ADVERTISEMENT FOR ENGINEERING AND RELATED SERVICES June 25, 2019

CONTRACT NO. 4400017032 IDIQ CONTRACT FOR LIDAR AND PHOTOGRAMMETRY SUPPORT STATEWIDE

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 Federal Government using SAM.gov prior to contract execution.

All prime and sub-consultants submitting proposals for this advertisement must have an Annual Personnel List (APL) on file with DOTD prior to the closing of this advertisement.

One (1) proposal will be selected for each 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.

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 that the consultant may be required to perform are described more specifically in Attachment A, which is incorporated herein by reference. The selected consultant will perform the specific services covered in an Indefinite Delivery/Indefinite Quantity (IDIQ) contract as detailed in individual Task Orders (TOs), which will specify TO-specific scope of services, contract time, and compensation.

The consultant shall perform the work in accordance with the requirements of this advertisement, the resulting contract, and any TOs issued thereunder. Deliverables shall be in such format as required in Attachment A, unless otherwise specified in an individual TO. 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. consultant's firm experience on similar projects, weighting factor of three (3);
- 2. consultant's staff experience on similar projects, weighting factor of four (4);
- 3. consultant's firm size as related to the estimated project cost, weighting factor of two (2);
- 4. consultant's past performance on similar DOTD projects, weighting factor of six (6)*; and
- 5. consultant's current work load with DOTD, weighting factor of three (3).

Project Category Weighting - Typical

The project complexity is **complex**.

The project time is **critical**.

The contract amount is > \$2,500,000.

The route classification is **NHS**.

Therefore, the Project Magnitude for this advertisement is MEGA.

If any sub-consultants are proposed to be used for the referenced contract(s), then Section 11 must represent the percentage of overall work that will be done by each firm.

THE FOLLOWING TABLE MUST BE COMPLETED AND INCLUDED IN SECTION 11 OF THE PRIME CONSULTANT'S DOTD FORM 24-102 PROPOSAL.

Identify the percentage of work for the overall contract to be performed by the prime							
consultant and each sub-consultant.							
	% of	Prime	Firm B	Firm C	Firm D	Firm E	Firm F
	Overall						
	Contract						
Percent of Contract	100%						

^{*}This criterion has been neutralized, all respondents will receive a 4 in this category.

Consultants 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 firm's rating in each category will then be added to arrive at the consultant's final rating.

If sub-consultants are used, the prime consultant must perform greater than 50% of the work for the overall contract. The prime consultant and each sub-consultant will be evaluated on their part of the contract. The individual prime consultant and sub-consultant ratings, proportional to the amount of their work, will then be added to arrive at the total consultant rating.

DOTD's Project Evaluation Team 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.

RULES OF CONTACT

These rules are designed to promote a fair and unbiased selection process. 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 heads, 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.

No protest or appeal will be entertained unless made in accordance with the procedures found on DOTD's website, which are incorporated herein by reference and can be accessed at: http://wwwsp.dotd.la.gov/Inside LaDOTD/Divisions/Engineering/CCS/Pages/Process_Procedures.aspx.

CONTRACT TIME

This IDIQ contract shall be in effect for **five (5) years**. **All TOs must be completed by the termination date of the IDIQ contract**. No TO will be initiated unless sufficient contract time remains to complete the TO.

COMPENSATION

The maximum compensation payable to the consultant under this IDIQ contract shall not exceed \$10,000,000. Compensation to the consultant for services rendered in connection with each TO may be made on the basis of lump sum, actual cost plus a fixed fee, cost per unit of work, or specific rates of compensation, as specified in each TO, subject to the limitation set forth in the IDIQ contract.

Compensation may be either negotiated or non-negotiated as determined by DOTD for each individual TO. When the compensation is negotiated, it will be determined by DOTD based on work hours negotiated between DOTD and the consultant. After 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. All negotiations must be completed within the timeframe set forth in the Consultant Contract Services Manual, unless an abbreviated timeframe is specified in writing by the PM.

DIRECT EXPENSES

To the extent that the consultant is allowed to claim reimbursement for direct expenses, all direct expense items which are not paid for in the firm's indirect cost rate and which are needed and will be consumed during the life of the contract must be identified by the consultant during contract development. 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.

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.

To the extent that direct expenses are authorized to be compensated pursuant to a particular TO, 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." Vehicle rental rates will require prior approval from the PM.

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 the Scope of Services provided in Attachment A includes design of one (1) or more bridges and/or component parts thereof, the prime consultant shall submit a bridge design QA/QC plan document specifically developed for this contract as part of the DOTD Form 24-102. The QA/QC plan document must comply with the minimum requirements in the DOTD Bridge Design Section Policy for QA/QC as stated in Part I, Chapter 3 of the DOTD Bridge Design & Evaluation Manual (BDEM). The grading instructions, the rating matrix, and the grading sheet for the QA/QC plan document are included in Appendix G of the BDEM Part I, Chapter 3 – Policy for QA/QC. The QA/QC plan document shall be prepared to address all evaluation criteria included in the rating matrix. The QA/QC plan document must be implemented for all bridge design activities in both design phase and construction support phase of the contract. The prime consultant is fully responsible for QA/QC of their work as well as the work of all sub-consultants. All contract proposals must include a QA/QC certification that the proposals meet the requirements of the QA/QC plan document.

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. For consultants performing traffic engineering services (i.e., traffic analysis throughout all DOTD project stages), 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. Copies of training certificates are to be included in 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 (*i.e.*, 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. The consultant shall explain in Section 16 of DOTD Form 24-102 how they plan to meet the work zone requirements. 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

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 Barry Lacy 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.

^{*} excluding Asphalt Plant Inspector, Paint Managers, and Paint Inspectors

Traffic Control Technician (TCT): Successful completion every four (4) years of a work zone traffic control technician course approved 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 https://www.transportation.org/
- 2. ASTM Standards https://www.astm.org/BOOKSTORE/BOS/index.html
- 3. DOTD Test Procedures http://www.sp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Materials_Lab/Pages/Menu_TPM.aspx
- 4. DOTD Location and Survey Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/LocationSurvey/Manuals%20and%20Forms/Location_and_Survey_Manual.pdf
- 5. 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
- 6. DOTD Roadway Design Procedures and Details –
 http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Road_Design/Pages/Road-Design-Manual.aspx
- 7. DOTD Design Guidelines http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Road_Design/Memoran-da/Minimum%20Design%20Guidelines.pdf
- 8. DOTD Hydraulics Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Public_Works/Hydraulics/Documents/Hydraulics%20Manual.pdf

- 9. Louisiana Standard Specifications for Roads and Bridges http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Standard_Specifications/Pages/Standard%20Specifications.aspx
- 10. Manual on Uniform Traffic Control Devices (Non-DOTD Link) http://mutcd.fhwa.dot.gov/
- 11. DOTD Traffic Signal Design Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Traffic%20Control/Traffic%20Signal%20Manual%20V2.0%205-28-2015.pdf
- 12. National Environmental Policy Act (NEPA)
- 13. DOTD Stage 1 Planning/Environmental Manual of Standard Practice http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Environmental/Pages/Stage_1.aspx
- 14. National Electrical Safety Code
- 15. National Electrical Code (NFPA 70)
- 16. A Policy on Geometric Design of Highways and Streets (AASHTO) https://bookstore.transportation.org/collection_detail.aspx?ID=110
- 17. DOTD Construction Contract Administration Manual http://apps2/engineering/Construction/forms/CCA_Manual/01_Construction_Contract_Administration_Manual_2011.pdf
- 18. DOTD Materials Sampling Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Materials_Lab/Pages/Menu_MSM.aspx
- 19. DOTD Bridge Design Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Bridge_Design/Pages/BDEM.aspx
- 20. Consultant Contract Services Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Manuals/CCS%20 Manual%202017.pdf
- 21. Bridge Inspector's Training Manual –
 http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Operations/BridgeMaintenance/Pages/Documents-and-Manuals.aspx
- 22. Federal Aid Off-System Highway Bridge Program Guidelines —

 http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Bridge_Design/Manuals/Other%20Manuals%20-%20Guidelines/Federal%20Aid%20Off-System%20Highway%20Bridge%20Program%20Guidelines.pdf
- 23. Code of Federal Regulations 29 CFR 1926 (OSHA)
- 24. Complete Streets http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Highway_Safety/Complete_Streets/Pages/default.aspx

