(s).
- b. Any documentation, justification, explanation for any count discrepancies. All locations shall be correct and easily followed
- c. Volume check: Provide raw count figures with balanced volumes differences
- d. Raw Turning Movement Counts (TMCs) and 48 hour counts all with classifications
- e. Demand Calculation table
- f. Maps (hard copy)

- i. Raw Turning Movement Counts (TMCs) with Demand shown separately
- ii. Final Existing Volumes
- iii. No Build Volumes (grown 20 years)
- g. Peak Period Observations (shall also capture pedestrian activities and railroad crossing safety observations that will not be captured by the TMC)
- h. Geometric Field Checklist
- i. Railroad information- number of trains, length of trains, speed of trains
- j. QA/QC Checklist and documentation – signed and dated

4. Existing Safety Analysis

The Consultant shall pull all crash history within the limits of this study for the latest 3 years of available certified data for the project study area. A crash summary analysis for all 3 years shall show trends of crash rates, location, and severity (see DOTD Safety Section CATScan Tool) and compare to the statewide averages, where applicable. Quality Assurance shall be performed to a Quality Assurance Index (QAI) of 90% in the CATScan Tool. If a consistent trend is present throughout the 3-years of data, the trend information shall be submitted to DOTD prior to performing any detailed crash analysis. After DOTD concurrence of the trend information, a detailed crash analysis shall be performed for 1-year of typical data, in which all crash reports will be read in detail. If a consistent trend cannot be determined through the 3-years of data, a detailed crash analysis shall be performed for all 3-years for the project study area. The detailed crash analysis shall consist of a review of the crash reports in detail to determine the type of collision based on the reporting officer’s description. A report shall be submitted to DOTD Highway Safety Section for any crash reports within the latest year of data (1 year) that are found to be erroneous. The Consultant shall prepare QA/QC documentation for the review and approval of DOTD.

The Consultant shall also pull the latest 5 years of pedestrian crashes within the limits of the study area. Also, summarize any trends, if found, for pedestrians.

Note: Crashes shall be pulled as far as the existing analysis is showing queuing for all intersections.

Deliverables:

Appendix C – Existing Safety Analysis

1. CATScan Tool
2. Crash Report Documentation – crash history, corrected component of crashes and provide individual summary of crash report narratives
3. Collision Diagram
4. Crash Analysis Summary - summary of crash reports explaining results
5. Existing Safety Analysis QA/QC Checklist

5. Existing and No Build Analysis

HCS7 shall be used to analyze all TMC locations. HCS multi-period analysis shall be performed at all signalized intersections. The analyses shall include the following MOEs per movement: V/C ratios, 95th percentile queue lengths, and critical movement control delay (sec/veh). HCM

Analysis results must be verified with the collected field data to ensure validity and accuracy. All defaults must be justified and documented.

Deliverables:

1. Appendix D – Existing and No Build Analysis

- a. Software reports/Output for Existing and No Build Conditions (only relevant sheets)
- b. Electronic files of analyses
- c. Analysis results of MOEs on a map with road name, control type, and north arrow of the corridor (11X17)
- d. Queue maps of intersections (field vs software- if there is a difference explain)
- e. Intersection descriptions (for each TMC location)
- f. Detailed description of intersection, nearby land use and issues for those not familiar with area
- g. Aerial of intersection (showing existing lane configuration, peak hour TMCs, commercial/residential drives and any other notable feature such as but not limited to bus stops, crosswalks, train crossings etc.)
- h. Summary of peak period observations (queues, issues, including railroad crossing safety observations)
- i. Summary of crash history
- j. MOE table of results
- k. QA/QC documentation

2. Chapter 2 – Interpretation of data and analysis of overall study area

3. Tier 1 Analysis

- a. Summary of Screening Criteria
- b. Critical Intersection Type Matrix and Results
- c. Any additional tools and outputs used in decision making process

6. Existing and No Build Results Meeting

The Consultant shall coordinate a meeting to discuss the findings of the existing and no build analysis.

- A. Present and discuss Existing and No Build, including any safety or capacity issues for the study area.
- B. Present and discuss high-level alternatives that address issues found in Chapter 2 (Tier 1 results).
- C. Discuss tool selection for Alternative Analysis.

Deliverables:

Meeting minutes submitted within 3 days.

