ADVERTISEMENT FOR ENGINEERING AND RELATED SERVICES
DECEMBER 2, 2021

ADDENDUM NO. 3, DECEMBER 15, 2021
ADDENDUM NO. 2, DECEMBER 9, 2021
ADDENDUM NO. 1, DECEMBER 3, 2021
CONTRACT NO. 4400023305
CONTRACT FOR I-12 MANAGED LANES CONVERSION
STATE PROJECT NO. H.012357
F.A.P. NO. H012357
ROUTE I-12
EAST BATON ROUGE AND LIVINGSTON PARISHES

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 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 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:

TIER I Evaluation:
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.

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)

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

*The past performance evaluation disciplines are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other. The crosswalk from the old categories to the new categories can be found at the link below: http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/General%20Information /CPPR%20Crosswalk%20to%20New%20Evaluation%20Disciplines.pdf.

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

TIER I Evaluation:

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 ratings will then be multiplied by the corresponding weighting factor. The rating for each category will then be added to arrive at the proposal's TIER I rating.

TIER II Evaluation:

The highest scored proposers in TIER I **(a maximum of three, if qualified)** will be asked to attend a Presentation/Interview subsequent to the announcement of the TIER I evaluation results.

Each proposer will be given up to one hour for their Presentation, followed by a short recess, then up to 30 minutes to answer any questions asked by the DOTD Project Evaluation Team. The proposers shall provide DOTD with an electronic copy (USB flash drive or other commonly used media) of the presentation in Portable Document Format (.pdf) or PowerPoint (.pptx) format at the time of presentation.

The presentation should address the following factors, which will be evaluated (each factor's weight to the overall presentation is shown in parentheses):

1. Proposer's plan on how to deliver all the requirements and deliverables identified in the scope of services in accordance with the specified schedule, which will reasonably allow DOTD to assess Consultant's ability to successfully complete this project. (4)

2. Proposer's demonstrated experience, knowledge, and expertise in: (5)

    a. HOV technology to register and accurately detect vehicle occupancy while maintaining user privacy,
    b. Roadside vehicle identification systems and ability to identify single trips using multiple transactions,
    c. Back-office systems for high volume transactions including invoicing and processing payments, and
    d. Providing high-quality customer service center management and flexible staffing to efficiently meet customer volume fluctuations.

3. Proposer's detailed description of the procedures and/or plans used to ensure good quality assurance and quality control is maintained throughout the contract term. (3)

The Presentation/Interview evaluation will be based on a numerical rating process (1-5). The DOTD Project Evaluation Team will rate each evaluation factor listed above. The scores for each individual factor will be multiplied by the factor's weight. The final Presentation/Interview score will be the sum of all of the factors' weighted scores.

The TIER I rating in combination with the TIER II rating will be used to develop the final short-list. The TIER I rating will count 40% and the TIER II rating will count 60% towards the

Consultant's final Score. A final short-list of the three (if three are qualified) highest rated Consultants will be submitted to the Secretary for 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 **6 ½ years**.

COMPENSATION

Compensation will be determined by DOTD based on work hours negotiated between DOTD and the selected consultant. Within fifteen (15) calendar days of notification of selection, a kick-off meeting will be held with the selected consultant and appropriate DOTD personnel. The selected consultant will be required to submit a work hour proposal within thirty (30) calendar days

following the notification of selection. All negotiations must be completed within the timeframe set forth in the Consultant Contract Services Manual.

Compensation to the consultant for services 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

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. 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.

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.

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. **Copies of training certificates 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 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://wwwsp.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/Memoranda/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 Manual – http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Traffic%20Control/Traffic%20Signal%20Manual%20V3%20-%207.1.20.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://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Pages/Engineering_Docs.aspx

18. DOTD Materials Sampling Manual – http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Materials_Lab/Pages/Menu_MSM.aspx

19. DOTD Bridge Design and Evaluation 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%20Manual%20rev%20Oct%202020.pdf

21. Bridge Inspector's Reference Manual – https://www.fhwa.dot.gov/bridge/nbis.cfm

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/2019%20Federal%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/Misc%20Documents/Traffic%20Engineering%20Manual.pdf

26.   Traffic Engineering Process and Report –
      http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/ManualsPublications/Pages/TEPR.aspx

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.

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 using the most current version of the DOTD Form 24-102 (available at http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/CCS/Pages/Manuals_Forms_Agreements.aspx). 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 4400023305 and/or State Project No. H.012357,** and must be received by DOTD via email **no later than 3:00 p.m. CST** on **Thursday, ~~January 6~~ February 3, 2022**.

The project time is **critical**.
The route classification is **NHS.**

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

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1 GENERAL PROJECT DESCRIPTION

The I-12 Managed Lane Conversion Project will convert the existing inside shoulders of I-12 (Eastbound and Westbound) to High Occupancy Vehicle (HOV) Lanes. The Project extends for approximately 14 miles beginning at the eastern end of the LA 73 overpass in East Baton Rouge Parish and continues to a point east of the I-12/LA 447 interchange in Livingston Parish. The HOV Lanes will be signed and striped as HOV Lanes and will be separated from the General Purpose (GP) lanes by pavement markings only. Entrance and exit into the lane will only be allowed at discrete locations as indicated by the signage and pavement markings. The lane will have one (1) intermediate entrance/exit near the midpoint of the corridor.
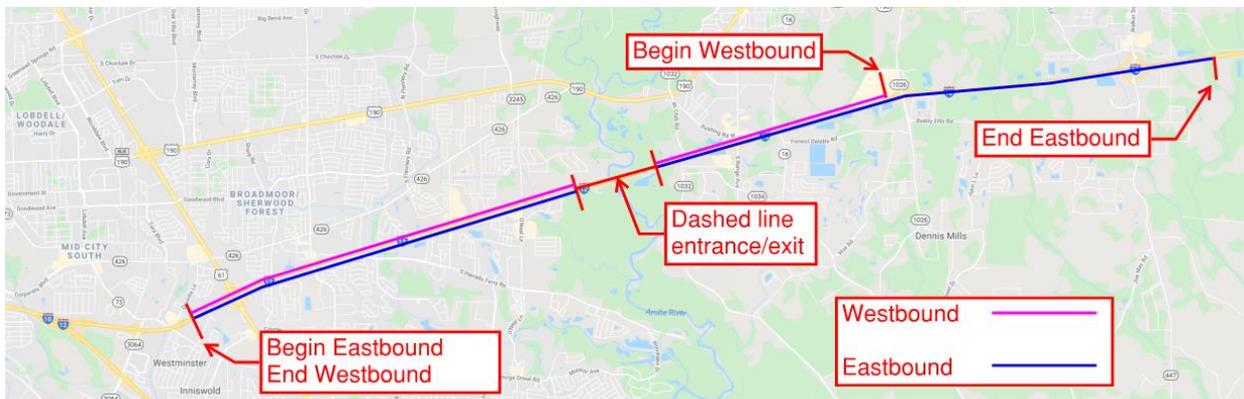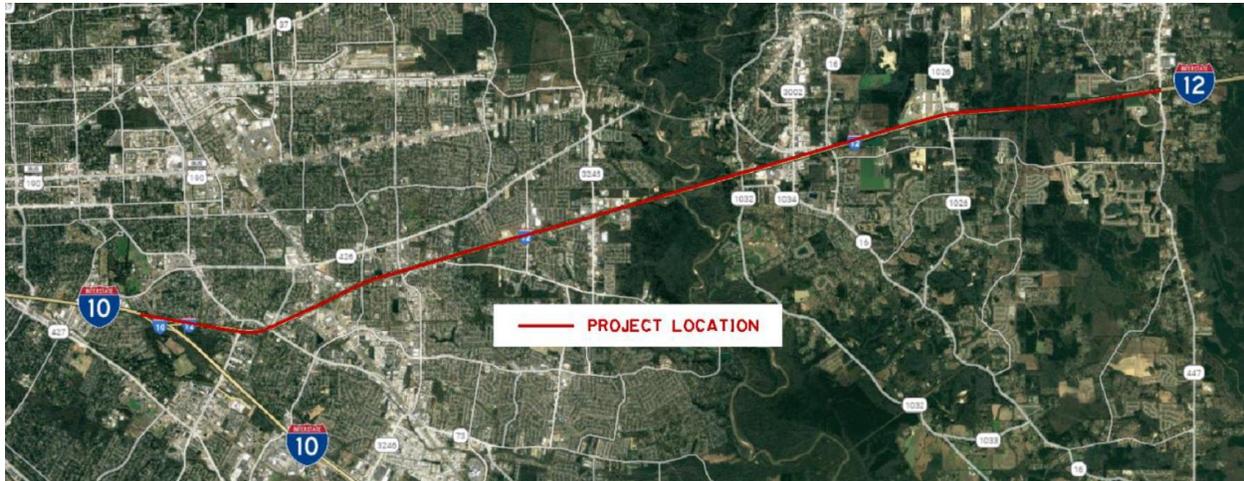
The Project consists of the management, development, design, installation, operation and maintenance of the HOV technology that provides a turnkey occupancy registration and verification system to manage HOV use including public outreach activities and violation enforcement in accordance with L.R.S. 32:57.3, L.R.S. 47:820.5.9 and all resulting business rules and DOTD policies.

The Consultant shall design, furnish, install, operate, and maintain all electronics, computer software, facilities, and any and all other elements as required to provide a complete HOV Solution as a Service (HOVSaaS). The Consultant shall perform all services in support of roadway and traffic design and construction being performed by DOTD. It is the Consultant's responsibility to obtain clarification of any ambiguity prior to proceeding with affected portions of the work.

1.1 Phases of Work Overview

Phase 1: Design - HOVSaaS requirements gathering and system design along with close coordination with DOTD for roadway design requirements. Preliminary marketing and public outreach.

Phase 2: Installation - HOVSaaS installation and testing along with marketing and public outreach.

Phase 3: Operations and Maintenance (O&M) - HOVSaaS registrations and verifications, transaction processing, violation enforcement, customer service and routine maintenance activities.

1.2 Anticipated Project Schedule

The following time shall be used to develop a project schedule and implement the complete HOVSaaS:

A. Phase 1:   12 months

B. Phase 2:   6 months

C. Phase 3:   60 months

Consultant shall proceed with the services specified herein after the execution of this contract and upon written Notice to Proceed (NTP) from the DOTD Project Manager (PM). The due dates for all project deliverables shall be established by the DOTD PM in the NTP, and may be modified by the DOTD PM through a subsequently approved project schedule. The DOTD PM will consider input from the Consultant when establishing the project schedule.

1.3 DOTD Design and Construction Activities

DOTD will be responsible for design and construction of civil infrastructure required to convert the inside shoulders to HOV Lanes. This includes the necessary infrastructure to support the HOVSaaS roadside equipment. Consultant shall fully cooperate and coordinate the HOVSaaS design and installation requirements with DOTD. The major civil infrastructure items of work DOTD will design and construct are listed below:

- Pavement modifications
- Pavement markings
- Drainage modifications
- Lane control signals
- HOV guide signs
- HOV small signs
- HOVSaaS gantries and/or support poles

In addition, the Consultant will design, develop, and seal engineering calculations and plans to be included in DOTD's construction project for roadside ITS infrastructure such as:

- Systems Engineering Analysis
- Electrical service
- Fiber optic cable (for WAN)
- Roadside conduits and cabinets

2   PERFORMANCE GOALS

The Consultant shall meet the following performance goals throughout the performance of the work:

A)   Provide an experienced team that works collaboratively with DOTD to implement and operate a customer friendly solution.

B)   Provide a project design which meets or exceeds the requirements set forth in this Contract.

C)   Implement and operate an HOV occupancy verification and enforcement solution that is innovative and accurate.

D)   Implement and operate an HOV solution that is turnkey in which the Consultant provides all necessary hardware, software, operations staffing, and management necessary for comprehensive end-to-end services.

E)   Provide an all-inclusive marketing, public outreach and communication efforts to broadly and effectively inform the public of the HOV benefits and requirements.

3   HOVSaaS GENERAL REQUIREMENTS

The Consultant shall use technology already developed for the purposes outlined herein, which is in use today at another transportation agency or similar roadway owner, available and ready for installation and implementation with minimal configuration and customization. The occupancy registration and verification solution must use smartphone-based technology integrated with a roadside vehicle detection and rear license plate image capture system. Switchable transponders are not allowed. If transponders are used for vehicle detection, the HOVSaaS must allow users to utilize existing transponders from other facilities such as Greater New Orleans Expressway Commission and LA 1 by incorporating multi-protocol readers and establishing companion accounts.

The technology shall be as seamless as possible to the user and require minimal user interaction beyond initial setup to maintain. In order to verify and enforce occupancy requirements for any vehicle that utilizes the HOV Lane, the solution shall accurately determine the number of persons in the vehicle and the corresponding time and location of the vehicle so as to allow for the vehicle's trip to be associated with use of the HOV Lanes. User privacy is of paramount concern, therefore the use of images to verify occupancy is discouraged.

The HOVSaaS, also referred to as the "System", shall meet all requirements in all weather conditions, during all daytime and nighttime lighting conditions, and for all vehicle travel speeds including stop-and-go traffic. The System's performance accuracy shall not be affected by *vehicle characteristics including,* but not limited to, vehicle size.

The System shall detect and record traffic in each direction of travel at multiple locations throughout the length of the project such that all vehicles are recorded as specified herein. This includes vehicle detection near each entry location as well as at numerous points between all entry and exit locations.