- 25. Traffic Engineering Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Missc%20Documents/Traffic%20Engineering%20Manual.pdf
- 26. Traffic Engineering Process and Report –
 http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Pu
 blications/Pages/Process%20and%20Report.aspx
- 27. ASPRS Positional Accuracy Standards for Digital Geospatial Data, Ed.1, Ver 1.0. Nov. 2014
- 28. USGS LiDAR Base Specification Version 1.3. March, 2018

CONTRACT EXECUTION REQUIREMENTS

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

See Attachment C for sample contract provisions.

SECONDARY SELECTION PROCESS

When multiple IDIQ contracts with similar scopes of service are available within a DOTD Section that is prepared to issue a TO, the TO selection procedures set forth in Attachment D shall be used to award that TO. Documentation of the selection process shall be retained by DOTD.

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

One (1) original (**stamped "original"**) and **five (5)** copies of the consultant's response to this advertisement must be submitted to DOTD on the most current version of the DOTD Form 24-102 (available at http://bit.ly/CCS_ManualsFormsAgreements) along with an electronic copy (USB flash drive only) in a searchable Portable Document Format (PDF). 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.

Any sub-consultants to be used in performance of this contract, must also submit a DOTD Form 24-102, which is completely filled out and contains all information pertinent to the work to be performed. The sub-consultant's DOTD Form 24-102 must be firmly bound to the prime consultant's DOTD Form 24-102.

Contract and/or part-time employees are allowed. Such employees should be shown in Section 12 of the DOTD Form 24-102 with an asterisk denoting their employment status.

The DOTD Form 24-102 should be identified with **contract number 4400017032**, and shall be submitted **prior to 3:00 p.m. CST** on **Wednesday**, **July 10**, **2019**, by hand delivery or mail, addressed to:

Department of Transportation and Development Attn.: Darhlene Major Consultant Contract Services Administrator 1201 Capitol Access Road, **Room 405-E** Baton Rouge, LA 70802

Phone: (225) 379-1025

ATTACHMENT A – SCOPE OF SERVICES

The Consultant shall perform professional services and support for the statewide Topographic Mapping Program covered by this IDIQ contract under separate Task Orders (TO). The Consultant will be required to execute a TO, which will specify the scope of services, contract time, and compensation; each TO will become a part of the IDIQ Contract

Services to be performed as part of this project shall consist of the following:

Stage 3: Design

Topographic Survey – Ground Control Topographic Survey – Imagery Topographic Survey – LiDAR

TOPOGRAPHIC SURVEY - GROUND CONTROL

Ground Control: The Consultant will utilize KMZ files, provided by DOTD, to identify and establish the prescribed numbers of ground control points required for data collection. These points will consist of Ground Control Points (GCP), Non-Vegetated Vertical Accuracy points (NVA), and Vegetated Vertical Accuracy points (VVA). The KMZ files identify and provide geographical extents, referred to as Areas of Interest (AOI), that are based on DOTD's block/quarter-block grid format. Ground control point densities will be evenly disbursed across the AOI at the prescribed ratio of the respective point type per AOI square area. DOTD will provide methodology for developing ground control specific to either aerial imagery or LiDAR.

All GCPs, NVAs and VVAs will be identified and compiled into a KMZ file. Each point will be appropriately labeled according to point type, both in the KMZ file as well as in the on-site photograph and field datasheet. All GPS surveyed points will be reported in two tabular spreadsheets; one spreadsheet in Geographic with x, y, in degree, minute, second (minimum 4 decimal places) format with z in feet; the second spreadsheet will be in Louisiana State-plane, northing, easting, and elevation in feet. All points specific to imagery acquisition shall be painted appropriately for photo identifiable purposes. For LiDAR acquisition, 50% or more of the NVA points must be photo identifiable.

Specific to LiDAR acquisition, a centrally-located GPS base station is required within the quarter block AOI. The GPS base station is to be established prior to aerial acquisition. It is also required that during aerial acquisition the base station is manned and logging X, Y, Z data throughout the acquisition.

TOPOGRAPHIC SURVEY - IMAGERY

Imagery Acquisition: DOTD uses a Leica DMC III calibrated digital camera for imagery acquisition. For consistency and compatibility, DOTD requires all statewide imagery acquisition data and products be delivered in a format that is easily imported and compatible into DOTD's workflow and Leica processing software.

Imagery will be acquired at 6" resolution with a radiometric resolution of 8 bits per band. A total of 4 spectral bands will be acquired and processed; Red, Green, Blue and Near-Infrared. Imagery should only be acquired when the sun angle exceeds the minimum of 30 degrees and the skies are clear and free of clouds, haze or ground level smoke. Unless specifically requested, no acquisition shall occur when flooding is visible on the ground surface.

DOTD will provide the acquisition flight plans based on DOTD's block/quarter block grid format. DOTD flight plans are created using Leica Mission Pro software and UTM WGS84 meters coordinate system. The Consultant will provide a flight acquisition report for each AOI's flight plan flown.

Imagery Processing: All imagery shall be processed in NAD83, state plane coordinates for horizontal and NAV88 for vertical; both horizontal and vertical shall be in US Survey Feet.

Imagery should be processed into a seamless ortho-rectified mosaic using a DOQQ tiling scheme. Image quality shall be tone balanced and uniform in contrast. Final mosaics should be in a Geo TIFF format.

Imagery data accuracy: The Consultant shall provide calibration/certification reports demonstrating and ensuring that the airborne IMU and GNSS are calibrated and accurate for aerial triangulation standards.

Horizontal accuracy of all imagery shall meet or exceed ASPRS standards for specified ground sample distance.

TOPOGRAPHIC SURVEY – LiDAR

LiDAR Acquisition: DOTD uses the Leica ALS 80 sensor for LiDAR acquisition. For consistency and compatibility, DOTD requires all LiDAR data and products be delivered in a format that is easily imported and compatible into DOTD's workflow and Leica processing software.

DOTD acquires LiDAR data at quality level 1 (QL1). The acquired data has a minimum of 9 points per square meter (PPM) or .333 meters aggregate nominal pulse density (ANPS). The number returns per pulse shall be 4 with 3 total intensities. DOTD will provide complete flight plans specifying acquisition parameters and trajectories based on DOTD's block/quarter-block format.

All LiDAR data acquisition, processing, and derivative products shall be at QL1. Additionally, all data and derivative products will be in compliance with the requirements of USGS 3DEP program.

Immediately following acquisition of the data, an initial quality control process should be performed to review the acquisition coverage, airborne GPS data, and trajectory solution. Any gaps found in the data shall be re-collected.

A collection summary report should be created for each flown mission in order to maintain organizational progress and accurate records.

LiDAR Processing: DOTD requires all intermediary processing results as part of the final deliverable. To remain consistent with DOTD methodology, DOTD requires these results to be in file formats that are easily imported and compatible with software used by DOTD.

Preprocessing of the LiDAR data shall consist of converting the collected GPS, IMU, instrument, and ranging information into an interpretable X, Y, Z point cloud. This should include the generation of trajectory information, calibration of the dataset, and control of the dataset to a known ground coordinate system.