7. Preliminary Tier 2 Alternative Analysis

- A. Footprint layouts on an aerial of potential alternatives at critical areas showing high-level physical impacts along the corridor.
- B. Redistributed volumes
- C. Meeting (optional)
- D. Recommend weight factors and ratings scale for Alternative Comparative Evaluation Matrix.

Deliverables:

- 1. Redistributed Volume Map (if needed)
- 2. High-level sketches and analysis
- 3. Meeting Minutes within 3 days (if meeting held)

8. Final Alternative Analysis

Tier 2 Analysis of future year using approved software from the Existing and No Build Meeting.

Deliverables:

1. **Appendix E** – Alternative Analysis

All data should be submitted via electronic copy. Hard copies noted below are additional:

- 1. Tier 1 Matrix with documentation.
- 2. Tier 2 Analysis and Documents
 - a. 11 X 17 Map(s) showing redistributed future year volumes for each alternative (if needed)
 - b. 11 x 17 Map(s) showing queues on an aerial comparing all alternatives and No Build alternative (hard copy and pdf)
 - c. Electronic copy of Analysis for Operations
 - d. Software Reports/Output for Analysis of Intersections – Only relevant reports with inputs and Measures of Effectiveness (MOE) are needed. (pdf)
 - e. Intersection Summaries – each intersection with Turning Movement Counts (TMCs) and/or modifications:
 - i. A detailed description of new and modified intersections (paint a picture)
 - ii. Aerial of intersection showing proposed lane configuration, proposed and existing Right of Way (ROW), and proposed and existing Control of Access (COA). (Configuration must meet the requirements of the Control of Access Policy for the future I-49 expansion.)
 - iii. Safety Analysis (showing existing crash diagram with alternatives drawn and the potential crashes that may be eliminated with that alternative)
 - iv. MOE Table of Results
 - f. Summary Table of Results compared to No Build and all other Alternatives

- g. Critical Geometry Layout (of entire corridor) (11X 17 hard copy(s), pdf and CADD files (not a line and grade)
 - h. Design Guideline Report
 - i. Documentation of any default changes from No Build to Alternative Analysis
 - j. Comparative Evaluation Matrix with documentation and calculations
3. QA/QC Documentation
 2. Introduction of Final Report
 3. Chapter 3 – Alternative Analysis Summary
 4. Executive Summary

9. Final Report

Deliverable:

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

Part III: Environmental Evaluation

Environmental Evaluation – This scope is for the preparation a Stage 1 environmental document in accordance with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), and applicable Louisiana Department of Transportation and Development (DOTD) publications.

Stage 1 shall minimally require the following:

- Develop an environmental schedule with all significant milestones identified.
- Engineering studies necessary to develop alternatives to the extent necessary to complete the environmental stage.
- Solicitations of view from public, local and federal agencies.
- 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.
- Preparation of environmental document needed for NEPA clearance.
- Preparation of transcripts and meeting summaries.

The scope of services for this project consists of preparation of a Stage 1 environmental document in accordance to the National Environmental Policy Act (NEPA). The Consultant shall evaluate the social, economic, and environmental consequences of up to two (2) alternatives and a no-build alternative, and present this information in the environmental document. A Stage 0 study was previously prepared for the project. The Stage 0 study shall be incorporated into the environmental document. A Public Meeting 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. A Public Hearing shall be held to inform the public of the results and conclusions of the environmental document and to obtain input from the public.

All final documents will be submitted in pdf format with some submitted in both paper and pdf format. All documents for public review will be reader friendly and submitted in both paper format

and pdf format. The pdf format for public documents shall include bookmarks with the read out loud feature in working order.

1.0 ENVIRONMENTAL SCHEDULE

The environmental schedule shall incorporate all tasks required to achieve environmental clearance. All environmental services needed for environmental clearance shall be complete within one calendar year from the notice to proceed, unless stated by DOTD. The schedule shall be presented at the kickoff meeting within ten (10) days of the notice to proceed, for review by team members. The Consultant shall provide the DOTD's Environmental Section with a detailed monthly progress report.

2.0 AGENCY AND PUBLIC PARTICIPATION

Public and agency participation shall include SOV letters, one (1) public meeting, and a public hearing. Agency and public input shall be considered in the final recommendations. The Consultant shall prepare a summary of the text for inclusion in the appropriate section of the environmental document.

