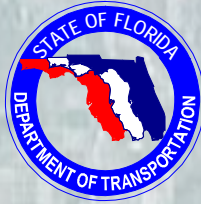


**TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS  
CONCEPT OF OPERATIONS PLAN FOR ST. LUCIE COUNTY  
TASK 4**

**TECHNICAL MEMORANDUM**

**Prepared for:**



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St. Lucie

Port St Lucie

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## 1. INTRODUCTION

The purpose of this memorandum is to develop a Master Plan for St. Lucie County's Advanced Traffic Management System (ATMS). The Master Plan work consists of four tasks to be completed in sequence:

### 1. Consultant Work Plan

### 2. St. Lucie County Master Plan

*Subtask 1. Inventory*

*Subtask 2. TSM&O Applications and Strategies*

*Subtask 3. Visioning Workshop*

*Subtask 4. System Requirements*

*Subtask 5. Implementation Plan*

*Subtask 6. Financing Options*

*Subtask 7. ATMS Performance Measures*

### 3. System Engineering Master Plan

### 4. Concept of Operations

The Concept of Operations Plan for the Advanced Transportation Management System (ATMS) in St. Lucie County is the fourth sequential task and is presented based on the information provided in the previous tasks.

#### 1.1. Purpose

The purpose of the Concept of Operations is to provide a clear definition of the objectives of the program and the roles and responsibilities of the parties supporting the program. This document will:

- Recognize the need for a change in signal operations methodology in the St. Lucie County region;
- Provide an overview of the goals of the ATMS program;
- Document the methodology for selecting corridors to include in the program;
- Provide understanding of stakeholders and the relationship among stakeholders;
- Present the methodology to be used to measure the program's success;
- To ensure that the implementation is linked to agency mission, goals, and objectives.

## 1.2. Audience

The Concept of Operations is directed to participants in the St. Lucie ATMS program and to other agencies which wish to learn more about the program and potentially apply its structure in their jurisdiction. The audience includes the following individuals and groups:

- City and county agency personnel responsible for management and administration of the program.
- FDOT Office of Traffic Operations personnel responsible for management and administration of the program.
- City and county agencies which operate traffic signals under permit to the Department and which participate in the program.
- FDOT consultant personnel responsible for delivery of the program.
- Regional stakeholders interested in the goals and objectives of the program.
- Federal, state and local officials and others which are interested in implementing a similar program.

## 1.3. Using a Concept of Operations

The concept of operations, describing the functions of the ATMS and how they will be performed, can be applied throughout the planning, design, implementation, and operations/maintenance program. Specific examples where it can serve an important purpose include:

- **Functions:** The concept of operations may be the first definitive expression of how the ATMS's functions will be performed. Thus, it can support resource planning for the physical space requirements, hardware and software specifications, the staffing, and some allocation of responsibilities between the implementing parties.
- **Consensus Building:** The concept of operations can serve, at successive levels of detail, as a component of consensus building by the partners performing those functions, who have already begun to define the requirements, as well as the mission/vision/goals/objectives of the ATMS.
- **Training:** The concept of operations also addresses the training program required for the staff and the documentation which they will require in performance of their duties.
- **Interactions:** The concept of operations should also identify the interactions between organizations involved in performing the ATMS's functions. Thus, it will identify the points at which agencies or functions within an agency interact, and how that interaction may take place:
  - Who initiates;
  - What information is provided;
  - What response is needed;

- What communications means are applied;
- How the response is confirmed; and
- What form the feedback loop takes to assess effectiveness, modify the response if needed, and terminate it when appropriate.

#### **1.4. Why a Concept of Operations is Needed**

The agency(s) desiring to implement an ATMS faces a significant challenge in defining to its system designer exactly what the agency wants designed, and how the agency wants it designed. Without this guidance, the designer may either make a “best guess” at the agency’s needs and desires, or may come forward with a solution which was developed to meet the needs of another (possibly quite dissimilar) agency and transportation situation. Often the result is not what the implementing agency desired.

As an example, often the agency faces constraints which must be reflected in the system design. These constraints may dramatically affect how the system operates. A common example faced by most agencies is a limit on the number of operations personnel who may be dedicated to the ATMS system. Other constraints on public agencies include:

- Ensuring adequate staffing levels and budget for TMC operations and maintenance;
- Losing qualified TMC maintenance personnel to the private sector;
- Addressing technological evolution and obsolescence;
- Estimating the time it takes for a TMC to become operationally stable;
- Mitigating false alarm rates; and
- Workloads.

The development of a concept of operations is a tool used by agencies to identify their optimal solution based on their preferred approach, their capabilities, and their constraints.

## **2. CURRENT CONDITIONS and OPERATIONAL CONCEPTS**

### **2.1. Operations and Maintenance Responsibilities**

#### **2.1.1. St. Lucie County**

##### **Existing Traffic Control System**

St. Lucie County currently has 49 signalized intersections and 24 Flashers / School Flashers operated by Econolite TS2 Controllers with Dial up communications to 28 Masters.

Most of the master locations are isolated, involving only one intersection. Five masters communicate to one to three local controllers. Zone 1 along US1 communicated to 8 local intersections. A Closed Loop System with central communication to master controller is used for monitoring local controllers. St. Lucie County currently has adopted the use of video detection, deploying Econolite Autoscope and Terra video detection. The deployed cameras used for vehicle signal detection have the added future benefit of utilization for Traffic Incident Management.

St. Lucie County operates its central system in a facility room at the County's traffic signal shop. The shop is located at St Lucie County Facility at 3071 Oleander Ave, Ft. Pierce, FL.

The Econolite Control Systems are managed and monitored by a 32-bit windows based application called *Aries*. The application is used to obtain intersection status, operator alerts and upload and download of signal timing for timing adjustments and verification. Aries works on a graphical user interface (GUI) environment with point-and-click selection of zones, intersections and other functions. The software allows multi tasking operation such as system operations can be checked while database management is being performed, scheduler can be programmed to repeat tasks at provided intervals. The program is also capable of multiple connection ports, client server model which allows the county staff to run applications on multiple computers at the same time, distributed network support, database management functions, monitor mode that can allow alarms and events from the master, monitor reports and graphic displays.

##### **Staffing**

The Traffic Section consisting of 6 employees and 2 contract employees, is responsible for the maintenance, repair and operation of the existing traffic signals, overhead flashers and signal system as well as design approval, the fabrication of regulation, warning, guide signs and street signs and all county required specialty signs; the application of roadway thermoplastic stripping and guardrail repairs; conducting traffic counts and traffic operation studies, as well as maintaining the County's crash data base and Adopt-A-Road Program.

## **Existing Communications Infrastructure**

Communication is via dial up communication using lease lines. Because of this communication bandwidth is limited, restricting the amount of data to be transferred between field devices and central. Limitation to the Existing Traffic Signal System is the system does not utilize a number of Regional Signal Coordination System elements including

- Center to Center Communication
- Ethernet base communications
- System Database Management and Dissemination
- CCTV Control and Display
- DMS Control and Display
- Traffic Responsive
- Traffic Adaptive
- Traffic Incident Management
- Traveler Information
- Work Zone Management
- Travel Time.

St. Lucie County's current system does provide communication to field components but is limited to the low bandwidth of dialup communications. This will hamper data transfer efforts needed for many elements of current ATMS systems especially the data feeds required for current Traffic Adaptive systems, Travel Time Systems, and CCTV Control and Display Subsystems. The current system does not share and exchange data with other agencies, negating the ability for regional traffic control and management. This restricts any capability of operating and managing regional traffic flow through sub-systems and regional boundaries.

The TOC is small and has limited capabilities. The system is isolated and consists of a workstation with limited system timing functions and does not have the capabilities of performing incident management, traffic responsive or traffic adaptive functions.

Current County staffing assigned to the existing traffic system appears to be understaffed. The amount of effort needed to operate and maintain a current ATMS will exceed the current staffing restraints. Signals are widely distributed throughout the county. Installation of fiber optic cabling to isolated intersection may not be cost effective.

### **2.1.2. City of Port St. Lucie**

#### **Existing Traffic Control System**

The City of Port St. Lucie has 71 signalized intersections and 18 Flashers / School Flashers operated by Naztec TS2 Controllers

The City of Port St Lucie has an up to date system with Naztec's ATMS.now, fiber communication infrastructure, Ethernet based communications and CCTV monitor and control system. Fiber communication routing is not available due to security concerns.

#### Naztec's ATMS.now

ATMS.now software is a mature, field-proven, reliable, and feature-rich application for full control of not only traffic controllers, but CCTV cameras, CMS displays, and field communications equipment. Naztec has demonstrated ability in traffic engineering, traffic operations, traffic signal timing, computer technology, electronic hardware and the implementation of computerized traffic surveillance and control system projects.

ATMS.now is a 32-bit, multi-threaded TCP/IP-based Client/Server Windows application, which supports an unlimited amount of simultaneous users and field devices. The program is built upon the Microsoft based interfaces (OS 2000, XP, Server 2003), and enables parallel database technology. This element is what enables ATMS.now to allow users to select multiple intersections from their own GIS-based system map, and edit or communicate them as a set. ATMS.now offers complete traffic and data management including real-time reporting, integration with Microsoft SQL server, .Net Internet Server Services (ISS), Crystal Reports™, XML data exchange, ESRI & Map guide-based GIS interfaces, Autodesk AutoCAD, and hundreds of other 3rd party interface features. The ATMS.now system allows for expansion up to 9,999 intersections without any modification to the software.

The TOC is located at the City's Traffic Operations Office with a backup facility at City Hall.

#### **Staffing**

The City of Port St. Lucie has 16 personnel working in the traffic section.

#### **Limitation to Existing Traffic Signal System**

The current system has a number of capabilities associated with TSM&O strategies, but the system does not utilize a number of Regional Signal Coordination System elements, which would be beneficial in providing positive safety and mobility outcomes to the traveling public including

- Center to Center Communication
- DMS Control and Display
- Traffic Responsive
- Traffic Adaptive
- Traveler Information
- Work Zone Management
- Travel Time

### **2.1.3. City of Ft. Pierce**

#### **Existing Traffic Control System**

The City of Ft Pierce has 67 signalized intersections and 29 Flashers / School Flashers operated by Econolite TS2 Controllers. City of Ft Pierce operates its central system out of City Hall, similar to St. Lucie County's system. TOC is small with isolated system, which consists of a workstation with limited system timing functions and does not have the capabilities of performing incident management, traffic responsive or traffic adaptive functions.

#### **Staffing**

Staffing is consisting of 1 to 2 personnel.

#### **Existing Communications Infrastructure**

Communication is via twisted pair copper lines. Because of this communication bandwidth is limited between central, restricting the amount of data to be transferred between field devices and central.

#### **Limitation to Existing Traffic Signal System**

System does not utilize a number of Regional Signal Coordination System elements including

- Center to Center Communication
- Ethernet base communications
- System Database Management and Dissemination
- CCTV Control and Display
- DMS Control and Display
- Traffic Responsive
- Traffic Adaptive
- Traffic Incident Management
- Traveler Information
- Work Zone Management
- Travel Time

City of Ft Pierce current system does provide communication to field components but is limited to the low bandwidth of dialup communications. This will hamper data transfer efforts needed for many elements of current ATMS systems especially the data feeds required for current Traffic Adaptive systems, Travel Time Systems, and CCTV Control and Display Subsystems

The current system does not share and exchange data with other agencies, negating the ability for regional traffic control and management. This restricts any capability of operating and managing regional traffic flow through sub-systems and regional boundaries. The system is isolated and consists of a workstation with limited system timing functions and does not have the capabilities of performing incident management, traffic responsive or traffic adaptive functions.

Current City staffing assigned to the existing traffic system is understaffed. The amount of effort needed to operate and maintain a current ATMS will exceed the current staffing restraints.

The city has a limited fiber optic network installed along the US 1 corridor and is in the process of migrating their existing system to Centrac Systems, which is more effective and efficient as a valuable ATMS component.

## 2.2. Summary of Existing Infrastructure

Below are the summaries of existing infrastructure for St. Lucie County, City of Ft. Pierce and City of Port St. Lucie.

**Table 1: Summary of Existing Infrastructure**

Agency	St. Lucie County	City of Ft. Pierce	City of Port St. Lucie
<b>Existing Infrastructure</b>	49 signalized intersections, 24 flasher/school flashers; Econolite ARIES Traffic Management System; Dial up communication	67 signalized intersections, 29 flasher/school flashers; Econolite ARIES Traffic Management System to be changed to Centrac; Twisted pair line for communication	71 signalized intersections, 18 flasher/school flashers; Naztec ATMS.now central control system; Fiber Communication; different system with SLC and City of Pt. Pierce
<b>Staffing</b>	6 employees, 2 contract employees, (2 full-time and 1 part-time dedicated to signal operations)	1~2 people	16 personnel
<b>Limitation</b>	Low bandwidth, not sharing data with other agencies, incapability of operation through regional boundaries.	Low bandwidth, not sharing data with other agencies, incapability of operation through regional boundaries	Not utilizing some Regional Signal Coordination System elements

## 2.3. Priority Corridor System Overview

The fiber optic communication network, on a priority basis, will be installed in St. Lucie County, the City of Ft. Pierce, and the City of Port St. Lucie. Priority corridors were identified in the County and Cities based on the current traffic conditions, existing land-use, roadway

classification, access management, and future development. **Table 2** lists the priority corridors and the number of priority intersections within each maintaining agency.

**Table 2: Priority Corridors**

<b>Priority Corridors</b>		
<b>MAINTAINING AGENCY</b>	<b>CORRIDOR</b>	<b>PRIORITY PHASE</b>
St. Lucie County	US 1	Priority 1
	Prima Vista Blvd	Priority 2
	CR 712 (Midway Road)	Priority 2
	County Rd 615	Priority 3
	Orange Avenue	Priority 2
	Angle Road	Priority 4
	North Kings Highway	Priority 4
	Edwards Road/ County Rd 611	Priority 1
	SR 713/Turnpike Feeder Rd	Priority 4
	North Beach Causeway Dr	Priority 4
	SR 614 (Indrio Rd)	Priority 4
City of Ft. Pierce	South 33rd Street	Priority 4
	US 1	Priority 1
	SR 70/Virginia Avenue	Priority 1
	SR 615 (South 25 <sup>th</sup> St.)	Priority 3
	Okeechobee Road	Priority 3
	South 13 <sup>th</sup> Street	Priority 3
	South 7th Street	Priority 3
	CR 68 (Orange Avenue)	Priority 2
	Avenue D	Priority 3
	Avenue I	Priority 4
City of Port St. Lucie	US 1	
	SW Port St. Lucie Blvd	
	NW Bay Shore Blvd	
<b>Number of Intersections Derived From Section 6 Quantities</b>		<b>113</b>

## 2.4. Communication Network Overview

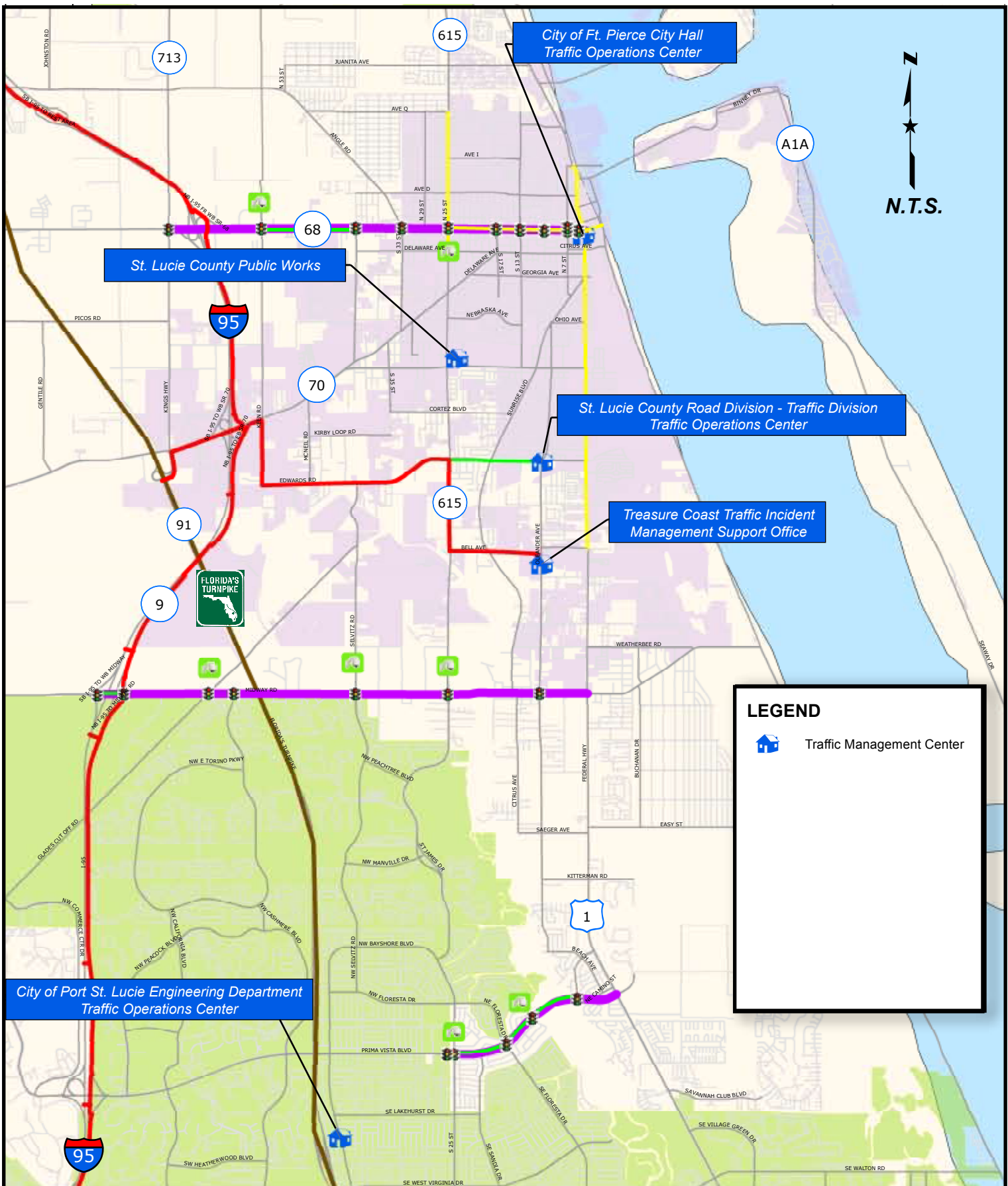
The communications network system and subsystems shall be an open-architecture, non-proprietary, real-time multimedia communications network, which is a digital fault-tolerant, redundant communication network. In order to provide County transportation information among

willing agencies a single mode fiber optic cable (FON) network shall be capable of supporting at least a 10 Gigabit Ethernet Backbone Ring. The fiber is recommended to be connected to the following Linking Centers shown in **Figure 1**:

- St. Lucie County Traffic Operation Center
- City of Port St Lucie Traffic Operations Center
- Treasure Coast Traffic Incident Management Support Office (TIMSO)
- City of Ft Pierce Traffic Operations Center
- City of Port St. Lucie Engineering Dept. – Traffic Operations Office

24 major traffic congested corridors were identified as being most beneficial to be operating within an ATMS environment. As shown in **Table 2**, the corridors were evaluated and it was recommended to install the system and communication network in four phases, where 1 is considered the highest priority, then 2 and so forth. Four phases are recommended because the design and operation of an ATMS is heavily dependent upon the need for real-time data transmission between the TOC, intersections and CCTV video feeds. A fifth phase, City of Port St. Lucie Phase was added during the process to upgrade those intersections within the city that are not yet connected to the City's existing ATMS system. Real-time data transmission requires greater bandwidth within the communications media than what has been required of legacy traffic control systems. The establishment of a fiber optic transportation related communications backbone, from a traffic management center (TMC) to ITS field devices, is the preferred method of communications within an ATMS. The fiber communications link can meet the bandwidth requirements posed by the transmission of real time data needs. As a result, this preferred choice of communications linkage typically influences the overall ATMS phasing of a project. This is due because the communications link is installed outward from the TMC to the entire traffic management system. **Appendix A** shows the complete phasing of the project. A summary of the 5 phases is as follows:

- Phase 1 - 56 intersections and 17 CCTVs  
33 intersections in the City of Fort Pierce and 23 intersections in St. Lucie County
- Phase 2 - 23 intersections and 7 CCTVs  
15 intersections in St. Lucie County and 8 belong to the City of Fort Pierce.
- Phase 3 - 24 intersections and 5 CCTVs  
20 intersections in the City of Fort Pierce and 4 intersections in St. Lucie County
- Phase 4 - 10 intersections and 7 CCTVs  
3 in the City of Fort Pierce and 7 in St. Lucie County
- City of Port St. Lucie Phase – 7 intersection upgrades and 3 demarcation points.



**St. Lucie County**



**ATMS MASTER PLAN**



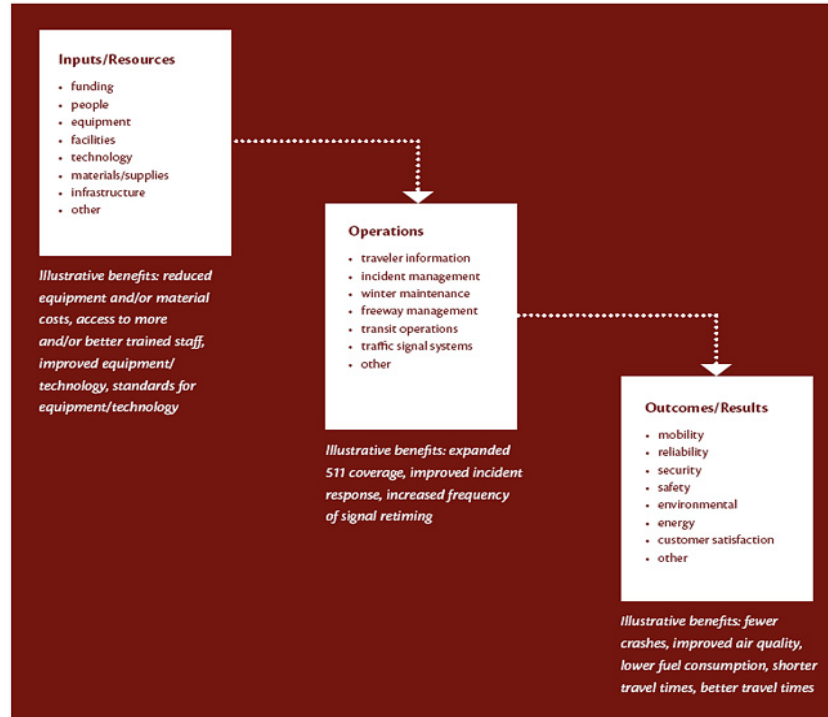
**Communication Network  
Connections**

**Figure 1**

### 3. OPERATIONAL CONCEPT

The Operational Concept of the ATMS Master Plan is to establish a partnership between FDOT and local government agencies to collectively operate and manage traffic signal systems. Throughout the process, FDOT should supplement local agency resources by providing personnel to evaluate the operations and maintenance of the signal systems, develop and implement strategies for improvements, and to provide ongoing support focused on optimizing operations. To be successful, this concept requires commitment from all parties involved.

