

Concept of Operations for Neptune Road ITS

Neptune Road PD&E

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List of Acronyms and Abbreviations

APL	Approved Products List
ATIS	Advanced Traveler Information Systems
ATMS	Advanced Traffic Management System
ATSPM.....	Automated Traffic Signal Performance Measures
CCTV	Closed-Circuit Television
ConOps	Concept of Operations
DMS	Dynamic Message Sign
FDOT	Florida Department of Transportation
GUI.....	Graphical User Interface
ITS.....	Intelligent Transportation System
NTCIP	National Transportation Communications for ITS Protocol
O&M	Operations and Maintenance
PD&E	Project Development & Environmental
PITSA.....	Project Intelligent Transportation System (ITS) Architecture
PSEMP	Project Systems Engineering Management Plan
RITSA	Regional Intelligent Transportation System (ITS) Architecture
RTMC.....	Regional Transportation Management Center
SEMP	(Florida’s Statewide) Systems Engineering Management Plan
TERL.....	Traffic Engineering Research Lab
TMC	Traffic Management Center
TSM&O.....	Transportation Systems Management & Operations
TSP	Transit Signal Priority

1. Overview

1.1 Identification

This document establishes the Concept of Operations (ConOps) for the Intelligent Transportation System (ITS) proposed as part of the Neptune Road Widening Project in Osceola County, Florida. The project proposes employing Transportation Systems Management and Operations (TSM&O) strategies and deploying ITS devices along Neptune Road, from Partin Settlement Road to US Route 192/E Irlo Bronson Memorial Highway (US 192). This project is included as part of the Project Development & Environmental (PD&E) currently underway for the roadway widening project.

This ConOps describes the needs and goals associated with deploying and integrating field components that will establish an ITS which includes Closed-circuit Television (CCTV) Cameras, Bluetooth readers, and other devices. The device type and proposed locations of the ITS components used to facilitate traffic management will be summarized in the sections that follow, once consensus is reached by project stakeholders. Any existing and proposed systems related to ITS, traffic signals, and other transportation management components are discussed.

The ITS components of this project are in the preliminary planning stages and will require input and approval from the County Traffic Engineer and District TSM&O Engineer. Additionally, the stakeholders that will have an operational interest in the system will define various roles and responsibilities as the project progresses. Therefore, this ConOps is a living document that will aid in building consensus with the project stakeholders.

1.2 Document Overview

The ConOps summarizes the proposed goals and intended use of the proposed system in a non-technical manner. This document specifically describes the ITS and signal system components that are currently in place, being proposed for future use, or could be considered for future enhancement along the project corridor. The intended audience for this document includes agencies with roles throughout the project cycle, from developing to maintaining the system. Agencies include the following, but are not limited to:

- Florida Department of Transportation (FDOT) District Five
- Osceola County
- City of Kissimmee

This document is organized as follows:

- Section 1 – Overview
- Section 2 – Referenced Documentation
- Section 3 – Current System Situation
- Section 4 – Justification and Nature of the Changes
- Section 5 – Concepts for the Proposed System
- Section 6 – Operational Scenarios

- Section 7 – Summary of Impacts
- Section 8 – Analysis of the Proposed System
- Section 9 – Notes

This ConOps has been developed with consideration of any existing reports, planning documentation, and existing operational protocols in place for traffic congestion management within Osceola County. The development of this ConOps for the Neptune Road ITS in Osceola County was developed in accordance with guidelines and information presented on the FDOT's Systems Engineering Management Plan (SEMP) website, which can be found at the following link: <https://www.fdot.gov/traffic/its/projects-deploy/sempr.shtm>

This ConOps is a living document and will be updated once all stakeholder involved have reached a consensus on project components and requirements.

1.3 System Overview

1.3.1 Traffic Management Center

The staff at the Osceola County Traffic Management Center (TMC) control traffic signals under the jurisdiction of both Osceola County and the City of Kissimmee. The TMC is also responsible for the continuous operation of all ITS equipment located throughout Osceola County and the City of Kissimmee. This facility operates out of the County Emergency Operations Center located at 2586 Partin Settlement Road Kissimmee, FL 34744.

The TMC is not only tasked with monitoring traffic but also provides Osceola County with accurate traveler information through different avenues using ITS devices such as Dynamic Message Signs (DMS).