2.1 Prepare Solicitation of Views

The Consultant shall draft a SOV letter for review and comment by the DOTD. The Consultant shall obtain the SOV mailing list from the DOTD and the responses. Upon approval of the SOV letter and mailing list (revised as necessary), the Consultant shall send the SOV letters to designated agencies, governments, and organizations. All tribal coordination will be done by DOTD.

2.2 Public Meetings

One Public Meeting shall be required for this project. If additional Public Meetings are required, an additional work order will be required, and will be added at the discretion of the Department and FHWA. All arrangements for the Public Meeting(s), 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 the Environmental Section's approval. One Public Meeting and one public hearing are recommended during the Stage 1 process to assure that citizens have opportunities to provide further input as required by NEPA. Meetings shall be an open house format to allow walk-in reviews of information and displays throughout the public meeting period. Public meetings will include a virtual component for extended outreach.

The Consultant shall advertise the notices of the public meetings in newspapers and inform local, state, and federal agencies, officials, and interested parties. The Consultant shall prepare and provide visualizations for public meetings. Visualizations shall include handouts, power-point presentations, and various large scale exhibits depicting the proposed alternatives, existing right-of-way (ROW), and required ROW. The Consultant shall prepare the exhibits and submit them to the DOTD and the Entity for approval at least one (1) month prior to the public meeting dates. All

materials used in the meeting must be reviewed and approved by the Entity and DOTD. The PowerPoint should be converted to a video and written document should be in pdf for easy review.

The Consultant shall conduct the public meeting and shall have knowledgeable informed staff present to address the queries of the public in regard to environmental, engineering, and other project related issues before and after the meetings. The Consultant shall prepare a transcript of the public meeting, including a verbatim transcript of recorded statements, the project team's responses to those comments, copies of meeting materials, and sign-in sheets. Copies of each of the meeting transcripts shall be distributed by the Consultant. A copy of the transcript will be provided for approval before distribution.

2.3 Public Hearing

A Public Hearing shall be held to present the public with the preferred alternative. This hearing may be conducted using an open house format with a formal statement period. The form and format of the hearing will be reviewed by FHWA prior to scheduling. 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 the Entity and DOTD's approval.

The Consultant shall advertise the notice of the Public Hearing in the newspaper and inform local, state, and federal agencies, officials, and interested groups. The text of the Public Hearing notice as well as other meeting materials outlined below shall be provided to the Entity and DOTD for review at least one (2) months prior to the anticipated Public Hearing date. The Entity and DOTD shall review and approve all meeting materials prior to authorizing the advertisement and Public Hearing date. The notice and outreach performed by Consultant shall comply with DOTD's public involvement procedures. The Consultant shall prepare and provide hearing materials to include visualizations. Visualizations shall include handouts, PowerPoint presentations, and various large scale exhibits depicting the proposed alternatives, existing right-of-way (ROW), and required ROW. All materials used in the virtual meeting must be reviewed and approved by the Entity and DOTD. The powerpoint should be converted to a video and written document should be in pdf for easy at home review.

The Consultant shall conduct the Public Hearing and shall have knowledgeable informed staff present to address the queries of the public in regard to environmental, engineering, and other project related issues. The Consultant shall prepare a transcript of the Public Hearing, including a verbatim transcript of recorded statements. Copies of each of the hearing transcripts shall be distributed by the Consultant. A copy of the transcript will be provided for approval before distribution.

3.0 ENVIRONMENTAL ANALYSIS AND DOCUMENTATION

3.1 Class of Action

Prior to preparing the environmental document, the Consultant shall coordinate the Class of Action with DOTD. DOTD will confirm the class of action with FHWA based on the information obtained during the initial SOV and preliminary studies.

Mapping and GIS tools shall be used to develop a constraint map which identifies social and natural resources in the study area. Alternatives shall be drawn on the constraint map to show the relationship of the alternatives to the resources.

If the Class of Action is an Environmental Assessment (EA), the Consultant shall prepare a Logical Termini request that includes a map with the proposed logical termini and the project limits identified on the map. This request shall be reviewed and approved by DOTD's Environmental Section prior to submission to FHWA for review and approval of logical termini. If the Class of Action is a documented Categorical Exclusion (CE), the Consultant shall prepare a study area map with the project limits identified on the map for use in the CE.

3.2 Summary of Mitigation and Commitments

A summary of all mitigations and commitments shall be placed at the beginning of the environmental document. All potential permits and their requirements to implement the project shall be identified. Any mitigation measure or enhancement shall be included in the summary.