For purposes of verifying occupancy and determining violations, the HOVSaaS shall identify single trips when a vehicle is recorded in one or more HOV Lane segments within defined time periods as mutually agreed to by DOTD. These time periods will be configurable and may be changed from time to time per the Business Rules in Attachment C. All changes made to any required configurable values shall be done at no cost to DOTD. Within the defined time periods, a vehicle without the required minimum number of occupants that is recorded in one or more HOV Lane segments in the same direction of travel shall receive only one (1) violation determination per trip as defined within configurable time periods.

The HOVSaaS shall also identify single trips when a vehicle is recorded in one or more HOV Lane segments within defined and configurable time periods as mutually agreed to by DOTD for all hours outside of the defined HOV hours for purposes of determining violations.

The Consultant shall furnish, install, operate, and maintain all local networks used by the HOVSaaS. Corridor-wide fiber optic cable and electrical service will be provided by DOTD.

The Consultant shall be fully responsible for providing and maintaining, at no costs to users, all hardware and software required by the HOVSaaS, except for any user-provided devices (e.g., smartphones).

The Consultant shall identify, obtain and maintain any required Federal Communications Commission (FCC) licenses and procure, provide, and install all systems to comply with all applicable FCC rules and regulations. It is the Consultant's responsibility to apply for, obtain and maintain any FCC licenses and perform any radio frequency surveys, if and where necessary and applicable to the HOVSaaS.

The HOVSaaS shall provide for any user to register an Eligible Vehicle for HOV privileges at no cost to the user. The HOVSaaS shall allow for and maintain these registrations for the duration of the Contract. The HOVSaaS shall prevent vehicles not deemed as an Eligible Vehicles from being registered.

The HOVSaaS shall provide for any user to update or cancel the HOV registration of their Eligible Vehicle at no cost to the user. The HOVSaaS shall maintain the record of these updates and changes for the duration of the Contract.

The HOVSaaS shall provide both real-time and periodic reports to DOTD detailing the volume of the all types of traffic by day, time, direction for all HOV Lane location twenty-four (24) hours per day, seven (7) days a week including any lane operational modes identified/directed by DOTD, such as periods of suspended HOV operations.

The HOVSaaS shall provide for the public to efficiently add, update, or cancel registrations; pay or settle violations; and initiate appeals using the following methods in English and Spanish:
- via the USPS regular mail

- via a call center using the public switched telephone network and a toll-free phone number that is staffed weekdays from the hours of 8:00 a.m. to 5:00 p.m. except for Louisiana state holidays. The HOVSaaS shall support text telephone as defined in the Americans with Disabilities Act (ADA) in all these types of interactions.
- via an interactive voice response (IVR) system available 24/7
- via a self-service website available 24/7
- via a mobile self-service website available 24/7
- via a self-service smartphone application available 24/7

The HOVSaaS shall provide for the public to seamlessly move between the public switched telephone network, the website, the mobile website, the smartphone application, and the USPS mail in completing required activities. The HOVSaaS shall fully comply with the Americans with Disabilities Act in all these types of interactions.

All content, notices, letters and scripts used in telephone, websites, App, postal mail, email, and other communications with the public shall be subject to DOTD review and approval.

The HOVSaaS shall provide for DOTD personnel to securely and efficiently audit how each vehicle traveling in the HOV Lanes (both during HOV Lane Hours and outside of HOV Lane Hours) was recorded. The HOVSaaS shall provide these auditors with quick and easy access to all still images, video recordings, other information processed by the HOVSaaS in determining how the vehicle's passage was recorded such as detailed transaction reports by each HOV lane location, relevant equipment maintenance information, relevant equipment calibration logs, and other HOVSaaS data the DOTD may request.

The Consultant shall ensure the continued HOVSaaS compatibility with all releases, updates, and upgrades from all third-party products the HOVSaaS initially supported and their future replacement product families.

The HOVSaaS shall meet all State of Louisiana and all payment card industry data security and personally identifiable information protection requirements.

4   DESIGN, INSTALLATION, OPERATIONS AND MAINTENANCE REQUIREMENTS

The contract will be executed in accordance with the three phases described below. **The Consultant shall proceed with the services specified in each phase upon written notice to proceed (NTP) for that phase from the DOTD Project Manager.** The required activities and deliverables for each phase are listed below. For each deliverable, the Consultant will submit, for DOTD's review and approval: (a) an initial draft; (b) a final draft addressing comments from the initial draft; and (c) a final submittal addressing all comments from the final draft. Wherever practical, documents shall be produced using standard Microsoft Office applications. DOTD will consider suggestions made by the Consultant to combine or reorganize deliverables in order to accelerate the schedule and provide costs savings if required information and quality is not negatively impacted.

The schedule for each deliverable shall be such that the final submittal is submitted and approved during the associated phase indicated below. The Consultant will manage the development of all facets of the work, and will schedule, monitor and report the monthly progress, including updates to the approved schedule.

4.1 PHASE 1 – DESIGN

4.1.1 Project Management Plan (PMP)

The Project Management Plan describes how the Consultant plans to implement and manage the Project, including staffing, scheduling, and communication procedures for controlling all correspondence, submittals, other communications between the Consultant and DOTD, quality program, and management controls utilized by the Consultant to meet the requirements and specifications of this Project thus enabling DOTD to monitor the progress and quality of the work performed on the project.

4.1.2 Monthly Progress Reporting

Commencing with the first thirty (30) days after issuance of the Phase 1 NTP, the Consultant shall submit a Monthly Progress Report for DOTD's review. The Monthly Progress Reports shall be submitted by the fifth (5th) day of each month for Project work that occurred during the preceding month. The Monthly Progress Report shall contain a format approved by DOTD. The Monthly Progress Report shall be presented to DOTD at Monthly Progress Meetings to occur by the tenth (10th) day of each month.

The Monthly Progress Report shall include an electronic copy of the updated Project Schedule and all information and reporting required for the Project Schedule. The Monthly Progress Reports shall include, at a minimum, the following:

- Progress for the current month of all Project activities
- An updated Project Schedule showing progress since the previous Monthly Progress Report, including any proposed changes from the latest approved Project Implementation Schedule
- All potential delays and problems and their estimated effect on the Project Implementation
- An analysis of all critical path tasks
- An updated action item list from the previous meeting that shows the status of the open action items and that lists any action items that can be closed
- A copy of the approved minutes of the previous meeting

4.1.3 Project Schedule

The Consultant shall develop a detailed, resource loaded Project Schedule listing all tasks related to the design, development, testing, and implementation. The Project Schedule shall be maintained in Microsoft Project format and submitted electronically in native and PDF format. The Project Schedule shall identify all activities, durations, milestones, work breakdown structure, dependencies for all tasks, deliverables, and the critical path starting with Phase 1 NTP through Operations Test. It shall also incorporate all infrastructure construction milestones being performed by others. The Consultant shall provide a bi-weekly, two-week look ahead schedule from the initial NTP through Operations Test.

The preliminary Project Schedule that is delivered as part of the Consultant's proposal shall be updated after NTP and will serve as the basis for all subsequent schedules and updates throughout the duration of the Project. The Project Schedule shall be baselined upon DOTD approval. The Consultant shall update the Project Schedule monthly and submit it as part of the monthly progress

report. The Project Schedule shall provide for a DOTD review cycles of twenty (20) business days for each deliverable.

4.1.4   Performance Monitoring Plan

The Performance Monitoring Plan shall include all requirements and how they will be monitored, calculated, audited, and reported. DOTD will review the Consultant's performance on a monthly basis, using required system reports provided by the Consultant including reports generated and created by Maintenance On-line Management Systems (MOMS) along with independent audits. The Consultant shall provide complete and unrestricted access to all data, system reports, logs, records, lane systems and sub-system components and will cooperate fully with DOTD in conducting all audits. The Consultant will meet or exceed the defined levels of Performance Requirements. The measurement of the Performance Requirements will be thoroughly documented in the design documents and automated and data-driven where possible. The Consultant will prepare reports that compare actual monthly results to the Performance Requirements and will submit these reports to the DOTD on the tenth (10th) of each month.

Actual performance will be measured and reported monthly against specific Performance Requirements and time periods in order to assess overall performance. This performance assessment report will address requirements for all Performance Requirements. The report will also include a section for corrective measures that clearly define Performance Requirements that were not met along with specific measures that the Consultant will implement to correct each performance deficiency along with a timeline for implementation.

4.1.5   Requirements Review / Business Rules Workshops

The Consultant shall work with DOTD to finalize business rules for the new system and operations. Draft Business Rules are presented in Attachment C. The Consultant is responsible to meet with DOTD staff to gather requirements and documents and organize and document all relevant statutes, policies and business rules. The Consultant shall hold collaborative workshops with DOTD during the business rule development process. The Consultant shall develop a detailed and comprehensive set of draft proposed business rules for the system and operations that meet the needs of DOTD and submit them to DOTD for review and approval in preliminary draft form and as final draft form as part of the system design documents. The Consultant shall provide a final deliverable depicting all business rules prior to the start of installation. This includes, but is not limited to, business processes, workflows and system interfaces (external and internal), notices and correspondence requirements that will have to be supported by the HOVSaaS.

4.1.6   Reports and Dashboard Design Workshops

The Consultant shall conduct a series of workshops with DOTD to facilitate the design of the reports and dashboards. The reports and dashboard design process shall be iterative. The Consultant shall conduct multiple workshops and shall bring subject matter experts to the meetings. All reports shall be validated and tested prior to Phase 3 NTP. Subject matter experts must provide a means for explaining each report, its intended purpose, columns, fields, and components and its connection with other reconciling and validating reports.

The HOVSaaS shall have a dashboard reporting functionality to allow DOTD to monitor the status of any major component of the system. The dashboard functionality shall provide real-time monitoring capabilities with an interface featuring easy to read graphic and text-based data presentation to include a graphical, highly configurable dashboards that allows authorized users to view the current and historical performance of the projects in operation, using graphical charts and tables to view trends in the data such as year-to-date, month-over-month and year-over-year comparisons. Users must be able to use the dashboard to perform analysis of data and create their own dashboards. The type of information that should be available on the dashboard includes:

- Transactions collected and processed
- Transaction volume by hour, by direction, by segment, by day, by week, and by month
- Transaction growth as a percentage of prior period
- Traffic speed data
- Transactions by type (e.g., valid HOV, warnings, violations)
- Image review statistics
- Violation process (e.g., notices, payments, aging)

4.1.7   System Design Document (SDD)

The Consultant shall provide HOVSaaS documentation including process flow diagrams, business rules, training manuals, interface control documents (ICDs), certification plans and procedures, certification reports, maintenance plans, and user manuals. All customer-facing material shall require DOTD review and approval.

The Consultant shall submit a SDD that describes the design specifications of all hardware, software and communications networks and protocols provided by the Consultant to meet the project requirements. Hardware design shall describe all hardware specifications including appropriate diagrams and facility layouts. Software design shall describe the module and/or process level. The SDD will first be submitted in draft form; the draft submission will be followed by an initial review and comment period, after which the design reviews will take place. Upon completion of the design reviews, the SDD will be revised and submitted to DOTD for final review and approval. The SDD shall include:

- Roadside equipment and lane layouts along with logic, triggering strategies, and timing details
- Database Security
- Access control – User ID & Password
- Data Privacy
- Data Communications Security
- Firewalls, Virus and Spyware Protection
- Description of system diagnostics, status monitoring and error handling
- Description of degraded mode handling at the lane level
- Description of redundancy and failover processes
- The specification sheets for all equipment including all COTS hardware
- Description of all third-party software
- Business Rules
- Functional Requirements

- Interface Control Documents
- File and transaction message formats
- Design for user interfaces including menus and screens
- Database design and entity relationships
- Data integrity assurance plan
- Entity Relationship Diagram (ERD)
- Network design and configuration information
- Bill of Materials

4.1.8 Installation Plan

The Consultant shall prepare an Installation Plan that provides a comprehensive description of all aspects of the installation activities associated with the project, including at a minimum the following:

- A detailed installation schedule including all task durations, dependencies, resources, key
- Installation Checklist
- "Go/No-Go" checkpoints
- A description of installation resources including personnel and equipment
- A description of any special or unique installation requirements
- Monitoring and validation efforts planned to ensure all components are functioning as expected including reports and system generated output
- A detailed component list and description

4.1.9 Master Test Plan (MTP)

The Consultant shall develop and submit a Master Test Plan. The Master Test Plan shall be the basis for all testing to be conducted. The Master Test Plan shall outline the scope and testing concepts to validate the system requirements from initial development through deployment and acceptance. The Master Test Plan shall cover all phases of testing including the factory acceptance testing and system acceptance testing.

The Master Test Plan shall provide a description of the standards for developing test plans and procedures for the formal testing. These standards shall address test procedure format and acceptance criteria for each test phase. In addition, the Master Test Plan shall describe the entry criteria that must be met before a formal test can be started and the exit criteria that must be met before each formal test can be considered complete.

As test procedures for specific formal tests are developed, they shall be submitted to DOTD at least thirty (30) days prior to commencement of the specific test. Once approved, the test procedures shall be added to the MTP as addenda.

After the completion of each formal test, the Consultant will submit a test report to DOTD. The test reports shall describe the results of the test; a listing of all defects identified with the severity of each, a plan for resolving those defects, a recommendation for retest (if appropriate). DOTD reserves the right to withhold approval and any associated payments pending completion of corrective action and any necessary retests.

4.1.9.1   Factory Acceptance Test (FAT) Plan

The Consultant shall conduct a Factory Acceptance Test (FAT) at a facility that is representative of the Project roadway. FAT shall include representative lane equipment and all interfaces. The FAT shall be designed to demonstrate the full internal functionality of the systems, in a factory environment with hardware and software representative of the final system, including all graphic user interfaces (GUI), equipment installed on the Project, and simulated transaction volumes to represent the expected real-world load on the system.