1.3.2 Proposed System

This ITS project will leverage the benefits of the existing transportation management system. The following device types are recommended for deployment as part of this project:

- Upgraded cabinets and controllers
- CCTV Cameras
- Bluetooth Travel Time
- Dynamic Message Signs (DMS)
- Automated Traffic Signal Performance Measures (ATSPM)
- Vehicle Detection
- Fiber Optic Network

Additional ITS technologies and TSM&O strategies may be employed as part of this project based on input from the County Traffic Engineer and District TSM&O Engineer. Additionally, the various stakeholders that will have an operational interest in the system may propose ITS technologies as the project progresses.

1.3.2.1 Project Sponsors

Project sponsors are agencies that will be the primary contributors to defining the system objectives, requirements, and goals of this project. The project sponsors, who are involved in funding the systems capital and/or Operations and Maintenance (O&M) costs, include both FDOT District Five and Osceola County.

The project is in the preliminary planning stages and will require input and approval from the County Traffic Engineer and District TSM&O Engineer. Additionally, the various stakeholders that will have an operational interest in the system will define project sponsor roles and responsibilities. Therefore, this ConOps will be updated once the project stakeholders reach consensus.

1.3.2.2 User Agencies

User agencies are any parties that have the potential to utilize the devices, systems and infrastructure installed under this project for traffic monitoring, performance measures, or data collection. The user agencies currently identified include, but are not limited to, the following:

- Florida Department of Transportation (FDOT) District Five
- Osceola County
- City of Kissimmee
- Public Safety Agencies

2. Referenced Documentation

This section lists the publisher, document identification number, title, revision, and date of all documentation referenced in this ConOps document. A contact is provided for all documents not available through normal channels.

Table 1: Reference Documentation

Document Title	Date	Contact
FDOT ConOps Template	June 2018	Christine Shafik Christine.Shafik@dot.state.fl.us
Project Traffic Analysis Report (PTAR) Neptune Road PD&E	May 2019	Clif Tate Clif.Tate@kimley-horn.com
Osceola County Comprehensive Plan 2025	August 2010	N/A

3. Current System Situation

Osceola County has deployed systems that allow them to manage the arterial roadway network within their jurisdiction. Throughout the county, signalized intersections are equipped with CCTV cameras for monitoring; Vehicle Detection System for speed, volume and occupancy data; and Bluetooth devices for travel time measurement.

As shown in Figure 1, there are currently five signalized intersections along the project corridor:

1. Neptune Road and Partin Settlement Road
2. Neptune Road and Cross Prairie/Shady Lane
3. Neptune Road and Tohoqua Boulevard/Middle School
4. Neptune Road and Old Canoe Creek Road
5. Neptune Road and US 192

The County currently uses the advanced traffic management systems (ATMS) Centrac[®] to operate and monitor the signals within their jurisdiction. The intersection of Neptune Road and Tohoqua Boulevard/Middle School is the only location on the County communications network and monitored at the TMC.

Additional systems that are in place on the County arterials are owned, operated, and maintained by FDOT District Five. Systems in place or currently under construction include Transit Signal Priority (TSP), fiber optic backbone cables, and other supporting infrastructure. These existing systems provide the outcomes that they are designed and intended to deliver, however the opportunity to expand and connect these systems to provide a more comprehensive approach to traffic management will be made available by the proposed Neptune Road ITS project.