3.3 Purpose and Need for Action

The purpose and need for the proposed action shall be discussed in the environmental document.

The purpose and need shall be clearly described in accordance with FHWA guidance. The Consultant shall verify and refine the identified purpose and need for the project. 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 consult the stage 0 study and coordinate with local, regional, state and federal agencies to obtain available information concerning the proposed project's purpose and need, as necessary.

3.4 Alternatives

All alternatives examined shall be discussed in the environmental document. Those alternatives eliminated from further study shall be identified and reasons for this elimination shall be discussed in the environmental document. A preferred alternative shall be identified and reasons for its viability shall be discussed in the environmental document. All proposed Build alternatives and

the No Build alternative shall be described and analyzed in the environmental document. 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.

3.5 Impacts

Analysis of each alternatives impact's, including the No Build shall be made and discussed in the environmental document. Items to consider include, but are not limited to, traffic patterns, permits, land use, community/social, economic, historic, cultural, recreational, archaeological, noise, air, hazardous waste sites, wetlands, floodplains, farmland, and endangered or threatened species and/or their habitat. Some of these items may require the production of a separate document in addition to the analysis in the environmental document. Potential mitigation measures designed to reduce or alleviate impacts shall be discussed in the document.

a. Wetlands

A Wetlands Findings Report delineating impacts to wetlands and Other Waters of the United States shall be prepared. 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, Natural Resources Conservation Service (NRCS) soil maps, and other available resources.

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 United States 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 the DOTD for use in the subsequent permit application process, which is not included in this scope.

The Wetlands Finding Report, using the latest FHWA criteria, shall be submitted to the 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. An electronic copy of the draft report 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 in PDF format.

Associated GIS files/data used in preparation of the documents shall also be provided to DOTD.

b. Endangered and Threatened Species

The Consultant shall confirm all federally and state-listed species within the project area prior to beginning field surveys via desktop investigations of accessible and peer-reviewed natural resource databases, queries of the Louisiana Natural Heritage database, and through coordination with the United States Fish and Wildlife Service (USFWS) and the Louisiana Department of Wildlife and Fisheries (LDWF).

The Consultant shall continue coordination with USFWS and LDWF, regarding specific listed species and/or habitats which may be encountered during desktop and field surveys in order to determine potential impacts by relevant project alternatives. Coordination with these agencies shall be made through the DOTD Environmental Section or with the expressed approval of DOTD. Preliminary field surveys shall be conducted to determine the presence or absence of potentially suitable habitat of listed species.

All potential permits and their requirements to implement the project shall be identified. All items necessary to obtain the permits (with the concurrence of the Department) shall be provided by the Consultant. Those permits to be identified include, but are not limited to, the following:

- Corps of Engineers (Section 404 permit and/or Section 10 permit)
- Water Quality Certification
- Storm Water Permits

a. Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment shall be performed for the project area in accordance with the ASTM Standards E 1527-05. The Phase I Environmental Site Assessment has four (4) components: Records Review, Site Reconnaissance, Interviews, and Report. 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 environmental document.

b. Noise Quality

A highway traffic noise analysis shall be performed for all Build Alternatives and the No Build Alternative in accordance with the Louisiana Department of Transportation and Development, Highway Traffic Noise Policy, date October 2021.

The Consultant shall make one (1) trip for field review and noise measurements. The Consultant shall locate receivers where noise samples shall be taken and locate traffic count locations, and obtain DOTD's concurrence before the beginning of fieldwork.

Measurements shall be taken on both sides of the corridor at receiver locations approved by DOTD.

An electronic copy of the Draft Noise Study shall be submitted to the DOTD's Environmental Section. Upon review, comment and approval, five (5) copies of the Final Noise Study and one (1) PDF version, shall be submitted to the DOTD's Environmental Section for distribution. The noise impact report shall be submitted either as a technical appendix to the environmental document or as a separate report, at the discretion of the DOTD. The report shall include standard DOTD construction noise impact and control language and shall include all of the TNM input values and output tables. A summary of the text shall be included in the appropriate section of the environmental document.

c. Air Quality

Impacts of the proposed action to air quality in the region shall be considered. Information on existing air quality conditions shall be obtained from the Louisiana Department of Environmental Quality (LDEQ). A discussion on the projects alternatives impacts on Greenhouse Gasses and Climate Change should be included. Discussions concerning conformity (transportation and general) shall be included in the air analysis. A project-level air analysis shall be prepared by comparing the project to a previously modeled project under similar conditions.

d. Cultural Resources – Archaeology/Historic Properties (106 & 4(f))

A Phase I cultural resource survey shall include an archaeological and standing structure survey of all build alternatives.