As the agency ultimately responsible for traffic operations along state routes, FDOT should take a leadership role in implementing the program. In this capacity, FDOT should provide overall program management and will dedicate the resources required to implement the program. Local agencies are expected to support the program. This level of support may vary from agency to agency, depending upon the agency's available resources.



The following sections describe the operational concept in detail.

#### 3.1. Program Management

To manage this program, Cooperation is required between FDOT and all local agencies to execute all aspects of the program. It is recommended that a Regional Traffic Operations (RTOP) Program Manager be established. An existing employee at FDOT or one of the local agencies may also take on this responsibility. The Manager may be located within the FDOT District Four Office of Traffic Operations or at the facility that will serve as the Traffic

Operations Center. The RTOP Manager will be responsible for overall program management, allocation of resources and coordination with local government agencies. Other FDOT staff should support the program from time to time by providing expert advice, procurement support and other services as requested by the RTOP Manager.

Implementation of the program requires significant human resources to provide program planning, field operations support and field maintenance activities. FDOT and the local agencies have limited internal resources to execute the program, so an alternative management method is to select a consultant team to provide and or supplement program support. If preferred, a consultant team should provide program planning support, signal timing engineers and technicians to support field operations, and signal maintenance contractors to provide maintenance support. The consultant team should be selected through a competitive procurement process. A key component of a consultant team approach would be to assign Corridor Manager's to each corridor (or sub-system as applicable). A Corridor Manager would have the overall responsibility for managing day-to-day operations on his individual corridor and will be the primary interface between FDOT and the local agency.

### **3.2. Program Components**

The ATMS program will have five primary components. Each of these five program components are described below, with detailed descriptions of individual team member roles being described in **Table 3** and **Table 4**.

#### **3.2.1. System Evaluation and Baseline**

Once the priority corridors have been assigned, the Regional Traffic Operations (RTOP) Program Manager or a Corridor Manager (CM) will be responsible for conducting an initial analysis of the system. During this analysis, the RTOP Manager or CM should closely coordinate with the local agency to become familiar with the system hardware and operations and to collect data needed to support future activities. The RTOP Manager or CM should also evaluate the current maintenance and operational status of the system and make recommendations for future system improvements. At the conclusion of this phase, the RTOP Manager or CM should be intimately familiar with the system.

#### **3.2.2. Active Management**

Active management consists of daily activities to support the efficient operations and maintenance of the system. The RTOP Manager or CM should perform regular reviews of the system operations by conducting field visits to review the status of system operations and maintenance, and to make real-time adjustments to address operational deficiencies. The RTOP Manager or CM, through cooperation with local agencies, will also be responsible for identifying

special events and implementing signal timing changes to address their impacts. The RTOP Manager or CM will also coordinate with active construction projects to update timing to address any change in operations due to construction. The frequency of field visits is dynamic, depending on the variability of traffic, reliability of hardware, and frequency of incidents and/or special events.

### **3.2.3. System Maintenance**

To maintain optimum operational efficiency, all system components must be properly maintained. As part of their routine duties, The RTOP Manager or CM is responsible for making a periodic check of the system hardware to verify it is operating correctly. When deficiencies are found, the RTOP Manager or CM will immediately make minor repairs when logical to do so. Major repairs, such as those requiring additional equipment, resources, lane closures, etc. will be documented and addressed by the local agency or signal maintenance contractors managed by the consultant team. The RTOP Manager or CM will track reported major repairs until they are completed, and will adjust signal timings if necessary to improve operations in the interim.

### **3.2.4. Operations Improvements**

Throughout the course of normal operations, the RTOP Manager or CM should identify improvements that could be implemented by upgrading system hardware, installing more advanced equipment, etc. The goal of these operations improvements is to make investments in addressing any items affecting the optimum operations of the system. These investments may include repair and/or replacement of system hardware; installation of advanced hardware and/or software; or improvements to physical infrastructure (signing and marking, turn lane or radius improvements).

### **3.2.5. Performance Monitoring**

Monitoring system performance is necessary to identify systems in need of improvement and to quantify the results of the investments made in system. The first component of performance monitoring is the implementation of a performance management strategy on a corridor-by-corridor basis. This strategy will typically include implementation of methods (manual or automated) to collect data on the system's operational performance. Careful analysis of this data will result in the identification of the systems needing improvement.

The second component of performance monitoring is the development and distribution of performance measure reports. The purpose of these reports is to document the activities completed under the program and the resulting benefits to the traveling public. Field data will be collected, analyzed and presented in regular reports provided to FDOT and local agencies.

### 3.3. Program Components

To be successful, the Concept of Operations must be a collaborative effort between FDOT and the local agencies which have operations and maintenance responsibility for the signals in the program. Early in the development of the ATMS Master Plan, it was recognized that the local agencies have differing levels of resources and abilities to support the program. Several agencies were already doing an excellent job of operating and maintaining their signals and wished to continue in this role, while other agencies had fewer resources to apply. Those agencies with fewer resources are more dependent upon FDOT to supplement their program.

FDOT recognizes the desire of the agencies to participate in the program at varying levels; as such two levels of participation were developed:

**FDOT Lead** – on state road systems, where FDOT is designated as the lead agency, FDOT will have the responsibility of performing system evaluations, performing real-time observations and proposing timing adjustments and providing financial resources for equipment upgrades. The local agency will remain responsible for operations and maintenance of the system. This includes performing hardware upgrades, conducting system maintenance and all emergency response and major system repairs.

**Local Lead** – on systems where the local government is designated as the lead agency, the local agency will continue to assume full responsibility for operations and maintenance of the system. The RTOP Manager or CM will perform routine analysis of system operations and make routine adjustments to signal timing. However, on local lead systems, any changes to system operations or hardware will be reviewed with the local agency prior to implementation.

Further clarification of these two approaches is provided in the table below:

**Table 3: Agency Responsibilities**

Program Component	FDOT Lead		Local Lead	
	FDOT	Local	FDOT	Local
Corridor Signal Timing	X			X
Timing Adjustments		X		X
Maintenance		X		X
After Hour / Emergency Response		X		X
Detector, Communication, Repair		X		X
Peak Hour Management Monitoring	X	X	X	X
Major Repairs	X*	X	X*	X

\*FDOT may assist monetarily

**Table 4: Roles: System Evaluation and Baseline**

		RTOP Manager/ Corridor Manager	Local Agency	
			FDOT Lead	Local Lead
System Evaluation and Baseline	Kickoff meeting with local agency	<ul style="list-style-type: none"><li>▪ Conduct kickoff meeting with agencies</li><li>▪ Establish management and communications protocols</li></ul>	<ul style="list-style-type: none"><li>• Provide initial feedback on corridor</li><li>• Condition</li><li>• Communicate program approach</li><li>• to local agency staff</li><li>• Provide supporting documentation</li><li>• for inventory</li></ul>	<ul style="list-style-type: none"><li>• Provide initial feedback on corridor</li><li>• Condition</li><li>• Communicate program approach</li><li>• to local agency staff</li><li>• Provide supporting documentation</li><li>• for inventory</li></ul>
	Initial system maintenance and operational evaluation	<ul style="list-style-type: none"><li>• Conduct field inventory<ul style="list-style-type: none"><li>➢ Controller &amp; cabinet hardware/software</li><li>➢ Historical counts</li><li>➢ Intersection design</li><li>➢ Obtain or establish signal permit</li><li>➢ Planned projects/construction</li><li>➢ Planned special events</li></ul></li><li>• Prepare and manage inventory data</li></ul>	Support data collection as needed	Support data collection as needed
	Baseline Operations	Using information from initial system evaluation, update and document existing signal timing plans	Provide input on initial Signal timing plan	Implement signal timing updates based on RTOP Manager’s recommendations or approve RTOP Manger to implement
	Maintenance recommendations	<ul style="list-style-type: none"><li>• Develop recommendations for maintenance repairs for corridors</li><li>• Review recommendations with local agencies</li></ul>	Advise RTOP Manager of known maintenance issues and recurring problems	<ul style="list-style-type: none"><li>• Work with RTOP Manager to identify maintenance issues and to develop a corrective action plan</li><li>• Provide a plan/schedule for addressing maintenance requirements</li></ul>
	System surveillance, monitoring and operational improvement recommendations	<ul style="list-style-type: none"><li>• Develop recommendations for system enhancements that could improve operational performance</li></ul>	<ul style="list-style-type: none"><li>• Provide input into needed recommendations</li><li>• Review final recommendations and consult with RTOP Manager on implementation strategy</li></ul>	<ul style="list-style-type: none"><li>• Provide input into needed recommendations</li><li>• Review final recommendations and consult with RTOP Manager on implementation strategy</li></ul>

**Table 5: Roles: Active Management**

		RTOP Manager/ Corridor Manager	Local Agency	
			FDOT Lead	Local Lead
Active Management	Field reviews and remote monitoring	<ul style="list-style-type: none"><li>• Monitor corridor operations and update timing on a regular basis</li><li>• Identify equipment failures and initiate repairs</li><li>Identify needs for changes to improve corridor operations<ul style="list-style-type: none"><li>➢ Phasing changes</li><li>➢ New timing plans</li></ul></li><li>• Maintain permits</li></ul>	<ul style="list-style-type: none"><li>• Review and approve all changes to signal timing and operational strategies</li><li>• Provide feedback on system operations</li></ul>	<ul style="list-style-type: none"><li>• Review all changes to signal timing and operational strategies prior to or shortly after implementation with the RTOP Manager</li><li>• Remotely monitor the corridor during peak commuter travel times</li></ul>
	Respond to trouble calls and requests	<ul style="list-style-type: none"><li>• Respond to trouble calls and maintenance requests</li><li>• Initiate timing changes or minor repairs in response to request</li><li>• Respond to trouble calls involving emergency conditions and after hours</li><li>• Notify local agency of emergency conditions or major repairs</li></ul>	<ul style="list-style-type: none"><li>• Coordinate with RTOP Manager and contractor as needed on minor repairs</li></ul>	<ul style="list-style-type: none"><li>• Initiate repairs of problems identified by RTOP Manager</li></ul>
	Monitoring and management of incidents and special events	<ul style="list-style-type: none"><li>• Initiate special timing plans for planned special events and holidays</li><li>• Provide on-site management during planned special events</li><li>• Respond to unplanned events</li></ul>	<ul style="list-style-type: none"><li>• Identify potential events which may impact signal operations and alert RTOP Manager</li></ul>	<ul style="list-style-type: none"><li>• Identify potential events which may impact signal operations and alert RTOP Manager</li><li>• Collaborate with RTOP Manager to develop and implement strategies to manage incidents and special events</li></ul>
	Monitoring of construction and coordination with contractors	<ul style="list-style-type: none"><li>• Communicate with Contractor regarding construction project schedule and expected impacts</li><li>• Initiate special timing plans to mitigate impacts of construction and any new lane configuration</li></ul>	<ul style="list-style-type: none"><li>• Identify potential projects which may impact signal operations and alert RTOP Manager</li></ul>	<ul style="list-style-type: none"><li>• Identify potential projects which may impact signal operations and alert RTOP Manager</li><li>• Collaborate with RTOP Manager to develop and implement strategies to mitigate impacts of construction and any new lane configuration</li></ul>

**Table 6: Roles: System Maintenance and Operations Improvements**

		RTOP Manager/ Corridor Manager	Local Agency	
			FDOT Lead	Local Lead
<b>System Maintenance</b>	Issue reporting, tracking and management	<ul style="list-style-type: none"> <li>• Develop reports indicating system functionality and work orders to repair system components that are not functioning</li> <li>• Notify local agency of issues that cannot be resolved by the program</li> </ul>	<ul style="list-style-type: none"> <li>• Participate in development of issue tracking mechanism</li> </ul>	<ul style="list-style-type: none"> <li>• Participate in development of issue tracking mechanism</li> <li>• Request RTOP Manager to repair communications, detection and surveillance (if Local Agency is unable to repair in a timely manner)</li> </ul>
	Maintenance	<ul style="list-style-type: none"> <li>• Prepare and maintain forms and procedures for preventative maintenance</li> <li>• Direct preventative maintenance efforts with Traffic Signal Technicians</li> <li>• Procure materials from FDOT for preventative maintenance tasks</li> </ul>	<ul style="list-style-type: none"> <li>• Provide emergency response maintenance (indication failures, flash, knockdowns, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide emergency response maintenance (indication failures, flash, knockdowns, etc.)</li> <li>• Perform routine maintenance</li> <li>• Perform preventative maintenance</li> </ul>
<b>Operations Improvements</b>	Regional monitoring and management system implementation	<ul style="list-style-type: none"> <li>• Prepare plan for monitoring and system design</li> </ul>	Provide input to RTOP and Program Manager in order have local agency perspective in design of system and selection of monitoring plan	Provide input to RTOP and Program Manager in order have local agency perspective in design of system and selection of monitoring plan
	Equipment Upgrades	<ul style="list-style-type: none"> <li>• Review and prioritize recommendations for new field equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Perform signal upgrades with cooperation of local agency</li> </ul>	Perform signal upgrades with cooperation of local agency
	Operational and safety upgrades	<ul style="list-style-type: none"> <li>• Summarize recommendations and submit for approval improve operational performance</li> </ul>	<ul style="list-style-type: none"> <li>• Cooperate with FDOT on making improvements</li> <li>• Inform RTOP Manager of upcoming capital or operational projects that will impact corridor operations</li> </ul>	<ul style="list-style-type: none"> <li>• Same as FDOT Lead</li> <li>• Inform RTOP Manager of upcoming capital or operational projects that will impact corridor operations</li> </ul>

**Table 7: Roles: Performance Monitoring**

		RTOP Manager/ Corridor Manager	Local Agency	
			FDOT Lead	Local Lead
Performance Monitoring	Establish performance monitoring and management system	<ul style="list-style-type: none"><li>• Develop recommendations for performance management strategy on a corridor-by-corridor basis</li><li>• Collect performance measurement data and report to Program Manager</li></ul>	<ul style="list-style-type: none"><li>• Track measures of effectiveness as outlined in the MOU</li></ul>	<ul style="list-style-type: none"><li>• Track measures of effectiveness as outlined in the MOU</li></ul>
	Produce performance measure reports	<ul style="list-style-type: none"><li>• Develop recommendations for performance management strategy on a corridor-by-corridor basis</li><li>• Collect performance data from Local Lead agencies</li><li>• Compile and summarize inventory of functioning and non-functioning detection, communications and surveillance devices</li></ul>	<ul style="list-style-type: none"><li>• Update the Corridor Manager on any repairs to detections and communications issues</li><li>• Review and provide comment on reports</li></ul>	<ul style="list-style-type: none"><li>• Provide performance data to RTOP Managers</li></ul>

### 3.4. Operational Costs

In addition to the cost of design, equipment procurement, installation and construction there is also a cost to be considered by the County and City for additional staff that may be required for the operation and maintenance of the ATMS and its continued efficiency. A number of functions are typically performed and supported at the Traffic Management Centers. Some of those functions from previous studies are:

- Traffic monitoring
- Control of ITS devices
- Maintenance, repair and troubleshooting
- Dissemination of information
- Personnel management
- Data analysis
- Interface with media and public
- Plan, recommend, implement system and procedural upgrades
- Coordination with incident response agencies
- Coordination with other local and regional transportation agencies

The number of additional staff members is usually decided during the design phase and is based on the desired functions listed above. The two critical factors are the number of functions to be

supported by the TMC and the workload associated with supporting each function. To provide a budgetary assessment a suggested number of personnel is as follows:

- RTOP Manager - 1
- TMC Operator(s) – 2

Based on previous studies and reports approximately \$200,000.00 per year should cover salaries and benefits for the additional personnel. In addition, costs for software licenses, equipment maintenance agreements and training must be considered. These funds would be part of the general operating budget and is estimated to be \$100,000.00.

An estimate of \$300,000.00 on a yearly basis for the County and City is projected.

## 4. PERFORMANCE MEASURES

The goal for the program is increasing travel throughput by minimizing congestion and reducing delays along the corridors included in the ATMS Master Plan. In order to maintain continued support for the ATMS, it is important to define the effectiveness of the program through the use of performance measures. Performance measures will serve as the basis of measuring progress towards meeting the program mission. Performance measurement for the ATMS will generally fall into two categories – output and outcome measures. These categories are further defined below.

### 4.1. Output Measures

Output measures are focused on the performance of particular aspects of the program and typically seek to measure individual actions or performance of one element of the system. For instance, output measures would include performance of the field equipment and can be used as an indicator of the effectiveness and efficiency of the field operations. Output measures do not directly measure the system throughput, but rather serve as a measure of how effectively the system is being maintained and how quickly problems are addressed. By maintaining system hardware and quickly responding to customer complaints, optimum system performance is achieved.

**Table 8: Output Measures**

Measure	Goal
Vehicle Detection Devices	>95% operational
Pedestrian Detection Devices	>95% operational
Complaint Response Time	<24 hours
Proactive Identification of Equipment Malfunctions	>70% of malfunctions detected

## 4.2. Outcome Measures

Outcome measures are focused on the overall effectiveness of the program. As opposed to output measures, outcome measures seek to serve as an indicator of the progress the program makes towards meeting its mission of improving system throughput. Outcome measures also gauge customer satisfaction, which is an important measure in maintaining support for the ATMS investment.

**Table 9: Outcome Measures**

Measure	Goal
Complaint Response Time	<24 hours
Travel Times (Minimum 2 times per year per corridor)	Improvement over baseline measurement and no increase in subsequent periods
Throughput	Increase in volumes less than percent increase in stops and delay
Consumer Satisfaction Surveys	TBD
Travel-time reliability	TBD
Other Studies (Queue Analysis)	Qualitative evaluation of the impact of the program on side street queues and delays
Other Studies (Safety Analysis)	Reduction in vehicular and pedestrian crash rates, number, severity and cost of crashes.
Energy and Environment	Decrease in energy consumption, noise and emissions levels

### 4.2.1. Bluetooth Vehicle Detection System

The Bluetooth Travel-Time Origin and Destination system is an advanced traffic monitoring system. The road or intersection installed equipment directly measures travel times using cost-effective, non-intrusive roadside technology. Bluetooth Travel-Time Origin and Destination detects the anonymous MAC address of Bluetooth signals broadcasted from mobile devices in vehicles, such as phones, headsets and music players, and thereby punches the location and time stamp of the vehicles. This enables the central system to determine accurate travel times and average speeds along the existing road network. The devices provide a secure interface for the clients to initiate services, view content, and manage permissions to access various levels of the data. The devices manufactured by the TrafficCast can be a permanent or a portable device and can be installed independently using a cellular data connection and a local power source or even a solar panel. The system provides a user friendly interface and a secure interface to initiate services, view content, and manage permissions to access various levels of the data.

Bluetooth technology will help meet the requirements of the performance based planning and programming measures of the funding option MAP-21.

## 5. STRATAGIES FOR CONCEPT OF OPERATIONS FOR ST. LUCIE COUNTY

### 5.1. Introduction

St. Lucie County, the city of Ft. Pierce and the city of Port St. Lucie are facing many challenges to creating and maintain their respective transportation and traffic systems. These agencies responsible for operation and management of traffic signals have limited resources and staff redundancy to guarantee continuity over time. By creating cross agency collaboration, and establishing one entity, the opportunity is there for pooling resources in technology, staff and funding that could provide a benefit for all parties involved and for the general public and provide the best strategy for a successful and efficient operational concept.

### 5.2. Establishing One Entity

There are seven essential keys to obtaining cross agency cooperation and establishing the one entity institutionally for an efficient transportation system:

1. **Participants:** St. Lucie County, City of Port St. Lucie and the City of Ft. Pierce.
2. **Leadership:** How leadership will be sustained over the long-term will need to be defined. Roles and responsibilities shall be clearly defined.
3. **Clarity of Roles and Responsibilities:** Participating agencies will need to have their roles and responsibilities clarified and documented.
4. **Resources:** How the collaborative effort will be staffed and funded needs to be well defined.
5. **Bridging Organizational Cultures:** The missions and organizational cultures should be combined to form one mission and organization. Common technology and terminology should be agreed on.
6. **Accountability and Outcomes:** Short term and long term goals shall be established and agreed upon by all agencies. Tracking and performance measures are required to monitor and measure progress and performance.
7. **Written Guidance and Agreement:** Each agency shall get approval from their elected officials. An inter-local agreement between the participating agencies documenting the collaboration regarding steps 1-6 will be required.

### **5.3. Strategies for Collaboration**

The FHWA document *"Collaborative Advantage: Realizing the Tangible Benefits of Regional Transportation Operations Collaboration"* highlights 10 collaborative strategies and actions agencies commonly use in their efforts to improve transportation systems performance. These strategies and actions to realize benefits are:

- "Follow the Money": collaborative pursuit of funding.
- "Get Smart": sharing expertise and joint learning.
- "With One Voice": coordinating communications and giving a consistent message.
- "On the Same Page": developing common procedures, protocols, and plans.
- "Measuring Up": jointly measuring performance.
- "You Ought to Know": sharing transportation information.
- "Can You Hear Me Now?": developing tools for efficient communications.
- "Sharing the Wealth": sharing resources.
- "Building Economies of Scale": consolidating services.
- "All Together Now": performing joint operations.

### **5.4. Benefits of One Entity:**

The vision of collaboration between the partner agencies to provide highly effective transportation services through the combined use of the partners' collective resources to maximize safety and mobility to the public. Regional collaboration offers significant benefits, and this report focuses on overcoming the barriers that hinder regional traffic signal operations programs. These barriers are not technological but rather institutional, organizational, and budgetary. Diminishing resources both hinder and necessitate the cohesiveness of traffic signal systems. However, specific examples of benefits include:

- Operating agencies increase access to funding by participating in joint funding applications.
- Agencies undertake larger, more technologically advanced projects by leveraging their expertise and resources with other agencies.
- Participating agencies help meet regional goals to reduce delay, fuel consumption, and emissions through coordinated initiatives, such as signal timing programs.

## **6. WRITTEN AGREEMENTS**

As the agencies move forward with implementing the ATMS Plan, an initial agreement will be required to be prepared and adopted by the participating agencies. While these agencies will face constraints in developing terms and conditions that are accepted by the legal counsel to each party, the first successful agreement should streamline the path to the preparation and execution of future agreements under the Regional ATMS program. Examples of Interagency Agreements are shown in **Appendix B**.