The Plan will describe how all screens and the full range of system reports are to be tested. The plan will describe how various lane level failure conditions shall be generated to test the MOMS alarm and maintenance requirements. The FAT Plan shall include the conditions to be tested, the expected results, and a description of the criteria used for classifying and recording any defects noted during the FAT (e.g. Critical, Major, Minor, depending on the severity of the defect).

Following the FAT, the Consultant shall submit a detailed FAT report to DOTD that describes testing results including the severity levels of any defects found. FAT approval is dependent on successful demonstration of the complete functionally compliant and meeting the exit criteria identified in the FAT Plan.

4.1.9.2   Go-Live Readiness Assessment

Go-Live Readiness Assessment testing shall include end-to-end test scenarios and functional tests to validate that the HOVSaaS meets the stated requirements and objectives. System testing shall utilize real data and end-to-end workflow scenarios.   System testing shall be designed to demonstrate the critical business, operational and technical functions of the system and the overall effectiveness of the user-facing aspects. At a minimum, the Consultant shall incorporate the following activities during system testing:

- Demonstrate critical business function scenarios
- Transaction Testing
- Error Message Testing
- Testing Documentation
- Report Testing
- Demonstrate the Complete Sequence of Functional Business Tasks and workflow
- User Interface Testing
- Reliability Testing
- Performance Testing (stress, load testing)
- Integration and Third-Party Interface Testing
- Security and Integrity Testing
- System Recovery Testing
- Workflow Testing

4.1.9.3   Operations Test (OT) Plan

The objective of the Operations Test (OT) is to ensure that the HOVSaaS functions over a period of sixty (60) consecutive days with the required functionality, availability, accuracy and performance. The Consultant shall submit performance reporting for this test. The OT Plan will

describe entry criteria, testing, and exit criteria. The OT Plan shall provide a comprehensive description of all aspects of the go-live activities associated with the project, including at a minimum the following:

- A detailed go-live schedule including all task durations, dependencies, resources, key "Go / No-Go" check points
- A description of resources required including personnel and equipment
- A description of any special or unique requirements
- Monitoring and validation efforts planned to ensure all components are functioning as expected including reports and system generated output (e.g. correspondence, screenshots)

The Consultant is solely responsible for executing the OT. The overall system shall be observed in live operations by the Consultant and DOTD for a minimum of sixty (60) consecutive days. During this period, system accuracy, performance, reliability and auditability shall be measured and verified.

4.1.10 Maintenance of Traffic Plans

The Consultant shall be responsible for providing and maintaining any maintenance of traffic required during installation, testing, and maintenance. All plans and activities shall be prepared and conducted in accordance with approved DOTD Standards. Consultant shall submit for DOTD approval a comprehensive plan for obtaining lane closures and maintenance of traffic for the duration of the contract.

4.1.11 Requirements Traceability Matrix (RTM)

A RTM will be developed, maintained and updated throughout the life of the project. The RTM cross references business, functional, and technical requirements contained in the SDD. An initial RTM cross-referencing all requirements to Business Rules shall be submitted. The RTM will be used to verify compliance throughout the system design, development, installation, testing, and into ongoing maintenance and operations. The Consultant shall be responsible for compliance and all supporting activities and deliverables with the RTM.

4.1.12 Interactive Voice Response (IVR)

The Consultant shall provide an IVR to allow access to the HOVSaaS application to provide the following functionality to the users at a minimum in both English and Spanish:

- General information including HOV requirements and operating hours
- Make payments
- Check the status of a recent payment
- Check the status of a notice
- Other functions proposed by the Consultant and identified during business rules workshops

The Consultant shall provide a detailed phone tree diagram depicting complete design and configuration options. The system shall maintain all PCI compliance standards in supporting credit card payments made via the IVR, the call recordings and access of recorded calls. The Consultant

shall modify the IVR call flow to correct routing and call flow problems identified during normal or high-volume operations.

4.1.13 Disaster Recovery (DR) and Business Continuity (BC) Plan

The Consultant shall develop a comprehensive Disaster Recovery and Business Continuity Plan and Recovery Procedures for the HOVSaaS to include all operations and systems including databases and files. The plan shall include:

- Details of governance and process for the direction, control and coordination of Business Continuity activities.
- The management, staffing, communications with DOTD, as well as actions to be taken for issue identification, escalation, remedies and restoration of facilities, software applications, computer hardware, network communications, operations and maintenance.
- The process to be undertaken by the Consultant when a business disruption event occurs that impacts the HOVSaaS.
- Components, including hardware and software, required to re-establish baseline operations
- Initial Systems Damage Assessment Checklist
- Reestablishment of networks
- Restoring from data backup
- Emergency Contact Lists
- Details of the procedures/processes that will be used in the event of complete destruction of the primary host site.

4.1.14 Reports Manual

The Consultant shall provide a Reports Manual that shall be designed to provide the intended users with the information necessary to understand, configure, and generate reports and dashboards.

The suite of reports and dashboards to be provided with the HOVSaaS and included in the Reports Manual shall include:
  - A) Summary Reports: Summarized by HOV and non-HOV traffic, HOV type and occupancy verified, location, date range, and any additional data elements or unique identifiers.
  - B) Detail Reports: To include key data elements for each transaction detected by the device/system; to include a full suite of traffic reports and image review reports, to be used for operational purposes including reconciliation.
  - C) Violation Reports: application warnings, application suspensions, warning notices, violations, violation notices, habitual/frequent violators, appeals, court packages, and DL and VR holds/blocks issued and removed.
  - D) Customer Contact Center Reports: To include key data elements regarding calls, IVR activity, emails, mail, website activity, complaints, and disputes.
  - E) Performance Reports: To substantiate actual performance and accuracy.
  - F) Maintenance Reports: To substantiate maintenance needs, requests and activities performed, including response and repair times.
  - G) Financial Reports: To include key data elements regarding violations issued, payments made, payments received, violations not pursued, violations waived, and outstanding accounts receivable.

H) Dashboards: To include key data elements, especially related to performance requirements, in order to graphically display and easily monitor in real-time the health of various aspects of the system and operations.

All reports shall have the capability to be printed or saved in various formats (both compressed and uncompressed), including:

- o Portable Document Format (PDF)
- o Plain text format (TXT)
- o Microsoft Excel 2016 or older version
- o Comma-separated values (CSV)
- o Hypertext markup language (HTML)

A report generation feature shall be available for configuration and shall permit authorized users to request selected reports for auto delivery by email or designated server according to a routine or custom specific request.

The Reports Manual shall, for each report, describe the input criteria and include a sample output report.

4.1.15 Website Planning, Design and Development (customer)

Provide and maintain a modernized website to capture advances in technology, browser security and adapt to changes in standard e-commerce practices. The website shall comply with the payment card industry/data security system (PCI-DSS). The website shall be accessible over all electronic device form factors such as desktop and laptop computers, tablets, smart phones and other mobile devices.

The Consultant shall provide a secure website to allow for interaction with customers. The website shall be Section 508 compliant and shall conform to the WCAG 2.0 or most current standard. The website design and layout shall be subject to DOTD's review and approval.

The Consultant shall ensure that appropriate security measures are instituted to prevent unauthorized access to the HOVSaaS through the website and that confidential data entered and viewed by the customer remains secure as per applicable federal, state and local laws, PCI standards, and applicable DOTD policies.

4.1.16 System Engineering Analysis

The Consultant shall perform a full Systems Engineering Analysis (SEA) and provide a SEA report for the Project corridor to include all HOVSaaS devices and ITS improvements. The Consultant shall work with DOTD to coordinate all ITS devices to be used in support of the Project and incorporate those devices into the SEA report.

4.1.17 ITS Infrastructure Design and Plans

The Consultant shall design and develop plans and specifications suitable to be included in DOTD's construction project for the ITS infrastructure necessary for the operation of the roadside

equipment. The ITS infrastructure needed will be identified in the SEA and is expected to consist of the following:

- o Location of electrical and communications services to provide power and connectivity to roadside equipment
- o ITS and electrical, pull-box and fiber optic cable diagrams, details, and standards
- o ITS and electrical general notes and specification,
- o ITS and electrical and fiber optic conduit and pull-box layouts

Design shall be in accordance with the latest National Electric Code, LA DOTD NS-ITS specifications, and LA DOTD Standard Specifications for Road & Bridges. The Consultant shall provide at least an initial draft, final draft, and final version of construction plans and cost estimate. The final version shall be signed and sealed by an Engineer licensed in the State of Louisiana. A design calculation book shall be stamped and sealed and submitted with the final version of the construction plans.

4.1.18 Roadside Equipment Engineering Design and Plans

The Consultant shall provide at least initial draft, final draft, and final versions of detailed engineering drawings, specifications, and calculations for DOTD review, comment, and acceptance describing each roadside element including but not limited to all infrastructure items not installed by DOTD such as cabling and mounting hardware. The Consultant shall provide detailed installation drawings and associated shop drawings for each location where equipment is to be installed and submit them to DOTD for review and approval at least thirty (30) days prior to the start of the installation activities to which the drawings pertain. The Consultant shall provide equipment site layout drawings, details and coordination with DOTD designers and Consultants for the design and construction of civil infrastructure.

The Consultant shall perform all necessary infrastructure-related engineering design (civil, structural, electrical, mechanical) and the preparation of related plans and documentation. The Consultant shall be fully responsible for the accuracy of its installation requirements and coordination with all DOTD provided infrastructure. The Consultant shall provide construction plans signed and sealed by an engineer licensed in the state of Louisiana.

The Consultant shall update the latest drawings with red lines as changes are incorporated during installation. At the completion of the installation, the Consultant shall compile all red line drawings into a single package. The red-line drawings shall be verified and then incorporated into a final As-Built Drawing package. This final As-Built Drawing package shall include installation drawings, shop drawings and sketches, and other drawing types that may have been used to install the HOVSaaS.

4.1.19 Design and Construction Workshops

The Consultant shall participate in workshops with DOTD to coordinate all design activities with DOTD to ensure all HOVSaaS specifications are addressed in the design of all roadway infrastructure and to clearly define and develop the installation requirements, methodology, timetables, and roles and responsibilities. The Consultant shall coordinate with DOTD to understand and incorporate corridor traffic monitoring requirements by DOTD. The Consultant shall participate in the design of the infrastructure on the roadway including but not limited to:

- review and reach consensus on all infrastructure submittals,
- review and reach a consensus of the power supply and ITS network,
- support and supply all information requested by DOTD to complete the infrastructure design,
- progress meetings with DOTD and contractor, and
- review and reach consensus on all contractor-provided drawings.

4.1.20 Operations Plan

The Consultant shall submit an Operations Plan that that includes, among other things, the following:
- How each service and activity described in the scope will be provided.
- How performance requirements will be attained, monitored and maintained.
- How business issues (phone traffic or system outages) will be addressed, including notification chain, backup procedures, and emergency approvals.
- How personnel or safety emergencies (accidents, other incidents and threats) will be addressed, including notification chain, backup procedures, emergency approvals.
- The listing and organization of the Standard Operating Procedures (SOP).
- Proposed contracts, subcontracts and organization.
- Personnel reporting and communication structures.
- Coordination with DOTD, OMV, and AG.
- Quality control and continuous improvement processes.
- Job descriptions and anticipated staffing levels.
- Call center staffing plans for start-up and on-going operations.
- Process and subcontractors for processing and sending notifications.
- Employee screening procedure.
- Payment processing and revenue and audit controls
- Process and schedule for compiling, checking and submitting all required reports.

4.2 PHASE 2 - INSTALLATION

4.2.1 Factory Acceptance Testing (FAT)

The Consultant shall conduct a FAT in a Consultant-supplied off-site or laboratory facility in advance of any integration testing. The FAT shall verify that the Consultant has successfully developed the HOVSaaS in accordance with the requirements and the subsequent design documentation, demonstrate core system functionality, and provide the basis for the Consultant to begin full system integration and preparation for installation. Anomalies, failures, or other issues identified during the FAT shall be documented and tracked in a punch list format. All punch list items shall be satisfactorily resolved prior to DOTD approval or acceptance.

4.2.2 HOVSaaS Installation and Testing

The Consultant shall provide a complete HOVSaaS, including all resources, software, hardware, licensing, materials, equipment, supplies, traffic control, and labor, that meets all contract requirements. This includes all furnishing, installation, and testing all HOVSaaS elements.

The Consultant complete all testing to demonstrate the entire HOVSaaS is ready for Service Commencement. The tests shall demonstrate the integration of various subsystems, integrated components, and external interfaces. The Consultant shall conduct all tests and supply all necessary testing resource, including but not limited to, personnel, drivers, and vehicles.

The Consultant shall conduct a Go-Live Readiness Assessment to create and validate a check list of events, tests, and results that shall ensure that the HOVSaaS is ready to begin normal operations. DOTD shall be actively involved in the readiness assessment and shall govern the final assessment as to if the HOVSaaS is ready for Service Commencement (Go-Live) operations.

4.2.3   Coordination with DOTD Construction

The Consultant shall coordinate all installation activities with DOTD or its designee to ensure all requirements are addressed in the design and installation of all infrastructure. The Consultant is responsible for coordinating with DOTD or its designee any meetings necessary with the contractor.

The Consultant shall schedule, manage, and attend weekly installation meetings during the active installation of the project and report on the progress of the installation. The Consultant shall identify and communicate any issues identified regarding construction and installation immediately upon discovery to DOTD.