The calibrated data will then be post-processed and classified to develop the required deliverables:

- Raw Point Cloud Data
- Classified Point Cloud
- Bare Earth Surface (Raster DEM)
- Bare Earth Surface Mosaic
- Hydrographic Breaklines
- Bridge and Saddle Breaklines
- Intensity Imagery
- Tile Index
- Low Confidence 2D Polygons
- Ground Control Points
- Check Points
- Metadata
- Project Report
- Acquisition Reports

Data and DEM Accuracy: The absolute vertical and horizontal accuracy of the LiDAR data and derived DEM shall be assessed and reported in accordance with the ASPRS "Positional Accuracy Standards for Digital Geospatial Data"

Two broad land cover types shall be assessed: vegetated and non-vegetated.

DOTD uses Land cover classes, recognized by FEMA, NDEP, and ASPRS, to identify the 5 land cover types used to determine accuracy. Those classes are listed in the table below:

Land Cover Classes

[FVA, fundamental vertical accuracy; NVA, nonvegetated vertical accuracy; SVA, supplemental vertical accuracy; VVA, vegetated vertical accuracy; n/a, not applicable]

Class number	Land cover class or description	Previous reporting group	Current reporting group
1	Clear or open, bare earth, low grass; for example, sand, rock, dirt, plowed fields, lawns, golf courses	FVA	NVA
2	Urban areas; for example, tall, dense man-made structures	SVA	
3	Tall grass, tall weeds, and crops; for example, hay, corn, and wheat fields	SVA	VVA
4	Brush lands and short trees; for example, chaparrals, mesquite	SVA	
5	Forested areas, fully covered by trees; for example, hardwoods, conifers, mixed forests	SVA	

Three absolute accuracy values shall be assessed: NVA (Non-Vegetated vertical accuracy) for the point cloud, NVA for the DEM, and VVA (vegetated vertical accuracy) for the DEM. (As shown on the ASPRS tables.)

Absolute vertical accuracy for LiDAR-swath data, Quality Level 0-Quality Level 3.

Quality Level (QL)	RMSE _z (nonvegetated) (cm)	NVA at 95-percent confidence level (cm)	
QL0	≤5.0	≤9.8	
QL1	≤10.0	≤19.6	
QL2	≤10.0	≤19.6	
QL3	≤20.0	≤39.2	

[RMSEZ, root mean square error in z; cm, centimeter; NVA, nonvegetated vertical accuracy; ≤, less than or equal to]

Bathymetric LiDAR Acquisition: For consistency and compatibility, DOTD requires all LiDAR data and products be delivered in a format that is easily imported and compatible into DOTD's workflow and Leica processing software. The sensor used for the bathymetric LiDAR acquisition will be capable of collecting both topographic and bathymetric data concurrently.

DOTD requires the aggregate nominal point density (ANPD) of no less than 8 points per square meter LiDAR data meeting quality level 1 (QL1). The acquired data has a maximum aggregate nominal pulse spacing (ANPS) of 0.335 meters. The sensor shall be configured to collect multiple returns: first return, last return, and a minimum of one intermediate return. All returns recorded will be delivered and all return numbers will be identified. It is understood that the density may not be met due to certain environmental conditions that cannot be controlled.

Within the specified AOI, bathymetric LiDAR data will be acquired from the land water interface toward open water to the specified extent or to laser extinction, whichever occurs first. For shoreline mapping and modeling uses along very shallow water depths (0-4 meters), the LiDAR system, software, and processing procedures shall have an operational measurement depth range equal to or greater than 1.5 secchi depth. It is recommended to fly at an altitude as low as possible (within the eye safety parameters established by the sensor manufacturer) in order to maximize the bathymetric returns. DOTD will review all flight plans specifying acquisition parameters and trajectories based on DOTD's identified AOI.

All LiDAR data acquisition, processing, and derivative products shall be at QL1. Additionally, all data and derivative products will be in compliance with the requirements of USGS 3DEP program.

Immediately following acquisition of the data, an initial quality control process should be performed to review the acquisition coverage, airborne GPS data, and trajectory solution. Any gaps found in the data shall be re-collected.

A collection summary report should be created for each flown mission in order to maintain organizational progress and accurate 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 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.

SPECIFIC SOFTWARE AND/OR EQUIPMENT DESIRED

- Electronic files shall be submitted in Leica and Microstation.dgn compatible formats
- Survey Grade GPS with 8+ hours data logging capability. Logged data submitted as .T02 file format*
- Airborne digital camera capable of 6" resolution imagery, comprised of 4 spectral bands with 8 bit radiometric resolution*
- Airborne LiDAR sensor*
- Aircraft instrumented for and capable of digital imagery and LiDAR acquisition*
- Plane*

^{*}Required to be owned by the prime or sub-consultant and must provide documentation verifying ownership in the DOTD Form 24-102.

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 remote sensing and holds an ASPRS certification in photogrammetry and shall have a minimum of five (5) years of experience in editing and processing of raw imagery into orthogonal imagery and setting primary and secondary control on DOTD projects.
- 2. At least one (1) principal or responsible member of the prime consultant shall have a minimum of three (3) years of experience in responsible charge of or major expertise in bathymetric topography.
- 3. At least one (1) principal of the prime consultant shall be a registered professional land surveyor or professional engineer in the state of Louisiana.
- 4. At least one (1) project manager shall have a minimum of three (3) years of experience in LiDAR, photogrammetry and bathymetric topography.
- 5. At least one (1) FAA Certified Pilot shall have a minimum of five (5) years in aerial data acquisition and setting primary and secondary control.

MPR Nos. 1 through 5 may be met by one or more person(s).

MPR Nos. 4 and 5 may be satisfied through the use of a sub-consultant(s).

ATTACHMENT C – SAMPLE CONTRACT PROVISIONS

REVISED 11/7/2018

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

THIS CONTRACT (hereinafter "Contract") is made and entered into this day of
, 20, by and between the Louisiana Department of Transportation and
Development (hereinafter referred to as "DOTD"), and ***[consultant], ***[location], ***
Louisiana (hereinafter referred to as "Consultant").

Under the authority granted by Title 48 of the Louisiana Revised Statutes, DOTD has elected to engage Consultant to perform, and Consultant agrees to perform, the services described in the Scope of Services under the terms and conditions and for the compensation as stated in this contract.

ARTICLE I ENTIRE AGREEMENT (March 2018)

Use this paragraph for competitively selected contracts:

This contract, together with advertisement of **[dated] and Addendum No. 1 or (if plural) Addenda Nos. ###, the DOTD Form 24-102 submitted by Consultant in response to the advertisement, and any attachments and exhibits to the forgoing, all of which are specifically incorporated herein by reference, constitute the entire agreement between the parties with respect to the subject matter. However, in the event of a conflict between the terms of this contract and referenced documents, this contract governs.

Use this Paragraph for Non-Competitive Selections:

This contract and any attachments and exhibits hereto constitute the entire agreement between the parties with respect to the subject matter. However, in the event of a conflict between the terms of this contract and referenced documents, this contract governs.

ARTICLE II CONTRACT IDENTIFICATION (March 2018)

Contract No. 44*** has been assigned to this contract to identify costs. All invoices, progress reports, correspondence, etc., required in connection with this contract shall be identified with the DOTD project title, contract number, Task Order (TO), and associated purchase order numbers.