## **Appendix A**

### **Project Phasing**

	Roadway	Intersection	Maintaining Agency	Intersection Number	MP	CCTV
<b>Phase I</b>						
<b>US 1 (Federal Highway)</b>						
1	US 1	Savanna Club Boulevard	SLC	036	3.743	CCTV
2	US 1	Spanish Lakes Road	SLC	035	4.532	
3	US 1	Prima Vista Boulevard	SLC	103	5.051	CCTV
4	US 1	Rio Mar Drive	SLC	034	5.461	
5	US 1	Lake Vista Trail	SLC	067	5.720	
6	US 1	Kitterman Road	SLC	048	6.240	
7	US 1	Easy Street	SLC	042	6.804	CCTV
8	US 1	Ulrich Road	SLC	068	7.403	
9	US 1	Midway Road (CR 712)	SLC	003	8.255	CCTV
10	US 1	Wetherbee Road	SLC	050	8.753	
11	US 1	Farmers Market Road	FP	001	9.813	CCTV
12	US 1	Edwards Road (CR 611)	FP	002	10.752	CCTV
13	US 1	Emil Avenue	FP	003	10.873	
14	US 1	Gardenia Avenue	FP	004	11.462	
15	US 1	Virginia Avenue	FP	005	11.777	
16	US 1	Ohio Avenue	FP	006	12.253	
17	US 1	Parkway Drive	FP	007	12.431	
18	US 1	Sunrise Boulevard	FP	008	12.741	
19	US 1	Delaware Avenue	FP	009	13.015	
20	US 1	Citrus Avenue	FP	010	13.049	
21	US 1	Orange Avenue	FP	011	13.249	
22	US 1	Avenue A	FP	012	13.334	
23	US 1	Avenue C (Backus Ave)	FP	013	13.515	
24	US 1	Avenue D	FP	014	13.634	
25	US 1	Seaway Drive	FP	015	13.824	
26	US 1	Avenue H	FP	016	13.972	
27	US 1	SR A1A	SLC	020	14.937	CCTV
28	US 1	St. Lucie Boulevard	SLC	014	16.016	CCTV
29	US 1	SR 615 (North 25 <sup>th</sup> Street)	SLC	032	17.032	CCTV
30	US 1	SR 614 (Indrio Road)	SLC	016	18.682	CCTV
31	US 1	SR 713 (Kings Highway)	SLC	017	21.292	CCTV
<b>Intersections Near US 1</b>						
32	North Beach Causeway	Old Dixie Highway	SLC	026	NA	
33	North Ocean Drive	Old Dixie Highway	SLC	019	NA	
34	North Ocean Boulevard	County Road 707	FP	043	NA	
35	Avenue D	North 7 <sup>th</sup> Street	FP	069	NA	
36	Orange Avenue	County Road 707	FP	035	NA	
<b>Edwards Road (CR 611)</b>						
37	Edwards Road (CR 611)	Oleander Avenue	SLC	005	NA	
38	Edwards Road (CR 611)	Sunrise Boulevard	SLC	006	NA	
39	Edwards Road (CR 611)	South 25 <sup>th</sup> Street (CR 611)	SLC	007	NA	CCTV
40	Edwards Road	Selvitz Road	SLC	047	NA	
<b>South 25<sup>th</sup> Street (CR 615)</b>						
41	South 25 <sup>th</sup> Street (SR 615)	Forrest Grove	SLC	065	NA	
42	South 25 <sup>th</sup> Street (SR 615)	Bell Avenue	SLC	066	NA	CCTV
<b>SR 70 (Virginia Avenue/Okeechobee Road)</b>						
43	SR 70 (Okeechobee Road)	SR 713 (Kings Highway)	FP	034	20.523	CCTV
44	SR 70 (Okeechobee Road)	Crossroads Pkwy./Peters Rd.	FP	033	20.852	
45	SR 70 (Okeechobee Road)	I-95 SB Ramps	FP	032	21.091	
46	SR 70 (Okeechobee Road)	I-95 NB Ramps	FP	031	21.347	
47	SR 70 (Okeechobee Road)	South Jenkins Road	FP	030	21.853	CCTV
48	SR 70 (Okeechobee Road)	McNeil Road	FP	029	22.140	
49	SR 70 (Okeechobee Road)	West Mall Entrance	FP	028	22.453	CCTV
50	SR 70 (Okeechobee Road)	Central Mall Entrance	FP	027	22.500	
51	SR 70 (Virginia Avenue)	Okeechobee Road	FP	024	22.626	
52	SR 70 (Virginia Avenue)	South 35 <sup>th</sup> Street	FP	023	23.101	
53	SR 70 (Virginia Avenue)	SR 615 (South 25 <sup>th</sup> Street)	FP	022	23.723	CCTV
54	SR 70 (Virginia Avenue)	South 13 <sup>th</sup> Street	FP	021	24.538	
55	SR 70 (Virginia Avenue)	Sunrise Boulevard	FP	018	24.693	
56	SR 70 (Virginia Avenue)	Oleander Avenue	FP	017	24.859	

	Roadway	Intersection	Maintaining Agency	Intersection Number	MP	CCTV
<b>Phase II</b>						
<b>CR 68 (Orange Avenue)</b>						
1	CR 68 (Orange Avenue)	SR 713 (Kings Highway)	SLC	011	NA	
2	CR 68 (Orange Avenue)	South Jenkins Road	SLC	056	NA	
3	CR 68 (Orange Avenue)	Hartman Road	SLC	027	NA	
4	CR 68 (Orange Avenue)	33 <sup>rd</sup> Street	FP	042	NA	
5	CR 68 (Orange Avenue)	SR 615 (South 25 <sup>th</sup> Street)	FP	041	NA	CCTV
6	CR 68 (Orange Avenue)	South 17 <sup>th</sup> Street	FP	040	NA	
7	CR 68 (Orange Avenue)	South 13 <sup>th</sup> Street	FP	039	NA	
8	CR 68 (Orange Avenue)	South 10 <sup>th</sup> Street	FP	038	NA	
9	CR 68 (Orange Avenue)	South 7 <sup>th</sup> Street	FP	037	NA	CCTV
10	CR 68 (Orange Avenue)	South 5 <sup>th</sup> Street	FP	036	NA	
<b>South 7<sup>th</sup> Street</b>						
11	7 <sup>th</sup> Street	Avenue A	FP	058	NA	
<b>CR 712 (Midway Road)</b>						
12	CR 712 (Midway Road)	I-95 SB Ramps	SLC	045	NA	
13	CR 712 (Midway Road)	I-95 NB Ramps	SLC	057	NA	
14	CR 712 (Midway Road)	Glades Cutoff Rd (CR 709)	SLC	038	NA	CCTV
15	CR 712 (Midway Road)	Torino Parkway	SLC	053	NA	
16	CR 712 (Midway Road)	Selvitiz Road	SLC	040	NA	CCTV
17	CR 712 (Midway Road)	SR 615 (South 25 <sup>th</sup> Street)	SLC	022	NA	CCTV
18	CR 712 (Midway Road)	Oleander Avenue	SLC	004	NA	
<b>Prima Vista Boulevard</b>						
19	Prima Vista Boulevard	Fire Station	SLC	117	NA	
20	Prima Vista Boulevard	Airosa Boulevard	SLC	116	NA	CCTV
21	Prima Vista Boulevard	Floresta Boulevard	SLC	015	NA	
22	Prima Vista Boulevard	Naranja Drive	SLC	014	NA	CCTV
23	Prima Vista Boulevard	Rio Mar Drive	SLC	013	NA	
<b>Phase III</b>						
<b>SR 615 (South 25<sup>th</sup> Street)</b>						
1	SR 615 (South 25 <sup>th</sup> Street)	Ft Pierce Central	SLC	033	0.000	
2	SR 615 (South 25 <sup>th</sup> Street)	Cortez Boulevard	SLC	069	0.496	
3	SR 615 (South 25 <sup>th</sup> Street)	Okeechobee Road	FP	050	1.796	CCTV
4	SR 615 (South 25 <sup>th</sup> Street)	Delaware Avenue	FP	051	2.244	
5	SR 615 (South 25 <sup>th</sup> Street)	Avenue D	FP	052	2.874	CCTV
6	SR 615 (South 25 <sup>th</sup> Street)	Avenue I	FP	053	3.255	
7	SR 615 (South 25 <sup>th</sup> Street)	Avenue M	FP	054	3.505	
8	SR 615 (South 25 <sup>th</sup> Street)	Avenue Q	FP	056	3.756	CCTV
9	SR 615 (South 25 <sup>th</sup> Street)	Juniata Avenue	SLC	041	4.249	
10	SR 615 (South 25 <sup>th</sup> Street)	St. Lucie Boulevard	SLC	021	5.016	CCTV
<b>Okeechobee Road</b>						
11	Okeechobee Road	33 <sup>rd</sup> Street	FP	025	NA	
12	Okeechobee Road	Georgia Avenue	FP	058	NA	
13	Okeechobee Road	Hartman Road	FP	026	NA	
<b>Delaware Avenue</b>						
14	CR 712 (Midway Road)	7 <sup>th</sup> Street	FP	057	NA	
15	CR 712 (Midway Road)	10 <sup>th</sup> Street	FP	064	NA	
16	CR 712 (Midway Road)	13 <sup>th</sup> Street	FP	065	NA	CCTV
17	CR 712 (Midway Road)	17 <sup>th</sup> Street	FP	066	NA	
<b>17<sup>th</sup> Street and 13<sup>th</sup> Street</b>						
18	17 <sup>th</sup> Street	Georgia Avenue	FP	061	NA	
19	17 <sup>th</sup> Street	Nebraska Avenue	FP	075	NA	
<b>Georgia Avenue and Sunrise Boulevard</b>						
20	Georgia Avenue	7 <sup>th</sup> Street	FP	059	NA	
21	Sunrise Boulevard	Parkway Drive	FP	079	NA	
<b>Avenue D</b>						
22	Avenue D	13 <sup>th</sup> Street	FP	070	NA	
23	Avenue D	17 <sup>th</sup> Street	FP	071	NA	
24	Avenue D	29 <sup>th</sup> Street	FP	072	NA	

	Roadway	Intersection	Maintaining Agency	Intersection Number	MP	CCTV
<b>Phase IV</b>						
<b>SR 713 (Kings Highway)</b>						
1	SR 713 (Kings Highway)	Angle Road	SLC	012	3.896	CCTV
2	SR 713 (Kings Highway)	St. Lucie Boulevard	SLC	013	4.926	CCTV
3	SR 713 (Kings Highway)	SR 614 (Indrio Road)	SLC	015	7.488	CCTV
4	SR 713 (Kings Highway)	Winter Garden Parkway	SLC	010	8.219	CCTV
<b>SR 614 (Indrio Road)</b>						
5	SR 614 (Indrio Road)	Johnston Road	SLC	070	1.563	
<b>Angle Road</b>						
6	Angle Road	Avenue Q	FP	049	NA	CCTV
<b>Delaware Avenue</b>						
7	Delaware Avenue	33 <sup>rd</sup> Street	FP	068	NA	
<b>17<sup>th</sup> Street</b>						
8	17 <sup>th</sup> Street	Avenue I	FP	077	NA	
<b>SR A1A</b>						
9	SR A1A	Atlantic Beach Boulevard	SLC	018	2.526	CCTV
10	SR A1A	Binney Drive	FP	048	15.373	
<b>City of Port ST. Lucie Phase</b>						
<b>Floresta Drive</b>						
1	Floresta Drive	Thornhill Drive	PSL	NA	NA	
2	Floresta Drive	Southbend Drive	PSL	NA	NA	
<b>Prima Vista Boulevard</b>						
3	Prima Vista Blvd.	Irving Street	PSL	NA	NA	
<b>Port St. Lucie Boulevard</b>						
4	Port St. Lucie Boulevard	Paar Drive	PSL	NA	NA	
<b>St. James Drive</b>						
5	St. James Drive	St. James Blvd.	PSL	NA	NA	
<b>St. James Blvd.</b>						
6	St. James Blvd.	Selvitz Road	PSL	NA	NA	
<b>Westmoreland Drive</b>						
7	Westmoreland Drive	Gardens Way	PSL	NA	NA	

## **Appendix B**

### Examples of Interagency Agreements

**LAS VEGAS AREA  
TRAFFIC CONTROL SYSTEM AGREEMENT**

As amended by Amendment #1, March 19, 1991,  
and Amendment #2, July 16, 1991,  
and Amendment #3, July 12, 1991.

THIS AGREEMENT, made and entered into this 21st day of January, 1981, by and between the CITY OF LAS VEGAS, NEVADA (alternately referred to as the "CITY OF LAS VEGAS," the "central operator" or in a collective manner with the CITY OF NORTH LAS VEGAS, NEVADA and the COUNTY OF CLARK, NEVADA as "jurisdictional operators"), the CITY OF NORTH LAS VEGAS, NEVADA and the COUNTY OF CLARK (alternately referred to as the "CITY OF NORTH LAS VEGAS" or the "COUNTY OF CLARK," respectively, or in a collective manner as "jurisdictional operators"), the CLARK COUNTY REGIONAL TRANSPORTATION COMMISSION (hereinafter referred to as the "REGIONAL TRANSPORTATION COMMISSION") and the STATE OF NEVADA (alternately referred to as "NEVADA DOT"):

**WITNESSETH**

WHEREAS the State of Nevada, Department of Transportation, engaged and independent consultant, PAWA, Incorporated, and Montgomery Engineers of Nevada, Incorporated, Joint Venture, to perform a signal system feasibility study for the Las Vegas Urban Area including the City of Las Vegas, City of North Las Vegas, and the County of Clark;

AND WHEREAS that report was prepared under review and supervision of each of the above named agencies;

AND WHEREAS the feasibility report recommended that traffic signals in all three above named jurisdictions be coordinated from one central traffic control center;

AND WHEREAS the above mentioned parties have approved and accepted the findings of the report;

AND WHEREAS improvement in traffic operational efficiency and monetary savings can be realized from such a consolidated management approach;

AND WHEREAS the parties hereto desire to install a Traffic Control System, hereinafter defined, for the purpose of coordinating traffic signals in the above named jurisdictions from

one central traffic control center;

AND WHEREAS the parties hereto are authorized pursuant to the provisions of Chapter 277 of the Nevada Revised Statutes to enter into an interlocal agreement for the purpose of coordinating traffic signals between and within the jurisdictional boundaries of the above named jurisdictions;

NOW, THEREFORE, in consideration of the covenants and conditions herein set forth, the parties hereto mutually agree to the following:

## SECTION I: SHORT TITLE

This Agreement may be referred to as the Las Vegas Area Traffic Control Agreement.

## SECTION II: DEFINITIONS

**HARDWARE** - The physical equipment composing a computer system.

**JURISDICTIONAL BOUNDARIES** - The geographical boundaries of the governmental entity acting as a political subdivision of the State of Nevada.

**JURISDICTIONAL CONTROL CENTER** - The site or location designated by the jurisdictional operator containing various equipment capable of controlling and coordinating those traffic signals and intersections located within the jurisdictional boundaries of the jurisdictional operator.

**MASTER CONTROL HARDWARE** - That equipment located at the Traffic Control Center consisting of a central computer, disk storage device, teletypewriter, line printer, color cathode ray tube with keyboard, card reader, magnetic tape unit, map display, operator control panel, and map control panel, all of which are more fully described in the Las Vegas Urban Area Traffic Control Study (Final Report, March 1979) and any other similar equipment which might be added in the future.

**TRAFFIC CONTROL CENTER** - The site or location designated by the NEVADA DOT containing various equipment capable of controlling and coordinating the overall Traffic Control System.

**PRIORITY TIME** - The period of time as determined by the Operations Committee during which all traffic signals which are part of the Traffic Control System are operated and controlled according to previously approved traffic signal timing plans for the purpose of providing arterial and network coordination of traffic within and across jurisdictional boundaries.

**PROJECT ADVISORY COMMITTEE** - That committee created for the purpose of assisting and advising the NEVADA DOT with respect to the plans, specifications, construction and installation of the Traffic Control System and consisting of one representative from CITY OF LAS VEGAS, the CITY OF NORTH LAS VEGAS, the COUNTY OF CLARK, and the CLARK

COUNTY REGIONAL TRANSPORTATION COMMISSION.

SOFTWARE - All of the programs executed on the computer.

STRATEGY - Procedure used to determine specific traffic control measures to be applied during a control period.

TRAFFIC CONTROL SYSTEM - An array of components including traffic signal controllers, detectors, interconnect conduit and cable, interface units, computer, magnetic tape, disks, map displays, cathode ray tubes (CRT), line printer, teleprinter, operator's console, peripherals, and other related devices designed to monitor, control, and coordinate traffic movements at signalized intersections according to a given or developed plan.

TRAFFIC DETECTOR - A device located in or near the roadway which is acted upon directly by a vehicle to create a usable pulse to an intersection control device.

TRAFFIC SIGNAL LOCAL CONTROLLER - A complete electrical mechanism responsible for traffic signal control and operation at an individual intersection.

TRAFFIC SIGNAL MASTER CONTROLLER - A complete electrical mechanism responsible for traffic signal control and operation of more than one intersection in a coordinated manner.

TRAFFIC SIGNAL SUBSYSTEMS - Groups of traffic signalized intersections coordinated with their own programs, which can alternately operate as an independent system and, when traffic conditions permit, operate on the same program with adjacent subsystems to form a larger coordinated subsystem.

TRAFFIC SIGNAL TIMING PLANS - Documented hard copy which the Signal System Manager shall keep on file and supply to the jurisdictional operator. The copy shall include time space diagrams for each subsystem, signal operating parameters, proof of efficiency, and time of day operations schedules.

### SECTION III: PARTIES TO THE AGREEMENT

The CITY OF HENDERSON, the CITY OF LAS VEGAS, the CITY OF NORTH LAS VEGAS, and the COUNTY OF CLARK are the designated jurisdictional operators whose responsibilities are more fully described under Section IV (B) of this Agreement.

The CITY OF LAS VEGAS is designated both a jurisdictional operator subject to the provisions of Section IV (B) of this Agreement and the central operator whose responsibilities are more fully described under Section IV (A) of this Agreement.

The NEVADA DOT is that party whose interests are limited solely to (1) installing the initial Traffic Control System within the jurisdictional boundaries of the jurisdictional operators according to the availability of federal funds or such state funds as might be approved and appropriated by the NEVADA DOT for such purpose, (2) providing, subsequent to installation, such financial assistance for the operation and maintenance of the Traffic Control System as is available from federal funding and as might be approved and appropriated by the NEVADA DOT for such purpose, and (3) serving as a voting member of the Operations Committee during the existence of this Agreement or until amended

otherwise.

The REGIONAL TRANSPORTATION COMMISSION shall act solely as an interested party under this Agreement with no responsibilities, financial or otherwise for the performance of this Agreement, OTHER THAN to act as a non-voting, ex-office member of the Operations Committee.

#### SECTION IV: RESPONSIBILITIES OF THE CENTRAL OPERATOR, JURISDICTIONAL OPERATORS AND THE OPERATIONS COMMITTEE

A. CENTRAL OPERATOR. It is hereby agreed by and between all the parties hereto that the CITY OF LAS VEGAS is designated as the central operator of the Traffic Control System.

- (1) Daily Operator: The central operator is responsible for the daily operations of the Traffic Control Center whose location shall be at a site within the jurisdictional boundaries of the City of Las Vegas, Nevada. The Traffic Control Center shall serve as the focal point for the day-to-day activities related to the operation and management of the Traffic Control System.

The Traffic Control Center shall consist of master control hardware capable of providing the central operator with (1) a high level of centralized system surveillance, and (2) the ability to respond quickly to traffic conditions occurring within the System.

- (2) Financial Agent: It shall be the responsibility of the central operator to receive and collect from each of the parties to this Agreement their proportionate share of the operating funds as determined by the budgetary formula provided in Section V.

The Treasurer of the CITY OF LAS VEGAS shall act as the duly appointed representative on behalf of the central operator and shall have the power and authority to disburse the funds on deposit with the Treasurer for purposes of paying the operating and maintenance expenses, or other related expenses of the Traffic Control Center.

- (3) Maintenance Agent: The central operator shall also be responsible for performing or supervising all maintenance deemed necessary to the Traffic Control Center by the Operations Committee. Payments of these maintenance and operation expenses shall be by the central operator from the funds allocated by the parties to this Agreement for this purpose.

- (4) The central operator is authorized to engage the services of one or more consultants, in each case with the prior approval of the Operations Committee, for purposes of analyzing and making recommendations concerning improvements to and/or expansion of the computer system described in this Agreement, and for purposes of implementing said improvements and/or expansion.

B. JURISDICTIONAL OPERATORS. The CITY OF HENDERSON, CITY OF LAS VEGAS, CITY OF NORTH LAS VEGAS and the COUNTY OF CLARK shall operate their own jurisdictional management centers capable of controlling those traffic control signals located within their own jurisdictional boundaries.

- (1) Equipment and Maintenance: Each jurisdictional control center shall be equipped in a manner approved by the jurisdictional operator and the NEVADA DOT. Each jurisdiction operator is responsible for the maintenance of all equipment such as, but not limited to, local controllers, interfaces, traffic detectors and communication cables located within its jurisdictional boundaries which are part of the Traffic Control System and not covered by any previously agreed to maintenance agreement.
- (2) Capabilities: The jurisdictional operators shall have the capability for coordinating the timing of traffic signal subsystems within their own jurisdiction and provide such traffic signal timing as inputs to the overall timing coordination of the Traffic Control System separate and apart from the signal timing coordination necessary to the initial implementation of the Traffic Control System and any periodical retiming updates for the overall system.
- (3) Modifications: Any upgrade, modification or expansion in the master control hardware or software necessitated by the traffic control needs of a party hereto shall be paid for by that party unless it is determined by the Operations Committee that the upgrade, modification or expansion benefits the overall Traffic Control System. If the Operations Committee determines that the upgrade modification or expansion benefits the overall System then the cost thereof shall be treated by the central operator like any other expense of the Traffic Control System.

C. OPERATIONS COMMITTEE.

- (1) Membership and Meetings: The Operations Committee shall be composed of representatives from the parties to this Agreement in the following manner:

Party	Membership Number
NEVADA DOT	1
REGIONAL TRANSPORTATION COMMISSION	1

(Non-voting, ex officio member)	
COUNTY OF CLARK	1
CITY OF LAS VEGAS	1
CITY OF NORTH LAS VEGAS	1
CITY OF HENDERSON	1

The representative designated on behalf of each party shall be selected from among the following: The Director of Public Works or City Traffic Engineer for the CITY OF HENDERSON, the Director of Public Works or City Traffic Engineer for the CITY OF LAS VEGAS, the Director of Public Works or Transportation Services Administrator for the CITY OF NORTH LAS VEGAS, the Director of Public Works or the Traffic Manager for the COUNTY OF CLARK, the Director, Deputy Director or the District Engineer of the NEVADA DOT, and the Director of the CLARK COUNTY REGIONAL TRANSPORTATION COMMISSION. Each representative shall have a designated alternate with full authority to act in the absence of the representative. The Operations Committee may be expanded to include other additional members as approved by majority vote of the members of the existing Operations Committee.

The Operations Committee shall meet minimally on a monthly basis but may meet more frequently if the problems or business of the Operations Committee necessitate such additional meetings. The chairperson of the Operations Committee shall have the authority to call a meeting of the Committee with a minimum of seven (7) calendar days' notice to all the members. Notice is deemed to have occurred from the date that it is deposited with the United States Postal Service, postage prepaid, addressed to the members of the Operations Committee.