4.2.4   Service Commencement Plan

The Service Commencement Plan will document and describe the activities needed to begin Service Commencement for the HOVSaaS. The plan will describe all activities, staffing, and detailed schedule of events to go-live with the HOVSaaS including contingency plans and internal and external communications.

4.2.5   End User Training Plan and Documentation

The Consultant will develop and conduct a Training Plan. The Training Plan shall include specific courses including:
- High Level System Overview - Covers a basic understanding of the entire system including transaction flow from the lanes to back office system and basic reconciliation of transactions
- Workflow, Reporting and Finance and Audit - Covers all detailed transaction flows including account establishment, trip building, image review, transaction processing, notices, payment methods, adjustment processes, reconciliation, and financial accounting, audit and reporting

The Consultant shall provide a set of training manuals and User Manuals that shall be designed to provide the intended users with the information necessary to perform their jobs. All Consultant developed manuals shall be clearly written, organized in such a way that the user can easily find the required information, and complete enough to cover the full range of materials, illustrations, graphics, tables, and instructions required to perform the intended functions. User manuals to be provided as part of the Scope of Work include:

- System Administrator Manual

- Operations Manual(s)
- Financial and Audit Manual
- Transactional and Financial Reconciliation Manual
- MOMS Manual

Final delivery of DOTD-approved training and User Manuals shall consist of (1) electronic copy in unrestricted, native format such as Word and Adobe PDF format, plus five (5) bound paper copies.

4.2.6   Standard Operating Procedures

The Consultant shall submit Standard Operating Procedures (SOP) as an appendix to the Operations Plan for all operational activities. The SOPs shall describe the Consultant's standard processes and procedures by providing step-by-step instructions that enable DOTD to understand how the HOVSaaS operates on a daily basis. The SOPs shall serve as a framework for organizational policy and written documentation of best practices. The SOPs shall be used as the primary foundation for business processes, job descriptions, employee training, corrective action and discipline, and performance review.

4.2.7   Maintenance Plan

The Consultant shall provide a Maintenance Plan identifying all aspects of maintenance services that will be provided as part of the Project. The Consultant shall strictly comply with the approved Maintenance Plan. The Maintenance Plan shall address both hardware and software maintenance and shall include:

- Maintenance program overview
- Scope of Work
- Organization and Project Personnel
- Procedures
- Preventive maintenance
- Predictive maintenance
- Emergency maintenance
- MOMS
- Parts Inventory Control and Cycle Counts
- Communications
- System Monitoring
- Reporting and Reports
- Backup and archiving
- Schedule of Activities

Any changes to the maintenance approach or specifics requested or approved by DOTD, shall be documented by changes to the Maintenance Plan. This plan shall be updated and re-submitted.

4.2.8   Maintenance On-Line Management System (MOMS)

A MOMS shall be delivered as an on-line, interactive tool used to review HOVSaaS system status, generate system alarms, manage and report on errors, maintenance and related activities such as

tracking inventory/spare equipment. All maintenance activities scheduling shall be done through MOMS. It shall support real-time notices to maintenance and other personnel and shall be configurable to meet DOTD requirements based on this scope of work and as may be further defined during design review.

4.2.9 As-Built Drawings and Documents

Within thirty (30) days after the completion of the Service Commencement, the Consultant will submit the As-Built SDD including all changes made during the software development, installation and testing phases. All changes incorporated during installation and implementation shall be indicated using red lines by the Consultant and any sub-Consultants. At the completion of the installation of the Project, the Consultant shall verify and incorporate all red line drawings into the final As-Built drawing package. The final as-built drawing package shall include installation drawings, shop drawings, and other drawing types used during installation.

4.3 PHASE 3 – OPERATIONS AND MAINTENANCE (O&M)

4.3.1 Project Management and Reporting

During Phase 3, the Consultant shall include in each monthly report to DOTD operations and maintenance details, including details regarding the HOVSaaS's performance against the Performance Requirements.

The HOVSaaS shall provide an integrated reporting solution to include, at a minimum, the following standard, automated, system reports:

A) Summary Reports: Summarized by HOV and non-HOV traffic, HOV type and occupancy verified, location, date range, and any additional data elements or unique identifiers.
B) Detail Reports: To include key data elements for each transaction detected by the device/system to include a full suite of traffic reports and image review reports.
C) Violation Reports: application warnings, application suspensions, warning notices, violations, violation notices, habitual/frequent violators, appeals, court packages, and DL and VR holds/blocks issued and removed.
D) Customer Contact Center Reports: To include key data elements regarding calls, IVR activity, emails, mail, website activity, complaints, and disputes.
E) Performance and Maintenance Reports: To substantiate actual performance and accuracy.
F) Maintenance Reports: To substantiate maintenance needs, requests and activities performed, including response and repair times.
G) Financial Reports: To include key data elements regarding violations issued, payments made, payments received, violations not pursued, violations waived, and outstanding accounts receivable.

4.3.2 HOVSaaS Maintenance

HOVSaaS Maintenance shall include all monitoring, preventive, pervasive, corrective, security-related and emergency maintenance, repair and replacement services, and certain upgrades and enhancements to be performed on all elements of the system. The Consultant is responsible for

all maintenance of the HOVSaaS and shall keep the system in good working order and condition. The Consultant shall perform all preventative maintenance, predictive maintenance, corrective or emergency maintenance, software maintenance, and routine maintenance, and make all adjustments, repairs, rehabilitations, and replacements necessary to keep the system in operation in accordance with the Performance Requirements.

The Consultant shall maintain, repair, restore, or replace all faulty or damaged items at no additional cost to DOTD unless damage was caused by a third party. This includes documents, software, hardware, materials, equipment, supplies, and maintenance equipment which are purchased for permanent installation in, or for use during, implementation or operation of the project.

The Consultant shall perform software maintenance to ensure all software components, including databases, stored procedures, interfaces, and applications continue to perform optimally, and degradation of system performance does not occur over time. The Consultant shall proactively monitor system performance and implement remedies if performance degradation does occur.

The Consultant shall provide a monthly maintenance report to DOTD by the tenth (10th) business day of the following month. The Consultant shall communicate to DOTD activities being undertaken, progress being made, recommendations, potential problem areas, and other timely topics and information as requested by DOTD. The report must also include a summary of the month's activities, highlighting any special events and incidents, and an accuracy and functional availability report.

Software modifications required to maintain and support the HOVSaaS as a part of the normal course of business shall not be considered upgrades or enhancements for additional compensation by DOTD. These modifications include but are not limited to: patches and security updates, version changes; configuration or parameter changes; minor changes to software or code; software modifications required to ensure HOVSaaS is compliant to existing standards and changes for the Consultant's benefit that improve the Consultant's ability and efficiency to maintain and support the HOVSaaS.

Upgrades or enhancements to the HOVSaaS, due to changes in DOTD policy or statutes that significantly change the functionality of the then operating HOVSaaS, may be established by Supplemental Agreement to this contract at the sole discretion of DOTD.

4.3.3   Operations Testing

For the HOVSaaS, there shall be a testing period during which the Consultant shall demonstrate that the HOVSaaS accurately meets all requirements in the Contract. The Consultant shall prepare and submit a certification plan for DOTD review and approval that details a comprehensive suite of test scenarios capable of proving all Contract requirements for HOV enforcement have been met and outcomes for each scenario are as expected.

As part of reporting the testing results, the Consultant shall provide system-generated, complete end-of-month performance reports for two consecutive months. The Consultant shall provide the supporting data and material needed to ensure the suitability and accuracy of the reports. Once approved by DOTD the performance reports will be generated and submitted to DOTD monthly through the life of the agreement.

Anomalies identified shall be categorized by criticality, and the timing of resolution of all anomalies shall be agreed upon by DOTD and the Consultant. The Consultant shall develop a plan for correcting the anomalies and testing the fixes prior to requesting authorization from DOTD to install the fixes in the production system and verification using regression testing that they are working properly and have not caused any new problems. These tests shall be repeated until the HOVSaaS has met Operation Test requirements for sixty (60) consecutive days. The Consultant will be given project acceptance upon the successful completion of all tests, closure of all defect items, completion and submission of all required documents and meeting of other conditions as specified in the Agreement.

Following the Operations Test, the Consultant shall submit a detailed report to DOTD that describes testing results including the severity levels of any defects found. Operations Test approval is dependent on successful demonstration of the complete compliant HOVSaaS functionally and meeting the exit criteria identified in the Operations Test Plan.

4.3.4   HOVSaaS Certification

The Consultant shall provide DOTD with a certification after successful completion of Operations Testing stating the HOVSaaS meets all contract requirements and meets or performs better than each of the applicable Performance Requirements.

The Consultant shall re-issue the HOVSaaS Certification stating that all Contract requirements are met and the HOVSaaS meets or exceeds all requirements in Contract Documents no less often than every twelve (12) months thereafter regardless of the repairs or improvements the Consultant may need to make to achieve the certification.

The Consultant shall provide all test vehicles and associated drivers and occupants necessary for any required demonstration, test, and certification.

4.3.5   HOVSaaS Operations

The Consultant shall complete the following activities in accordance with the contract to include approved business rules, SDD, and Operations Plan.

The Consultant is responsible for all day-to-day system operations and maintenance. The Consultant is required to provide monitoring tools to effectively track and manage operations with the goals of optimizing efficiency, performance and customer service. DOTD shall be granted read only access to all system monitoring tools via a secure Consultant maintained interface. DOTD requires the Consultant to provide alerts to identify backlogs and problems on a real-time basis.

4.3.5.1   Transaction Processing

The system shall account for all lane transactions and provide for the controls necessary to ensure each transaction is properly processed in accordance with the business rules that will be developed during the design phase. For all transactions, the system shall provide controls and processes.
Based on individual transactions created at each site, the system must be capable of creating single trips by compiling transactional information. The HOVSaaS shall provide the functionality for trip building for transaction processing, transaction matching, and transaction grouping to avoid

the processing of duplicate transactions to the same account, based on configurable filtering rules, within a configurable time period. The System shall provide reporting and data analysis for all trips and/or transaction groups.

The HOVSaaS shall provide a reconciliation process and report for all transactions.

The HOVSaaS shall flag vehicles (plates) with for which processing problems have been previously identified (e.g., registered owner errors with DMV, plate type issues, jurisdictions issues, issues/errors with specific characters, etc.) and provide this information to DOTD.

The HOVSaaS shall store images in their native format as well as any automatic license plate recognition/optical character recognition (ALPR/OCR) information and transaction data provided by the system. The HOVSaaS shall store all processed images in a fashion which is easy to recall by customer, vehicle license plate, vehicle jurisdiction, license plate type, account number, violation number, or any other references used by the HOVSaaS to track notices such as date, time and location.

The HOVSaaS shall inform DOTD for each license plate transaction for which no registered owner is identified.

Unforeseen roadway circumstances may result in the need to remove transactions from the normal processing queue and/or reverse processing already performed. The system shall be provided to filter out transactions that have certain properties and make any related adjustments. This functionality will be performed by user-specified configurable location, date, time parameters within the HOVSaaS. The configurable filter may contain multiple criteria based on values contained within the transaction record. Transactions rejected by the filter shall be fully accounted for in reconciliation reports and the reason for rejection shall be stored with the transactional data.

The system shall automatically apply filters at every stage of transaction, image, and violation processing until the filter has been removed by an authorized user, and shall automatically adjust accounts and violations impacted, including notifications and refunds.

4.3.5.2 Image Review

The Consultant shall provide a highly automated and sophisticated image processing system (IPS) with functionality and procedures to process images and transactions, including functionality and procedures that support human review of images according to approved business rules.

Image processing related functionality and procedures include image review, OCR processing, interfacing with and accessing state license plate registration files for the identification of registered vehicle owner names and addresses.

The image review processes shall be efficient and verifiable. The IPS module shall monitor performance and provide for quality assurance, which shall include performance measurement, IPS clerk and customer service representative (CSR) performance scoring, and detail reporting. The IPS module shall compile operational statistics for Performance Requirements. The IPS shall produce image quality reports showing acceptance levels and rejects by reason. The IPS module shall be easily configurable to accommodate business rules, legislation and changes in each.

The IPS module shall provide independent OCR and image matching for license plate image processing, prior to sorting and evaluating for potential human review. The OCR shall be configurable for the acceptable confidence levels and accuracy rates for automatic processing of images and for quality assurance purposes.

The Consultant shall provide an image review quality assurance process that includes both human reviewers and the OCR process. The HOVSaaS shall track all activities of the reviewers and the OCR and provide the operations statistics and reports in both summary and detail.

4.3.5.3 Warning Notices

The HOVSaaS shall provide warning notices to users for detected violations. The HOVSaaS shall be capable of providing these notices both electronically through a smartphone application and through first-class mail, as determined by the business rules. The HOVSaaS shall issue warnings for both detected occupancy and lane use violations.

4.3.5.4 Violation Notices, Payments, Appeals, and Customer Service

The HOVSaaS shall process all transactions and violations in accordance with current legislation and the approved business rules. The system solution shall streamline the workflows to the fullest practical extent possible. These workflows include image processing, violator identification, violation invoicing, violator status changes, violation payment processing, and collections/court processing. The Consultant shall describe the workflow benefits of the proposed solution with the detail of the solution configurability.

The HOVSaaS shall obtain and electronically record the names and addresses of the registered owners of all Violator vehicles with Louisiana-issued license plates using license plate images, HOV registration data, and Louisiana's Office of Motor Vehicle (OMV) data. OMV data will be made available from OMV at no cost to the Consultant.