ARTICLE III SCOPE OF SERVICES (March 2018)

The various tasks to be performed by Consultant for this project are described more specifically in Attachment A, attached hereto and made a part of this contract. [Attach scope from advertisement.] Consultant shall be required to execute a TO which shall specify the scope of services and compensation for each task detailed therein. Consultant shall submit any deliverable(s) required under a TO by the due date established for such deliverable(s) by the DOTD Project Manager (PM) in the Notice to Proceed (NTP) for that TO, as those due dates may be modified by the PM through any subsequently approved project schedule(s). The due date(s) for all deliverables shall be no later than the termination date of this contract. Deliverables shall be in such format as required in each executed TO. Each executed TO shall become a part of this contract.

Consultant shall perform the work in accordance with the terms of this contract under the direct supervision of a PM who shall be identified when a NTP is issued for the work. The work performed by Consultant under this contract 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.

ARTICLE IV QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) (March 2018)

Consultant's QA/QC plan document is attached hereto as Attachment B, and is incorporated by reference herein. [Attach Attachment B.] The QA/QC plan document must be implemented for all contract activities in all phases of the project(s) for which a TO is issued. Although DOTD may provide limited input and technical assistance to Consultant, Consultant is fully responsible for QA/QC of its work as well as the work of all sub-consultants. All project submittals must include a QA/QC certification that the submittals meet the requirements of the QA/QC plan document.

ARTICLE V CONTRACT TIME AND NOTICE TO PROCEED (March 2018)

This contract shall take effect on the date first written above. This contract, and any TO issued thereunder, shall remain in effect for a period of **five years** from the effective date of this contract. The services to be performed for each TO will be determined prior to the execution of the TO. Consultant will proceed with the services required in each TO upon issuance of an NTP from DOTD. Consultant shall submit any deliverable(s) required under a TO by the due date established for such deliverable(s) by the PM in the NTP for that TO, as those due dates may be modified by the PM through any subsequently approved project schedule(s). The due date(s) for all deliverables shall be no later than the termination date of this contract, and any TO issued pursuant to this contract shall terminate on the termination date of this contract.

ARTICLE VI GENERAL REQUIREMENTS (March 2018)

It is the intent of this contract that, with the exception of the items specifically listed to be furnished by DOTD, Consultant shall, for the agreed compensation, obtain all data and furnish all services and materials required to fully develop and complete the required scope of services of each TO. All items required to accomplish these results, whether or not specifically mentioned in this contract and/or TOs, are to be furnished at a cost not to exceed the maximum compensation amount established for each TO under this contract. If an error or omission is detected by Consultant in data provided to Consultant by DOTD, Consultant shall notify DOTD and may request a suspension of contract time. In the event that contract time is not suspended, Consultant shall perform work only on those portions of the work unaffected by the error or omission.

ARTICLE VII COMPENSATION (April 2018)

The maximum compensation payable to Consultant for all services rendered in connection with this contract shall be \$XXX.

Compensation to Consultant for services rendered in connection with each TO may, in DOTD's sole discretion, be made on the basis of a lump sum, cost-plus fixed fee, cost per unit of work, or specific rates of compensation and shall be subject to the maximum limitation stated in the TO. The maximum limitation for each TO will be determined based on either non-negotiated or negotiated work hours, at the sole discretion of DOTD.

If specific rates of compensation are established in a TO, Consultant may request to have such specific rates of compensation updated on a yearly basis; provided, however, that any resulting adjustment to the contract specific rates of compensation shall not be cause for an increase in the maximum compensation limitation imposed herein or in the specific TO.

ARTICLE VIII DIRECT EXPENSES (April 2018)

If it is provided in a TO that direct expenses are to be reimbursed, direct expense items must not be included in the calculation of the firm's indirect cost rate, must be used exclusively for the TO, and must be fully consumed during the life of the TO. Standard equipment or resources to be used in the provision of services rendered for a TO will not be considered for reimbursement as direct expenses. Requests for reimbursement of direct expenses must be accompanied with adequate supporting documentation. Failure to provide adequate supporting documentation may, in DOTD's sole discretion, result in a determination that such expenses are not eligible for reimbursement.

Consultant shall provide a minimum of three rate quotes for any specialty vehicle or equipment that is billed as a direct expense. Any and all specialty vehicles or equipment for which said quotes are not submitted shall be deemed as non-qualifying for payment as direct expenses.

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."

All direct expenses must comply with the requirements of 48 C.F.R. 31.

ARTICLE IX PAYMENT BASED ON LUMP SUM (April 2018)

When a TO specifies that payment will be made on a lump sum basis, payments of undisputed amounts for services rendered by Consultant and/or sub-consultant shall be made monthly. The payments shall be based on a standard certified correct invoice directly proportional to the percentage of completed work, as shown in the monthly progress schedule. The monthly progress schedule shall: a) show in detail the status of the work, b) be subdivided into appropriate stages with estimated percentages for each stage, c) state the percentage of work completed on the total project as of the date of the invoice, d) state the projected completion date for any/all deliverable(s) as of the date of the invoice, and e) be of a form and with a division of items as approved by DOTD.

The invoice, reflecting the amount and value of work accomplished to the date of such submission, shall be submitted each month directly to the PM. The invoice shall also show the total of previous payments made pursuant to this contract and the amount due and payable as of the date of the current invoice.

A principal member of the Consultant must sign, date, and certify the invoice for correctness. Each invoice shall be submitted to the PM.

Upon receipt of each invoice, DOTD shall check the invoice for correctness and return if required; upon acceptance and approval of a standard certified correct invoice, for services satisfactorily performed, DOTD shall pay the amount shown to be due and payable within thirty (30) calendar days.

All costs must comply with the requirements of 48 C.F.R. 31.

ARTICLE X PAYMENT BASED ON COST PLUS FIXED FEE (April 2018)

When a TO specifies that payment will be made on a cost plus fixed fee basis, payments of undisputed amounts to Consultant for services rendered by Consultant and/or sub-consultant shall be made monthly. Cost reimbursements for services rendered by Consultant and/or sub-consultant shall be made monthly on undisputed amounts based on a standard certified correct and itemized invoice subdivided for each task, as applicable. Each invoice shall detail the names of the employees, the time worked, their classification and rates of pay, and the approved DOTD audited indirect cost rate for the work that gave rise to the invoice, as per the "Audit" article of this contract. The contract indirect cost rates shall be adjusted during the course of this contract, as per the "Audit" article of this contract. The invoiced indirect cost rate shall not exceed the approved

DOTD audited indirect cost rate for the work that gave rise to the invoice, as per the "Audit" article of the contract. Payments of fixed fee shall be based on a standard certified correct invoice directly proportional to the percentage of completed work, as shown in the monthly progress schedule. The monthly progress schedule shall: a) show in detail the status of the work, b) be subdivided into appropriate stages with estimated percentages for each stage, c) state the percentage of work completed on the total project as of the date of the invoice, d) state the projected completion date for any/all deliverable(s) as of the date of the invoice, and e) be of a form and with a division of items as approved by DOTD.

Invoices for work performed shall be submitted monthly and be directly related to the monthly progress schedule. DOTD shall not approve any invoice in which the proportional amount of the total contract compensation for any individual stage exceeds the percentage of project completion for that stage by more than five percent. Invoices reflecting any charges for labor must be accompanied by timesheets showing hours worked on each date referenced in the invoice and including a detailed description of tasks performed during those work hours.

Payments shall also be made monthly for direct expenses chargeable and identifiable to a specific TO, provided such charges are substantiated by documentation that is subject to audit. Direct expenses shall be disallowed if subsequent audits reveal that adequate supporting documentation has not been maintained. If any invoiced amounts are disallowed after payment as a result of a subsequent audit, DOTD will invoice Consultant for the amount of any overpayments and Consultant shall be required to repay such amount within sixty (60) calendar days of receipt of DOTD's invoice. If Consultant fails to make payment within sixty (60) days, Consultant will be subject to disqualification as provided in the "Disqualification" article of this contract. It is understood that the firm's entire books must segregate these items separately from the firm's general indirect costs/cost rate.