- (2) Chairperson and Vice-Chairperson: In the first meeting of the Operations Committee, the members shall proceed to elect by majority vote of all of the voting members of the Committee, from amongst the members of the Committee, a chairperson and vice-chairperson who will serve a term of one year. Thereafter, a chairperson and vice-chairperson will be elected by a majority vote of all the voting members of the Committee on an annual basis. Said election will occur at the last regularly scheduled meeting of the Operations Committee prior to the expiration of the chairperson's and vice-chairperson's one-year term. All Committee records shall be maintained in accordance with NRS Chapter 241 on public records at the Traffic Control Center.
- (3) Quorum and Voting: Except for the REGIONAL TRANSPORTATION COMMISSION, all members of the Operations Committee shall be entitled to one vote on all matters submitted to the Committee for vote. The REGIONAL

TRANSPORTATION COMMISSION shall have a representative on the Operations Committee who shall act solely in a non-voting ex officio capacity.

Any three of the voting members of the Operations Committee shall constitute the quorum necessary to convene the meeting of the Committee. All official action by the Operations Committee shall require a majority vote of the members present at the meeting.

Each member shall have the power to recall any matter voted upon during his absence at a regularly scheduled meeting if prior to the next regularly scheduled meeting said member informs the Chairperson in writing in sufficient time to comply with all the notice requirements of the Open Meeting Law (Chapter 241 of the Nevada Revised Statutes and any subsequent amendments thereto) and at least ten (10) days prior to the date of the next regularly scheduled meeting of his intent to subject the previously approved or disapproved matter to revote of the then present members. If a previously voting member is not present for the revote, then said member is deemed to cast his or her vote in the same manner as previously voted on the matter.

- (4) Responsibilities: The Operations Committee shall be responsible for the following:
- (a) Formulating overall policy relative to the operation and maintenance of the Traffic Control Center;
  - (b) Monitoring the progress of the installation of the Traffic Control System;
  - (c) Monitoring on a periodic basis the functioning of the Traffic Control System for the purpose of proposing operational changes deemed necessary to the efficient operation of the System;
  - (d) Providing instructions and directions to the Signal System Manager when requested by the manager or deemed necessary by the Committee;
  - (e) Deciding all matters which might be submitted for decision by the Signal System Manager pertaining to day-to-day operation and maintenance of the Traffic Control Center;
  - (f) Selecting those traffic signal timing plans and strategy to be in effect for the Traffic Control System during priority time;
  - (g) Filing an annual report with the various governmental entities with

membership on the Operations Committee detailing the performance of the Traffic Control System and recommending possible improvements to the System;

- (h) Approving or disapproving the requested additions to or deletions of traffic signals from the Traffic Control System by one of the parties pursuant to the provisions of Section VI B (3) of this Agreement;
- (i) Approving the creation of new employee positions in connection with the operation of the Traffic Control Center;
- (j) Approving the deletion of existing employee positions in connection with the operation of the Traffic Control Center;
- (k) Reviewing all proposed selections, terminations, classifications or other personnel actions with respect to employees in the Traffic Control Center for the purpose of formulating their recommendations on such action for consideration by the central operator;
- (l) Reviewing and approving monthly the budgetary needs and expenditures of the Traffic Control Center;
- (m) Determining whether any proposed upgrade, modifications or expansion is the result of the needs of an individual party hereto so as to be the sole financial responsibility of that party, or of benefit to the overall Traffic Control System.

#### SECTION V: DESIGN AND IMPLEMENTATION

- A. GENERAL. The NEVADA DOT shall be responsible for initiating and supervising installation of all new equipment, or the restructuring of existing equipment necessary to the installation and operation of the Traffic Control System.
- B. PLANS AND SPECIFICATIONS. Implementation and installation of the components of the initial Traffic Control System will be according to plans and specifications prepared on behalf of the NEVADA DOT and which are reviewed and approved by the other parties to this Agreement. The implementation of the project plans and specifications shall be the prime responsibility of the NEVADA DOT with monitoring by the members of the Project Advisory Committee, and if desirable by the Operations Committee for the purpose of recommending changes to the NEVADA DOT in the implementation of those plans and specifications.

- C. TRANSPORTATION MANAGEMENT CENTER. The NEVADA DOT shall designate on state owned property the location of, and shall construct thereon according to the design recommended by the Las Vegas Urban Area Traffic Control System Study (Final Report, March 1979), the Traffic Control Center. The master control hardware, and any other equipment necessary to the operation of the Traffic Control Center shall be provided by the NEVADA DOT through the use of federal funds or such state funds as might be appropriated by the NEVADA DOT. Title to the property, building, master control hardware and any other equipment therein shall remain in the name of the STATE OF NEVADA.
- D. JURISDICTIONAL CONTROL CENTER. The NEVADA DOT shall be responsible for installing, at its own expense, a map display, control console with line printer and cathode ray tube at the location designated by the jurisdictional operator as the site of the Jurisdictional Control Center. Any additional or duplicative equipment shall be the responsibility, both installation and maintenance expense, of the jurisdictional operators. Title to all of the equipment installed by the NEVADA DOT at the Jurisdictional Control Center as part of the Traffic Control System shall remain in the name of the State of Nevada.
- E. LOCAL CONTROLLERS AND MASTER LOCAL CONTROLLERS. The NEVADA DOT shall also be responsible, where federally funded, or state funds are specifically approved and appropriated by the NEVADA DOT, for (1) converting and incorporating those functionally adequate local controllers already located at the traffic signal intersections into the Traffic Control System, or (2) replacing those local controllers which are functionally inadequate, and incapable of being incorporated into the Traffic Control System. All existing traffic signal equipment which is replaced or removed shall be returned to the owners. Ownership of the newly installed local controllers and master controllers, installed with Federal Funds, shall remain vested in the name of the State.
- F. COMMUNICATION COMPONENTS AND TRAFFIC DETECTORS. The NEVADA DOT shall also be responsible, at its own expense, for the installation at the site of various traffic control signals, the traffic detectors and communication components necessary to the operation of the Traffic Control System.
- G. The CITY OF HENDERSON shall arrange to secure all funding necessary for the provision and installation of all Jurisdictional Control Center and local intersection control equipment required to connect the CITY OF HENDERSON to the system. No cost of adding the CITY OF HENDERSON or any CITY OF HENDERSON traffic signals to the Las Vegas Area Traffic Control System shall be borne by the Las Vegas Area Traffic Control System local jurisdictional operating agency. Title and ownership of all equipment provided and installed in connection with the extension of the Las Vegas Area Traffic Control System to the CITY OF HENDERSON shall be vested as the

funding agency requires.

## SECTION VI: FUNDING

A. **IMPLEMENTATION AND INSTALLATION EXPENSES.** The NEVADA DOT shall be responsible for payment of all costs for installing the initial Traffic Control System where federal funds are available for payment of such costs. If federal funds are not available for the payment of such costs, then the NEVADA DOT may, at its option, appropriate state funds for such costs. The jurisdictional operators are not responsible for the payment of any installation costs unless approval has been given by the governing body of each jurisdictional operator.

B. **OPERATION AND MAINTENANCE EXPENSES.**

- (1) **Collection and Disbursal of Funds:** At the beginning of each quarter of the fiscal year the central operator shall notify the parties to this Agreement as to the amount of their funding share in the cost of operating and maintaining the Traffic Control Center for that quarter. Within thirty (30) days from notification, the parties shall remit to the central operator their contribution to the funding of the Traffic Control Center as determined by the formula hereinafter provided under this Section.

Funds derived from the individual parties according to their predetermined share shall be deposited by the central operator into an account established solely for the purpose of paying operation and maintenance expenses of the Traffic Control Center. The Treasurer of the CITY OF LAS VEGAS shall have authority to issue drafts against said account for expenses approved by the Operations Committee. Any interest which may accrue to the funds received from the parties hereto shall be credited by the City Treasurer to said account for the benefit of all the parties to this Agreement.

- (2) **Annual Budget:** The Signal Systems Manager shall prepare prior to the commencement of the next fiscal year an operations and maintenance budget which shall be submitted to the Operations Committee for review and approval according to the time schedule established by the Operations Committee. Immediately upon approval by the Operations Committee, the proposed budget shall be submitted for review and approval to the governing bodies of all the parties hereto except the NEVADA DOT and the REGIONAL TRANSPORTATION COMMISSION. Approval or disapproval of the proposed budget shall occur no later than thirty (30) days from submission to the parties.

If a party disapproves the proposed budget, then the basis of the disapproval shall be stated in writing, and the proposed budget shall be referred back to the

Operations Committee for revision. Upon completing the revisions, the budget shall be resubmitted to the same parties for review and approval.

- (3) Funding Formula: The contributions of each party to this Agreement shall be determined in accordance with the following formula:

Total Funding of the Traffic Control Center  $= X + Y + (CxZ) + (HxZ) + (LxZ) + (NxZ)$

Party	Formula Designation
NEVADA DOT	= X
REGIONAL TRANSPORTATION COMMISSION	= Y
COUNTY OF CLARK	= (CxZ)
CITY OF HENDERSON	= (HxZ)
CITY OF LAS VEGAS	= (LxZ)
CITY OF NORTH LAS VEGAS	= (NxZ)

where Z = contribution of member agencies and:

C = proportion of Z contributed by CLARK COUNTY,

H = proportion of Z contributed by CITY OF HENDERSON,

L = proportion of Z contributed by CITY OF LAS VEGAS,

N = proportion of Z contributed by CITY OF NORTH LAS VEGAS.

The contribution of the NEVADA DOT (X) shall be limited to that portion, if any, which is reimbursable by the federal government and which the NEVADA DOT elects to approve and appropriate for purposes of this Agreement. The contribution of the REGIONAL TRANSPORTATION COMMISSION (Y), if any, is to be determined by the members of the Regional Transportation Commission.

The remaining share (Z) of the funding formula shall be in an amount sufficient, when combined with the X and Y contributions, to equal the total funding requirements of the operation and maintenance of the Traffic Control Center. At the commencement of Amendment No. 3, the contributions of the COUNTY OF CLARK, the CITY OF HENDERSON, the CITY OF LAS VEGAS, and the CITY OF NORTH LAS VEGAS shall be according to the fractional proportions stated above for the Z portion of the funding formula which represents the fractional proportion of the total number of traffic signals within the Traffic Control System which lie within the jurisdiction of that party. On an annual basis, the Operations Committee, in formulating the budgetary requirements of the Traffic Control System, shall take into account any additions to, or deletions from, the system of traffic signals by a particular party, and shall recompute (to the

nearest 0.1%) the increase or decrease in the fractional proportion of the party's ratio to the total number of traffic signals within the system as exists on October 1 of the current fiscal year. The recomputed proportions shall be effective for the following fiscal year.

It is agreed by and between the parties hereto that in the event a party, for whatever reason, desires to delete any traffic signal(s) within its jurisdiction from control by the Traffic Control System, that notice of such intent shall be conveyed in writing to the Operations Committee seven (7) months before the close of the then current fiscal year, and that in no event shall the proposed number of traffic signals to be deleted exceed ten percent (10%) of the total number of traffic signals located within the jurisdiction of the party proposing the deletion. Any and all proposed deletions must be approved by the Operations Committee as required by the provisions of Section IV C (4) (h) of this Agreement.

If a party so elects to delete any of its traffic control signals from the System, then this traffic control signal may not be re-added to the System until the following fiscal year and only with the approval of the Operations Committee. In the event that a traffic signal(s) is so deleted from the System, the Operations Committee reserves the right to require, at the expense of the deleting party, the return of any and all equipment located at the site of the traffic control signal(s) which was installed by the NEVADA DOT as part of the initial installation and implementation of this System, EXCEPTING THEREFROM underground equipment and those local controllers or other equipment installed as replacements of previously existing local controllers or other equipment necessary to the operation of the traffic signal.

- (4) Covered Expenses: All expenses in connection with the operation and maintenance of the Traffic Control Center, including, but not necessarily limited to, staffing, control equipment maintenance contracts, routine central maintenance, new equipment costs, building repair expenses and office operating expenses shall be paid by the central operator from the funds allocated by the parties under the funding formula provided for under Section VI of this Agreement.

All other expenses associated with the operation and maintenance of the Jurisdictional Control Center, such as, but not necessarily limited to, control, communication and monitoring equipment, staffing, field maintenance and office operating expenses shall be the sole responsibility of the jurisdictional operator.

## SECTION VII: SYSTEM OPERATION

The day-to-day operation of the Traffic Control System shall be the responsibility of the central operator, subject to review and coordination by the Operations Committee.

- A. **SIGNAL CONTROL STRATEGY.** The central operator shall operate the Traffic Control System in accordance with the operation strategy recommended by the Las Vegas Urban Area Traffic Control System Study (Final Report, March 1979). Subsequent deviations or changes in the initially adopted and implemented operational strategy, responding to newly identified needs of the Traffic Control System (such as the updating of signal timing plans), shall be approved by the Operations Committee.
- B. **OPERATION.** During that period of time determined to be priority time by the Operations Committee, the Traffic Control Center shall preempt the control of those traffic signal subsystems and individual traffic signals located within the jurisdictional boundaries of the jurisdictional operators for purposes of providing arterial and network coordination according to previously approved traffic signal timing plans. During periods of non-priority time, the jurisdictional operator may, at its option, provide the central operator with its own traffic signal timing plans and strategy, to be implemented by the central operator, for the purpose of controlling traffic within the boundaries of the jurisdictional operator.

## SECTION VIII: EMPLOYEES AND DUTIES

- A. **TRAFFIC CONTROL CENTER.** The central operator is hereby authorized to employ at the Traffic Control Center the following employees in accordance with an approved table of organization (attached hereto as Exhibit "A" and incorporated herein as a part of this Agreement):
  - (1) **Signal System Manager:** Subsequent to executing this Agreement and during the installation of the Traffic Control System, the central operator shall employ a Signal System Manager who shall be responsible for (a) advising the NEVADA DOT as to matters concerning the installation of the Traffic Control System. (b) becoming familiar with all facets of the Traffic Control System installation for informational purposes and for possible future recall, (c) supervising all personnel employed in connection with the operation and maintenance of the Traffic Control Center, (d) supervising the maintenance of all equipment located at the Traffic Control Center, and field maintenance of communication components necessary to the operation of the Traffic Control System, (e) implementing change in operational strategy as approved by the Operations Committee, (f) collection and logging system evaluation data and information, (g) supervising the implementation of those traffic signal timing plans submitted by the jurisdictional operators, (h) preparing a monthly expenditure report for

review by the Operations Committee, and (i) generally deciding those day-to-day managerial decisions which cannot be submitted to the Operations Committee until the next regularly scheduled meeting.

The Operations Committee shall be advised by the Signal System Manager as to the problems of, and needed changes in, the operation strategies of the system and as to any other matter pertinent to the operation of the system.

The Signal System Manager shall also assume the responsibilities of all public relations with respect to the operation and maintenance of the Traffic Control System.

- (2) **Operator/Technician:** The central operator shall employ the necessary operator/technician(s) who shall be responsible for (a) manning and operating the Traffic Control Center during designated operational hours, (b) monitoring the operation of the system, (c) responding to malfunctions in equipment of the Traffic Control System located at the Traffic Control Center, Jurisdictional Control Centers or at the intersections of traffic signals within the system, whose repair is the responsibility of the central operator, and (d) notifying the field maintenance personnel of the jurisdictional operators as to malfunctions in equipment which is part of the Traffic Control System but whose responsibility for repair remains that of the jurisdictional operator. The number of operator/technician positions shall be determined by the Operations Committee.
- (3) **Software Analyst:** The central operator shall employ a software analyst(s) who shall be responsible for (a) updating the data base of the traffic control computer, (b) implementing minor software changes to the system's software which do not change timing parameters so as to necessitate the approval of the Operations Committee, (c) assisting any person designated to implement major software changes approved by the Operations Committee, (d) coordinating and collecting operational data on the Traffic Control System for purposes of evaluating the system's performance, (e) assisting, when needed, in rectifying malfunctions of the system's hardware, and (f) conducting special data studies requested by the central operator or the jurisdictional operators. The number of software/analyst positions shall be determined by the Operations Committee.
- (4) **Clerical Employees:** The central operator may also employ such clerical employees as deemed necessary to the efficient operation of the Traffic Control System and the Traffic Control Center. The number of clerical positions shall be determined by the Operations Committee.

All of the above-described positions shall be employees of the central operator. The amount

of compensation to be paid to said employee shall be recommended by the Operations Committee and approved by the central operator. The selection, termination, classification or any other personnel action pertaining to an employee to the above-described positions shall be determined by the central operator in accordance with its personnel rules, regulations and procedures.

Any and all proposed selections, terminations, classifications or other personnel actions with respect to these employees shall be reviewed by the Operations Committee to formulate their recommendations with respect to the aforementioned actions. The central operator shall consider the recommendations of the Operations Committee before selecting, terminating, classifying or taking any other personnel action with respect to any employee.

The Operations Committee shall approve any proposed additional slots in the above-described positions, reductions thereof or the creation of any new position.

- B. JURISDICTIONAL CONTROL CENTER. Staffing at the Jurisdictional Control Center shall be at the discretion of the jurisdictional operator.

#### SECTION IX: INSURANCE AND INDEMNITY

- A. INSTALLATION PERIOD. It is further understood that the NEVADA DOT will be responsible for any loss, damage, liability, cost or expense caused by the actions or non-actions of its employees, servants or agents which may arise under this Agreement.
- B. POST INSTALLATION INSURANCE. It is mutually agreed by and between the parties hereto that subsequent to the acceptance of the installed Traffic Control System by, and within the jurisdictional boundaries of, the CITY OF LAS VEGAS, the COUNTY OF CLARK, and the CITY OF NORTH LAS VEGAS that the central operator and the jurisdictional operators each agree to be solely and separately responsible for all claims, demands, actions, damages, decrees, judgments, attorney fees, costs, and expenses resulting from injuries or damages to persons or properties within their own jurisdictional boundaries resulting from, arising out of, or due to the operation or maintenance of the Traffic Control System. It is further agreed by the party in whose jurisdiction the injury or damage to person or property has occurred to indemnify, defend and hold harmless the other parties hereto, or any of its officers or employees from any and all claims, demands, actions, damages, decrees, judgments, attorney fees, costs and expenses which said party, its officers or employees any suffer, or which may be sought against, recovered from, or obtainable against said party, its officers or employees.
- C. Jurisdictional Insurance and Indemnity: The CITY OF HENDERSON shall be solely

and separately responsible for all claims, demands, actions, damages, decrees, judgments, attorney fees, costs, and expenses resulting from injuries or damages to persons or properties within their own jurisdictional boundaries resulting from, arising out of, or due to the operation or maintenance of the Traffic Control System. It is further agreed by the CITY OF HENDERSON, when the injury or damage to person or property has occurred in its jurisdiction, that it shall indemnify, defend and hold harmless the other parties hereto, or any of its officers or employees from any and all claims, demands, actions, damages, decrees, judgments, attorney fees, costs and expenses which the CITY OF HENDERSON, its officers or employees may suffer, or which may be sought against, recovered from, or obtainable against said party, its officers or employees.

#### SECTION X: DURATION OF AGREEMENT

This Agreement shall be perpetually binding upon the parties hereto unless a date of termination is agreed upon by all the parties.

#### SECTION XI: TITLE OF PROPERTY ACQUIRED WITH COMMON FUNDS

- A. Title and ownership of all property which is acquired with funds appropriated by the parties other than the NEVADA DOT under this Agreement shall be determined in the following manner:
- (1) Any and all property installed at the site of a traffic signal shall vest in title and ownership in the name of the party in whose jurisdiction the property is located;
  - (2) Any and all property installed at a jurisdictional management center shall vest in title and ownership in the name of the jurisdictional operator;
  - (3) Any and all property installed at the Traffic Control Center shall vest jointly in title and ownership in the name of the funding parties hereto according to the percentage of their contribution to the overall funding of the Traffic Control System during the fiscal year of acquisition. However, any joint owner or the State of Nevada may offer to acquire said property under terms agreed to by all the joint owners.
- B. Title and ownership of all property which is acquired with funds appropriated by the NEVADA DOT shall vest in the name of the NEVADA DOT, except that where such property is acquired with funds appropriated by the NEVADA DOT, COUNTY OF CLARK, CITY OF HENDERSON, CITY OF LAS VEGAS, and the CITY OF NORTH LAS

VEGAS then the title and ownership shall vest jointly to the extent of each party's contribution. However, any joint owner may offer to acquire said property under terms agreed to by all the parties.

#### SECTION XII: SEVERABILITY

It is understood and agreed by the parties hereto that if any part, term or provision of this Agreement declared by a court of competent jurisdiction to be illegal or in conflict with any laws of this State, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term or provision held to be invalid.

**AGREEMENT TEMPLATE AS PRESENTED TO  
THE CENTRAL COAST REGION**

(revised based on comments received at June 16, 2006 project stakeholder meeting)

## A G R E E M E N T

THIS AGREEMENT, made and entered into by and between the CITY OF GOLETA, a municipal corporation in the County of Santa Barbara, hereinafter referred to as "GOLETA," and the CITY OF SANTA BARBARA, a municipal corporation in the County of Santa Barbara, hereinafter referred to as "SANTA BARBARA":

## W I T N E S S E T H

WHEREAS, the HOLLISTER AVENUE / STATE STREET CORRIDOR, hereinafter referred to as CORRIDOR, are roadways that are or will soon become a part of the County's Traffic Signal Synchronization Program (hereinafter referred to as "TSSP"),

WHEREAS, to assist in the traffic flow, GOLETA and SANTA BARBARA desire to modify and synchronize the traffic signals in the CORRIDOR, which work is hereinafter referred to as PROJECT; and

WHEREAS, "COST OF PROJECT" includes the costs of preliminary engineering, construction contract, contract administration, construction inspection and engineering, equipment and system testing, traffic signal timing, utility engineering and relocation, traffic detour, and final signing and striping for PROJECT, as more fully set forth herein; and

WHEREAS, GOLETA and SANTA BARBARA are each responsible for their jurisdictional portion of the operation and maintenance of the traffic signals and signal systems in the CORRIDOR;

WHEREAS, GOLETA and SANTA BARBARA have previously cooperated, in carrying out traffic signal synchronization projects in the CORRIDOR; and

WHEREAS, the construction of Traffic Signal Synchronization improvements in the CORRIDOR are consistent with the scope of work for traffic improvements within GOLETA and SANTA BARBARA pursuant to the TSSP; and

WHEREAS, GOLETA and SANTA BARBARA have secured and obtained grant funds from the Santa Barbara County Association of Governments (SBCAG) and will provide matching funds to finance the Traffic Signal Synchronization improvements;

WHEREAS, GOLETA and SANTA BARBARA desire to memorialize their understanding regarding their relative rights, obligations, and duties with respect to the PROJECT and the TSSP.