All fieldwork and reporting will meet or exceed the current standards of the Louisiana Division of Historic Preservation (LDHP) and Louisiana Division of Archaeology (LDOA). Any additional testing or Phase III data recovery may be conducted under a supplement to this agreement. All coordination with the SHPO's office shall be through the Environmental Section or with the express approval of the Environmental Section.

Determine Area of Potential Effects (APE)

The Consultant shall work with FHWA and DOTD to develop the Area of Potential Effects (APE) (direct and indirect) for each build alternative. SHPO shall have an opportunity to comment on the APE prior to the initiation of fieldwork. No Phase I cultural resources survey fieldwork survey shall be conducted prior to the delineation of the direct and indirect APE. No archaeological fieldwork shall be conducted outside of the identified direct APE.

Identify Known Historic Properties and Archaeological sites

The Consultant shall review previous cultural resource survey reports and compile information on previously recorded archaeological sites, structures, and NRHP listed properties, on file at the Louisiana Division of Archaeology and the Louisiana Division of Historic Preservation that are within one (1) mile of the proposed project location.

Historical and archival research on alternatives to be surveyed shall also be conducted at this time.

Standing Structure Survey

A standing structure survey shall be conducted for the direct and indirect APEs for all build alternatives. Any structures 45 years or older shall be recorded on Louisiana standing structure inventory forms. Recordation of all structures shall meet the current standards of the Louisiana Division of Historic Places. All standing structures identified must be evaluated for National Register eligibility. It is anticipated that some previously identified standing structures shall require an updated standing structure form.

Phase I Cultural Resources Survey

A Phase I cultural resources survey shall be performed on all build alternatives (see APE above) 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.

The archaeological survey will consist of a pedestrian examination of the required ROW with systematic shovel testing at 30 m or 50 m intervals, depending on whether the area is considered to have a high or low probability for archaeological sites. 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 stratigraphy, soil characteristics, and a description of artifacts will be recorded for all shovel tests. Soil colors for each stratigraphic layer will be recorded using a Munsell soil color chart. The location of all shovel tests will be recorded using a handheld global positioning system (GPS) device with sub-meter accuracy. All shovel test pits will be backfilled immediately after recordation.

Cultural materials (artifacts) recovered from archaeological sites shall be processed and analyzed using accepted archaeological typologies and methods. According to DOA curation standards, artifacts shall be catalogued and prepared for permanent curation with the DOA, or with any other repository designated by DOA. Fieldwork must determine NRHP eligibility of the site without exhausting its research potential.

Property Owner Contact and Permission

The Consultant shall do the research necessary to obtain the names/addresses of property owners from whom additional right-of-way is anticipated to be required. Property owners from whom additional ROW will be required will be contacted with a certified return receipt right-of-entry letter (template letter supplied by LADOTD) prior to the fieldwork in order to notify landowner of proposed environmental work on their property.

Cultural Resource Report (CRS)

A draft CRS report will be submitted to DOTD for review and comment within 30 days of completing the fieldwork. The management summary and draft report will include, but will not be limited to: discussions of the proposed project, the regional prehistory, history, and previous cultural investigations, the local geomorphology and natural environment, the field and laboratory methodologies, the field results, the results of artifact analyses, conclusion, and recommendations. The report shall meet current Louisiana Division of Archaeology report standards for Phase I survey and Phase II testing. The report shall be prepared to present the finding and recommendation from all research, survey (standing structure and archaeology), and archaeological National Register of Historic Places testing.

DOTD shall transmit copies of the report to FHWA, SHPO, and applicable federally recognized tribes for review. Two (2) unbound typed site forms or site update forms (for previously recorded archaeological sites) and two (2) unbound typed Louisiana Historic Resource Inventory Forms (with original black and white photographs affixed to the forms) for each recorded standing structure shall be submitted to DOTD's Environmental Section along with the draft Cultural Resources Survey Report. All site forms and site update forms should be finalized prior to submittal of the final report.