The invoice shall show the total amount earned to the date of submission, the amount due and payable as of the date of the invoice (including direct expenses), and the pro-rata share of the fixed fee.

A principal member of Consultant must sign, date, and certify the invoice for correctness. Each invoice shall be submitted to the PM.

Upon receipt of each invoice, DOTD shall check the invoice for correctness and return if required; upon acceptance and approval of a standard certified correct invoice, for services satisfactorily performed, DOTD shall pay the amount shown to be due and payable within thirty (30) calendar days.

All costs must comply with the requirements of 48 C.F.R. 31.

ARTICLE XI PAYMENT BASED ON COST PER UNIT OF WORK (April 2018)

When a TO specifies that payment will be made on a cost per unit of work basis, payments for unit costs relating to line item deliverables delivered or in progress by Consultant and/or sub-

consultant, shall be made monthly on undisputed amounts based on a standard certified correct and itemized invoice showing units delivered, units in progress, line item unit cost, and amount owed. Percentage complete of the project and of any units in progress shall be shown in the monthly progress schedule. The monthly progress schedule shall: a) show in detail the status of the work, b) be subdivided into appropriate stages with estimated percentages for each stage, c) state the percentage of work completed on the total project as of the date of the invoice, d) state the projected completion date for any/all deliverable(s) as of the date of the invoice, and e) be of a form and with a division of items as approved by DOTD.

The invoice shall show the total amount earned to the date of submission, and the amount due and payable as of the date of the invoice.

A principal member of Consultant must sign, date, and certify the invoice for correctness. Each invoice shall be submitted to the PM.

Upon receipt of each invoice, DOTD shall check the invoice for correctness and return if required; upon acceptance and approval of a standard certified correct invoice, for services satisfactorily performed, DOTD shall pay the amount shown to be due and payable within thirty (30) calendar days.

All costs must comply with the requirements of 48 C.F.R. 31.

Payment for unit costs shall be based on the actual number of units delivered pursuant to this contract. Line item unit costs will be as set forth in each TO.

ARTICLE XII PAYMENT BASED ON SPECIFIC RATES OF COMPENSATION (April 2018)

When a TO specifies that payment will be made on the basis of specific rates of compensation, payments for services rendered by Consultant and/or sub-consultant, shall be made monthly on undisputed amounts based on a standard certified correct and itemized invoice subdivided for each task, as applicable. Each invoice that includes labor charges shall detail the names of the employees, the time worked, their classification, and applicable rates billed for the work that gave rise to the invoice. These shall be reimbursed at the approved specific rate of compensation for that classification, which will be the most recent such rate of which DOTD has provided written notice to Consultant through issuance of a Rate Letter by DOTD Consultant Contracts Services. Optional: Following sentences to be added when the consultant designated personnel for "Specific Rates" contracts: All documented designated personnel for various classifications shall be paid at the rates set forth below:

[insert designated personnel names and rates].

Failure to comply with the designated personnel requirements shall result in DOTD using Consultant's average audited salary classification rate. Each invoice must be accompanied by time sheets showing hours worked each day and a detailed description of tasks performed during those work hours.

The invoice shall be submitted monthly and be directly related to the monthly progress schedule, which shall: a) show in detail the status of the work, b) be subdivided into appropriate stages with estimated percentages for each stage, c) state the percentage of work completed on the total project as of the date of the invoice, d) state the projected completion date for any/all deliverable(s) as of the date of the invoice, and e) be of a form and with a division of items as approved by DOTD. DOTD shall not approve any invoice in which the proportional amount of the total contract compensation exceeds the percentage of project completion by more than five percent. Invoices reflecting any charges for labor must be accompanied by timesheets showing hours worked on each date referenced in the invoice.

Payments shall also be made monthly for direct expenses chargeable and identifiable to a specific TO, provided such charges are substantiated by documentation that is subject to audit. Direct expenses shall be disallowed if subsequent audits reveal that adequate supporting documentation has not been maintained. If any invoiced amounts are disallowed after payment as a result of a subsequent audit, DOTD will invoice Consultant for the amount of any overpayments and Consultant shall be required to repay such amount within sixty (60) calendar days of receipt of DOTD's invoice. If Consultant fails to make payment within sixty (60) calendar days, Consultant will be subject to disqualification as provided in the "Disqualification" article of this contract. It is understood that the firm's books must segregate these items separately from the firm's general indirect costs/cost rate.

The invoice shall show the total amount earned to the date of submission, and the amount due and payable, including the direct expenses.

A principal member of the Consultant must sign, date, and certify the invoice for correctness. Each invoice shall be submitted to the DOTD PM.

Upon receipt of each invoice, DOTD shall check the invoice for correctness and return if required; upon acceptance and approval of a standard certified correct invoice, for services satisfactorily performed, DOTD shall pay the amount shown to be due and payable within thirty (30) calendar days.

All costs must comply with the requirements of 48 C.F.R. 31.

ARTICLE XIII RETAINAGE (March 2018)

Retainage in the amount of five percent of invoiced amounts other than amounts to be reimbursed for direct expenses may be held, at the sole discretion of DOTD, if any of the following conditions are met:

- 1. failure of Consultant to submit invoices timely in accordance with this contract;
- 2. Consultant has received a rating of "Marginal Performance" or lower in any rating category; or

3. a provisional indirect cost rate is established for Consultant pending the submittal of a CPA audited rate, and Consultant has not yet received approval of its submitted CPA audited rates.

ARTICLE XIV AUDIT (April 2018)

Annually, Consultant shall provide or cause to be provided to the DOTD Audit Section *independent* Certified Public Accountant (CPA) audited home and field indirect cost rates for itself and any sub-consultants. These audited indirect cost rates shall be developed in accordance with generally accepted accounting principles, using the cost principles and procedures set forth in 48 CFR 31 of the Federal Acquisition Regulations (FAR) and guidelines provided by the DOTD Audit Section. In addition, the selected consultant will allow the DOTD Audit Section to perform an indirect cost audit of its books, at DOTD's sole discretion, and shall require the same of any sub-consultants. The performance or non-performance of such an audit by the DOTD Audit Section shall not relieve Consultant of its responsibilities under this paragraph.

If a TO provides for separate reimbursement of indirect cost expenses, prior to the commencement of work, DOTD will submit to Consultant a form, substantially in the form of Attachment C to this contract, stating the average of the last three (3) years of audited home and field indirect cost rates for Consultant and any sub-consultants anticipated to be used for this contract. The home and field indirect cost rates, as applicable, will be the DOTD-approved audited indirect cost rates for that consultant/sub-consultant until an updated form is transmitted to Consultant by DOTD. [Attach Attachment C.]

In the event that DOTD does not have records of audited home and field indirect cost rates for Consultant or any sub-consultants, provisional rates will be used based on the lesser of the statewide average audited indirect cost rate or any company-wide audited indirect cost rate specific to that consultant/sub-consultant that has been approved by DOTD. These provisional rates will be used for that consultant/sub-consultant until such time as audited home and field indirect cost rates for that consultant/sub-consultant are received and approved by DOTD. Upon approval of such audited rates, DOTD shall provide Consultant with updated documentation reflecting the audited rates, and Consultant shall include on its next scheduled invoice any entries necessary to adjust charges for work already billed based on any differences between the provisional indirect cost rates and the actual audited indirect cost rates, as required by 23 CFR 172. In addition, DOTD and Consultant shall enter into an amendment to the TO to revise the maximum compensation set forth herein and specific rates of compensation, to the extent such are provided herein, in light of the actual audited indirect cost rates received and approved by DOTD.