NOW, THEREFORE, in consideration of the mutual benefits to be derived by GOLETA and SANTA BARBARA and of the promises herein contained, it is hereby agreed as follows:

(1) GOLETA AGREES:

- a. Nothing in this AGREEMENT shall be construed as changing the role of CITY in operating and maintaining the traffic signals within CITY's jurisdiction.
- b. To be responsible for maintaining the basic traffic signal timing for the intersections within the jurisdictional boundary of GOLETA.
- c. To maintain the traffic signal coordination timing along CORRIDOR to promote coordinated traffic operations, multi-jurisdictional cooperation and improve arterial traffic conditions and to make the SANTA BARBARA aware of any changes implemented to the coordination timing that may impact the coordination of the traffic signals along the CORRIDOR
- d. Upon completion of PROJECT to accept full and complete ownership of, and responsibility for, the PROJECT and to maintain in good condition and at GOLETA'S expense all improvements constructed as part of PROJECT within GOLETA'S JURISDICTION, including the timing of traffic signals on CORRIDOR that supports coordination timing and optimum synchronization of traffic signals on CORRIDOR.
- e. To provide requisite temporary right of way and permits to SANTA BARBARA and/or SANTA BARBARA'S agents without fee as necessary to construct PROJECT.
- f. To cooperate with SANTA BARBARA and provide requested information in a reasonable and timely fashion in connection with SANTA BARBARA'S preparation of the annual report for SBCAG as referred to in Paragraph (2)c. below.

(2) SANTA BARBARA AGREES:

- a. Nothing in this AGREEMENT shall be construed as changing the role of COUNTY in operating and maintaining the traffic signals and signal systems within SANTA BARBARA'S jurisdiction.
- b. To develop and implement the traffic signal basic and coordination timing along the CORRIDOR that will improve arterial traffic conditions and traffic flow thereby saving motorists time and improving air quality.
- c. To file an annual report with the SBCAG on the efficiency of these Traffic Signal Synchronization Projects by compiling status from GOLETA and SANTA BARBARA along the CORRIDOR.
- d. To perform or cause to be performed preliminary engineering, contract

administration, construction inspection and engineering, utility engineering and relocation, equipment and system testing, traffic signal timing, traffic detour, and final signing and striping of PROJECT.

- e. To administer the design and construction of PROJECT in accordance with all regulations and requirements of SBCAG relating to the expenditure of TSSP Funds between SANTA BARBARA and the SBCAG.
- f. To ensure that GOLETA and all officers and employees of GOLETA are named as additional insured parties under the construction contractor's(s') Contractor's General Liability and automobile insurance policies.

(3) IT IS MUTUALLY UNDERSTOOD AND AGREED AS FOLLOWS:

- a. This AGREEMENT does not constitute any financial commitment between the GOLETA and SANTA BARBARA.
- b. The term of this AGREEMENT shall commence on the date it is approved by the RESPECTIVE City Council's of GOLETA and SANTA BARBARA and shall continue until either party terminates it upon thirty (30) days prior written notice.
- c. Any correspondence, communication, or contact concerning this AGREEMENT shall be directed to the following:

GOLETA      **Mr. C. Engineer**  
                 **City Engineer**  
                 **City of Goleta**  
                 **130 Cremona Dr, Suite B**  
                 **Goleta, CA 93117-5514**  
                 **805-961-7500**

SANTA BARBARA:  
                 **Ms. P. W. Director**  
                 **Public Works Director**  
                 **City of Santa Barbara**  
                 **735 Anacapa St**  
                 **Santa Barbara, CA**  
                 **805-963-0611**

- d. Neither SANTA BARBARA nor any officer or employee of SANTA BARBARA shall be responsible for any damage or liability occurring by reason of any act

or omission on the part of GOLETA under or in connection with any work, authority, or jurisdiction delegated to, assumed by, or determined to be the responsibility of GOLETA under this AGREEMENT. It is also understood and agreed that, pursuant to \_\_\_\_\_ **[insert proper legal reference(s), as appropriate]**, GOLETA shall fully indemnify, defend, and hold SANTA BARBARA harmless from any liability imposed for injury (as defined by \_\_\_\_\_ **[insert proper legal reference(s), as appropriate]**) occurring by reason of any act or omission on the part of CITY under or in connection with any work, authority, or jurisdiction delegated to or determined to be the responsibility of GOLETA under this AGREEMENT. Where liability for injury (as defined by \_\_\_\_\_ **[insert proper legal reference(s), as appropriate]**) is sought to be imposed under \_\_\_\_\_ **[insert proper legal reference(s), as appropriate]** for a dangerous condition of property owned by or under the control of GOLETA, GOLETA shall fully defend, indemnify, and hold SANTA BARBARA harmless from any and all liability arising from such dangerous condition.

- e. Neither GOLETA nor any officer or employee of GOLETA shall be responsible for any damage or liability occurring by reason of any act or omission on the part of SANTA BARBARA under or in connection with any work, authority, or jurisdiction delegated to or determined to be the responsibility of SANTA BARBARA under this AGREEMENT. It is also understood and agreed that, pursuant to \_\_\_\_\_ **[insert proper legal reference(s), as appropriate]**, SANTA BARBARA shall fully indemnify, defend, and hold GOLETA harmless from any liability imposed for injury (as defined by \_\_\_\_\_ **[insert proper legal reference(s), as appropriate]**) occurring by reason of any act or omission on the part of SANTA BARBARA under or in connection with any work, authority, or jurisdiction delegated to or determined to be the responsibility of SANTA BARBARA under this AGREEMENT.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed by their respective officers, duly authorized, by the CITY OF GOLETA on \_\_\_\_\_, 200\_, and by CITY OF SANTA BARBARA on \_\_\_\_\_, 200\_.

## **GOLETA**

**By:** \_\_\_\_\_

[name of person authorized to execute agreement], [title]

**Approved as to form and legality:**

**By:** \_\_\_\_\_

[name of person authorized to approve form of agreement (i.e. legal counsel)], [title]

**Date:** \_\_\_\_\_

## **RECOMMENDED BY:**

\_\_\_\_\_  
[name of agency staff member (or that person's superior, as appropriate) responsible for overseeing the project on behalf of the agency], [title]

## **SANTA BARBARA**

**By:** \_\_\_\_\_

[name of person authorized to execute agreement], [title]

**Approved as to form and legality:**

**Dated:** \_\_\_\_\_

## **ATTEST**

\_\_\_\_\_  
[name of person authorized to approve form of agreement (i.e. legal counsel)], [title]

**SOURCE AGREEMENT**  
**FROM WHICH THE TEMPLATE AGREEMENT WAS DERIVED**

A G R E E M E N T

An AGREEMENT, made and entered into by and between the CITY OF GARDENA a municipal corporation in the County of Los Angeles, hereinafter referred to as "CITY," and the COUNTY OF LOS ANGELES, a political subdivision of the State of California, hereinafter referred to as "COUNTY":

W I T N E S S E T H

WHEREAS, El Segundo Boulevard from Crenshaw Boulevard to Vermont Avenue; Artesia Boulevard from Western Avenue to Vermont Avenue; Western Avenue from El Segundo Boulevard to 182nd Street; and Normandie Avenue from El Segundo Boulevard to 182nd Street, hereinafter referred to as ARTERIALS, are roadways that are or will soon become a part of the County's Traffic Signal Synchronization Program (hereinafter referred to as "TSSP"),

WHEREAS, to assist in the traffic flow, CITY and COUNTY desire to modify and synchronize the traffic signals along Normandie Avenue from El Segundo Boulevard to 182nd Street which work is hereinafter referred to as PROJECT; and

WHEREAS, "COST OF PROJECT" includes the costs of preliminary engineering, construction contract, contract administration, construction inspection and engineering, equipment and system testing, traffic signal timing, utility engineering and relocation, traffic detour, and final signing and striping for PROJECT, as more fully set forth herein; and

WHEREAS, CITY and COUNTY are each responsible for their jurisdictional portion of the operation and maintenance of the traffic signals and signal systems along each of the ARTERIALS;

WHEREAS, CITY and COUNTY have previously cooperated, in carrying out traffic signal synchronization projects on ARTERIALS; and

WHEREAS, the construction of Traffic Signal Synchronization improvements on Normandie Avenue from El Segundo Boulevard to 182nd Street is consistent with the scope of work for traffic improvements within CITY pursuant to Memorandum of Understanding Number P0006292 between COUNTY and the Los Angeles County Metropolitan Transportation Authority (MTA); and

WHEREAS, COUNTY has secured and obtained grant funds from the MTA and will provide matching funds to finance the Traffic Signal Synchronization improvements;

WHEREAS, COUNTY and CITY desire to memorialize their understanding regarding their relative rights, obligations, and duties with respect to the PROJECT and the TSSP.

NOW, THEREFORE, in consideration of the mutual benefits to be derived by CITY and COUNTY and of the promises herein contained, it is hereby agreed as follows:

(1) CITY AGREES:

- a. Nothing in this AGREEMENT shall be construed as changing the role of CITY in operating and maintaining the traffic signals within CITY'S jurisdiction.
- b. To be responsible for maintaining the basic traffic signal timing for the intersections within the jurisdictional boundary of CITY.
- c. To maintain the traffic signal coordination timing along ARTERIALS to promote coordinated traffic operations, multi-jurisdictional cooperation and improve arterial traffic conditions and to make the COUNTY aware of any changes implemented to the coordination timing that may impact the coordination of the traffic signals along the ARTERIALS
- d. Upon completion of PROJECT to accept full and complete ownership of, and responsibility for, the PROJECT and to maintain in good condition and at CITY expense all improvements constructed as part of PROJECT within CITY'S JURISDICTION, including the timing of traffic signals on ARTERIALS that supports coordination timing and optimum synchronization of traffic signals on ARTERIALS.
- e. To provide requisite temporary right of way and permits to COUNTY and/or COUNTY's agents without fee as necessary to construct PROJECT.
- f. To cooperate with COUNTY and provide requested information in a reasonable and timely fashion in connection with COUNTY's preparation of annual report for MTA as referred to in Paragraph (2)c. below.

(2) COUNTY AGREES:

- a. Nothing in this AGREEMENT shall be construed as changing the role of COUNTY in operating and maintaining the traffic signals and signal systems within COUNTY'S jurisdiction.
- b. To develop and implement the traffic signal basic and coordination timing along the ARTERIALS that will improve arterial traffic conditions and traffic flow thereby saving motorists time and improving air quality.
- c. To file an annual report with the MTA on the efficiency of these Traffic Signal Synchronization Projects by compiling status from individual cities along the

ARTERIALS.

- d. To perform or cause to be performed preliminary engineering, contract administration, construction inspection and engineering, utility engineering and relocation, equipment and system testing, traffic signal timing, traffic detour, and final signing and striping of PROJECT.
- e. To administer the design and construction of PROJECT in accordance with all regulations and requirements of MTA relating to the expenditure of Proposition C Local Return funds and Proposition C Twenty-five Percent (25%) Discretionary funds and Memorandum of Understanding No. P0006292 between COUNTY and the MTA.
- f. To ensure that CITY and all officers and employees of CITY are named as additional insured parties under the construction contractor's(s') Contractor's General Liability and automobile insurance policies.

(3) IT IS MUTUALLY UNDERSTOOD AND AGREED AS FOLLOWS:

- a. This AGREEMENT does not constitute any financial commitment between the CITY and COUNTY.
- b. The term of this AGREEMENT shall commence on the date it is approved by the Board of Supervisors and shall continue until any party terminates it upon thirty (30) days prior written notice.
- c. Any correspondence, communication, or contact concerning this AGREEMENT shall be directed to the following:

CITY: Mr. \_\_\_\_\_  
Director of Public Works  
City of \_\_\_\_\_  
\_\_\_\_\_, CA 9\_\_\_\_\_

COUNTY: Mr. \_\_\_\_\_  
Attention: Traffic and Lighting Division  
County of Los Angeles, Department of Public Works  
P.O. Box 1460  
Alhambra, CA 91802-1460

- d. Neither COUNTY nor any officer or employee of COUNTY shall be responsible for any damage or liability occurring by reason of any act or omission on the part of CITY under or in connection with any work, authority, or jurisdiction delegated to, assumed by, or determined to be the responsibility of CITY under this AGREEMENT. It is also understood and agreed that, pursuant to Government Code, Section 895.4, CITY shall fully indemnify, defend, and hold COUNTY harmless from any liability imposed for injury (as defined by Government Code, Section 810.8) occurring by reason of any act or omission on the part of CITY under or in connection with any work, authority, or jurisdiction delegated to or determined to be the responsibility of CITY under this AGREEMENT. Where liability for injury (as defined by Government Code, Section 810.8) is sought to be imposed under Section 830, et seq., of the Government Code for a dangerous condition of property owned by or under the control of CITY, CITY shall fully defend, indemnify, and hold COUNTY harmless from any and all liability arising from such dangerous condition.
- e. Neither CITY nor any officer or employee of CITY shall be responsible for any damage or liability occurring by reason of any act or omission on the part of COUNTY under or in connection with any work, authority, or jurisdiction delegated to or determined to be the responsibility of COUNTY under this AGREEMENT. It is also understood and agreed that, pursuant to Government Code, Section 895.4, COUNTY shall fully indemnify, defend, and hold CITY harmless from any liability imposed for injury (as defined by Government Code, Section 810.8) occurring by reason of any act or omission on the part of COUNTY under or in connection with any work, authority, or jurisdiction delegated to or determined to be the responsibility of COUNTY under this AGREEMENT.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed by their respective officers, duly authorized, by the CITY OF \_\_\_\_\_ on \_\_\_\_\_, 200\_, and by the COUNTY OF LOS ANGELES on \_\_\_\_\_, 200\_.

COUNTY OF LOS ANGELES

ATTEST:

By \_\_\_\_\_  
Director of Public Works

By

DEPUTY

APPROVED AS TO FORM:  
County Counsel

By

DEPUTY

CITY OF \_\_\_\_\_

By

MAYOR

ATTEST:

APPROVED AS TO FORM:

By \_\_\_\_\_  
CITY CLERK

By \_\_\_\_\_  
CITY ATTORNEY

**City of Lynnwood/City of Edmonds  
Traffic Signals  
Maintenance and Operation Agreement**

THIS INTERLOCAL MAINTENANCE AND OPERATION AGREEMENT (hereinafter, "the Agreement") is entered into under the authority of the Interlocal Cooperation Act, Chapter 39.34 RCW, between the City of Edmonds (hereinafter, "Edmonds"), a municipal corporation organized under the laws of the State of Washington, and the City of Lynnwood (hereinafter, "Lynnwood"), a municipal corporation organized under the laws of the State of Washington (collectively, "the Parties"), to define the rights, obligations, costs and liabilities of the Parties regarding the maintenance and operation of traffic signals located within Edmonds).

WHEREAS, Chapter 39.34 RCW (the Interlocal Cooperation Act) authorizes two or more political subdivisions or units of local government of the State of Washington to cooperate on a basis of mutual advantage to provide for services and facilities; and

WHEREAS, the Parties desire eventually to enter into an agreement with various other governmental entities for the purpose of maintaining and operating a multi-jurisdictional Intelligent Transportation System (ITS); and

WHEREAS, the Parties desire to operate and maintain existing traffic signal systems immediately and without the delay of waiting for the drafting, negotiation and execution of a multi-jurisdictional agreement; and

WHEREAS, the Parties desire to enter into an agreement to define their respective rights, obligations, costs and liabilities regarding the operation and maintenance of the existing traffic signal systems; and

WHEREAS, the Parties recognize that Lynnwood signal maintenance staff have the skills and proximity to provide timely assistance, and that they have unique knowledge of ITS components, they desire that Lynnwood personnel provide specific on-call services for maintaining and operating traffic signal systems in Edmonds;

NOW, THEREFORE, in consideration of the terms, conditions and covenants contained herein, or attached hereto and incorporated herein by reference, the Parties agree as follows:

Section 1. Purpose. The purpose of this Agreement is to provide for mutual cooperation between the Parties in maintaining and operating existing traffic signal systems within Edmonds. The terms, conditions, and covenants of this Agreement shall accordingly be interpreted to further this purpose. This Agreement further seeks to allocate and define the Parties' respective rights, obligations, costs and liabilities concerning the operation and maintenance of the traffic signal systems.

Section 2. Term. This Agreement shall be effective on the date of execution by the Parties hereto. This Agreement shall remain in effect unless terminated in accordance with Section 3,.

Section 3. Termination. Either Party may terminate this Agreement without cause by providing the other Party with 30 days written notice of its intent to terminate.

Section 4. Joint Owned Traffic Signals – Responsibilities At two signal locations along SR 99, the City limits of Edmonds and Lynnwood divide the intersection, placing two quadrants within each jurisdiction. It is agreed that the Parties will each assume complete maintenance responsibilities, including rebuilding, for one signal system, as follows:

- 216<sup>th</sup> Street SW / SR 99                      City of Edmonds
- 212<sup>th</sup> Street SW / SR 99                      City of Lynnwood

Section 5. Provision of On-Call Maintenance and Operation Services. Lynnwood shall provide on-call assistance in maintaining and operating the traffic signal systems within Edmonds, subject to available workforce. Edmonds shall reimburse Lynnwood for all services, materials, labor, and equipment necessary to maintain and operate Edmonds' traffic signal systems as requested. The services provided by Lynnwood shall fall into the following three general categories.

1. Emergency Call-Outs: Signal system emergencies in Edmonds shall be a high priority. Lynnwood technicians shall respond as soon as possible during the work day, and when on-call at night and weekends. Edmonds emergencies shall be rated a higher priority than non-critical work in Lynnwood. Night and weekend call-outs shall be subject to union negotiated minimum hourly charges.
2. Non-critical Repairs: Non-critical repairs will be responded to by Lynnwood technicians only after critical Lynnwood signal work has been completed. Edmonds will have the choice of asking for response on overtime, if regular time response is not adequate. Lynnwood technicians will not be required to work overtime for Edmonds.
3. Signal Engineering: Signal engineering, including signal timing, planning, and design will be responded to by Lynnwood engineers only after critical Lynnwood signal work has been completed. Edmonds will have the choice of asking for response on overtime, if regular time response is not adequate. Lynnwood engineers will not be required to work overtime for Edmonds.

Section 6. Billing, Payment and Rates for Services Provided.

A. Rates. Edmonds shall pay Lynnwood 100% of its expenses for maintenance and operation services performed by Lynnwood under this Agreement, including labor, equipment, and materials, plus 15% administrative overhead.

B. Billing and Payment. Lynnwood shall submit monthly invoices to Edmonds for services performed under this Agreement during the preceding month. Each invoice shall state the payment due for each service, by location. Invoices shall be mailed to Edmonds at the address listed in Section 15, care of the City of Edmonds Finance Department. Edmonds shall pay Lynnwood the appropriate amount within 15 days of receiving each monthly invoice.

C. Disputes. Any dispute arising between the Parties concerning rates or billing for services rendered under this Agreement shall be resolved using the dispute resolution procedures established by Section 7.

Section 7. Joint Administration – Dispute Resolution.

A. Joint Board. The provisions of this Agreement shall be administered by a Joint Board consisting of the Public Works Director of the City of Edmonds and the Public Works Director of the City of Lynnwood. If a dispute arises concerning the interpretation or application of the provisions, duties or obligations under this Agreement, the dispute shall be referred to the Joint Board for resolution.

B. Arbitration. If the Joint Board is unable to resolve a dispute referred to it for resolution, the Joint Board shall refer the dispute to binding arbitration. The arbitrator shall be selected by the Joint Board, PROVIDED that, if the Joint Board cannot mutually agree upon an arbitrator, either Board member may petition the Snohomish County Superior Court to appoint an arbitrator. Both members of the Joint Board shall consent to the arbitrator appointed by the Superior Court, and hereby waive any objection thereto.

Section 8. Failure to Perform. The failure of either Party to perform its duties and obligations under this Agreement shall constitute a breach of contract and shall be grounds for termination at the non-breaching Party's discretion.

Section 9. Non-waiver. Waiver by a Party of any provision of this Agreement shall not constitute a waiver of any other provision.

Section 10. Release, Indemnification and Hold Harmless.

A. In performing the work under this Agreement, Lynnwood agrees to protect, indemnify and save Edmonds harmless from and against any and all injury or damage to Edmonds or its property, and also from and against all claims, demands, and causes of action of every kind and character arising directly or indirectly, or in any way incident to, in connection with, or arising out of work performed under the terms hereof, caused by the fault of Lynnwood, its agents, employees, representatives or subcontractors. Lynnwood specifically promises to indemnify Edmonds against claims or suits brought under Title 51 RCW by Lynnwood's employees or subcontractors and waives any immunity that Lynnwood may have under that title with respect to, but only to, the limited extent necessary to indemnify Edmonds. Lynnwood shall also indemnify and hold Edmonds harmless from any wage, overtime or benefit claim of any Lynnwood employee, agent, representative or subcontractor performing services under this Agreement. Lynnwood further agrees to fully indemnify Edmonds from and against any and all costs of defending any such claim or demand to the end that Edmonds is held harmless therefrom. This paragraph shall not apply to damages or claims resulting from the sole negligence of Edmonds. In situations involving the negligence of Edmonds or its employees, the Parties' respective liability shall be as defined by the law of the State of Washington.

B. Edmonds agrees to protect, indemnify and save Lynnwood harmless from and against any and all injury or damage to Lynnwood or its property, and also from and against all claims, demands, and causes of action of every kind and character arising directly or indirectly, or in any way incident to, in connection with, or arising out of work

performed under the terms hereof, caused by the fault of Edmonds, its agents, employees, representatives or subcontractors. Edmonds specifically promises to indemnify Lynnwood against claims or suits brought under Title 51 RCW by Edmonds' employees or subcontractors and waives any immunity that Edmonds may have under that title with respect to, but only to, the limited extent necessary to indemnify Lynnwood. Edmonds shall also indemnify and hold Lynnwood harmless from any wage, overtime or benefit claim of any Edmonds employee, agent, representative or subcontractor performing services under this Agreement. Edmonds further agrees to fully indemnify Lynnwood from and against any and all costs of defending any such claim or demand to the end that Lynnwood is held harmless therefrom. This paragraph shall not apply to damages or claims resulting from the sole negligence of Lynnwood. In situations involving the negligence of Lynnwood or its employees, the Parties' respective liability shall be as defined by the law of the State of Washington.

Section 11. No Employment Relationship Created Between Lynnwood's Employees and Edmonds. The Parties intend that no employment relationship will be created by this Agreement between Edmonds and any employee, agent, representative or subcontractor of Lynnwood. No agent, employee or representative or subcontractor of Lynnwood shall be deemed to be an agent, employee or representative or subcontractor of Edmonds for any purpose. Lynnwood shall be solely responsible for all acts of its agents, employees, representatives and subcontractors during the performance of this Agreement.

Section 12. Insurance Coverage. Lynnwood shall secure, maintain and provide assurances of adequate insurance coverage or participation in a pool insurance program. Certificates of coverage shall be delivered to Edmonds within fifteen (15) days of execution of this Agreement. The City of Edmonds shall be a named insured. To the extent that Lynnwood incurs additional costs to obtain such coverage, the costs shall be billed as provided in §6(A) and paid by Edmonds.

Section 13. Assignability. The services to be provided by Lynnwood pursuant to this Agreement may be assigned or subcontracted to another party only with the express written consent of Edmonds. Notwithstanding any such assignment or subcontract, Lynnwood shall remain solely responsible to Edmonds for the quality and timeliness of the assigned or subcontracted work.