Concept of Operations for Neptune Road ITS

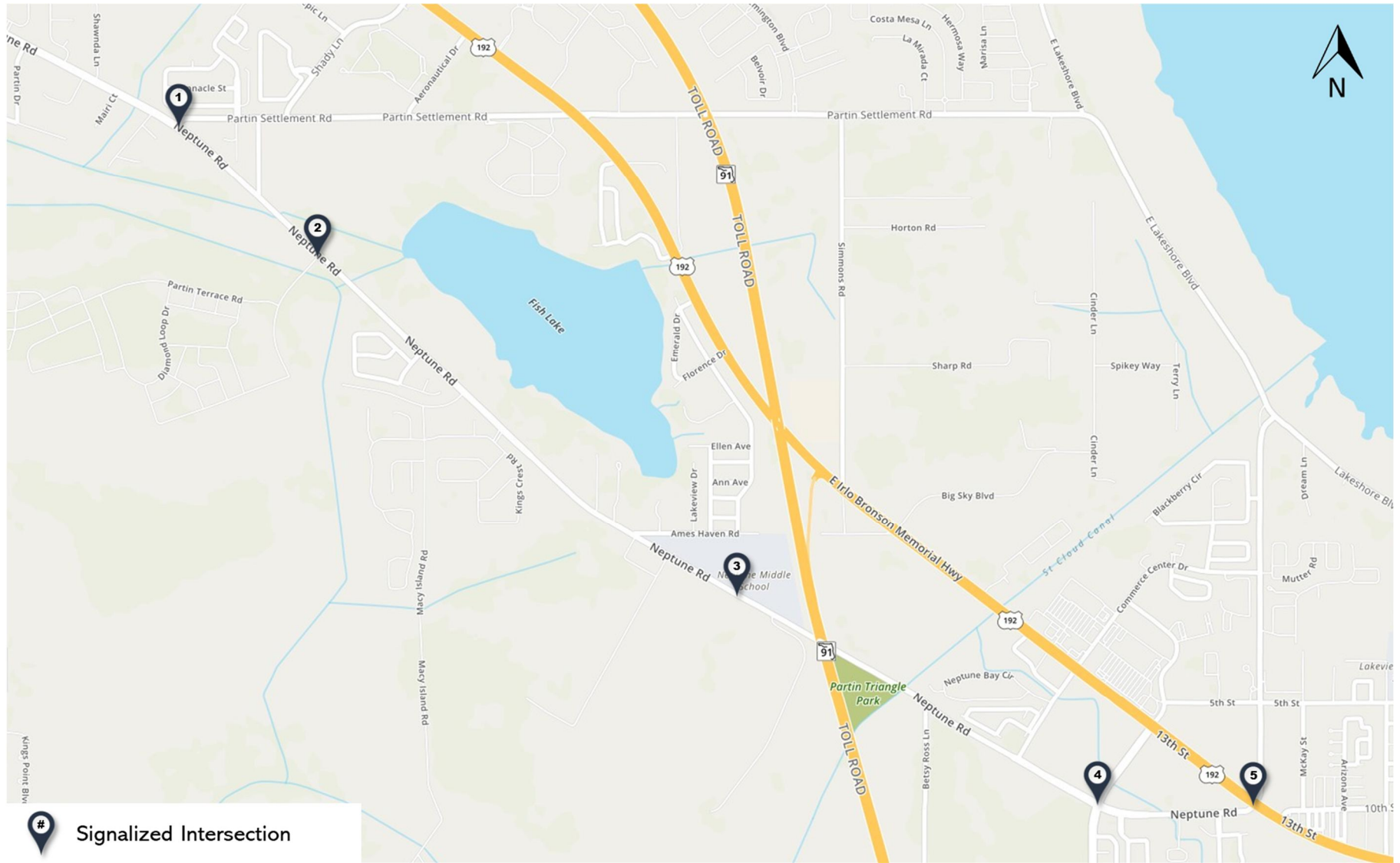


Figure 1: Current System Situation

3.1 Background, Objectives, and Scope

The system that is defined for this project will be designed to leverage the data that is collected in real-time along Neptune Road. The primary objective of using this data is to allow Osceola County and FDOT to make informed decisions about recurring and nonrecurring congestion, in order to minimize delays.

3.2 Operational Constraints

The current ITS deployment within the arterial network provides operations staff with the ability to monitor intersections in real-time. However, only one of the five project intersections is currently on the County communications network. In order to maximize performance and provide comprehensive system coverage, it will be necessary to deploy additional devices and a more robust communications medium (i.e. fiber) along the project corridor. This will allow operations staff to have coverage of the corridor, ensure motorists are experiencing optimal travel times, and provide traveler information on the arterial network.