An account shall be created using the vehicle registration data for all image-based transactions that cannot be matched to an existing account. If the registration data matches an existing violation account, then the transaction shall be posted and the plate number and vehicle details, if not already present, shall be added to the account.

The HOVSaaS shall provide for DOTD personnel to securely and efficiently audit how each violation notice was created. The HOVSaaS shall provide these auditors with quick and easy access to all the same information provided for auditing how each underlying vehicle passage was recorded (described above) plus all information processed by the HOVSaaS in determining the violator's name and address; all motorist communications and interaction; previous violations incurred by the violator (whether they resulted in a violation notice or not); violations subsequently incurred by the violator; and other HOVSaaS data DOTD may request.

The Consultant shall educate violators on the HOV registration requirements when violators contact the Consultant. The HOVSaaS shall provide for any user who has received a violation notice to view additional evidence of their violations via a self-service website at no cost to the user.

The Consultant shall hire and manage all staffing required for the HOVSaaS.

All printing, postage, credit card fees, other bank fees, phone costs, and all other operational expenses shall be the sole responsibility of the Consultant. The user shall not be charged with any costs other than the fees and penalties stipulated in the Business Rules as determined by DOTD.

The HOVSaaS shall provide for the public to pay and settle violation notices at no additional cost beyond the violation amount set by DOTD. The HOVSaaS shall provide for electronic notification of violations to registered users. The HOVSaaS shall allow these violations to be paid by the user prior to mailing violation notices.

The HOVSaaS shall provide for the public to initiate a dispute of a violation notice and resolve that dispute at no cost to the public beyond the compensation for services provided under this contract.

The HOVSaaS shall retain financial reports on all Violators showing the date and amount of each payment, the date each first violations notice was mailed, the date each second violations notice was mailed, and the date each electronic file was sent to the State Attorney General for further collection efforts. All financial ledgers and reports shall use and comply with Generally Accepted Accounting Principles.

The Consultant will transfer and/or deposit all revenue and fees collected by the Consultant into an account designated by DOTD in accordance with the business rules. At a minimum, transfer shall occur monthly. The Consultant will not have any right, claim, security or other interest to any revenue and fees. The Consultant will be liable for any failure to transfer and/or deposit the revenue and fees in accordance with this agreement, and DOTD will have the right to deduct and offset any losses and damages incurred by DOTD due to such failure from moneys owed by DOTD under this agreement.

In response to written no-cost directives by DOTD, the HOVSaaS shall provide DOTD with electronic files detailing:

- All registered users and all registration data they have provided since they first registered including all registration changes and violations
- Historic summary traffic data by month broken out by the type of lane use for all vehicle travel on the HOV Lanes during HOV Lane Hours and all vehicle travel outside of HOV Lane Hours
- All transactions and their current disposition prior to mailing first violation notice
- All first violation notices and their current disposition
- All second violation notices and their current disposition
- All electronic files sent to and from the OMV and State Attorney General
- A log of all Frequent Violators showing the date and amount of each payment, the date each first violations notice was mailed to them, the date each second violations notice was mailed to them, and the date each electronic file was sent to the State Attorney General for further collection efforts, and any file received from the State Attorney General

These files will be in the same non-propriety format as those the HOVSaaS normally backs up and archives to secure its data.

4.3.5.5 Out-of-State Lookups

The HOVSaaS shall obtain and electronically record the names and addresses of the registered owners of violation vehicles with license plates issued by jurisdictions other than Louisiana using license plate images, HOV registration data, and high-quality third-party data sources in accordance with the approved Business Rules.

4.3.5.6 Skip Tracing

The Consultant shall provide skip tracing services in accordance with the approved Business Rules with a process that ensures timely, accurate, and highly confident information for these records and data.

4.3.6 Transition, Migration and Closeout

At the end of the Contract, the Consultant shall take the following actions:

- The Consultant may recover all provided HOVSaaS equipment within sixty (60) days after the end of the Contract.
- The Consultant shall provide DOTD all financial system data, evidence package data and information for all violations then maintained in the HOVSaaS within sixty (60) days after the end of the Contract. The information shall be delivered in the standard Consultant format to DOTD on removable media.

5 PERFORMANCE REQUIREMENTS

DOTD will review the Consultant's performance on a monthly basis, using required reports provided by the Consultant including automated reports generated by the HOVSaaS along with manually generated reports and independent audits. The Consultant shall provide complete and unrestricted access to all data, automated reports, logs, records, and all other data generated by HOVSaaS roadway and roadside elements. The Consultant shall cooperate fully with DOTD in conducting all audits. The Consultant shall meet or exceed the defined Performance Requirements. The Consultant's processes and timelines for measurement of the Performance Requirements shall be thoroughly documented in the design documents and automated and data-driven where possible. The Consultant shall prepare reports that compare actual monthly results to the Performance Requirements and shall submit these reports to DOTD no later than the tenth (10th) day of each month.

Actual performance shall be measured and reported monthly against specific Performance Requirements and time periods in order to assess the Consultant's overall performance. This performance assessment report shall address requirements for all Performance Requirements. The report shall also include a section for corrective measures that clearly define Performance Requirements that were not met along with specific measures that the Consultant will implement to correct each performance deficiency along with a timeline for implementation.

The Consultant shall proactively monitor, track, report, and manage HOVSaaS performance to maintain compliance with the Performance Requirements. The Consultant shall make a good faith

effort to resolve and communicate to DOTD all issues identified and shall provide root cause analysis for system issues impacting operations, accuracy, or that are customer facing, regardless of whether the issue causes the system to be out of compliance with the performance requirements.

If the Consultant can prove to DOTD's reasonable satisfaction that a single event causes the Consultant to fail to meet more than one Performance Requirement, multiple Performance Deductions will not be assessed, but instead the highest Performance Deduction applicable to such event will apply.

All Performance Requirements related to "accuracy" shall be tested with a minimum sample size of 3,000 transactions. All measurements and reporting of Performance Requirements will be rounded to the nearest tenth.

Performance Deduction amounts shown below shall be credited to DOTD by the Consultant monthly whenever the HOVSaaS does not meet the following Performance Requirements.

5.1 System availability
The HOVSaaS shall achieve 99% monthly availability during HOV Lane Hours. This includes all functionality of the HOVSaaS system.
> *Performance Deduction*: $500 for every 1%, or fraction thereof, below 99%.

5.2 Vehicle detection and license plate image capture accuracy during non HOV Lane Hours
The HOVSaaS shall, regardless of registration or occupancy, correctly detect all vehicles, capture images and identify license plate information from legible images of detected vehicles at an overall accuracy rate of 95% outside of HOV Lane Hours.

5.3 Vehicle detection and license plate image capture accuracy during HOV Lane Hours
Measured on a monthly basis, the HOVSaaS shall
   A) capture a human readable image of the vehicle's rear license plate area on 99% of all violations occurring in the HOV Lanes in each segment during HOV Lane Hours;
   B) correctly determine the plate number (including all alphanumeric and special characters, whether inline or stacked), plate issuing jurisdiction, and plate type (including all specialty plate types) for 98% of all violations occurring in the HOV Lane Hours;
   C) record 100% of the captured license plate images and resulting determinations; and
   D) match transaction images and transponders (if used) to create fully formed trips within seven (7) days of the transaction date for 100% of all transactions that qualify for being formed into trips.

License plates are excluded from the 98% determination criteria only when:
   * the vehicle has no license plate;
   * the vehicle has a temporary license plate;
   * the license plate is not in the normal camera field of view because it is not mounted in accordance with state laws;
   * the license plate is covered by dirt, a trailer hitch, tailgate, or some other material such that any plate information is not human readable; or
   * the plate is bent or damaged such that any plate information is not human readable.

Performance Deduction: $500 for every 1%, or fraction thereof, below any one of the A through D requirements above. The Performance Deductions apply to each requirement separately.

5.4   Accurate occupancy verification
The HOVSaaS shall achieve a monthly accuracy of [_____]% [Note: Percentage to be provided from Proposal] in detecting all vehicles in the HOV Lane during HOV Lane Hours that are registered and correctly determining their occupancy as 1, 2, or 3+ people.

5.5   Warning and violation notices accuracy
The HOVSaaS shall produce all warnings and violations notices per the Business Rules accurately and correctly identify the vehicle's HOV registration status and license plates.
   Performance Deduction: $25 for every incorrect warning and violation notice mailed.

5.6   Warning and violation notices timeliness
The HOVSaaS shall prepare and send a warning or notice to all violators within the time required by the Business Rules.

5.7   Returned notices
The HOVSaaS shall log all first violations notices returned as undeliverable, investigate better addressees via a skip tracing service, and re-mail all notices where a different addressee for the vehicle is found within fourteen (14) business days from receipt of returned notice or as otherwise specified by the Business Rules.

5.8   Call efficiency
The HOVSaaS shall connect 80% of monthly telephone calls requesting to speak with an HOVSaaS representative within sixty (60) seconds.

5.9   Time to mail invoices
The HOVSaaS shall mail 100% of violations notices within fifteen (15) business days from month-end for in-state vehicles and within twenty (20) business days of month-end for out of state vehicles or as otherwise specified by the Business Rules.
   Performance Deduction: $100 for every calendar day violation notices are not mailed in accordance with these requirements.

5.10 Financial system performance
The HOVSaaS shall post all payments to its ledger, reflect all such payments in its reports to DOTD, and remit all such payments to DOTD daily within three (3) business days after payment receipt, or as otherwise specified by the Business Rules.

5.11 Reporting
The HOVSaaS shall produce all reports on time as specified and 100% of those reports shall be accurate.

5.12 Time to resolve complaints or escalate to dispute resolution
The HOVSaaS shall notify all motorists of their dispute's resolution within ten (10) business days of when the dispute was first made, or as otherwise specified by the Business Rules.

5.13 User access

The HOVSaaS shall provide for the public to efficiently add, update, or cancel registrations; pay or settle violations; and initiate a dispute.

5.14 Open new HOV accounts

The HOVSaaS shall establish 100% of all new accounts and mail any required items to the customer within three (3) business days of registration requests.

6 PUBLIC OUTREACH AND COMMUNICATION

The Consultant will be responsible for producing and implementing a public outreach, engagement and public awareness plan specifically focused on the development, implementation and on-going operation of an HOV Program. HOV registration requirements will need to be clearly communicated to the traveling public since registration will be required to legally use the lanes during HOV hours of operation. The HOV registration method and program are to be developed by the Consultant. Substantial HOV participation inside the Project is critical to DOTD achieving their overall corridor performance goals. The Consultant will work closely with DOTD in the development and implementation of a public outreach and engagement strategy with the express purpose of explaining how the HOV Lanes will operate and what must be done to register for and legally use the HOV Lanes.

Public outreach and engagement strategies shall also include additional public meetings, the development of FAQs, paid and free media advertisements, website content development, use of social media, etc. The need for public outreach and engagement will not end when the Project is constructed. The need for an on-going HOV registration and maintenance program will facilitate the need for ongoing public outreach and engagement over the duration of the Project. The production, implementation and on-going maintenance of a public outreach and engagement plan specifically focused on the awareness, education and on-going user needs during operations of the HOV program is vital to the ultimate success of the Project.

The Consultant shall be responsible for developing and maintaining a public outreach and communication campaign for the Project. The Consultant will work closely with the DOTD Project Manager to ensure DOTD's expectations are satisfied. The Consultant will ensure that the public is provided information in a timely manner; is notified in advance of potential impacts; has an opportunity to identify issues and recommend solutions; receives timely and appropriate feedback; and perceives a high quality, well-executed communications plan for keeping it informed, engaged, and educated.

The Consultant shall meet the following performance goals during the preparation of design plans and through project implementation and operations:

- Timely response to requests for information by DOTD and public;
- Dissemination of information to the public to effectively engage HOV users and encourage participation; and
- Close coordination of the design and construction activities to assure the ability to provide the public with timely information that allows the public to keep abreast of the Project developments and make travel decisions accordingly.

6.1 Requirements

During the Term of the Contract, the Consultant shall conduct all public outreach and communication activities. The Consultant shall be responsible for the dissemination of all information related to the Project. All publicly disseminated information shall have prior approval of DOTD. DOTD may provide additional guidance and consultation before the dissemination of information to the public at any time.

The Consultant's conduct of public outreach and communication activities shall remain flexible to capture the full magnitude of yet-to-be-determined impacts from construction activities and the public's reaction thereto. The Consultant shall coordinate with DOTD throughout the Project to ensure information is shared in a timely manner and effective resources are allocated to public outreach and communication needs.

The Consultant shall follow the communications protocol coordinated with and approved by DOTD for any communication with the public. The Consultant will act as the lead in disseminating any information to the public, with the approval of DOTD.

The Consultant will provide graphic design support, including updates for PowerPoint presentations, informational flyers, maps, and websites. Additionally, materials for community gatherings, public meetings/public hearings, and other meetings will be required. These materials will include, but are not limited to exhibits, posters, sign-in sheets, PowerPoint presentations, announcements and comment cards.