Section 14. Force Majeur. Neither Party shall be considered in default in the performance of its obligations under this Agreement to the extent that the performance of said obligation is prevented or delayed by any cause, existing or future, which is unforeseen and beyond the reasonable control of the affected Party.

Section 15. Notices. Notices to Edmonds shall be sent to the following address:

**STREET MANAGER  
CITY OF EDMONDS PUBLIC WORKS**

7110 – 210<sup>TH</sup> STREET, SW  
EDMONDS, WA 98026

Notices to Lynnwood shall be sent to the following address:

TRANSPORTATION MANAGER  
CITY OF LYNNWOOD  
P.O. BOX 5008  
LYNNWOOD, WA 98046-5008

Receipt of any notice shall be deemed effective three (3) days after deposit of written notice in the U.S. mails, with proper postage and properly addressed.

Section 16. Applicable Law and Venue. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. Venue for any action arising from the interpretation or performance of this Agreement shall be within Snohomish County, Washington.

Section 17. Financing and Property. The Parties do not anticipate that this Agreement will necessitate either joint financing or budgeting, or the acquisition, holding, or disposition of property. If the need for such budgeting or property arises, the Joint Board shall administer any necessary budgeting or property acquisition, holding, or disposition.

IN WITNESS OF THEIR MUTUAL CONSENT, the parties hereto have executed this agreement as of the day and year as written below:

DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2001.

**CITY OF EDMONDS**

**CITY OF LYNNWOOD:**

By: \_\_\_\_\_  
Signature  
Gary Haakenson  
Mayor

By: \_\_\_\_\_  
Signature  
Mike McKinnon  
Mayor

**APPROVED AS TO FORM:**

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
City Attorney

STATE OF WASHINGTON )  
  )ss  
COUNTY OF )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2001, before me, the undersigned, a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared \_\_\_\_\_, to me known to be the \_\_\_\_\_ of the corporation that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that he/she was authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

WITNESS my hand and official seal hereto affixed the day and year first above written.

\_\_\_\_\_  
NOTARY PUBLIC

My commission expires:  
\_\_\_\_\_

## **Traffic Signal Operation and Maintenance Agreement Cities of Bellevue and Redmond**

This Agreement establishes traffic signal operation and maintenance responsibilities for traffic signals on the border between the cities of Bellevue and Redmond.

It is mutually beneficial for Bellevue and Redmond to assign overall responsibility for traffic signals along the city limit line to one Lead Agency. This facilitates the coordination of signal timing with adjacent signals, provides a single point of contact to address concerns, and reduces duplication of effort in the areas of trouble calls, record keeping, and agency communication/coordination. The public benefits through improved traffic operations and lower overall operation and maintenance costs.

### Section 1 – Lead Agency Assignments

The Lead Agency for providing operations and maintenance for traffic signals on the border of Bellevue and Redmond are shown in Attachment A.

### Section 2 – Operation and Maintenance

The Lead Agency shall provide operation and maintenance for all assigned traffic signals. The scope of operation and maintenance shall include all aspects of operating and maintaining the traffic signal, including signal timing, routine preventative and unscheduled maintenance, major maintenance, and the replacement of equipment that is beyond its scheduled or useful life. It also includes maintenance of vehicle detection, communication facilities, emergency pre-emption devices, sight distance to signal indications, traffic cameras, other Intelligent Transportation Systems (ITS) devices, and any other facilities closely linked to and complementing traffic signal operations.

The scope of operation and maintenance also includes the signs and channelization both at and on the roadway approaches to the traffic signal, generally extending from the intersection to the back of the left turn pocket (or advance loop detectors in the absence of a left turn pocket) on each roadway approach.

Energy for running the traffic signal and associated equipment, including intersection lighting, shall be the responsibility of the Lead Agency.

### Section 3 – Standards

The traffic signals listed in this agreement shall be operated by the Lead Agency within the standards established by the Manual on Uniform Traffic Control Devices (MUTCD).

The traffic signals listed in the agreement shall be maintained consistent with the established maintenance practices of the Lead Agency.

#### Section 4 – Major Maintenance

Major maintenance is considered maintenance that is non-routine and extraordinary in scope and/or cost. For instance, major maintenance includes the knock down of signal poles or controller cabinets.

The Lead Agency shall be solely responsible for all major maintenance at assigned traffic signals.

#### Section 5 – Notification

The Lead Agency shall provide written notification to the other agency of certain permanent changes to traffic signal operations. This notification shall be made to give the non-Lead Agency the opportunity to comment, and invoke dispute resolution if necessary. Notification shall include, but not be limited to, the following:

- Major changes to signal timing which adversely affects queuing on the non-lead agency's intersection approach.
- Change in lane assignments, major changes to pocket lengths approaching the intersection, or turn restrictions.

Changes of a more minor nature, including signal timing adjustments and left turn phasing changes, do not require notification, and the agencies are encouraged to discuss these types of changes at routine coordination meetings. The Lead Agency is also encouraged to share significant or consistent citizen complaints when coordination of the issue would be beneficial.

#### Section 6 – Major Improvement Projects

This agreement is not intended to establish the Lead Agency as the agency responsible for funding and/or making final decisions regarding design elements of major improvement projects affecting the assigned intersection. The two agencies shall negotiate those responsibilities as part of the design process for that specific major improvement project. Agencies are encouraged to notify each other of pending major improvement projects for budgeting and work planning purposes.

#### Section 7 - Ownership and Replacement

The Lead Agency shall be the owner of the traffic signal and its associated equipment. Associated equipment includes poles, signal and pedestrian heads, controller cabinet and equipment inside the cabinet, controller, service cabinet, communication cabinet, communication lines, conductors, terminal cabinets, ITS related equipment, pavement markings, signs, and any other equipment that is necessary to properly operate the traffic signal.

The Lead Agency shall also be responsible for the replacement of equipment consistent with Lead Agency practices.

#### Section 8 – Indemnification

Bellevue shall protect, defend, indemnify and save harmless Redmond, its successors and assigns together with its officers, directors, employees, and agents only from and against any and all liabilities, damages, costs, expenses, causes of action, claims, suits, proceedings and judgments (collectively "Claims") which they may incur or suffer or be put to by reason of or in connection with or arising from any breach, violation or non-performance by Bellevue of any obligation contained in this Agreement, to be observed or performed by Bellevue, or any wrongful act or negligence of Bellevue or its agents or employees which relates to this Agreement, howsoever arising. For this purpose, Bellevue, by mutual negotiation, hereby waives, with respect to the City of Redmond only, any immunity that would otherwise be available against such claims under the Industrial Insurance provisions of Title 51RCW. In the event the City of Redmond incurs any judgment, award, and/or cost arising therefrom including attorney's fees to enforce the provisions of this article, all such fees, expenses and costs shall be recoverable from the City of Bellevue.

Redmond shall protect, defend, indemnify and save harmless Bellevue, its successors and assigns together with its officers, directors, employees, and agents only from and against any and all Claims which they may incur or suffer or be put to by reason of or in connection with or arising solely from any breach, violation or non-performance by Redmond of any obligation contained in this Agreement, to be observed or performed by Redmond or any wrongful act or negligence of Redmond or its agents or employees which relates to this Agreement, howsoever arising. For this purpose, Redmond, by mutual negotiation, hereby waives, with respect to the City of Bellevue only, any immunity that would otherwise be available against such claims under the Industrial Insurance provisions of Title 51RCW. In the event the City of Bellevue incurs any judgment, award, and/or cost arising therefrom including attorney's fees to enforce the provisions of this article, all such fees, expenses and costs shall be recoverable from the City of Redmond.

#### Section 9 – Dispute Resolution

Disagreements regarding operations and maintenance issues, the terms of this agreement, or issues not covered by this agreement, shall be subject to dispute resolution. Dispute resolution should start and end at the staff level whenever feasible. For unresolved disputes, resolution shall be facilitated by a meeting between the Bellevue Transportation Director and the Redmond Public Works Director.

#### Section 10 – Supersede Previous Agreements

This agreement shall supersede any previous agreements regarding the traffic signals included in Attachment A.

#### Section 11 – Modification of Agreement

The terms of this agreement, including the addition or deletion of traffic signals listed in Attachment A, may be modified by the City of Bellevue Transportation Director and the City of Redmond Public Works Director by resigning this agreement once it is modified with the appropriate changes.

#### Section 12 – Term of Agreement

This agreement shall be in place until terminated.

#### Section 13 – Termination of Agreement

Either the City of Bellevue or the City of Redmond may terminate this agreement for any reason with written notice to the other party at the end of sixty (60) calendar days following receipt of notice.

In the event that this agreement is terminated, the ownership of equipment shall revert back to the agency that purchased the equipment when it was installed, or as mutually agreed. The Lead Agency shall ensure all equipment to be turned back is operable and maintainable.

#### Section 14 – Execution of Agreement

The parties hereto have executed this Bellevue/Redmond Signal Agreement as of this 30<sup>th</sup> day of November in the year 2006.

#### **City of Bellevue**

By: \_\_\_\_\_

Goran Sparrman  
Transportation Department Director

Approved as to form:

Thomas A. Roache  
Assistant City Attorney

#### **City of Redmond**

By: \_\_\_\_\_

David Rhodes  
Director of Public Works

## ATTACHMENT A

The City of Bellevue shall be the Lead Agency and provide operations and maintenance of the following traffic signals:

- 148<sup>th</sup> Avenue NE and NE 24<sup>th</sup> Street
- 148<sup>th</sup> Avenue NE and NE 22<sup>nd</sup> Street
- 148<sup>th</sup> Avenue NE and NE 20<sup>th</sup> Street
- Bel-Red Road and NE 20<sup>th</sup> Street
- Bel-Red Road and NE 24<sup>th</sup> Street
- Bel-Red Road and 156<sup>th</sup> Avenue NE
- Bel-Red Road and NE 30<sup>th</sup> Street

The City of Redmond shall be the Lead Agency and provide operations and maintenance of the following traffic signals:

- 148<sup>th</sup> Avenue NE and NE 6000 Block/Trail Crossing
- 148<sup>th</sup> Avenue NE and NE 5500 Block
- 148<sup>th</sup> Avenue NE and NE 51<sup>st</sup> Street
- 148<sup>th</sup> Avenue NE and NE 46<sup>th</sup> Street
- 148<sup>th</sup> Avenue NE and NE 4200 Block
- 148<sup>th</sup> Avenue NE and NE 40<sup>th</sup> Street
- 148<sup>th</sup> Avenue NE and NE 3700 Block Pedestrian Crossing
- 148<sup>th</sup> Avenue NE and NE 36<sup>th</sup> Street/NE 35<sup>th</sup> Street
- 148<sup>th</sup> Avenue NE and NE 3200 Block Pedestrian Crossing
- 156<sup>th</sup> Avenue NE and NE 28<sup>th</sup> Street

ORIGINAL

0714-RES  
11/1/01

CITY OF BELLEVUE, WASHINGTON

RESOLUTION NO. 6619

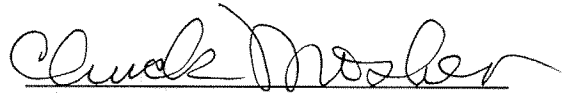
A RESOLUTION authorizing the City Manager or his designee to execute an Interlocal Agreement with the Washington State Department of Transportation (WSDOT) for Signal Maintenance and Operation.

THE CITY COUNCIL OF THE CITY OF BELLEVUE, WASHINGTON, DOES RESOLVE AS FOLLOWS:

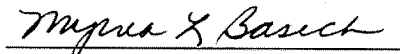
Section 1. The City Manager or his designee is hereby authorized and directed to execute, on behalf of the City, that certain Interlocal Agreement with the Washington State Department of Transportation (WSDOT) for Signal Maintenance and Operation, a copy of which has been given Clerk's Receiving No. 31200.

Passed by the City Council this 19th day of November, 2001, and signed in authentication of its passage this 19th day of November, 2001.

(SEAL)

  
Chuck Mosher, Mayor

Attest:

  
Myrna L. Basich, City Clerk



**Washington State**  
**Department of Transportation**  
**Douglas B. MacDonald**  
Secretary of Transportation

**Northwest Region**  
15700 Dayton Avenue North  
P.O. Box 330310  
Seattle, WA 98133-9710

206-440-4000  
TTY: 1-800-833-6388  
www.wsdot.wa.gov

January 11, 2002

Goran Sparrman  
Director, Transportation Dept.  
City of Bellevue  
P.O. Box 90012  
Bellevue, WA 98009-9012

Dear Mr. Sparrman:

Enclosed is a copy of a fully signed and executed agreement GM-1363 for the City of Bellevue to operate and maintain State-owned traffic signals.

We recognize that in order for the City to operate and maintain several of these traffic signals, the City will first need to replace some equipment. This will necessitate an incremental turnover of responsibilities to the City. Attachment "A" specifies the turnover schedule. Dirk Mitchell of your staff and our King County Traffic Engineer, Mark Leth, developed this schedule.

Providing WSDOT with read-only access to the City's ATMS central system has proven more difficult than originally expected. We will be working with City staff to implement a secure connection that meets the requirements of the agreement. We are also in the process of getting copies made of signal timing sheets, available as-built plans, WSDOT maintenance standards and work zone traffic control guidelines. These will be forwarded directly to Mr. Mitchell.

We look forward to working cooperatively with the City on operations and maintenance of these traffic signals. If you have any questions regarding this agreement, please contact Mark Leth at 206-440-4484.

Sincerely,

TERRENCE G. PAANANEN, PE  
Local Programs Engineer

TGP/ml  
Attachments

cc: File: GM-1363  
Signals: Kurt Schleichert, MS 47  
Traffic: Mark Leth, MS 120  
COB: Dirk Mitchell

ATTACHMENT A

**TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS  
TURNOVER SCHEDULE**

**CURRENTLY OPERATED/MAINTAINED BY COB**

Richards Rd and SE 32nd St (south leg WSDOT R/W)  
SE Eastgate Way and 156th Ave SE  
SE Eastgate Way and 161st Ave SE  
148th Ave SE and SE 28th St (south leg WSDOT R/W)  
SE 36th St and Richards Rd  
SE Eastgate Way and Richards Rd  
NE 8th St and 116th Ave NE  
NE 8th St and 112th Ave NE  
NE 4th St and SB off-ramp  
NE 4th St and NB off-ramp  
NE 6<sup>th</sup> St and 112<sup>th</sup> Ave NE  
124th Ave NE and Northup Way

**COB TO TAKE UPON RECEIPT OF SIGNED AGREEMENT**

150th Ave SE and SE Eastgate Way  
108th Ave NE and WB SR 520 off-ramp  
148th Ave NE and EB SR 520 off-ramp  
148th Ave NE and WB SR 520 off-ramp (NE 29th St)

**COB TO TAKE OVER FEB 4, 2002**

SE 8th St and SB off-ramp  
SE 8th St and NB off-ramp  
SE 8th St and 114th Ave SE/118th Ave SE

**COB TO TAKE OVER FEB 11, 2002**

Coal Creek Pkwy and NB ramps  
Coal Creek Pkwy and SB ramps  
Coal Creek Pkwy and 119<sup>th</sup> Ave SE

**COB TO TAKE OVER FEB 18, 2002**

150th Ave SE and EB off-ramp (SE 37th St)

**COB TO TAKE OVER UPON CONSTRUCTION COMPLETION**

Lake Hills Connector/116<sup>th</sup> Ave NE and NB off-ramp  
NE 6<sup>th</sup> St and HOV Direct Access Ramps

REC NO. 31200  
CITY OF BELLEVUE  
DATE 12/11/05  
M. TORNOG  
CITY CLERK'S OFFICE

**AGREEMENT FOR SIGNAL MAINTENANCE & OPERATIONS**  
**WSDOT / CITY OF BELLEVUE**  
**GM-1363**

This **AGREEMENT** made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, CCO FILE# 01-685,  
\_\_\_\_\_, is by and between the **State of Washington**, Department of Transportation,  
acting through the Secretary of Transportation, hereinafter called the "**STATE**", and the  
**City of Bellevue**, Washington, acting through its City Manager, hereinafter called the  
"**CITY**."

**WHEREAS**, the **STATE** owns certain traffic signal systems, and

**WHEREAS**, it would be to the mutual benefit of the **STATE** and to the **CITY** for the  
**CITY** to perform the operation and maintenance of the traffic signal systems listed in  
**Exhibit "A," Category A**, and to establish, in writing, each party's responsibility toward  
the operation and maintenance of the subject traffic signals,

**NOW THEREFORE**, by virtue of **RCW 47.28.140** and in consideration of the terms,  
conditions, covenants, and performance contained herein or attached and made part of,  
**IT IS MUTUALLY AGREED AS FOLLOWS:**

**I**  
**GENERAL**

The **CITY** agrees to maintain and operate the **STATE** owned signal systems listed in  
**Exhibit A, Category A**, under the following conditions.

The **CITY** agrees to perform all routine and ordinary maintenance and repair on said  
traffic signal systems in conformance with the **STATE's Maintenance and Operations**  
**Time Standard Manual M54-05**.

The **CITY** will operate the traffic signal systems to optimize safety and efficiency of  
traffic flow on the arterials and the freeway. Particular emphasis shall be placed on  
minimizing freeway off-ramp queuing.

The **CITY** will operate the traffic signal systems consistent with the coordination needs  
of the adjacent city intersections and freeway ramp meters.

The **STATE** will establish detection requirements and a range of parameters for traffic  
signal controller timing settings such as minimum vehicle green, minimum vehicle  
clearance (yellow and all red), minimum walk time, and minimum flashing don't walk.

The **CITY** will develop timing plans consistent with current traffic flow conditions on  
the arterials and freeway. Every effort will be made to optimize the transportation  
system. Signal and coordination timing plans will be reviewed and modified with the  
same frequency as **CITY** owned traffic signal systems.

The **CITY** will provide the **STATE** with read-only access to their **ATMS** central system.  
The **STATE** will be able to remotely monitor signal timing and traffic flow information

for all **CITY** owned traffic signals on the system, as well as the **STATE** owned traffic signals on the system.

The **CITY** will follow its typical trouble call response plan when action is needed at these intersections. This includes responding after hours and on weekends. The **CITY** will notify the **STATE** of status of pending work orders on a continuous basis. Typically this notification would be through submittal of a bi-monthly maintenance and operations report. The intent is for this information to be available by remote access in the future.

The **STATE** and **CITY** will meet at a minimum quarterly to review coordination issues, system changes, and maintenance and operations issues for the **STATE** owned traffic signal systems. The **STATE** is responsible for providing information on any procedural changes contained within the **STATE's Maintenance and Operations Time Standard Manual M54-05**. The **CITY** will provide copies of the timing plans and timing schedules it develops at the quarterly meetings or when significant changes are made.

The **STATE** retains ownership of said traffic signal systems. As such, the **CITY** will coordinate review of modifications with the **STATE** prior to implementation. The exception is where extraordinary circumstances require the **CITY** to take immediate remedial action. In the event a condition exists resulting from storm damage, third party damage, unknown third party damage, or other reasons, the **CITY** may of their own volition, remove any obvious and immediate traffic hazards before notification to the **STATE**. The **CITY** is responsible for implementing and maintaining necessary traffic control from the point at which the condition is identified until the traffic signal system is restored to it's previous functional state.

The **CITY** will be responsible for maintenance and operation of luminaries on **STATE** owned traffic signal poles identified within **Exhibit "A," Category A**. As opportunity arises, the **STATE** and **CITY** will work jointly to separate **STATE** operated and maintained services from the **CITY's**.

The **CITY** will work with the **STATE** to develop and implement improvements to said traffic signal systems in response to safety and operational reviews conducted by the **STATE**. These reviews include, but are not limited to, high accident reviews and channelization priority reviews.

The **STATE** and the **CITY** support implementation of priority treatments for Transit and high occupancy vehicles where it is determined to be effective. The **STATE** and **CITY** will jointly agree on hardware requirements and operational parameters. Unless part of a **CITY** sponsored project, costs for implementation of priority treatments shall be the responsibility of the **STATE** and/or Transit agencies. The **STATE** and **CITY** will seek opportunities to jointly fund such installations.

## II SIGNAL ADDITION or DELETION

**Exhibit "A"** can be modified for addition or deletion of traffic signal systems by means of a Letter of Understanding, signed by the **STATE's** Region Traffic Engineer and by the **CITY's** Transportation Director.

## III RESPONSIBILITY FOR COST

The **CITY** agrees to perform routine and extraordinary maintenance and operation on said traffic signal systems at **CITY** expense. Extraordinary is defined as emergency replacement of traffic signal systems or components, resulting from accidents, adverse weather, vandalism, or other forces or actions. In lieu of cash reimbursement from the **STATE**, these costs and expenses are being offset by the benefits the **CITY** will be receiving by having one agency operate both **CITY** owned and **STATE** owned traffic signals and by improving the response time to signal malfunctions because of proximity of **CITY** operations staff.

The **CITY** will notify the **STATE** within 24 hours of extraordinary work that may be reimbursed by a third party. The **STATE** grants the **CITY** authority to pursue and secure reimbursement from a third party and/or their insurers for damages the third party has inflicted upon traffic signal systems listed in **Exhibit "A," Category A**. Should the **CITY** not be successful in recovering third party reimbursement, the **CITY** shall be responsible for the costs.

The **STATE** agrees to fund replacement of said traffic signal systems when the systems deteriorate to the point of imminent failure or can no longer be cost effectively maintained. The **STATE** will fund replacement of the traffic signal systems when they reach this deficiency level and the traffic signal systems are sufficiently high on the **STATE's** preservation priority listing, given the funding available. In addition, the **STATE** may fund additional improvements to the intersection and traffic system as operational conditions warrant and/or available technology changes.

The **CITY** will provide the **STATE** necessary documentation to support the traffic signal system deficiencies. The **CITY** will provide this information to the **STATE** biennially, by May on even years, so that the **STATE** has sufficient time to consider the need during the **STATE's** biennial programming process.

The **CITY** will be responsible for the replacement cost of the traffic signal systems should the **CITY** proceed with such work prior to the traffic signal system deficiency criteria being met or prior to **STATE** funding being secured.

## IV ACCESS

The **STATE** grants the **CITY** access to **STATE** limited access right-of-way for the purpose of performing operation and maintenance on the signal systems listed in **Exhibit**

“A.” The **CITY** agrees to perform the work within **STATE** limited access right-of-way consistent with the **STATE’s Work Zone Traffic Control Guidelines**.

## V

### TURNBACK OF MAINTENANCE AND OPERATION RESPONSIBILITY

In the event that the **CITY** relinquishes maintenance and operation responsibility back to the **STATE**, the following conditions apply:

- A. **STATE** maintenance and operations personnel will inspect the signal systems to determine if all the conditions have been satisfied.
- B. The signal systems shall be fully operable and maintainable.
- C. All costs associated with repairing signal systems to ensure that they are operational and maintainable shall be the responsibility of the **CITY**.
- D. The **CITY** will provide an operational traffic controller and cabinet that meets the standards of the **CITY** at the time of turnback.
- E. The **CITY** will make necessary modifications to separate any power sources or lighting system that would not be part of the future **STATE** system at **CITY** expense, including installation of new service cabinets if needed.
- F. The **CITY** will upgrade the system’s software and/or firmware to the current version.
- G. The **CITY** will provide the **STATE** with documentation and training on control equipment deemed necessary by the **STATE** for operation of the signal system.
- H. The **CITY** will provide all available current as-built traffic signal system plans. All warranties and manufacturers’ information the **CITY** possesses will be provided to the **STATE**.