3.3 Description of the Current System or Situation

The staff at the Osceola County TMC control traffic signals under the jurisdiction of both Osceola County and the City of Kissimmee. The TMC is also responsible for the continuous operation of all ITS equipment located throughout Osceola County and the City of Kissimmee. The existing system monitored from the TMC includes the following:

Hardware

- 128 traffic signals monitored via Centrac[®]
- 85 CCTV cameras
- 10 Iteris Bluetooth readers
 - Six along the Pleasant Hill corridor
 - Four as part of the West US 192 system
- Two Dynamic Message Signs
 - Populated with travel times from the Pleasant Hill Bluetooth readers
- 19 intersections along West 192 monitored by the Iteris VantageLive![®] system

Software

- Centrac[®] – ATMS used to operate and monitor traffic signals
- Vanguard – DMS Central Control Software
- Clientview – video management platform
- SunGuide[®] – a centrally managed FDOT owned software module that controls roadway devices and information exchange across transportation agencies
- Vantage Velocity – host software provided by Iteris used to monitor the Bluetooth readers

The Osceola County TMC also has an established center-to-center communication link with the FDOT District Five Regional Transportation Management Center (RTMC). Real-time road

network conditions, incident information, video feeds of traffic images are currently being shared between the two agencies.

3.4 User Profiles

Osceola County

The County is a municipal agency with system architectures identified for the ITS infrastructure. They are included in system architectures to represent elements associated with ITS field equipment, traffic signal maintenance, traveler information websites, and the TMC. The County is a stakeholder in most services package areas of the Regional ITS Architecture (RITSA).

FDOT

The Department is a state agency with system architectures identified for the ITS infrastructure within the region. In addition to the elements represented by the county, FDOT is included in system architectures to represent elements associated with construction maintenance, emergency operations center, public information office systems, regional data archive, and others. FDOT is a stakeholder in all services package areas of the RITSA.

Motoring Public

The public is informed of incidents and congestion during events through Florida 511 (FL511). Congestion routing throughout the city is provided through private smartphone applications such as Waze, Google Maps, etc.

3.5 Support Environment

Osceola County is the only agency that operates signals within the county. This agency will continue to operate the signal controllers and associated equipment. If any upgrades to the City traffic signal cabinets are required, the City will be responsible for maintaining these upgraded or new cabinets. The various stakeholders that will have an operational interest in the system will define the maintaining agencies for any new ITS equipment. This ConOps is a living document and will be updated once all stakeholder involved have reached a consensus on the project requirements.

4. Justification and Nature of the Changes

4.1 Justification for Changes

According to U.S. Census Bureau data, Osceola County is listed as the second fastest growing county in the state¹. The rapid population growth will contribute to congested arterials and intersections, which could affect other aspects of daily life in the County. Leveraging the Neptune

¹ <https://www.census.gov/quickfacts/geo/chart/osceolacountyflorida,FL/PST120218>

Road widening project to deploy the proposed ITS devices, as well as an improved communications medium, will improve the effectiveness of the transportation system.

Transportation System Management and Operations (TSM&O) strategies seek to provide a safe transportation system that ensures the mobility of the traveling public by improving the efficiency of existing infrastructure, measuring performance, and actively managing the transportation network. ITS technologies are a major component of TSM&O strategies and as such the devices proposed as part of this project would help to alleviate key issues in the area including:

- Relieving congestion caused by increased traffic demand
- Reducing motorist's travel times during incidents, special events, etc.

These strategies typically seek solutions to congestion problems occurring on surface streets through the deployment of state-of-the-art sensing, communications, and data-processing technologies. Problems considered include both congestion caused by regular traffic patterns and traffic problems caused by stalled vehicles or other unpredictable incidents.

4.2 Description of the Desired Changes

FDOT has identified ITS as an integral part of providing innovative services to motorists in the Osceola County area. By coordinating with local agencies, the District is attempting to populate ITS equipment on arterial roadways to ease traffic congestion on major arterial roadways. Specific ITS equipment to be implemented as part of this project are described below:

- **Bluetooth Devices** use detection to scan the area range and determine if any Bluetooth enabled device is detected. Once the vehicle equipped with the Bluetooth device drives into the detection range on the Bluetooth reader, entry and exit time stamps are recorded. Therefore, travel time and travel speed can be determined between points on the roadway. This data is to be used for demand management and information systems.
- **Vehicle Detection** at signalized intersections is primarily used to determine presence, volume, speed, and occupancy of motorized vehicles. The inductive loop is the most common sensor used in traffic management applications. However, video detection and wireless magnetometers are also effective forms of vehicle detection.
- **Upgraded cabinets and controllers** will contribute to the modernization of the County's traffic signal system. As the foundation of the signalized intersection, upgraded cabinets will provide a more favorable environment for all deployed ITS devices and upgraded controllers will allow easier integration with new technologies.
- **Dynamic Message Signs (DMS)** are strategically placed throughout the County and serve to notify drivers of traffic conditions, incidents, and detours. Messages posted on DMS are populated remotely from the TMC on a real-time basis based on congestion, traffic accidents, lane closures, and other incidents that disrupt traffic flow.
- **CCTV Cameras** play an important role in the operation of the transportation network by providing the capability to monitor traffic, verify incidents, and verify operation of field components. CCTV Cameras provide the ability to see traffic situations in real-time and assist with verifying the existence of incidents prior to dispatching response crews.

- **Automated Traffic Signal Performance Measures (ATSPM)** consist of high-resolution data logging capability that is added to existing traffic signal infrastructure. ATSPMs show real-time and historical performance at signalized intersections. The various measures that this system tracks are used to evaluate the quality of progression of traffic along the corridor. The information can be used to identify vehicle and pedestrian detector malfunctions, measure vehicle delay, as well as collect traffic volumes.
- **Fiber Optic Network** is the ideal communications medium for communicating with field devices. A near-term fiber deployment project along US 192 would serve as an opportunity to connect Neptune Road to the overall County fiber network.

These devices are part of systems that include central control software, local software, and hardware. Also recommended as part this project is the integration of all components into the County's ATMS software. The Graphical User Interface (GUI) used to facilitate communications and information dissemination will need to be upgraded to enable communications among all stakeholders and users of the system. These changes will need to be assessed based on their cost and benefit to the project goals and objectives.

Additional ITS technologies and TSM&O strategies may be employed as part of this project based on input from the County Traffic Engineer and District TSM&O Engineer. The various stakeholders that will have an operational interest in the system may propose additional ITS technologies as the project progresses.

4.3 Change Priorities

Several device types should be analyzed to determine feasibility and cost prior to deployment. Budgetary estimates will be developed to determine the type of equipment that would be used in this project that would meet the project budget while satisfying the needs of the County, residents, and visitors.

The priorities that will move forward for consideration are:

- Bluetooth Devices
- Vehicle Detection
- Upgraded Cabinets and Controllers
- DMS
- CCTV Cameras
- ATSPM
- Fiber Optic Network

4.4 Changes Considered but Not Included

Currently all options considered have been included to be assessed for feasibility by the County Traffic Engineer and District TSM&O Engineer.

4.5 Assumptions and Constraints

Project Components

This project is in the preliminary planning stages and as such standard ITS project components have been proposed. Additional emerging ITS technologies and TSM&O strategies may be employed as part of this project based on input from the project stakeholders. As the project progresses, this ConOps will be updated to reflect the consensus of the stakeholders.

Device Compatibility

The equipment and software chosen for this project will be compatible with the components that already exist in the area to provide a homogeneous system that facilitates the operation and maintenance of all ITS devices. All applicable devices will be listed on the FDOT Statewide Approved Products List (APL), which will ensure they have been tested by the FDOT Traffic Engineering Research Lab (TERL) and certified to meet FDOT Standards. The testing, certifications, and standards will be aligned with the NTCIP (National Transportation Communications for ITS Protocol).

Funding

The Neptune Road Widening Project will be funded through the Capital Improvement Program subsidized local mobility and impact fees. It is anticipated that the ITS technology proposed as part of this project will utilize the same funding vehicle.

Potential project constraints include funding for the operating and maintaining agencies to provide adequate staff and maintenance. Without funding for operations and maintenance of the system, the system will not operate as proposed and will therefore not provide the benefits stated throughout this document.

5. Concepts for the Proposed System

5.1 Background, Objectives, and Scope

The primary objective of this project is to develop a system that supports real-time traffic management along Neptune Road. The proposed system, when complete, will include a communications network to communicate with the traffic signals, CCTV cameras, and Bluetooth travel time devices. These systems are inclusive of central control software, local software, and hardware.