The Consultant shall lead the public outreach and communication activities on a day-to-day basis through the term of the Contract. The Consultant shall have the following responsibilities:

- Notify DOTD no less than twenty-one (21) days in advance of the start of any construction activity that will impact the general public or motoring public, such as any changes in traffic patterns to the existing transportation facilities, so DOTD may consult in the message development of any communication on the potential impacts of these activities to the general public and adjacent stakeholders;
- Be available to answer questions via telephone, mail, e-mail, social media, or in person during normal business hours. The Consultant shall maintain a log of comments, concerns, and requests, along with the response that is provided;
- Coordinate with DOTD for site visits of the Project at appropriate times and stages;
- Participate, as requested, in on-going dialogue among stakeholders, DOTD, and the Consultant;
- Upon notice to DOTD, attend meetings with key elected officials; the general public; and representatives of civic organizations, businesses, and special interest groups along the Project corridor (individually or in groups), for the purpose of building rapport with affected stakeholders;
- With the approval of DOTD, make presentations to the general public, civic organizations, businesses, and other community and stakeholder groups;
- Provide DOTD with information on Project status, traffic impacts, and other information for communication to key stakeholder groups and the general public through e-mail, texts, and social media;
- Provide supportive information for media inquiries received by the Consultant or DOTD; and,

- Oversee the outreach and communications activities associated with the HOV program.

6.2   Public Meetings

At minimum, one (1) Public Meeting for each parish shall be required for this project to satisfy the requirements of the NEPA process. If additional Public Meetings are required, these shall be added at the discretion of DOTD 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. Public Meetings shall be an open house format to allow walk-in reviews of information and displays throughout the public meeting period.

The Consultant shall advertise the notices of the Public Meetings in newspapers and inform local, state, and federal agencies and officials. The Consultant shall prepare and provide visualizations for public meetings. Visualizations shall include handouts, power-point presentations, and various large-scale exhibits depicting the proposed alternatives, existing right-of-way (ROW), and required ROW. One (1) draft copy of visualizations shall be submitted to DOTD for review and comment. One (1) revision and one (1) final copy of visualizations shall also be submitted. The Consultant shall prepare the exhibits and submit them to DOTD for approval at least one (1) month prior to the public meeting dates.

The Consultant shall conduct the public meetings 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, during recess, and after the meetings. The Consultant shall prepare a transcript of each of the public meetings, including a verbatim transcript of recoded statements, copies of meeting materials, and sign-in sheets. A copy of the transcript will be provided for approval before distribution. A paper copy of the meeting transcripts shall be submitted as well as a copy in electronic (PDF) format on a labeled CD.

6.3   Monthly Public Outreach and Communication Reporting

Upon approval from DOTD, the Consultant shall provide a monthly Public Outreach and Communication Report to DOTD and stakeholders, including, but not limited to: educational institutions, religious organizations, state legislators, military officials, and transportation network companies. The Public Outreach and Communication Report shall detail the following information regarding subjects of interest to the public, including, but not limited to:
- Construction and maintenance issues affecting adjacent residential areas, frontage roads, and utilities, including such issues as lane closures and traffic shifts (changes in any use of existing traffic); and
- HOV registration information, program updates or changes, inquiries and questions.

6.4   Public Information

The Consultant shall prepare informational materials regarding Project-related subjects for DOTD's review and use in all outreach activities. This information shall be used for, but not be limited to meetings, news releases, telephone correspondence, newsletters, e-mail, changeable message board signs, web alerts, social media, maps, displays, renderings, presentations, brochures, and pamphlets.

The Consultant shall take the lead in establishing, managing and regularly updating Project-related information for the Project website. DOTD will have review and editorial privileges over the website. Project-related information includes, but is not limited to the following:

- Project maps;
- Frequently Asked Questions (FAQs);
- Written descriptions of the design and construction work suitable for use in technical and non-technical articles;
- Graphic layout drawings that show the Project;
- Photographs that show the key entry zones and signs for the Project;
- Project briefings and site tours as requested by the Department; and
- HOV registration and enforcement program instructions and other user information.

The Consultant, working collaboratively with DOTD, shall furnish materials in English and Spanish communications as directed by DOTD.

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 design and operation of transportation management systems as required for the project. ~~At least one (1) principal of the prime consultant must be a professional engineer registered in the state of Louisiana.~~

2. At least one (1) principal or responsible member of the prime consultant shall have a minimum of five (5) years of experience in responsible charge of design and operation of transportation systems for managed lanes. ~~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 other responsible member of the prime consultant or sub-consultant shall be a professional ~~civil~~ engineer, registered in the state of Louisiana, with a minimum of five (5) years of experience as a professional engineer in responsible charge of ~~transportation projects~~ electrical and communications for ITS roadside equipment.

4. **Project Manager**: Shall lead the Consultant's efforts and be responsible for overall design, construction, operation, maintenance, and contract administration on behalf of the Consultant. The Project Manager must have a minimum of ten years of experience in management of projects of a similar scope, nature, and complexity as this Project.

5. **Installation Manager**: Responsible for ensuring that the Project is constructed in accordance with the Project requirements. The Installation Manager must have a minimum of five (5) years of experience in managing installation and testing for projects of a similar scope, nature and complexity as this Project.

6. **Delivery Manager**: The Delivery Manager must have a minimum of five (5) years of experience delivering similar turnkey software solutions and a minimum of three (3) years of this experience in delivering projects of similar size and complexity for public agencies.

7. **Operations Manager**: Examples of experience could include coordinating hiring and training of personnel and services, oversight of equipment monitoring and maintenance, license plate lookup, invoicing, payment processing, collections, system security and supporting related audits, producing monthly reports and supporting financial audits, court package preparation, and office of motor vehicle interaction. The Operations Manager must have a minimum of five (5) years of operations management experience in a supervisory role and a minimum of three (3) years of experience in providing comparable services for projects of similar size and complexity

8. **Public Information Manager**: The Public Information Manager is responsible for developing a communications plan and managing the public outreach and communication activities on a day-to-day basis. The Public Information Manager must have a minimum five (5) years of experience in public and media relations management on projects of similar size, type, and scope.

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 if that individual is a member of the prime consultant.

MPR Nos. 5 through 8 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.

ATTACHMENT C
DRAFT BUSINESS RULES

TABLE OF CONTENTS

Appendix A: Business Process Diagrams

1   ABBREVIATIONS, TERMS AND DEFINITIONS

The tables below include a listing of abbreviations and defined terms applicable to this document.

TABLE A
ABBREVIATIONS

Abbreviation	Term
AGO or AG	Attorney General's Office (see below for definition)
App	Application (smartphone based)
ALPR	Automatic License Plate Recognition
DL	Driver's License
DMV	Department of Motor Vehicles
FAT	Factory Acceptance Test
GP	General Purpose (lane(s))
GUI	Graphical User Interface
HOV	High-Occupancy Vehicle
HOVSaaS	HOV Solution as a Service
IVR	Integrated Voice Response
KPI	Key Performance Indicator (see below for definition)
LADOTD (DOTD or Department)	Louisiana Department of Transportation and Development
L.R.S.	Louisiana Revised Statute
OCR	Optical Character Recognition (see below for definition)
OMV	LADOTD's Office of Motor Vehicle
OOS	Out-of-State (license plate)
RTM	Requirements Traceability Matrix
SAT	System Acceptance Test
SOP	Standard Operating Procedure
SOV	Single-Occupancy Vehicle
VR	Vehicle Registration

TABLE B
DEFINITIONS

Term (Abbreviation)	Definition
Administrative (Admin) Fee	A fee added to a Violation Notice to recover the cost of collecting the Penalty(ies) related to the Violation(s). See also L.R.S. 47:820.5.9.
Appeal	The act of, or status related to, disputing the determination of and/or the assignment of responsibility for a HOV Lane Violation.
Attorney General's Office (AGO or AG)	State of Louisiana entity (often also referred to as the Office of Attorney General) responsible to collect debt owed to the state as defined by legislation. See also L.R.S. 47:1676.
Authorized User	An individual authorized to access and utilize a system. The user's access and utilization are determined by proper login credentials and assigned role(s).
Block	Action taken to prevent the renewal of a driver's license and/or a vehicle registration.
Business Rules	The set of rules that govern how systems and personnel function and operate, especially in response to various operating situations, based on business cases and approved policies.
GP Lane	Any travel lane within the project limits that does not have any usage restrictions.
Electronic Mail	A message, file, or other information that is transmitted through a local, regional, or global computer network. See also L.R.S. 47:820.5.9.
Eligible Vehicle	Vehicle type allowed by DOTD to be registered on an HOV account (i.e., a vehicle allowed to become a Registered HOV).

Term (Abbreviation)	Definition
Frequent Violator	A Registered Owner who has excessive outstanding (unpaid or unresolved) Violations. See also L.R.S. 32:57.3 and L.R.S. 47:820.5.9.
HOV Lane	Any travel lane within the project limits with usage restrictions, specifically based in part on vehicle occupancy.
HOV Lane Hours	The time during which the HOV Lane's usage restrictions are in effect.
HOV Monitoring System	The HOVSaaS equipment installed for use with a designated HOV Lane to automatically produce transaction records for use in the enforcement of HOV Lane utilization requirements. See also L.R.S. 47:820.5.9.
HOV Lane Violation (Violation)	Use of the HOV Lane by a vehicle in a manner not authorized, specifically: Lane Use Violation is when the HOV Lane is closed, or Occupancy Violation is when the HOV Lane is open but the vehicle is not a Qualified HOV. See also L.R.S. 47:820.5.9.
Image Review	A manual and/or automated process that involves reviewing a set of images associated with a vehicle's transaction record in order to determine License Plate Data associated with the vehicle.
Key Performance Indicator (KPI)	Measure or metric used to define and evaluate how successful one or more elements of the system and/or operational areas of the project are performing.
Lane Use Violation	A type of HOV Lane Violation. See HOV Lane Violation definition above.
Late Fee	A fee related to a past due Violation Notice to cover additional costs of collection of the penalty(ies) related to the Violation(s). See also L.R.S. 47:820.5.9.

Term (Abbreviation)	Definition
License Plate Data	Information related to a specific license plate which can be derived from a legible image of the license plate, including the license plate's issuing jurisdiction (e.g., state), alphanumeric characters, and plate type used for the purpose of vehicle owner identification.
Occupancy Violation	A type of HOV Lane Violation. See HOV Lane Violation definition above.
Optical Character Recognition (OCR)	Technology that allows for the processing and converting of alphanumeric information captured in an image to text (specifically for this project, technology that attempts to automatically determine License Plate Data without human review using a captured image, or set of images, of a license plate).
Properly Permitted	Refers to a vehicle which is a Registered HOV on an HOV account that is not suspended whose occupancy during travel in an open HOV Lane is verified and compliant with requirements. See also L.R.S. 47:820.5.9.
Qualified HOV	A motorcycle (with 2 or 3 wheels) or a Properly Permitted vehicle (if not a motorcycle) that meets all requirements for use of the HOV Lane. See also L.R.S. 47:820.5.9.
Reconciliation	The process of comparing two or more sets of data records, typically from different systems, to check that that the individual data sets are complete and in agreement.
Registered HOV	A vehicle whose license plate has been assigned to an established HOV account.
Registered HOV User	A person whose name is assigned to an established HOV account.
Registered Owner	The person whose name a vehicle is registered under law of jurisdiction, including a person issued a dealer or transporter registration plate or a lessor of motor vehicles for public lease. See also L.R.S. 47:820.5.9.

Term (Abbreviation)	Definition
Skip Tracing	A manual and/or automated process that involves using 3rd party services in order to obtain a more up-to-date mailing address.
Suspension Message	A message sent to Registered HOV Users via the App informing them that their account has been suspended.
Trip Building	A manual and/or automated process that involves constructing a single transaction record representing a vehicle's entire one-way trip in the HOV Lane from one or more individual transactional data records generated by the HOV Monitoring System during that trip.
User Agreement	The agreement between DOTD and each Registered HOV User for the use of their HOV account.
Violation Fine (Fine) or Violation Penalty (Penalty)	A fine/penalty related to a Violation. See also L.R.S. 47:820.5.9.
Violation Notice (Notice)	An invoice mailed to HOV Lane users requesting payment related to a detected Violation the system associated with them.
Violator	The individual responsible for a vehicle's use of the HOV Lane when the vehicle was not a Qualified HOV.
Warning Letter	A letter mailed during the early stages of the Violations workflow to HOV Lane users informing them that the system posted a detected Violation.
Warning Message	A message sent during the early stages of the Violations workflow to Registered HOV Users via the App informing them that the system posted a detected Violation to their HOV account.

2 DRAFT BUSINESS RULES

This document contains the project's Business Rules, which establish the framework for the design and implementation of the system functionality and operational procedures. This document is intended to be a living document that gets updated if and when the project's business needs become further defined or change. Appendix A to this document serves as a supplement intended to help explain and define the business rules.

Note also that any value in brackets ("**[ ]**") shall be considered and treated as a configurable parameter that can be changed at no additional costs at the sole discretion of DOTD throughout the term of this contract.

2.1 General

BR1.1   The HOVSaaS shall allow for HOV account establishment, registration, and utilization through a smartphone mobile application (App) usable on any smartphone with the Apple, Android, or Windows operating system, at a minimum.

BR1.2   Under normal operating conditions, the HOV Lane Hours shall be **[**6:00 a.m.**]** to **[**9:00 a.m.**]** and **[**3:00 p.m.**]** to **[**7:00 p.m.**]** Monday through Friday for both directions of travel. In the HOVSaaS system, the HOV Lane Hours shall be based on a configurable parameter(s), which will allow for easy change from time to time via a written directive issued by DOTD with at least ten (10) business days advanced notice to the Consultant.

BR1.3   The HOVSaaS shall determine and electronically record every vehicle traveling in the HOV Lanes during HOV Lane Hours as either a Qualified HOV or a Violation, as specified herein.

BR1.4   The HOVSaaS shall electronically record every vehicle traveling in the HOV Lanes outside of HOV Lane Hours as a Violation, as specified herein.