## VI

### TERM OF AGREEMENT

The term of this **AGREEMENT** shall be for up to one year, beginning on the date first entered above, and ending on December 31 of that year. This agreement shall automatically be renewed on a calendar year basis unless written notice of termination is given by either party by the preceding November 1 of any such year. Failure of either party to notify the other of such termination on or before November 1 of any such year shall cause this agreement to automatically be renewed for the next ensuing calendar year.

Either the **STATE** or the **CITY** may terminate this **AGREEMENT** for any reason with written notice to the other party at the end of sixty (60) calendar days following receipt of

notice. Termination of this agreement shall constitute termination of all signal assignment documents as well.

## VII LEGAL RELATIONS

Each **PARTY** shall indemnify and hold the other **PARTY**, its officers, officials, employees and agents, while acting within the scope of their employment as such, harmless from and shall process and defend at the indemnifying **PARTY**'s own expense any and all claims, demands, suits at law or equity, actions, penalties, losses, damages or costs of whatsoever kind or nature, brought against the other **PARTY**, arising out of, in connection with or incident to the indemnifying **PARTY**'s performance or failure to perform any aspect of this **AGREEMENT**. Provided, however, that if such claims, suits or actions are caused by or result from the concurrent negligence of the **PARTIES**, this indemnity provision provided herein shall be valid and enforceable, only to the extent of a **PARTY**'s own negligence and provided further no **PARTY** shall be required to indemnify, defend or hold harmless the other **PARTY**, its officers, officials, employees and agents, if the claim, suit or action is caused by the sole negligence of the **PARTY**. Each of the **PARTIES** agrees that its obligations under this indemnification provision extends to any claim, demand and/or cause of action brought by, or on behalf of, any of its officers, officials, employees and agents. For this purpose, each of the **PARTIES**, by mutual negotiation, hereby waives, with respect to the other **PARTIES** only, any immunity that would otherwise be available against such claims under the Industrial Insurance provisions of Title 51 RCW. In the event that any of the **PARTIES** or combination of **PARTIES** incurs any judgment, award, and/or costs arising there from, including reasonable attorneys' fees, to enforce this provision, all such fees, expenses and costs shall be recoverable from the responsible **PARTY** or combination of **PARTIES** to the extent of that **PARTY**'s/those **PARTIES**' culpability. This indemnification and hold harmless shall survive any termination of this **AGREEMENT**.

It is recognized that both the **STATE** and **CITY** are self-insured for their liabilities, and no further evidence of insurance is required by this **AGREEMENT**.

**IN WITNESS WHEREOF**, the parties hereto have executed this **AGREEMENT** as of the day and year first above written.

### STATE OF WASHINGTON DEPARTMENT OF TRANSPORTATION

By: Thomas E. Fenty  
Assistant Regional Administrator  
For Maintenance and Traffic

Approved As To Form:

J. Mark Attridge  
Assistant Attorney General  
Date: March 20, 2001

### CITY OF BELLEVUE

By: EMOBY  
City Manager

Approved As To Form:

Dee D. Alley  
City Attorney  
Date: 12-5-01

**EXHIBIT "A"**  
**AGREEMENT NO. GM-1363**  
**TRAFFIC SIGNAL SYSTEM ASSIGNMENT**

Category A: Traffic signal systems maintained and operated by the **CITY**.

Interstate 90

Richards Rd and SE 32nd St (south leg WSDOT R/W)  
SE Eastgate Way and 156th Ave SE  
SE Eastgate Way and 161st Ave SE  
148th Ave SE and SE 28th St (south leg WSDOT R/W)  
SE 36th St and Richards Rd  
SE Eastgate Way and Richards Rd  
150th Ave SE and SE Eastgate Way  
150th Ave SE and EB off-ramp (SE 37th St)

Interstate 405

NE 8th St and 116th Ave NE  
NE 8th St and 112th Ave NE  
NE 4th St and SB off-ramp  
NE 4th St and NB off-ramp  
SE 8th St and SB off-ramp  
SE 8th St and NB off-ramp  
SE 8th St and 114th Ave SE/118th Ave SE  
Lake Hills Connector/116<sup>th</sup> Ave NE and NB off-ramp  
NE 6<sup>th</sup> St and HOV Direct Access Ramps  
NE 6<sup>th</sup> St and 112<sup>th</sup> Ave NE  
Coal Creek Pkwy and NB ramps  
Coal Creek Pkwy and SB ramps  
Coal Creek Pkwy and 119<sup>th</sup> Ave SE

State Route 520

124th Ave NE and Northup Way  
108th Ave NE and WB SR 520 off-ramp  
148th Ave NE and EB SR 520 off-ramp  
148th Ave NE and WB SR 520 off-ramp (NE 29th St)

Category B: Traffic signal systems maintained and operated by the **STATE**.

Interstate 90

Lakemont Blvd and EB off-ramp  
Lakemont Blvd. and Newport Way  
Newport Way and EB on-ramp

**INTERAGENCY AGREEMENT FOR  
THE TRAFFIC SIGNAL AT THE INTERSECTION OF  
40<sup>TH</sup> AVENUE SOUTH AND SOUTH 272<sup>ND</sup> STREET**

THIS AGREEMENT is made and entered into by and between King County, a political subdivision of the State of Washington ("the County") and the City of Kent ("the City").

**RECITALS**

- A. The County owns the traffic signal located at the intersection of 40<sup>th</sup> Avenue South and South 272<sup>nd</sup> Street in unincorporated King County bordering the City ("the Signal").
- B. The City has requested that the County allow the City to control the timing setting of the Signal in order to coordinate the Signal with other traffic signals located within the City.
- C. Efficient coordination of the traffic signals in and around the City will provide benefits in the public's interest.

**AGREEMENT**

NOW, THEREFORE, the parties agree as follows:

1. Set up and Maintenance

King County Department of Transportation Road Services Division (RSD) agrees to connect this traffic signal to the City of Kent Traffic Signal System using City-installed interconnect cable terminated in the signal controller cabinet. RSD will substitute a City-supplied US Traffic Model 820-A VMS signal controller for the current ASC-8000 unit. RSD will install a City-supplied 820-A "D Connector" interface panel to allow the signal to be monitored and controlled by the City Master Traffic Signal Computer. RSD will maintain the Signal. The City will provide technical support for the US Traffic controller at RSD's request. Whenever the City needs to get into a cabinet, a Signal Technician or Engineer will contact RSD for approval.

2. Traffic Signal Operation

- 2.1 RSD will control the Signal display, the vehicle detection system, establish a range of parameters for traffic controller timing settings such as minimum green, maximum green, gap times, vehicle clearance times, pedestrian walk, etc. The City and RSD will meet annually to review the operation of the Signal. All aspects of the operation will be reviewed including efficiency and safety.
- 2.2 The City will control the Signal controller timing settings within RSD's traffic operational parameters and establish the traffic signal coordination system using:
  - a. A family of pre-set coordination patterns (developed jointly by RSD/City) operated by a time-of-day, day-of-week schedule; or

- b. A real-time on line dynamic traffic control strategy based on current traffic flow characteristics as measured by the system; or
- c. A combination of a. and b., above.

2.3 The City will provide a system password to RSD that will allow for monitoring only. If requested, City technicians will assist RSD personnel in familiarizing themselves with system capabilities. The City will fax notification of any signal timing changes it makes to RSD as soon as is practical after they are in effect.

3. Audits and Inspections

The records and documents with respect to all matters covered by this Agreement shall be subject to inspection, review or audit by the County or the City during the term of this Agreement and three years after termination.

4. Entire Agreement and Amendments

This Agreement contains the entire written agreement of the parties hereto and supersedes any and all prior oral or written representations or understandings. This Agreement may be amended at any time by mutual agreement of the authorized representatives of both parties.

5. Hold Harmless and Indemnification

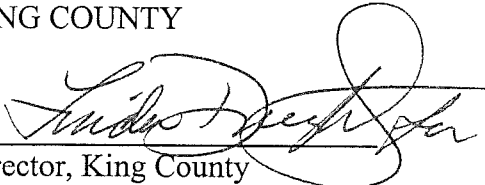
To the extent permitted by state law, and for the limited purpose set forth in this Agreement, each party shall protect, defend, hold harmless and indemnify the other party, its officials, agents and employees, from and against any and all claims (including demands, suits, penalties, liabilities, damages, costs, expenses, attorney's fees or losses of any kind or nature whatsoever) to the extent that such claims arise out of or in any way result from the indemnifying party's own negligent acts or omissions, or the negligent acts or omissions of its officials, agents and employees, while acting within the scope of their employment as such, related to such party's participation and obligations under this Agreement. Each party agrees that its obligations under this section extend to any claim, demand and/or cause of action brought by or on the behalf of any of its employees or agents. For this purpose, each party, by mutual negotiation, hereby waives, with respect to the other party only, any immunity that would otherwise be available against such claims under the industrial insurance act provisions of Title 51 RCW. The provisions of this section shall survive and continue to be applicable to both parties in the event of termination pursuant to Section 6.

6. Duration/Termination

This Agreement will become effective upon signature by both parties and will remain in effect until terminated by 30 days' advance written notice by either party to the other party.


IN WITNESS, THEREOF, the parties have executed this Agreement effective as of the date last written below.

KING COUNTY

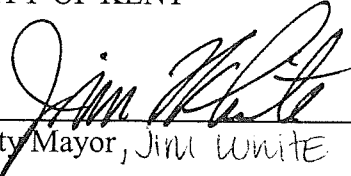
  
\_\_\_\_\_  
Director, King County  
Department of Transportation

5/29/01  
\_\_\_\_\_  
Date

Approved as to form:

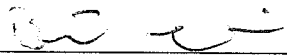
  
\_\_\_\_\_  
Deputy Prosecuting Attorney

CITY OF KENT

  
\_\_\_\_\_  
City Mayor, JIM WHITE

5-8-01  
\_\_\_\_\_  
Date

Approved as to form:

  
\_\_\_\_\_  
Asst. City Attorney, BRETT C. VINSON

**INTERAGENCY AGREEMENT FOR  
THE TRAFFIC SIGNAL AT THE INTERSECTION OF  
MILITARY ROAD SOUTH AND SOUTH 272<sup>ND</sup> STREET**

THIS AGREEMENT is made and entered into by and between King County, a political subdivision of the State of Washington ("the County") and the City of Kent ("the City").

**RECITALS**

- A. The County owns the traffic signal located at the intersection of Military Road South and South 272<sup>nd</sup> Street in unincorporated King County bordering the City ("the Signal").
- B. The City has requested that the County allow the City to control the timing setting of the Signal in order to coordinate the Signal with other traffic signals located within the City.
- C. Efficient coordination of the traffic signals in and around the City will provide benefits in the public's interest.

**AGREEMENT**

NOW, THEREFORE, the parties agree as follows:

1. Set up and Maintenance

King County Department of Transportation Road Services Division (RSD) agrees to connect this traffic signal to the City of Kent Traffic Signal System using City-installed interconnect cable terminated in the signal controller cabinet. RSD will substitute a City-supplied US Traffic Model 820-A VMS signal controller for the current ASC-8000 unit. RSD will install a City-supplied 820-A "D Connector" interface panel to allow the signal to be monitored and controlled by the City Master Traffic Signal Computer. RSD will maintain the Signal. The City will provide technical support for the US Traffic controller at RSD's request. Whenever the City needs to get into a cabinet, a Signal Technician or Engineer will contact RSD for approval.

2. Traffic Signal Operation

2.1 RSD will control the Signal display, the vehicle detection system, establish a range of parameters for traffic controller timing settings such as minimum green, maximum green, gap times, vehicle clearance times, pedestrian walk, etc. The City and RSD will meet annually to review the operation of the Signal. All aspects of the operation will be reviewed including efficiency and safety.

2.2 The City will control the Signal controller timing settings within RSD's traffic operational parameters and establish the traffic signal coordination system using:

- a. A family of pre-set coordination patterns (developed jointly by RSD/City) operated by a time-of-day, day-of-week schedule; or

- b. A real-time on line dynamic traffic control strategy based on current traffic flow characteristics as measured by the system; or
- c. A combination of a. and b., above.

2.3 The City will provide a system password to RSD that will allow for monitoring only. If requested, City technicians will assist RSD personnel in familiarizing themselves with system capabilities. The City will fax notification of any signal timing changes it makes to RSD as soon as is practical after they are in effect.

3. Audits and Inspections

The records and documents with respect to all matters covered by this Agreement shall be subject to inspection, review or audit by the County or the City during the term of this Agreement and three years after termination.

4. Entire Agreement and Amendments

This Agreement contains the entire written agreement of the parties hereto and supersedes any and all prior oral or written representations or understandings. This Agreement may be amended at any time by mutual agreement of the authorized representatives of both parties.

5. Hold Harmless and Indemnification

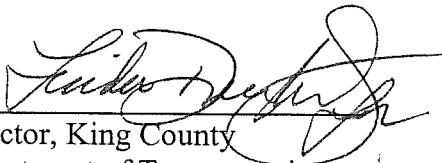
To the extent permitted by state law, and for the limited purpose set forth in this Agreement, each party shall protect, defend, hold harmless and indemnify the other party, its officials, agents and employees, from and against any and all claims (including demands, suits, penalties, liabilities, damages, costs, expenses, attorney's fees or losses of any kind or nature whatsoever) to the extent that such claims arise out of or in any way result from the indemnifying party's own negligent acts or omissions, or the negligent acts or omissions of its officials, agents and employees, while acting within the scope of their employment as such, related to such party's participation and obligations under this Agreement. Each party agrees that its obligations under this section extend to any claim, demand and/or cause of action brought by or on the behalf of any of its employees or agents. For this purpose, each party, by mutual negotiation, hereby waives, with respect to the other party only, any immunity that would otherwise be available against such claims under the industrial insurance act provisions of Title 51 RCW. The provisions of this section shall survive and continue to be applicable to both parties in the event of termination pursuant to Section 6.

6. Duration/Termination

This Agreement will become effective upon signature by both parties and will remain in effect until terminated by 30 days' advance written notice by either party to the other party.


IN WITNESS, THEREOF, the parties have executed this Agreement effective as of the date last written below.

KING COUNTY

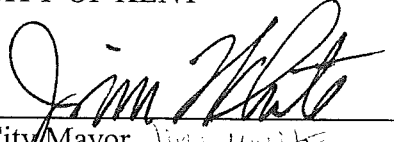
  
\_\_\_\_\_  
Director, King County  
Department of Transportation

5/29/01  
Date

Approved as to form:


  
\_\_\_\_\_  
Deputy Prosecuting Attorney

CITY OF KENT

  
\_\_\_\_\_  
City Mayor, JIM WHITE

5-8-01  
Date

Approved as to form:

  
\_\_\_\_\_  
Asst. City Attorney, BRETT C. VINSON

**Exhibit 6: Operation and Maintenance of Transit Signal Priority within the City of Redmond**

**Agreement Between the  
City of Redmond and King County for  
Operation and Maintenance of Transit Signal Priority**

**THIS OPERATIONS AND MAINTENANCE AGREEMENT** is made and entered into this 31<sup>st</sup> day of DECEMBER 2008, by and between King County, hereinafter called the "County," and the City of Redmond hereinafter called the "City," both of which entities may be collectively referred to as the "Parties."

WHEREAS, the City has been selected for a Transit Service Speed and Reliability Partnership Award for the Bellevue and Redmond RapidRide corridor; and

WHEREAS, this award was based in part on the City agreeing to provide a speed and reliability benefit to transit vehicles through the operation of transit signal priority; and

WHEREAS, the City has committed to implement transit signal priority at specified intersections; and

WHEREAS, the Parties are required as a condition of the Transit Service Speed and Reliability Partnership Agreement to execute a supplemental operations and maintenance agreement outlining the roles and responsibilities of each party for the transit signal priority system and all related signal timing projects;

WHEREAS, the general terms and conditions contained in the Transit Service Speed and Reliability Partnership Agreement are incorporated by reference, except as modified below;

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the sufficiency of which is hereby acknowledged, the Parties hereto agree as follow:

**1 Definitions**

- 1.1 "O and M AGREEMENT" shall mean this supplemental AGREEMENT between the City and the County for the operations and maintenance of Transit Signal Priority.
- 1.2 "TSP" means Transit Signal Priority, the ability of a traffic signal control system, generally within the traffic controller functional capability, to grant special priority treatment to buses by adjusting traffic controller settings so as to reduce signal delay for transit buses. This term is synonymous with "TSP functionality."
- 1.3 "TSC System" means the Traffic Signal Control System maintained and owned by the City for the purpose of managing and controlling vehicular traffic, including, but not limited to, intersection street equipment (traffic signal heads, poles, detectors, conduit, interconnect, traffic controllers and cabinets), and supporting Traffic Management Center ("TMC") software and/or hardware.
- 1.4 "TSP System" means the Transit Signal Priority System which is the functional integration of the TPR System with the TSC System through which TSP is provided.
- 1.5 "TPR System" means the Transit Priority Request System that identifies transit buses as they approach a signalized intersection for the purpose of requesting priority treatment from the signal controller. The system is comprised of (i) on-board bus components (ii) the Transit ITS Communication Network, (iii) the TPR generator, (iv) TPR Interface Panel and (v) the TPR Management System.
- 1.6 "TPR Generator" means the Transit Priority Request Generator, the portion of the TPR System that is located either in a Transit ITS Cabinet or in a dedicated space with the "TSP Compatible Traffic Control Cabinet. This unit generates the conditional priority request that is transmitted to the Traffic Signal Control System.
- 1.7 "TPR Interface Panel" means the termination panel that connects the TPR system to the TSC System.

- 1.8 "TPR Management System" means the TPR Management Server, backhaul network connections to the King County wide area network (WAN); "Transit Priority Request Logic" and all other central system hardware and applications located in the King Street Center County offices that are used to manage and communicate with the TPR Generators in the field. It also includes any TPR Remote Workstations that provide user input, and system management and operational functions.
- 1.9 "Transit Priority Request Logic" means the algorithms within the TPR System that establishes the hours of operation for transit signal priority and the frequency with which transit coaches will be allowed to request priority.
- 1.10 "Transit ITS Communication Network" means the equipment required to operate an ethernet based network that supports transit signal priority operations and real time transit information signs. It includes the following: a "Transit Fiber Network," switching and routing equipment located in either a "Transit ITS Cabinet" or a dedicated space within a City-owned "TSP Compatible Traffic Control Cabinet"; wireless communication equipment on board the transit fleet; and Transit Antenna(s) for wireless communication that are mounted on the City-owned mast arm at the intersection.
- 1.11 "Transit Fiber Network" shall mean the physical communication infrastructure established within the City by the Parties to support the operation of the Transit ITS Communication Network.
- 1.12 "Transit Antenna" shall mean the antenna(s) located on City-owned mast arms with communication connections to either the National Electrical Manufacturers Association (NEMA) certified Transit ITS cabinets that will be installed in City right of way adjacent to and connected by conduit for power and communications connections to City-owned traffic control cabinets; the Transit ITS Cabinets shall be used to house equipment related to the operation of the TPR System.
- 1.13 "Transit ITS Cabinet" shall mean small NEMA certified cabinets that will be installed in City right of way adjacent to and connected by conduit for power and communication to City-owned traffic control cabinets. Transit ITS cabinets shall be used to house equipment related to the operation of the TPR System.
- 1.14 "TSP Compatible Traffic Control Cabinet" means those NEMA certified traffic control cabinets installed and maintained by the City to house traffic control equipment that have been configured to provide a dedicated, secured space within the cabinet to house equipment related to the operation of the TPR System that is separate from the space that houses all of the traffic control equipment..

## 2 General

- 2.1 This O and M AGREEMENT will function as a master agreement which outlines the terms and conditions under which the City and the County agree to operate and maintain all transit signal priority installations within the City. Upon execution, this O and M AGREEMENT will apply to the transit signal priority installations that will be developed along the Bellevue and Redmond RapidRide corridor, as identified in the attached Table 1.
- 2.2 The City and the County agree they have joint responsibility for the implementation and ongoing operation of transit signal priority. The Parties re-affirm the principles for the implementation and operation of transit signal priority projects and all other signal operations projects as outlined in Bellevue and Redmond Speed and Reliability Partnership Proposal.
- 2.3 In the future, if the Parties jointly agree to add additional transit signal priority installations to the system, this O and M AGREEMENT may be amended by expanding Table 1 to include these new installations. The same terms and conditions will apply unless the Parties agree to new ones. The mechanism for enrolling future TSP installations will be a written request from the County to the City to amend Table 1. The signatories for these amendments will be the Mayor of the City of Redmond and the General Manager of the King County Transit Division, or their designees.

## 3 County Responsibilities

- 3.1 The County will share with the City the cost of operating and maintaining the "Transit Fiber Network" consistent with a supplemental fiber agreement(s) that the Parties will execute on or before December 31, 2009.
- 3.2 Exclusive of the "Transit Fiber Network" referenced in Section 3.1, the County will own and maintain all components of the "TPR System" except for the following: TPR Interface Panels located within the traffic section of a TSP Compatible Traffic Control Cabinet; TSP Compatible Traffic Control Cabinets; and mast arms used for mounting Transit Antennas.
- 3.3 Maintenance of the communication and power connections between either the Transit ITS Cabinet and the traffic control cabinet or the transit and traffic sections of the TSP Compatible Traffic Control Cabinet will be a shared responsibility with the City.
- 3.4 The County will be responsible for monitoring the performance of the TPR System on an ongoing basis and for determining when the system or elements of the system are not working properly. The County will perform initial diagnostics and make the necessary repairs if the affected components are all under the direct control of the County. If the repairs require assistance from the City, the County will issue a trouble call and request assistance from the City.
- 3.5 The County recognizes that the Traffic Signal Control System and the Transit Priority Request System are interdependent and both are required for the successful operation of transit signal priority. The County agrees to cooperate with the City in the management of trouble calls and to provide the necessary staff resources to work with the City to diagnose and fix equipment failures and other problems.
- 3.6 The County will take the lead in scheduling an annual review of transit signal priority operations with the City.