Following DOTD, FHWA, SHPO, and applicable federally recognized tribe review, the Consultant shall prepare a final Cultural Resources Survey Report. The final Cultural Resources Survey Report shall be submitted to DOTD; DOTD shall transmit the finals to FHWA, SHPO, and applicable federally recognized tribes. DOA reporting standards can be found on their website: <http://www.crt.state.la.us/archaeology/review/IntroReport.aspx>

Five (5) copies of the draft CRS report and 5 copies of the final report shall be submitted to DOTD along with 1 electronic copy in pdf format. In addition to the CRS report the Consultant shall provide two (2) final copies and one (1) electronic copy of the CRS standing structures and site forms.

e. Socio-economic

The Consultant shall discuss 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 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.

As part of the analysis, the Consultant will consider all means of transportation such as bicycle, pedestrian, and transit in the area. Consultant will review City and Parish bicycle plans.

f. Environmental Justice

Available U.S. Bureau of the Census population data shall be used as a basis to identify low-income, 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. 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.

g. Conceptual Stage Relocation

The Contractor shall prepare a Conceptual Stage Relocation Plan in accordance with the requirements of the Louisiana Department of Transportation and Development’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:

1. 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.
2. The type of dwelling (mobile home, frame, brick) to be acquired or adversely impacted.
3. 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.
4. 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.
5. 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.

6. The functional replacement of a publicly-owned facility, if applicable, and the existence of publicly-owned recreation lands.
7. The estimated cost of relocation assistance.
8. 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.

h. Cost Estimate

The Consultant shall develop a preliminary cost estimate for each proposed project alternatives. The project costs shall include estimates for all engineering design, right-of-way acquisition, construction, utility relocation, and mitigation costs.

i. 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 documented in the environmental document.

j. Other

Other items that shall be evaluated and coordinated with the appropriate agencies include, but are not limited to DOTD's Complete Street Policy, land use and zoning, prime farmland, sole source aquifers, 100-year floodplain, Wetland Reserve program, Section 6(f) of the Land and Water Conservation Fund, local and state Long-term Transpiration Plans, and water wells. Items of special or local interest should also be noted and evaluated within the context of the project.

In addition to direct impacts cause by the project, the Consultant will analyze the indirect and cumulative impacts of the proposed alternatives.

4.0 REVIEW OF ENVIRONMENTAL DOCUMENT

The environmental document shall be written in accordance with FHWA's guidelines. 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. All comments shall be addressed by the Consultant prior to the Environmental Section requesting approval from FHWA for public distribution. Distribution of the environmental document shall be the responsibility of the Consultant. The Environmental Section's Project Coordinator shall provide the Consultant with the generic mailing list to be used by the Consultant

for distribution of the environmental document, once approved. It shall be the responsibility of the Consultant to produce a more detailed mailing list of project-specific names and entities.

5.0 PUBLIC HEARING & ENVIRONMENTAL ASSESSMENT

All comments received during the commenting period on the Environmental Assessment, including those received at the Public Hearing, shall be addressed in the FONSI by the Consultant. After review by the Department's Environmental Section and the Entity, the DOTD Environmental section will submit the final documents to FHWA. The FONSI shall be distributed by the Consultant after approval by FHWA. The Environmental Section's Project Coordinator shall provide the mailing list to be used for distribution of the FONSI.

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 the 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 the DOTD ProjectWise repository at each plan delivery milestone. Consultants 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. Consultants 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 a registered professional engineer in the state of Louisiana.
2. At least one (1) principal or other responsible member of the prime consultant shall be currently registered in Louisiana as a professional engineer in civil engineering.
3. At least one (1) principal or responsible member of the prime consultant shall be a professional civil engineer, registered in the state of Louisiana, and shall have a minimum of five (5) years of experience in responsible charge of the preparation of roadway plans.
4. At least one (1) principal or responsible member of the prime consultant shall have a minimum of five (5) years of experience in the field of National Environmental Policy Act (NEPA) documentation for FHWA, including Categorical Exclusions and Environmental Assessments.
5. At least one (1) Principal Investigator who meets the Archaeologist Qualifications and possesses a minimum of five (5) years of experience in Section 106 documentation.

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 5 must be met by separate individuals and 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.
- Archaeologist Qualifications as published in the Louisiana Register dated April 20, 1994, individual(s) must have completed the course on Section 106 of the National Historic Preservation Act offered by the Advisory Council, or its equivalent training.