5.2 Operational Policies and Constraints

Hours of Operation

Osceola County's TMC operates five days a week. The signal system is monitored Monday through Friday from 6:00 AM to 8:00 PM, excluding holidays. County staff are currently responsible for monitoring the existing transportation network. In connection with the Integrated Corridor Management (ICM) operations throughout the District, Osceola County is working

alongside FDOT District Five to introduce extended monitoring hours. The agencies are moving toward the District possessing the capability to implement signal timing changes outside of Osceola County working hours.

The proposed system will not affect or extend these current hours of operation.

5.3 Description of the Proposed System

Preliminary locations of the recommended devices and technology are summarized within. These recommended locations will serve as the foundation for building stakeholder consensus. This ConOps is a living document and will be updated once all stakeholders provide input on the finalized locations.

The specific ITS equipment to be deployed as part of this project are described below:

- **Dynamic Message Signs (DMS)** are strategically placed throughout the County and serve to notify drivers of traffic conditions, incidents, and provide basic safety messages. Messages posted on DMS are populated remotely from the TMC on a real-time basis based on congestion, traffic accidents, lane closures, and other incidents that disrupt traffic flow.
 - *The recommended location for deploying a DMS is east of Partin Settlement Road.* This would provide the maximum benefit to the County, allowing operators to post messages about day-to-day traffic operations as well as any relevant special event information. Motorists traveling along Neptune Road could receive travel time information, special event routing, a welcome message to NeoCity, or any relevant safety information.
- **Bluetooth Devices** use detection to scan the area range and determine if any Bluetooth enabled device is detected. Once the vehicle equipped with the Bluetooth device drives into the detection range on the Bluetooth reader, entry and exit time stamps are recorded. Therefore, travel time and travel speed can be determined between points on the roadway. This data is to be used for demand management and information systems.
 - *It is recommended to deploy Bluetooth devices at each of the five project intersections.* Data collected from these devices can be used to understand current traffic patterns, evaluate travel time reliability, monitor travel time reductions, and provide traveler information to the public. Specifically, the information can be shared on nearby DMS prior to key decision points where commuters can decide to take alternate routes.
- **Vehicle Detection** at signalized intersections is primarily used to determine presence, volume, speed, and occupancy of motorized vehicles. The inductive loop is the most common sensor used in traffic management applications. However, video detection and wireless magnetometers are also effective forms of vehicle detection. *It is recommended that all project intersections be outfitted with loop detection.* Vehicle detection will serve as the foundation for the expanded ATSPM system.
- **Upgraded cabinets and controllers** will contribute to the modernization of the County's traffic signal system. As the foundation of the signalized intersection, upgraded cabinets will provide a more favorable environment for all deployed ITS devices and upgraded

controllers will allow easier integration with new technologies. *It is recommended that all project intersections have the most up-to-date traffic cabinets and controllers.*

- **CCTV Cameras** play an important role in the operation of the transportation network by providing the capability to monitor traffic, verify incidents, and verify operation of field components. CCTV Cameras provide the ability to see traffic situations in real-time and assist with verifying the existence of incidents prior to dispatching response crews. *It is recommended that CCTV Cameras be deployed at the following locations:*
 - Neptune Road and Partin Settlement Road
 - Neptune Road and Tohoqua Boulevard/Middle School
 - Neptune Road and US 192
- **Automated Traffic Signal Performance Measures (ATSPM)** consist of high-resolution data logging capability that is added to existing traffic signal infrastructure. ATSPMs show real-time and historical performance at signalized intersections. The various measures that this system tracks are used to evaluate the quality of progression of traffic along the corridor. The information can be used to identify vehicle and pedestrian detector malfunctions, measure vehicle delay, as well as collect traffic volumes.
- **Fiber Optic Network** is the ideal communications medium for communicating with field devices. A near-term fiber deployment project along US 192 would serve as an opportunity to connect Neptune Road to the overall County fiber network.

5.4 Modes of Operation

The proposed system will adopt the same coverage hours currently in place for the existing system. The system will be monitored Monday through Friday from 6:00 AM to 8:00 PM, excluding holidays. Expansion of monitoring hours to include after hours, weekends, or special event monitoring will be coordinated with the FDOT District TSM&O Engineer and the County Traffic Engineer.

5.5 User Involvement and Interaction

The proposed systems are inclusive of central control software, local software, and hardware. The ITS technologies will be monitored from the TMC using the current County software platforms. The devices proposed will integrate with the software listed in Section 3.3. The Graphical User Interface (GUI) used to facilitate communications and information dissemination will need to be upgraded to enable communications among all stakeholders and users of the system. These changes will need to be assessed based on their cost and benefit to the project goals and objectives.