In the event that a consultant/sub-consultant has audited indirect cost rates for previous fiscal years on file with DOTD and has recently submitted indirect cost rates to DOTD for subsequent fiscal years that have not been approved by the DOTD Audit Section prior to execution of this contract, Consultant may request the use of provisional indirect cost rates for that consultant/sub-consultant in preparing this contract. The provisional rates will be based on the lesser of the statewide average audited indirect cost rate, any company-wide audited indirect cost rate specific to that consultant/sub-consultant that has been approved by DOTD, or any rates offered to be used by

Consultant. These provisional rates will be used for that consultant/sub-consultant until such time as approval is received from the DOTD Audit Section for indirect cost rate proposals for that consultant/sub-consultant for all fiscal years that were pending as of the date of contract execution. Upon approval of such audited rates, DOTD shall provide Consultant with updated documentation reflecting the audited rates, and Consultant shall include on its next scheduled invoice any entries necessary to adjust charges for work already billed based on any differences between the provisional indirect cost rates and the actual audited indirect cost rates, as required by 23 CFR 172. In addition, DOTD and Consultant shall enter into an amendment to the TO to revise the maximum compensation set forth herein and specific rates of compensation, to the extent such are provided herein, in light of the actual audited indirect cost rates received and approved by DOTD.

Upon receipt of the required forms by Consultant, Consultant shall sign the forms for itself and its sub-consultants to signify acknowledgment of receipt and then return the forms to DOTD. If Consultant requests and is approved to add a sub-consultant after commencement of work, such a form must be prepared, submitted, received, and returned before that sub-consultant commences work on the contract.

Consultants are also required to submit labor rate information once per year, or more frequently upon request from DOTD, to the DOTD's Audit Section.

If Consultant is entitled to be reimbursed for direct and/or indirect costs of Consultant and/or any sub-consultants pursuant to this contract, the consultant/sub-consultant must maintain an approved project cost system and segregate direct from indirect cost in its general ledger. Pre-award and post audits, as well as interim audits, may be required.

ARTICLE XV ADDITIONAL WORK (March 2018)

Minor revisions in the described work for each TO shall be made by Consultant without additional compensation as the work progresses. Considerations for minor revisions have been included in the compensation computations. If DOTD requires more substantial revisions or additional work which Consultant believes warrant additional compensation, Consultant shall notify DOTD in writing within thirty (30) calendar days of being instructed to perform such work.

Consultant shall not commence additional work for which Consultant intends to seek additional compensation unless and until written authority to proceed has been given by DOTD.

If DOTD disagrees that additional compensation is due for the required work, it shall be Consultant's responsibility to perform the work and adhere to the procedures as set forth in the Claims and Disputes provisions of this contract.

ARTICLE XVI OWNERSHIP OF DOCUMENTS (March 2018)

All data collected by Consultant and all documents, notes, drawings, tracings, and files collected or prepared in connection with this work, except Consultant's personnel and administrative files,

shall become and be the property of DOTD and copies thereof shall be delivered to DOTD electronically at the conclusion of the contract term and/or sooner upon request by DOTD. DOTD shall not be restricted in any way whatsoever in its use of such material, except as specifically provided in La. R.S. 38:2317.

No public news releases, technical papers, or presentations concerning any DOTD project may be made without the prior written approval of DOTD.

ARTICLE XVII PROSECUTION OF WORK (March 2018)

Immediately upon receiving authorization to proceed with the work on each TO, Consultant shall prepare and submit to the PM a proposed progress schedule or bar chart, for those projects with a project duration greater than one month, which shall show in particular the appropriate items of work, times of beginning and completion by calendar periods, and other data pertinent to each schedule. In addition, this schedule or bar chart shall be arranged so the actual progress of each TO can be shown as the items of work are accomplished. It shall be revised monthly and submitted with other monthly data required.

Consultant shall provide sufficient resources to ensure completion of each TO in accordance with the TO scope and within the TO progress schedule. If the completed work is behind the approved TO progress schedule (if applicable), Consultant shall take immediate steps to restore satisfactory progress.

The progress of each TO shall be determined monthly, with the submission of an invoice, and TO schedule for those projects with project duration greater than one month to DOTD. For any work, the TO shall be considered on schedule if the percentage of the total work completed is equal to or greater than the percentage of TO progress schedule time elapsed.

The TO schedule, if applicable, includes the combined time allotted for all services of each TO, subject to any overlaps of concurrent activities. For the purposes of evaluating work progress, the elapsed time for any TO begins in accordance with the official issuance of the NTP date for each TO, even though contracted services may not commence on the official NTP date for each TO. Should any TO fail to commence in accordance with the original TO schedule because of delinquencies in a previous TO, the elapsed time in the above ratio shall be measured from the time the TO would have begun had the previous TO been completed on schedule. Should any delays in progress be necessitated by circumstances outside of Consultant's control, it shall be the responsibility of Consultant to request an appropriate adjustment in contract time. If the ratio of percentage of work completed to percentage of time elapsed falls below 0.75, Consultant shall be subject to disqualification.

ARTICLE XVIII DISQUALIFICATION (October 2018)

Consultant will be subject to disqualification in the event that Consultant fails to comply with the terms of this contract with respect to:

- 1. prosecution of work;
- 2. audits, including, but not limited to, all requirements of the Audit Article of this contract; or
- 3. repayment of any overpayments after receipt of an invoice from DOTD.

During the period of disqualification, Consultant shall not be considered for contracts nor shall he be considered or approved as a sub-consultant on contracts or proposals. Consultant shall be allowed to proceed with any work under any preexisting contract or written sub-consultant agreement. The period of disqualification shall continue until Consultant comes into compliance with the relevant terms of this contract.

The disqualified consultant may submit a written appeal to the DOTD Chief Engineer for review by the Disqualification Review Board ("DRB"). The DRB shall be composed of the DOTD Chief Engineer or his designee, the Contract Services Administrator, and the Project Development Director. The written appeal shall be submitted within seven (7) days, excluding weekends and holidays, after issuance of written notice of disqualification and may either request a meeting with the DRB or that the DRB consider a written appeal only. A meeting of the DRB shall be scheduled within ten (10) days, excluding weekends and holidays, after receipt of the appeal. After all the information has been considered, the Chief Engineer shall notify Consultant of the decision of the DRB in writing within ten (10) days, excluding weekends and holidays. The decision of the DRB shall not operate as a waiver by DOTD of any of its rights under this contract or for any damages, including, but not limited to, untimely completion.

ARTICLE XIX PROGRESS INSPECTIONS (March 2018)

During the progress of the work, representatives of DOTD and other interested parties when so named herein, shall have the right to examine the work and may confer with Consultant thereon. In addition, Consultant shall furnish, upon request, prints of any specific item of its work for DOTD inspection. Consultant shall confer with DOTD and such other parties and from time to time may submit sketches illustrating significant features of the work for review and comment.

ARTICLE XX TERMINATION OR SUSPENSION (April 2018)

This contract shall be effective during the contract time provided above; however, this contract and/or associated TOs may be terminated earlier under any or all of the following conditions:

- 1. by mutual agreement and consent of the parties hereto;
- 2. by DOTD as a consequence of the failure of Consultant to comply with the terms, progress or quality of work in a satisfactorily manner, proper allowance being made for circumstances beyond the control of Consultant;
- 3. by either party upon failure of the other party to fulfill its obligations as set forth in this contract;

- 4. by DOTD due to the departure for whatever reason of any principal member or members of Consultant's firm:
- 5. by satisfactory completion of all services and obligations described herein; or
- 6. by DOTD giving thirty (30) calendar days' notice to Consultant in writing and paying compensation due for completed work.