BR1.5   The call center shall be staffed and operated to receive calls each weekday (Monday through Friday) during the hours of 8:00 am to 5:00 pm Central Time, except on days that are Louisiana state holidays.

BR1.6   The IVR shall allow customers to perform self-service using the phone system 24/7/365, except for periods of scheduled maintenance.

2.2 HOV Account Establishment, Registration and Utilization

BR2.1   The HOVSaaS shall allow HOV accounts to be established via the App.

BR2.2   The HOV account establishment process shall require the user to provide:
- name
- address
- phone number
- confirmed email address
- acknowledgement of agreement with User Agreement

BR2.3   The HOVSaaS shall allow Registered HOV Users to add (register) Eligible Vehicles to their active HOV accounts via the App.

BR2.4   Only 2-axle passenger vehicles and motorcycles (with 2 or 3 wheels) are Eligible Vehicles which are allowed to be registered on an active HOV account.

BR2.5   For each vehicle the Registered User wants to register, the registration process shall require the Registered User to provide:
- vehicle type (e.g., passenger vehicle, motorcycle, etc.)
- License Plate Data
- end date, if vehicle registration is desired to be temporary/time-limited

BR2.6   Motorcycles shall not have any occupancy requirement but shall be required to be a Registered HOV in order to be considered as a Qualified HOV when using the HOV Lane.

BR2.7   Passenger vehicles shall be required to be a Registered HOV and shall have [2] or more occupants in order to be considered as a Qualified HOV. In the HOVSaaS system, the number of vehicle occupants required to be considered as a Qualified HOV shall be based on a configurable parameter(s) which will allow for easy change from time to time via a written directive issued by DOTD with at least thirty (30) days advanced notice to the Consultant.

2.3   Image Review

BR3.1   Image Review shall be based on a double-blind workflow that requires two (2) independent reviews to confirm the accuracy of the determined License Plate Data. License Plate Data determined through the use of OCR and/or ALPR automation above an agreed upon confidence level can be considered as an independent review.

BR3.2   The License Plate Data shall include the license plate's issuing jurisdiction (e.g., state) and alphanumeric characters. The License Plate Data shall also include the license plate's plate type for issuing jurisdictions that require plate type information in order to definitively identify Registered Owners.

BR3.3   The Image Review process shall utilize specific reasons for rejecting (i.e., coding-off) image(s) related to a single transaction record which shall include:
- camera issue, due to reasons that include:
  - camera alignment or image capture triggering
  - lighting, including too dark or glare
  - camera focus
  - multiple vehicles and plates in image(s)

- non-camera issue, due to reasons that include:
  - no plate mounted on vehicle
  - damaged or obscured/blocked plate and/or characters
  - plate legible but jurisdiction and/or plate type not identifiable

2.4 Trip Building

BR4.1 The HOVSaaS shall perform trip-building by generating a single transaction record for each detected vehicle in the HOV Lane representing the vehicle's entire one-way trip in the HOV Lane from one or more individual transactional data records generated by the HOV Monitoring System from one or more HOV Lane segments during that trip.

BR4.2 Under normal operating conditions, consecutive individual transaction data records generated by the HOV Monitoring System for the same vehicle from one or more HOV Lane segments that are separated by more than [30 minutes] shall not be combined into the same single trip transaction record. In the HOVSaaS system, this quantity shall be a configurable parameter which will allow for easy change from time to time via a written directive issued by DOTD with at least ten (10) business days advanced notice to the Consultant.

2.5 Violations

BR5.1 When the HOVSaaS generates a transaction record for a vehicle using any HOV Lane outside of the respective HOV Lane Hour(s), the HOVSaaS shall consider the transaction to be a Lane Use Violation.

BR5.2 When the HOVSaaS generates a transaction record for a vehicle using any HOV Lane during the respective HOV Lane Hour(s) that is not a Qualified HOV, the HOVSaaS shall consider the transaction to be an Occupancy Violation.

BR5.3 The HOVSaaS shall post Violations associated with an active Registered HOV on the associated HOV account, however, the HOVSaaS shall not post Violations to a closed HOV account.

BR5.4 Until an HOV account is suspended, the account's Registered HOV User shall have probationary status during which the HOVSaaS shall send a Warning Message to the Registered HOV User via the App for each posted Violation.

BR5.5 On [___] undisputed violation notices posted to an HOV account, the HOVSaaS shall suspend the HOV account and send a Suspension Message to the Registered HOV User via the App. In the HOVSaaS system, this quantity shall be a configurable parameter which will allow for easy change from time to time via a written directive issued by DOTD with at least ten (10) business days advanced notice to the Consultant.

BR5.6　　A suspended HOV account shall continue to allow Violations to post and payments to be made but shall not allow additional Eligible Vehicles to be registered until the suspension is removed.

BR5.7　　Each Warning Message and each Suspension Message shall include the following, at a minimum:
- identifying information for the vehicle involved
- the date and approximate time of the HOV violation
- identifying information for the vehicle's trip
- instructions on how the posted violation can be disputed

BR5.8　　Each Warning Message and each Suspension Message shall be recorded/archived in the system for customer service and reporting purposes.

BR5.9　　For any Violation not related to any license plate from Louisiana, the HOVSaaS shall not allow the Violation to result in the generation of Warning Letter or Violation Notices until the license plate accumulates [__] Violations within [___] days.

BR5.10　Unless otherwise directed by DOTD to suspend Warning Letter generation, the HOVSaaS shall generate and mail a Warning Letter to the vehicle's Registered Owner for any Violation by any vehicle not Properly Permitted.

BR5.11　Unless otherwise directed by DOTD to suspend Warning Letter generation, the HOVSaaS shall generate and mail a Warning Letter to the vehicle's Registered Owner for any Lane Use Violation within [__] business days.

BR5.12　Each Warning Letter shall include the following, at a minimum:
- name and address of the person alleged to be liable as the Registered Owner
- identifying information for the vehicle involved
- the date and approximate time of the HOV Violation
- identifying information for the vehicle's trip
- instructions on how the posted Violation(s) can be disputed, including an Electronic Mail address and physical or post office box mailing address to which an appeal may be sent

BR5.13　After issuing [__] Warning Letters for a specific license plate associated with the same Registered Owner that continues to generate Lane Use Violations, the HOVSaaS shall qualify the license plate to begin receiving first Violation Notices.

BR5.14　After issuing [__] Warning Letters for a specific license plate associated with the same Registered Owner that continues to generate Occupancy Violations, the HOVSaaS shall qualify the license plate to begin receiving first Violation Notices.

BR5.15   After a license plate qualifies to begin receiving first Violation Notices, unless directed otherwise by DOTD to suspend Violation generation, the HOVSaaS shall generate and electronically notify Registered HOV Users of the Occupancy Violations (Violation Penalties without Administrative Fee) and allow users to pay amounts due within **[   ]** days before mailing a First Violation Notice with the related Violations of each such license plate after **[__]** days from the date of the electronic notification. Violation Notices will include the Violation Penalty and Administrative Fee.

BR5.16   After a license plate qualifies to begin receiving first Violation Notices for all other users (non-Registered HOV Users), unless directed otherwise by DOTD to suspend Violation generation, the HOVSaaS shall generate and mail a First Violation Notice with the related Occupancy Violations of each such license plate after **[__]** days.

BR5.17   After a license plate qualifies to begin receiving first Violation Notices after Warning Letter for Lane Use Violation, unless directed otherwise by DOTD to suspend Violation generation, the HOVSaaS shall generate and mail a First Violation Notice with the related Lane Use Violations of each such license plate after **[__]** days.

BR5.18   Unless directed otherwise by DOTD to suspend Violation escalation, if a first Violation Notice is not paid or appealed within thirty (30) days of issuance, the HOVSaaS shall escalate the notice resulting in the generation and mailing of a second Violation Notice that includes a Late Charge (see below).

BR5.19   Each Violation Notice shall include the following, at a minimum:
- name and address of the person alleged to be liable as the Registered Owner
- the amount to be paid, including penalty(ies)/fine(s) and fee(s) (see below) and the due date (thirty (30) days from issuance)
- identifying information for the vehicle involved
- the date and approximate time of each HOV Violation
- identifying information for each vehicle trip
- for first Violation Notices, instructions on how the posted Violation(s) can be disputed, including an Electronic Mail address and physical or post office box mailing address to which an appeal may be sent
- warning about consequences of non-payment or, for first Violation Notices, not appealing

BR5.20   After accumulating **[__]** unpaid Violation Notices for a specific license plate associated with the same Registered Owner, the HOVSaaS shall qualify the license plate as having a Frequent Violator Status. Unless directed otherwise by DOTD to suspend generation, the HOVSaaS shall generate and mail a Frequent Violator Status Notice for each such license plate.

BR5.21   Each Frequent Violator Status Notice shall include the following, at a minimum:

- name and address of the person alleged to be liable as the Registered Owner
- the amount to be paid, including penalty(ies)/fine(s) and fee(s) (see below) and the due date (sixty (60) days from issuance)
- identifying information for the vehicle involved
- instructions on how the status can be disputed, including an Electronic Mail address and physical or post office box mailing address to which an appeal may be sent
- warning about consequences of non-payment or not appealing

BR5.22 The HOVSaaS shall send any correspondence related to a violation (e.g., Warning Letter, Violation Notice, etc.) to be mailed via USPS first-class mail to the vehicle's Registered Owner at the address shown in the respective jurisdiction's DMV/OMV records or other such address as may be provided by the Registered Owner or determined through other reliable means.

BR5.23 DOTD will establish all fees and fines and the corresponding amounts. The Consultant shall not add any additional fees or charges on any Notice or Warning. The HOVSaaS shall support the following fees and penalties/fines base on configurable parameters which will allow for easy change from time to time via a written directive issued by DOTD with at least ten (10) business days of advanced notice to the Consultant prior to their mailing:

1. Warning Messages: None

2. HOV Account Suspension Message: None

3. Warning Letter: None

4. First Violation Notice:

   a. Violation Penalty (up to $[100] per Violation)

      i. $[___] per Violation for the first [____] Violations

      ii. $[___] per Violation for the next [____] Violations

      iii. $[___] per Violation for subsequent [____] Violations

   There will be different Violation Penalty amounts for Lane Use and Occupancy Violations, as determined by DOTD.

   b. Administrative Fee: $[25] per Notice mailed

5. Second Violation Notice:

   Late Fee: $[5] per Notice mailed

6. Frequent Violator Status Notice:

    a. Additional Violation Penalty: $**[___]** per Violation

    b. Additional Administrative Fee: $**[___]** per Notice

    c. Additional Late Charge fee: $**[___]** per Notice

DOTD will establish Violation Penalty amounts to offset some of the operating, maintenance and future capital costs of the HOV Lane operations.

BR5.24   To address incident management and other ad-hoc/non-normal operating conditions and uses of the HOV Lanes that DOTD may allow from time to time, the HOVSaaS shall completely reverse any Violations or suspend escalating Violations that occur during any time period based on a configurable parameter(s) which will allow for easy change via a written directive issued by DOTD. DOTD may issue these types of directives in advance or retroactively provided they are received by the Consultant no later than seventy-two (72) hours after the time period began.

BR5.25   The HOVSaaS shall suspend all Violation generation and/or mailings based on a configurable parameter(s) which will allow for easy change via a written directive at any time by DOTD to suspend Violations with at least twenty-four (24) hours advance notice to the Consultant. DOTD will provide a written directive stating when to resume generating and/or mailing Violations giving the Consultant at least seventy-two (72) hours to resume.

BR5.26   The HOVSaaS shall receive and process, at a minimum, cash, checks, money orders, credit cards, and debit cards; apply these monies against the corresponding Violations Notices in its ledger; remit these monies to DOTD within three (3) business days; and record this remittance in its ledger.

BR5.27   The HOVSaaS shall return any overpayment or other refund within three (3) business days.

BR5.28   The HOVSaaS shall log all Warning Letters and Violations Notices returned as undeliverable, investigate better addresses via a skip tracing service, and re-mail all Letters and Notices where a different address for the Registered Owner is found.

2.6   Appeals

BR6.1   The HOVSaaS shall provide for the public to register an appeal in writing to dispute any first Violation Notice of theirs within thirty (30) days of the notice date.

BR6.2   The HOVSaaS shall suspend the aging of the first Violation Notice if and when an appeal to dispute is registered.

BR6.3   If the registered appeal to dispute the first Violation Notice includes a request for a hearing, the Consultant shall, within thirty (30) days, notify the Registered Owner of the date, time, and place of the hearing in writing by first-class mail.

BR6.4   If the registered appeal to dispute the first Violation Notice does not include a request for a hearing, the Consultant shall, within sixty (60) days, notify the Registered Owner of the disposition in writing by regular mail or Electronic Mail.

BR6.5   The HOVSaaS shall resume the aging of the first Violation Notice if and when an appeal to dispute is dismissed.

BR6.6   The HOVSaaS shall provide for the public to register an appeal in writing to dispute any Frequent Violator Status Notice of theirs within thirty (30) days of the notice date.

BR6.7   The HOVSaaS shall suspend the aging of the Violation Notice(s) related to the disputed Frequent Violator Status Notice if and when an appeal to dispute is registered.

BR6.8   If the registered appeal to dispute the Violation Notice(s) related to the Frequent Violator Status includes a request for a hearing, the Consultant shall, within thirty (30) days, notify the Registered Owner of the date, time and place of the hearing in writing by first-class mail. The Consultant shall also ensure that the Administrative Procedure Act applies.

BR6.9   If the registered appeal to dispute the Violation Notice(s) related to the Frequent Violator Status does not include a request for a hearing, the Consultant shall, within sixty (60) days, notify the Registered Owner of the disposition in writing by regular mail or Electronic Mail.