5.6 Support Environment

Following Project Acceptance, the device components will be turned over to the County in proper working order and will have a manufacturer warranty period covering defects in assembly, fabrication, and materials from the date of final acceptance by the Engineer. Beginning after Project Acceptance, the routine and periodic maintenance of the installations will be the responsibility of the Osceola County Transportation Maintenance staff.

Additional details regarding spare parts, repair criteria, and parties responsible for replacement cost following the warranty period will be agreed upon by the FDOT District TSM&O Engineer and the County Traffic Engineer. As this ConOps is a living document, a Memorandum of Understanding may be developed to create a more formalized agreement between the various stakeholders.

6. Operational Scenarios

Day to day operations and maintenance of the Osceola County transportation network include a number of operational scenarios that involve utilizing ITS devices. Operational scenarios are an important component of a ConOps to communicate in general terms how the proposed system will operate and identify at a high-level the roles and responsibilities of stakeholders. The intent of the operational scenario description is to provide a story line that features different characters that relate to the situation and environment where the proposed system is being contemplated.

Additional operational scenarios should be discussed among stakeholders to highlight key system features based on the initial understanding of the problem to be solved and the user needs. This process will help stakeholders and readers understand how stakeholder needs are translated to a system that meets those needs.

Below is a sample operational scenario and how it may be handled utilizing the proposed ITS devices.

Standard Operation, Recurring Congestion on Neptune Road

Ms. Lisa Operator is a TMC operator for Osceola County with the responsibility to monitor traffic congestion and the deployed ITS devices. It is Monday evening and she is about to conclude her shift at the TMC when the Bluetooth travel time system alerts of vehicle congestion along Neptune Road. She then activates the cameras to view the congestion along the arterials and confirm there are no incidents. She did not identify any incidents. She then implements the response plan. The response plan includes posting “Congestion Ahead, Neptune Road” with the anticipated travel time on a nearby arterial DMS.

After the DMS signs were posted, Lisa reviewed the corridor signal timing plan. Adaptive Traffic Signal Control is planned for implementation along Neptune Road in the next few months but has not yet been implemented. Due to the additional congestion, she noted several minor signal timing adjustments that could improve the progression along Neptune Road. She called the Osceola County Signal Timing Engineer and asked to implement the changes. The County’s Signal Timing Engineer agreed with the recommendations and allowed Lisa to implement the signal timing changes. Lisa confirmed the timing changes with the cameras at the intersection and immediately noticed improvements in progression.

Lisa remained at the TMC until the congestion improved. She frequently confirmed accurate travel time information was being displayed on the DMS using the Bluetooth devices and cameras. When

the congestion cleared due to the implementation of signal timing changes, Lisa removed the DMS posting of congestion ahead. She logs the congestion incident and went home for the evening.

7. Summary of Impacts

The proposed ITS devices will enhance the capabilities of the existing system and therefore are anticipated to provide benefits to all stakeholders. The proposed project is expected to achieve the following:

- Improve the Effectiveness of the Transportation System – The proposed devices will allow for a more comprehensive coverage of the transportation system. Operations staff will be able to effectively monitor and manage traffic operations throughout the County to reduce congestion, disseminate traffic conditions, and remotely optimize traffic signal timing.
- Improve Roadway Safety – Proposed CCTV cameras will provide motorists and operators with more information regarding roadway conditions.

8. Analysis of the Proposed System

The proposed system will allow the County to proactively manage the Neptune Road corridor. The recommended TSM&O strategies will address recurring and nonrecurring congestion in real-time. The proposed ITS devices will improve system efficiency, reduce motorist delay, and improve information dissemination. The use of CCTV cameras, in conjunction with Bluetooth readers, will provide real-time information to Osceola County regarding current roadway conditions along Neptune Road, potentially reduce travel time as well as provide additional safety to motorists and pedestrians. Once the system is in place, the following year of operations will be considered for the after study to assess impacts and conditions.

9. Notes

There are no notes at this time.

DOCUMENT REVISION HISTORY			
Version Number	Approved Date	Description of Change(s)	Created/ Modified By