Upon termination of this contract, Consultant shall deliver to DOTD all plans and records of the work compiled to the date of termination. DOTD shall pay in full for all work accomplished up to the date of termination, including any retained percentage earned to date.

If for any reason, DOTD wishes to suspend this contract and/or associated TO, it may do so by giving Consultant written notice that the contract or TO is suspended as of the notice date. Consultant shall stop all work on the contract or TO until such time as Consultant may receive written notification from the PM to resume work.

Consultant shall not have the authority to suspend work on this contract or any TO issued pursuant to this contract.

ARTICLE XXI CLAIMS AND DISPUTES (March 2018)

Consultant's failure to provide the required written notification pursuant to the provisions of the Additional Work and/or the Delays and Extensions sections of this contract shall be deemed a waiver of any and all claims for additional compensation.

When Consultant has timely provided notice pursuant to the provisions of the Additional Work and/or the Delays and Extensions sections of this contract, Consultant shall submit the entire claim and supporting documentation to the DOTD Consultant Contract Services Administrator within ninety (90) calendar days of the completion of the work that forms the basis of the claim. The Consultant Contract Services Administrator shall submit the claim to the DOTD Consultant Contracts Claims Team (hereinafter "the Team") for review.

Consultant shall be notified in writing of the Team's recommendation, and, if accepted by Consultant and approved by the Chief Engineer and FHWA, if applicable, Consultant shall execute a receipt and release based upon said recommendation. If the Team's recommendation is not accepted by Consultant, Consultant may file a written appeal to the Chief Engineer. Review and determination of the matter by the Chief Engineer shall constitute the final determination by DOTD. If the Chief Engineer's decision is not acceptable to Consultant, then Consultant may pursue any remedies available to it at law.

ARTICLE XXII INSURANCE REQUIREMENTS (March 2018)

During the term of this contract, Consultant shall carry professional liability insurance in the amount of \$1,000,000. Consultant shall provide or cause to be provided a Certificate of Insurance to DOTD showing evidence of such professional liability insurance.

ARTICLE XXIII INDEMNITY (April 2018)

Consultant agrees to indemnify and save harmless DOTD, its agents, employees, and assigns, against any and all claims, demands, suits, and judgments of sums of money (including attorney's compensation and cost for defense) to any party for loss of life or injury or damage to persons or properties arising out of, resulting from, or by reason of, any act or omission by Consultant, its agents, servants, or employees while engaged upon or in connection with the services required or performed by Consultant hereunder.

ARTICLE XXIV ERRORS AND OMISSIONS (March 2018)

It is understood that the preparation of Preliminary and Final Plans, specifications and estimates, and all other work required of Consultant under contract shall meet the standard requirements as to general format and content, and shall be performed to the satisfaction and approval of DOTD. DOTD's review, approval, acceptance of, or payment for the services required under this contract shall not be construed to operate as a waiver of any of DOTD's rights or of any causes of action arising out of or in connection with the performance of this contract.

Consultant shall be responsible for the professional quality and technical accuracy of all designs, drawings, specifications, and other services furnished by Consultant. If errors or omissions are discovered, Consultant shall, without additional compensation, correct or revise any deficiencies discovered. If errors or omissions are discovered prior to acceptance of deliverables and payment to Consultant, the work shall be returned for correction and payments shall be withheld until delivery of an acceptable product. If errors or omissions are discovered subsequent to acceptance of deliverables and payment to Consultant but prior to the commencement of construction of a public work based upon Consultant's deliverables, DOTD may, in its sole discretion, either demand that Consultant promptly correct the errors at no cost to DOTD or make corrections using DOTD staff, in which case Consultant shall be responsible for costs incurred by DOTD to make the corrections. If errors or omissions are discovered after the commencement of construction of a public work based upon Consultant's deliverables, the parties agree to proceed in accordance with DOTD's Errors and Omissions Policy, incorporated by reference herein and which is available at:

http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Errors_Omissions/DOTD%20Errors%20Omissions%20Policy.pdf, and which is incorporated by reference herein.

The costs to be recovered may include, but are not limited to, costs associated with moving the letting date, issuing an addendum(a) to the plans/proposal, payroll costs for making corrections plus applicable indirect costs not to exceed the allowable indirect costs for Consultant's firm, costs to correct design errors during construction, and costs associated with the processing of any necessary Change Orders.

ARTICLE XXV CLAIM FOR LIENS (March 2018)

Consultant shall hold DOTD harmless from any and all claims for liens for labor, services, or material furnished to Consultant in connection with the performance of its obligations under this contract.

ARTICLE XXVI COMPLIANCE WITH LAWS (April 2018)

Consultant shall comply with all applicable federal, state and local laws and ordinances, as shall all others employed by it in carrying out the provisions of this contract. Specific reference is made to Act No. 568 of 1980 of the State of Louisiana, an act to regulate the practice of engineering and land surveying.

The parties agree to abide by the requirements of the following as applicable: Titles VI and Title VII of the Civil Rights Act of 1964, as amended; the Equal Opportunity Act of 1972, as amended; Federal Executive Order 11246, as amended; the Rehabilitation Act of 1973, as amended; the Vietnam Era Veterans' Readjustment Assistance Act of 1974; Title IX of the Education Amendments of 1972; the Age Discrimination Act of 1975; the Americans with Disabilities Act of 1990, as amended, and Title II of the Genetic Information Nondiscrimination Act of 2008.

The parties agree not to discriminate in employment practices, and shall render services under the contract without regard to race, color, age, religion, sex, national origin, veteran status, genetic information, political affiliation, disability, or age in any matter relating to employment.

Any act of discrimination committed by either party, or failure to comply with these statutory obligations, when applicable, shall be grounds for termination of this contract.

ARTICLE XXVII ANTI-SOLICITATION AND ANTI-LOBBYING COVENANT (March 2018)

Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this contract. Consultant further warrants that it has executed a certification and disclosure form as required under 49 CFR 20, and that all information on the form is true and correct. For breach or violation of these warranties, DOTD shall have the right to annul this contract without liability, or in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of any fee, commission, percentage, brokerage fee, gift, or contingent fee paid in violation of the warranties made in this Article.

No legislator or person who has been certified by the Secretary of the State as elected to the legislature or member of any board or commission, members of their families or legal entities in which the legislator, person or board or commission member has an interest, may derive any benefit from this contract or share in any part of this contract in violation of the Louisiana Code of Governmental Ethics (La. R.S. 42:1101 *et seq.*).

ARTICLE XXVIII CODE OF GOVERNMENTAL ETHICS (March 2018)

Consultant acknowledges that Chapter 15 of Title 42 of the Louisiana Revised Statutes (La. R.S. 42:1101 *et seq.*, Code of Governmental Ethics) applies to Consultant in the performance of services called for in this contract. Consultant agrees to immediately notify the State if potential violations of the Code of Governmental Ethics arise at any time during the term of this contract.

ARTICLE XXIX DISADVANTAGED, MINORITY, AND WOMEN-OWNED BUSINESS ENTERPRISE REQUIREMENTS (June 2018)

If a DBE Goal is required, use this paragraph, % may change; Check Advertisement for DBE Goal. This contract shall have a Disadvantaged Business Enterprise (DBE) goal of XX% of the contract fee. 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. Credit will only be given for use of DBEs that are certified by the Louisiana Unified Certification Program. Consultant shall submit with each invoice presented to DOTD for payment a completed DBE Form 1, "DBE Participation Monthly Report" (Attachment D). This Form must be completed and submitted by Consultant regardless of whether the invoice includes effort by the DBE during the period covered by that invoice. In the event of no effort by a DBE during the period covered by the invoice, Consultant shall simply indicate that on the form. The PM shall review submitted invoices and their corresponding DBE Form 1 to determine if the DBE goals are being achieved. If Consultant has failed to meet the goal and no good faith efforts have been made, the PM shall notify the Compliance Section of DOTD, and at that time the DBE portion of the contract fee may be withheld from Consultant.