BR6.10   The HOVSaaS shall resume the aging of the Violation Notice(s) related to the Frequent Violator Status if and when an appeal to dispute is dismissed.

2.7   Collections and AGO

BR7.1   If and when directed by DOTD, the HOVSaaS shall prepare and send an electronic file to the State's Attorney General Office (AGO), in conformance with the AGO's requirements and specifications, suitable for further collections efforts against those Violators who have not paid within thirty (30) days of when their second Violation Notice was issued and who do not qualify as having Frequent Violator Status.

2.8 VR and DL Renewal Blocks

BR8.1 Unless directed otherwise by DOTD to suspend Violation escalation, the HOVSaaS shall prepare and send an electronic file to the Office of Motor Vehicles (OMV), in conformance with the OMV's requirements and specifications, suitable for requesting OMV to block vehicle registration and/or driver's license renewals for those Frequent Violators who have not paid their outstanding undisputed Violations within sixty (60) days of when their Frequent Violation Status Notice was issued. The file shall include a driver's license renewal block for Frequent Violators who have a Louisiana address and a vehicle registration renewal block for vehicles of Frequent Violators that are registered in Louisiana.
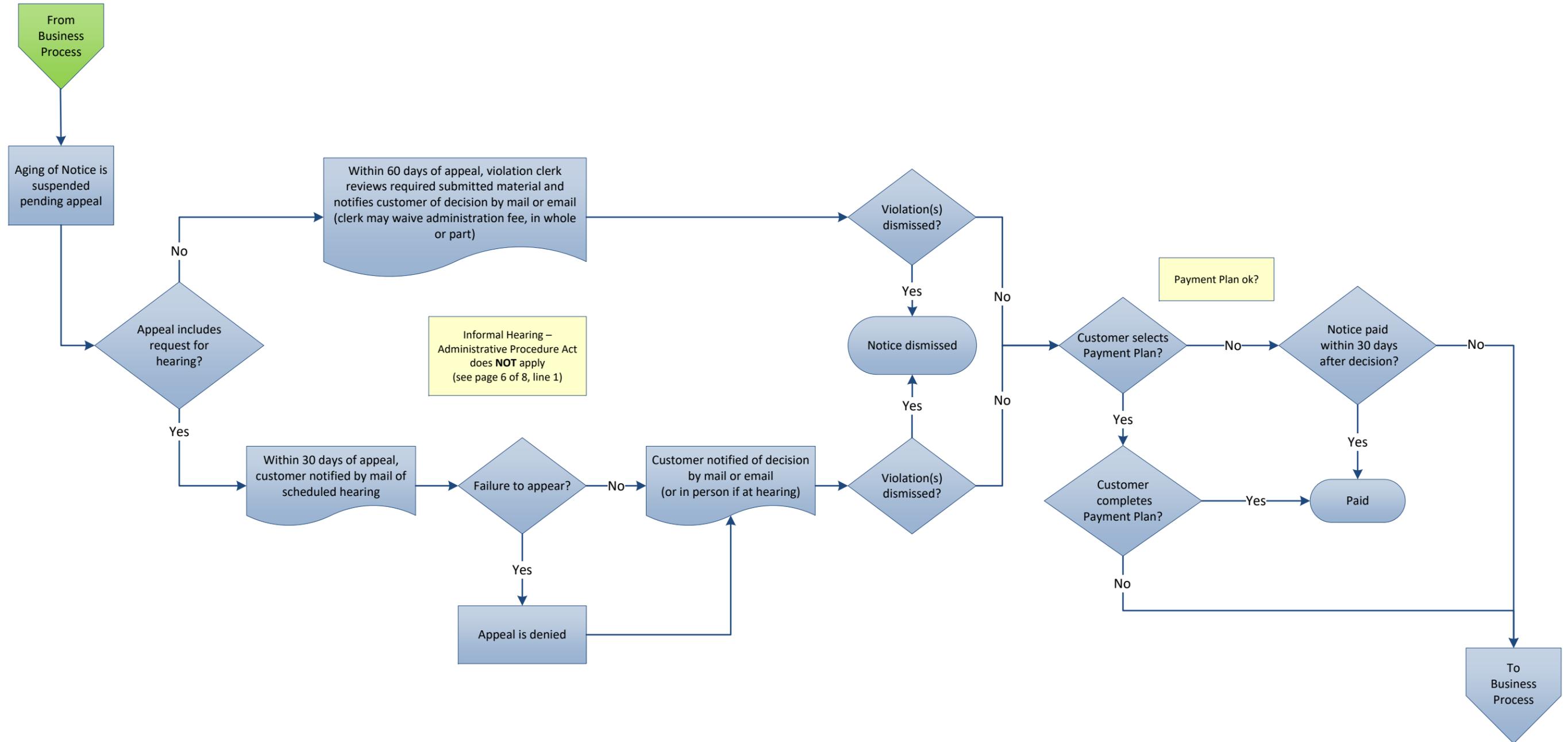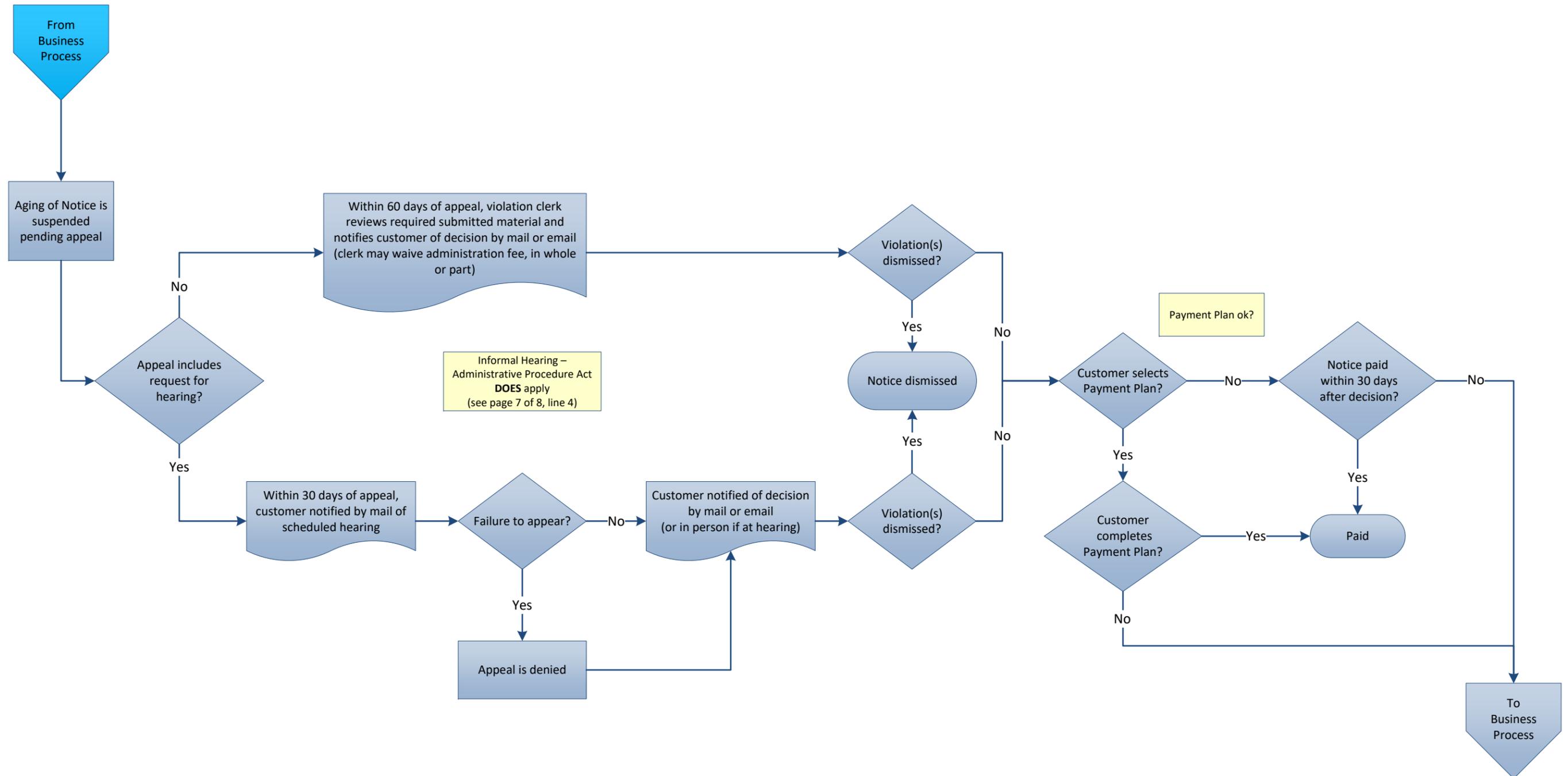
APPENDIX A
BUSINESS PROCESS DIAGRAMS

Business Process - Draft (SUBJECT TO CHANGE) (11/06/21)
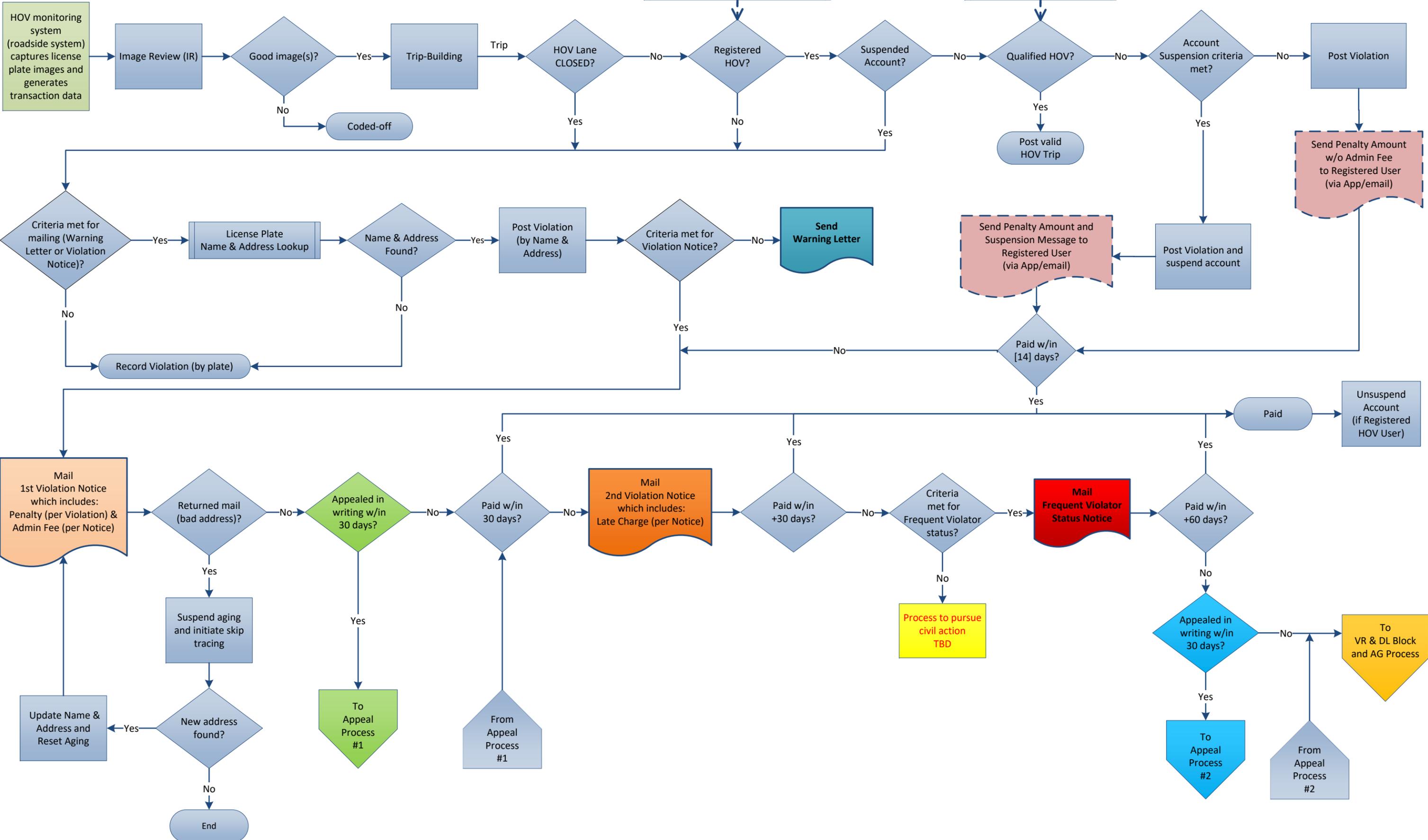
Appeal Process #1 - Draft (11/06/21)

Appeal Process #2 - Draft (11/06/21)

Vehicle Registration & Drivers License Renewal Block and Attorney General Process: Draft (11/06/21)

**Final process TBD
based on coordination between
DOTD, AG and OMV**

From Business Process

LA license plate?
— No
— Yes →

**Send OMV
Vehicle Registration (VR)
renewal Block request**

LA address?
— No →
— Yes

**Receive confirmation of
Block(s) from OMV and
update Violation status**

**OMV sends
Notice of Block(s)
with Reinstatement Fee**

LA address?
— Yes →
— No

**Send OMV
Driver's License (DL)
renewal Block request**

**Send to AG
(for collections)**

Paid?
— Yes →
— No

**AG releases
Block(s),
if appliable**

**AG sends
status update**

Paid

**Block(s) continue(s),
if appliable,
and AG may continue
to pursue**