These paragraphs remain in all contracts:

If a Disadvantaged Business Enterprise (DBE) goal has been assigned, Consultant agrees to ensure that DBEs, as defined in 49 CFR 26, have a reasonable opportunity to participate in the performance of this contract, and in any subcontracts related to this contract. In this regard, Consultant shall take all necessary and reasonable steps in accordance with 49 CFR 26 to ensure that DBEs have a reasonable opportunity to compete for and perform services relating to this contract. Furthermore, Consultant shall not discriminate on the basis of race, color, national origin,

or sex in the performance of this contract. Consultant shall carry out applicable requirements of 49 CFR part 26 in the performance, award, and administration of this contract and any related subcontracts.

If a DBE sub-consultant performs services in connection with this contract, Consultant shall provide to DOTD a copy of the contract between Consultant and the DBE sub-consultant. Consultant shall also pay the DBE sub-consultant in full for services satisfactorily performed, and such payment shall be made within thirty (30) calendar days of receipt of payment from DOTD for those services. In the event that a DBE goal has been assigned to this contract and retainage is held on Consultant, DOTD will release such retainage for each stage upon satisfactory completion of each stage, and Consultant shall make payment to the DBE sub-consultant of any retained amounts within thirty (30) calendar days of release of associated retainage from DOTD.

Regardless of whether a DBE goal has been assigned to this contract, Consultant shall submit to the PM a completed DBE Form 1, "DBE Participation Monthly Report" (Attachment D) with each monthly invoice when the invoice includes effort by a DBE sub-consultant and a completed DBE Form 2, "DBE Participation Final Report" (Attachment E), with the final invoice.

Further, regardless of whether or not a DBE goal has been assigned to this contract, Consultant shall comply with all requirements of 2 CFR 200.321 regarding minority- and women-owned business enterprises.

Failure to carry out the above requirements shall constitute a breach of this contract. After proper notification by DOTD, immediate remedial action shall be taken by Consultant as deemed appropriate by DOTD or the contract may be terminated. The option shall rest with DOTD.

The above requirements shall be physically included in all subcontracts entered into by Consultant.

ARTICLE XXX SUBLETTING, ASSIGNMENT, OR TRANSFER (March 2018)

This contract shall be binding upon the successors and assignees of the respective parties hereto. This contract, or any portion thereof, shall not be transferred, assigned, or sublet without the prior written consent of DOTD.

ARTICLE XXXI RECORDS RETENTION (March 2018)

Consultant and its sub-consultants shall maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred relative to this contract. Costs shall be in accordance with 48 CFR 31 of the FAR, as modified by the DOTD audit guidelines, and which are incorporated herein by reference as if copied *in extenso*. The FAR is available for inspection through www.transportation.org. Records shall be retained until such time as an audit is made by DOTD or Consultant is released in writing by the DOTD Audit Director, at which time Consultant may dispose of such records. Consultant shall, however, retain such records for a minimum of five years from the date of payment of the last estimate under this contract or the release of all

retainage for this contract, whichever occurs later, for inspection by the DOTD and/or Louisiana Legislative Auditor, the FHWA, or Government Accountability Office under state and federal regulations effective as of the date of this contract.

ARTICLE XXXII ENDORSEMENT OF PLANS (March 2018)

Consultant's Professional Engineer/Surveyor registrant of the State of Louisiana, who is responsible for the project shall sign (using his registered name) and date seal all project documentation. Any plans or reports shall be sealed and/or signed, in accordance with La. R.S. 37:681 through 37:703 and Title 46:Part LXI of the Louisiana Administrative Code relating to Professional Engineering and Professional Surveying requirements. Consultant shall perform all required tasks associated with this contract in full compliance with all applicable laws, regulations, and DOTD policies.

ARTICLE XXXIII SEVERABILITY (March 2018)

If any term, covenant, condition, or provision of this contract or the application thereof to any person or circumstance shall, at any time or to any extent, be invalid or unenforceable, the remainder of this contract or the application of such term, covenant, condition or provision to persons or circumstances other than those as to which is held invalid or unenforceable, shall not be affected thereby, and each term, covenant, condition, and provision of this contract shall be valid and enforced to the fullest extent permitted by law.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their respective officers thereunto duly authorized as of the day and year first above written.

WITNESSES:	***Consulting Firm, Inc.
Witness for First Party	BY:
Witness for First Party	Typed or Printed Name TITLE:
	Federal Taxpayer Identification Number DUNS Number/CAGE Code (if applicable)
	STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Witness for Second Party	BY:Secretary
Witness for Second Party	RECOMMENDED FOR APPROVAL BY:
	Division Head

ATTACHMENT D – SECONDARY SELECTIONS FOR TASK ORDERS

Procedures for selecting among IDIQ contracts for issuance of Task Orders - Section 30

If proposed new TO is to be issued for the purpose of extending services related to services performed under a previously issued TO by a particular consultant with whom DOTD has an existing IDIQ contract containing the appropriate scope of services and with time and funding capacity available sufficient to support the issuance of the new TO under said contract, then that consultant's contract will be tasked.

Otherwise, when more than one IDIQ is available for the provision of the services required, the following procedure will be employed to determine which of the IDIQ contracts will be tasked.

- 1. Identify all IDIQ contracts that apply type/scope of work in contract
 - a. If applies, move to next step
 - b. If does not apply, then cannot use the contract
- 2. Determine if there is sufficient time remaining on the contract to complete the work
 - a. If yes, proceed to next step
 - b. If no, then cannot use the contract
- 3. Determine if there is sufficient compensation remaining on contract to complete the work
 - a. If yes, proceed to next step
 - b. If no, cannot use the contract
- 4. Determine if specialty tasks and /or special equipment/assets are required or if timing of performance is critical
 - a. If yes, can the consultant perform the work, as needed? (Consideration may be given to experience with specialty task(s) and/or possession of special equipment/assets required that are on hand available to dedicate to the task(s), past performance, current workload)
 - i. If yes, the consultant can perform the work, then proceed to next step
 - ii. If no, the consultant should not or is not able to perform the work, as needed, do not use the contract. Document the reasons, *e.g.*, the consultant is less experienced with the type of task(s), does not have assets on hand available to dedicate to the task(s), past performance indicates that the consultant may have difficulty with pertinent task(s), the consultant has multiple jobs ongoing for DOTD such that timeliness may be an issue, etc.
 - b. If no specialty tasks or timeliness issues are present, then proceed to the next step.

- 5. If more than one IDIQ contract reaches this step, then they will be distinguished from one another by the consultants': 1) familiarity or experience with the services required; 2) locality, where a local presence will add value to the quality and efficiency of the project; or 3) the amount of remaining contract time or the amount of remaining or available compensation.
 - a. Select the contract whose consultant is most familiar or experienced with the services required.
 - b. If the consultants are equal regarding familiarity/unfamiliarity with the services required, then select the contract whose consultant is local to the project area, provided that a local presence will add value to the quality and efficiency of the project.
 - c. If the consultants are equal on the criteria of familiarity and experience with the services required and locality, if applicable, then select the contract with the most available time or the most available compensation on the contract, with due consideration given to the risks involved and the needs of the project.
- 6. Once a selection for a TO is made, a memo will be prepared by the Project Manager justifying the selection of a particular consultant for an individual TO. The memo will be signed by the appropriate Section Head, approving the selection.