#### **4 City Responsibilities**

- 4.1 The City will continue to own, operate, maintain and finance all aspects of its "Traffic Signal Control System," including traffic controllers, traffic control cabinets, mast arms, central systems and all related applications.
- 4.2 The City will permit a power connection between its TSC System and the Transit ITS Cabinet or the transit portion of the TSP Compatible Traffic Control Cabinet and will pay for the ongoing cost of power to these units.
- 4.3 The City will share with the County the cost of operating and maintaining the "Transit Fiber Network" consistent with a supplemental agreement that the parties will execute on or before December 31, 2009.
- 4.4 Maintenance of the communication and power connections between either the Transit ITS Cabinet and the traffic control cabinet or the transit and traffic sections of the TSP Compatible Traffic Control Cabinet will be a shared responsibility with the County.
- 4.5 After the initial installation, the City will own and maintain all TPR Interface Panels located in the TSP Compatible Traffic Control Cabinets in the section reserved for traffic control equipment.
- 4.6 The City will have responsibility for monitoring the performance of its Traffic Signal Control System to ensure that it is responding appropriately to the transit priority requests that it receives.
- 4.7 The City recognizes that the Traffic Signal Control System and the Transit Priority Request System are interdependent and both are required for the successful operation of Transit Signal Priority.
- 4.8 The City agrees to cooperate with the County in the management of trouble calls and to provide the necessary staff resources to work with the County to diagnose and fix equipment failures and other problems.
- 4.9 The City will make a good faith effort to respond to trouble call requests from the County within 48 hours of receiving a request.

- 4.10 The City will make available to the County on an ongoing basis the current signal timing plans for all intersections affected by this Operations and Maintenance Agreement.
- 4.11 When the City makes major updates or comprehensively retimes signals covered by this Operations and Maintenance Agreement, it will be coordinate this effort with the County prior to implementation in the field.
- 4.12 The City will meet with the County at least once each year to review the performance and effectiveness of the transit signal priority system and to agree on actions that will be taken to improve performance. The results of this annual review and any agreed upon follow up actions will be summarized in writing.
- 4.13 If the City installs a new central system for traffic control, the City will ensure that this central system has the capability to record and log the actions taken by the traffic controller in response to transit priority requests so that this data can be transmitted back to the County via the agreed upon back haul connection. This will allow an automated comparison of the transit priority requests that were issued and the corresponding response from the traffic control system to each request. When the City evaluates and selects a central system, the City and the County will agree on the scope of this functionality and address cost sharing of any development costs at that time.

## **5 Testing and Acceptance Procedures for Future TPR System Enhancements**

- 5.1 The County's development cycle for future TPR System enhancements may include scope development, bench testing, field installation and testing and final approval. At its discretion, the County may retain consultants to assist in designing and conducting these tests.
- 5.2 The City will have the option of identifying staff to participate in the development of the test procedures, in the administration of these tests, and in determining if future TPR System enhancements meet any required City specifications.
- 5.3 Upon the satisfactory completion of the agreed upon tests for future TPR system enhancements, the County will report the test results to the City.
- 5.4 Pending satisfactory test results, the County will request written approval from the City to integrate these TPR system enhancements into the TSP System. The City agrees not to withhold its approval unreasonably.

## **6 Duration**

- 6.1 This O and M Agreement shall take effect upon its execution and shall run concurrently with the term of the Transit Service Speed and Reliability Partnership Agreement.

## **7 Termination**

- 7.1 If the Transit Service Speed and Reliability Partnership Agreement is ever terminated, this O and M Agreement shall terminate at the same time, except that the Parties will have the option to extend this O and M Agreement on terms mutually acceptable to both Parties. .

## **8 Identification of Contacts at the City and the County**

- 8.1 The City and the County each agree to appoint an Operations and Maintenance Liaison to work together to implement this O and M AGREEMENT.
- 8.2 Within fourteen (14) days of the execution of this O and M AGREEMENT, the parties will provide each other in writing with the name of their Project Liaison.

8.3 All official communication concerning this O and M AGREEMENT should be directed to the following parties:

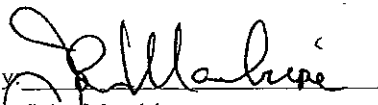
City: Mr. Rob Crittenden  
Traffic Operations Manager  
City of Redmond  
15670 NE 85th Street, MS 2NPW  
Redmond, WA 98052-3580

County: Ms. Ellen Bevington  
Supervisor of Capital Projects  
Transit Speed and Reliability  
King County Department of Transportation  
201 S Jackson Street, MS KSC-TR-0411  
Seattle, WA 98104-3856

8.4 Any changes in agency contacts from those noted above must be communicated in writing to the other party.

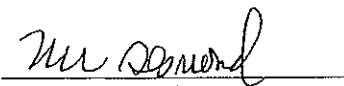
IN WITNESS WHEREOF, the parties hereto have executed this O and M AGREEMENT this \_\_\_\_ day of \_\_\_\_\_, 2008.

City of Redmond

By:   
John Marchione  
Mayor

12/17/08  
Date

King County

By:   
Kevin Desmond  
General Manager, Metro Transit Division

12/11/08  
Date

Table 1: Transit Signal Priority Locations in the City of Redmond

Transit Signal Priority Intersections in Redmond	
	Project Location
1	TSP at 161st Ave NE & NE 83rd St
2	TSP at 161st Ave NE & NE 85th St
3	TSP at 160th Ave NE & NE 85th St
4	TSP at 160th Ave NE & NE 90th St
5	TSP at 154th Ave NE & NE 90th St
6	TSP at Willows Rd NE & NE 90th St
7	TSP at 148th Ave NE & Redmond Way
8	TSP at 148th Ave NE & Old Redmond Rd
9	TSP at 148th Ave NE & NE 54th St
10	TSP at 148th Ave NE & NE 51st St
11	TSP at 148th Ave NE & NE 46th St
12	TSP at 148th Ave NE & NE 40th St
13	TSP at NE 40th St & 150th Ave NE
14	TSP at NE 40th St & 15200 Block
15	TSP at NE 40th St & SR 520 WB Ramp
16	TSP at NE 40th St & SR 520 EB Ramp
17	TSP at NE 40th St & 156th Ave NE
18	TSP at 156th Ave NE & Overlake Transit Center
19	TSP at 156th Ave NE & NE 36th St
20	TSP at 156th Ave NE & NE 31st St
21	TSP at 152nd Ave NE & 2600 Block
22	TSP at 152nd Ave NE & NE 24th St

**AGREEMENT ON THE DESIGN, CONSTRUCTION, OWNERSHIP, AND MAINTENANCE OF  
THE A-LINE RAPIDRIDE FIBER OPTIC PROJECT**

**Between**

**KING COUNTY**

**CITY OF SEATAC**

**CITY OF DES MOINES**

**CITY OF KENT**

**CITY OF FEDERAL WAY**

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## **I. RECITALS**

This AGREEMENT is made by and between the City of SeaTac, the City of Des Moines, the City of Kent, the City of Federal Way, and King County, hereinafter referred to as the “Participating Agencies.”

**WHEREAS**, King County Ordinance No. 15582 (Transit Now Ordinance) identified a number of transit service measures to be implemented using the one-tenth of one percent sales and use tax collected through Transit Now that focus on capital, operating, and maintenance improvements that are expected to expand and improve bus service on local streets and arterials within King County; and

**WHEREAS**, one of the programs specifically identified in the Transit Now Ordinance was the development and implementation of a bus rapid transit program in five distinct corridors, including new bus rapid transit services connecting the Tukwila International Boulevard Link Light Rail Station and the Federal Way Transit Center; and

**WHEREAS**, the key elements of bus rapid transit include new, low-floor, hybrid diesel-electric buses; improved frequency of bus service; improved traffic operations; and transit stations with real-time passenger information signs; and

**WHEREAS**, King County’s bus rapid transit program has now been named RapidRide; and

**WHEREAS**, the Participating Agencies are interested in advancing the implementation of this program; and

**WHEREAS**, the approved King County transit capital program includes funding to support the investments in traffic signal systems and communication necessary to implement RapidRide; and

**WHEREAS**, King County plans to construct a fiber optic network along Pacific Highway South/International Boulevard for the purpose of providing the communication infrastructure to support capital improvements such as real-time passenger information signs and transit signal priority elements of RapidRide; and

**WHEREAS**, King County plans to install a sufficient number of fiber optic cables to meet the county’s needs as well as additional fiber optic cable to support the fiber communication needs of the Participating Agencies; and

**WHEREAS**, the City of SeaTac, the City of Des Moines, the City of Kent, and the City of Federal Way have conduit path available that can serve all the Participating Agencies; and

**WHEREAS**, mutually beneficial contractual arrangements with other public entities that leverage public funds to provide both new and better bus service to cities and major employers is one of four key strategies identified in the Transit Now proposition approved by King County voters in the general election on November 7, 2006;

**NOW THEREFORE IN CONSIDERATION OF THE MUTUAL PROMISES, COVENANTS AND AGREEMENTS SET FORTH HEREIN, AND FOR OTHER GOOD AND VALUABLE CONSIDERATIONS, THE SUFFICIENCY OF WHICH IS HEREBY ACKNOWLEDGED BY THE PARTICIPATING AGENCIES, THE PARTICIPAING AGENCIES AGREE AS FOLLOWS:**

## II. PURPOSE OF AGREEMENT

This Agreement defines how the Participating Agencies will work together for the benefit of all the Participating Agencies in implementing the A-Line RapidRide Fiber Optic Project. This document also outlines the roles and responsibilities of all the Participating Agencies with respect to the design, use, maintenance, and financing of the fiber cables during the term of the Agreement.

## III. DEFINITIONS

Whenever used in this Agreement with initial letters capitalized, the following terms shall have the following specified meanings, unless the context clearly requires a different meaning:

- A. Acceptance or Accepted  
Written documentation of King County's determination that the contractor's work has been completed in accordance with the contract.
- B. Agreement  
Refers to this document, *Agreement On the Design, Construction, Ownership, and Maintenance of the A-Line Fiber Optic Project*.
- C. Building Entrance  
Conduit or conduits usually connecting a vault, Handhole, or maintenance hole in the public right-of-way to a building.
- D. Common Fiber Spares  
Fiber Strands installed as part of the Fiber Optic Project held in reserve solely for replacement of disabled fibers.
- E. Conduit or Duct  
Enclosed raceway or tube designed to house Fiber Strands for their protection.
- F. Dark Fiber  
An optical fiber strand not coupled to an optical light source.
- G. Day  
Calendar day.
- H. Demarcation Point  
A point agreed to between the Facility Owner and the County that documents where one party's responsibilities end and the other's begins.
- I. Facility or Facilities  
A structure including but not limited to buildings, vaults, maintenance holes, Handholes, Conduit, and Building Entrances.
- J. Facility Manager  
The person designated by the Facility Owner to manage the Facility, including granting access and determining and approving its use and terms and conditions for such use.

- K. Facility Owner  
The Participating Agency that is the legal owner of a Facility or Facilities or the Participating Agency holding the legal right to grant permission to occupy, use, or modify Facilities.
- L. Fiber Optic Cable  
A cable installed by the Participating Agencies pursuant to this Agreement that is composed of strands of glass fiber, each strand of which is designed to conduct signals of modulated light (optical signals) from one end to the other.
- M. Fiber Optic Project  
The activities associated with the installation of fiber optic transmission materials, pursuant to this Agreement.
- N. Fiber Strand or Strand of Fiber  
A single, thin, transparent fiber of glass enclosed by a material of a lower index of refraction that reflects light throughout its length by internal reflections.
- O. Handhole  
An underground structure (usually concrete) providing an opening in a Conduit that workers may reach into but usually do not enter for the purposes of installation and maintenance of cable.
- P. Indirect Costs  
Indirect Costs are costs determined in accordance with a Participating Agency's standard methodology for computing Indirect Costs. Indirect Costs shall include costs of labor, benefits, equipment usage, miscellaneous materials, material handling, and administrative and general charges. This definition also applies to Facility Owner Indirect Costs.
- Q. ITS  
Intelligent Transportation System.
- R. Lead Agency  
The Participating Agency designated by mutual consent that is responsible for managing the Work related to the Fiber Optic Project, including entering into contracts for design and construction, overseeing the construction work, and assuming responsibility for ongoing maintenance of the completed Fiber Optic Project on behalf of the Participating Agencies. King County is designated as the Lead Agency for this Agreement.
- S. Make-Ready Work  
Any planning, analysis, design, review, adjustment to equipment, construction, and/or other activities (such as tree trimming) necessary to prepare existing Facilities for use by the Lead Agency as determined by the Facility Owner.
- T. Participating Agency  
A public agency that is a signatory to this Agreement for the purpose of engaging in the Fiber Optic Project.
- U. Participating Agency Facilities

Those Facilities owned, managed, and occupied by a Participating Agency.

V. Pathway

Aerial or underground Facilities used for the purpose of placing fiber optic cables, splice cases, trace wire, etc.

W. Splice

The point where two separate optical Fiber Strands are joined together either mechanically or by fusion to make one continuous optical fiber strand.

X. Telecommunications Service(s)

Telecommunications Service(s) is the transmission of information over Fiber Strands from one location to another (not including services provided between two areas within the same building) meeting industry-accepted transmission standards, their equivalent or replacement service. Such information includes but is not limited to voice, video, data, pictures, and facsimile. Telecommunications Service(s) does not include Dark Fiber or services other than transmission services.

Y. Work

All activities related to the planning, right-of-way acquisition, scheduling, analysis, design, engineering, preparation, construction, installation, evaluation, maintenance, repair, and operation of the Fiber Optic Project as provided for in this Agreement, including Make-Ready Work.

#### **IV. FIBER OPTIC PROJECT BACKGROUND**

King County, hereinafter referred to as the “County,” will deploy A-Line RapidRide, a bus rapid transit (BRT) service, on Pacific Highway South/International Boulevard in the City of SeaTac, the City of Des Moines, the City of Kent, and the City of Federal Way. RapidRide is a premium transit service with increased frequency, reduced travel time, and enhanced passenger amenities.

Two key elements of RapidRide service are real-time information signs at selected bus stop locations and transit signal priority at selected intersections throughout the corridor. To support these features, the County is developing a network for transporting data from its central communication system to the roadside, and for communicating wirelessly along the roadside with real-time information signs, fare transaction processors, and buses. The roadside network will consist of a fiber optic cable, secure wireless access points at intersections, and backhaul services provided through the Washington State Department of Transportation (WSDOT) regional network.

The Fiber Optic Project will install a large-capacity fiber optic cable on Pacific Highway South/International Boulevard using existing traffic signal and illumination conduit along the corridor. This cable will run from State Route 518 to the Federal Way Transit Center and provide connections with WSDOT regional hubs at State Route 518 and South 320th Street. The Fiber Optic Project will include sufficient fiber strands to support the County’s RapidRide ITS communications, WSDOT Traffic Buster communications, local agency communications, and interagency communications.

## **v. SCOPE OF WORK**

### **A. OVERVIEW**

On Pacific Highway South/International Boulevard, the Fiber Optic Project will install a 72-strand fiber optic trunk cable. The fiber cable is sized to support future communication capacity for use by the local agencies for public purposes such as video surveillance, traffic signal communications, and city-to-city communications. The distribution of fiber is as follows:

County RapidRide ITS communications	24 strands
Local agency communications	24 strands
Interagency communications	24 strands
Total	72 strands

On South 320th Street, the Fiber Optic Project will install a 48-strand fiber optic trunk cable. The fiber will be sized to support future communication capacity for use by the local agency for public purposes. The distribution of fiber is as follows:

County RapidRide ITS communications	24 strands
Local agency communications	24 strands
Total	48 strands

The Fiber Optic Project includes funding for the design, installation, and construction of local agency and interagency communication fiber. The local agency communication fiber will be owned by the local jurisdiction in which this fiber is installed. The interagency communication fiber will run the length of Pacific Highway South/International Boulevard from State Route 518 to South 320th Street.

The elements of the Fiber Optic Project are provided in Attachment 1, *Project Elements: A-Line RapidRide Fiber Optic Project*.

A fiber routing schematic is provided as Attachment 2, *Fiber Route Schematic*.

The construction budget for the Fiber Optic Project is provided in Attachment 3, *Fiber Optic Project Cost Estimate*.

### **B. DESIGN APPROACH FOR THE COUNTY FIBER**

The County RapidRide fiber will be installed on three channels along the project corridor:

- Channel 1 will include all the Intelligent Transportation System (ITS) cabinets between State Route 518 and South 200th Street in the City of SeaTac.
- Channel 2 will connect all the ITS cabinets between South 204th Street and Dash Point Road.
- Channel 3 will include all the ITS cabinets from South 312th Street to South 316th Street, and will include the ITS cabinets on 23rd Avenue South at South 316th Street and at South 317th Street.

Channel 1 will terminate fibers 1 and 2 in each ITS cabinet from State Route 518 to South 200th Street, and will return on fibers 9 and 10 to the State Route 518 termination cabinet. Channel 2 will terminate fibers 7 and 8 in each ITS cabinet from S 204th Street to Dash Point Road, and will return on fibers 11 and 12 to the State Route 518 termination cabinet. Channel 3 will terminate fibers 1 and 2 in each ITS cabinet from S 312th Street to S 316th Street on

Pacific Highway South and at South 316th Street and at South 317th Street on 23rd Avenue South, with return on fibers 9 and 10 to the termination cabinet at the intersection of South 320th Street and Pacific Highway South. Fibers 3-6 will be terminated into every ITS cabinet along the corridor for all RapidRide channels for future use by the County.

**C. DESIGN APPROACH FOR LOCAL AGENCY FIBER**

The local agency fiber will consist of five channels: two channels in the City of SeaTac, one channel in the City of Des Moines, one channel in the City of Kent, and one channel in the City of Federal Way.

For the City of SeaTac, Channel 1 will terminate fibers 25 and 26 in each traffic signal controller cabinet from State Route 518 to South 180th Street, and will return on fibers 33 and 34 to the State Route 518 termination cabinet. Channel 2 will terminate fibers 31 and 32 in each traffic signal controller cabinet from South 182nd Street to South 208th Street, and will return on fibers 35 and 36 to the State Route 518 termination cabinet. Fibers 27-30 will also be terminated into every traffic signal controller cabinet along the International Boulevard corridor within the City of SeaTac for future use by the City of SeaTac.

For the City of Des Moines, Channel 3 will terminate fibers 25 and 26 in each traffic signal controller cabinet from S 216th Street to Kent Des Moines Road, and will return on fibers 33 and 34 to the S 216th Street termination cabinet. Fibers 27-30 will also be terminated into every traffic signal controller cabinet along Pacific Highway South within the City of Des Moines for future use by the City of Des Moines.

For the City of Kent, Channel 4 will terminate fibers 25 and 26 in each traffic signal controller cabinet from South 240th Street to South 272nd Street, and will return on fibers 33 and 34 to the Kent Des Moines Road termination cabinet. Fibers 27-30 will also be terminated into every traffic signal controller cabinet along Pacific Highway South within the City of Kent for future use by the City of Kent.

For the City of Federal Way from South 276th Street to South 320th Street, the 24 local-agency fibers will not be terminated in the traffic signal controller cabinets along Pacific Highway South, since these signals already have fiber interconnections. Instead, all 24 local-agency fiber strands will be terminated at the South 320th Street/Pacific Highway South termination cabinet. On South 320th Street and on 23rd Avenue South, Channel 5 will terminate fibers 25 and 26 in the traffic signal controllers at the following intersections: South 320th Street/20th Avenue South, South 320th Street/23rd Avenue South, South 320th Street/25th Avenue South, South 316th Street/23rd Avenue South, and South 317th Street/23rd Avenue South.

Channel 5 will return on fibers 33 and 34 to the termination cabinet at South 320th Street/Pacific Highway South. Fibers 27-30 will also be terminated in each of the traffic signal controller cabinets listed above for future use by the City of Federal Way

**D. DESIGN APPROACH FOR INTERAGENCY FIBER**

All 24 fiber stands (49-72) will terminate in the termination cabinets at State Route 518, South 188th Street, South 216th Street, Kent-Des Moines Road, and South 320th Street/Pacific Highway South. Of the 24 strands, fibers 55-56 from the State Route 518 fiber termination cabinet to the South 216th Street fiber termination cabinet are dedicated to the City of Des Moines for the connection to the WSDOT Traffic Buster project.

## **VI. RELATIONSHIPS AMONG PARTICIPATING AGENCIES**

### **A. PRINCIPLES**

This Agreement among the Participating Agencies shall conform to the following principles:

1. Participation in the Fiber Optic Project is voluntary.
2. Arrangements for cooperation should be fair and equitable among Participating Agencies. Any special configuration, such as a routing change to accommodate a particular Participating Agency, should be paid for in whole by that Participating Agency.
3. Participating Agencies may have varying amounts of financial and other responsibilities. Participating Agencies should share maintenance proportionately based on each Participating Agency's share of ownership or use of the Fiber Strands as described in the Agreement.
4. In consideration of the perpetual right to use Participating Agencies' conduit, the County will at its own cost design, install, and dedicate fiber optic cables to the Participating Agencies for their ownership and use.

### **B. CHANGES**

Participating Agencies shall have the right to propose changes to the Fiber Optic Project, which must be approved by all Participating Agencies. Changes that impact Facility Owners shall be subject to approval by the Facility Owners.

### **C. ALLOCATION AND OWNERSHIP OF FIBER OPTIC CABLE**

Fiber Optic Cable and Fiber Strands installed as part of the Fiber Optic Project shall be allocated to the individual Participating Agencies. The Participating Agency shall own all right and title to these allocated Fiber Strands. The ownership of the elements of the Fiber Optic Project is identified in Attachment 4, *Ownership and Maintenance Responsibilities of the Fiber Optic Project Elements*.

### **D. USE OF FIBERS**

A Participating Agency shall have completely free and unrestricted use of the Fiber Strands installed and allocated to it under the Fiber Optic Project Agreement for any lawful government, public education, intergovernment, or public utility purpose subject to applicable agreements, approvals, permission, and permits. Such right to use shall be for the duration of the Agreement and for any renewals by the Participating Agencies unless terminated under the terms and conditions provided herein.

### **E. TRANSFER OF FIBERS**

Participating Agencies shall not assign the use or otherwise convey the use of any of the Participating Agency's fibers as identified in the Agreement to any other party except to government, public education, or public utility entities.

Participating Agencies who wish to transfer their allocated fibers must obtain written and unanimous approval from all Participating Agencies. Participating Agencies are also granted right of first refusal regardless of the circumstances of the transfer.

F. PARTICIPATING AGENCIES' RIGHT OF FIRST REFUSAL

Before any allocated fibers held by a Participating Agency may be transferred, the other Participating Agencies, either individually or collectively, shall have a right of first refusal to accept the transfer of the fibers on the terms and conditions set forth in this section.

- (a) Notice of Proposed Transfer. The transferring Participating Agency shall deliver to all Participating Agencies a written notice stating: (i) the bona fide intention to transfer such allocated fibers; (ii) the name of each proposed transferee; (iii) the number of fibers to be transferred to each proposed transferee; (iv) the consideration for which the Participating Agency proposes to transfer the allocated fibers and the material terms and conditions of the proposed transfer (the "Offered Terms"); and (v) an offer to sell the allocated fibers at the Offered Terms to the other Participating Agencies.
- (b) Exercise of Right of First Refusal. At any time within sixty (60) days after receipt of the notice, the other Participating Agencies, either individually or collectively, may, by giving written notice to the transferring Participating Agency, elect to accept all, but not less than all, of the allocated fibers proposed to be transferred to any one or more of the proposed transferees.
- (c) Any government, public education, or public utility entity accepting the transfer of fibers installed under this Agreement must agree to all the terms and conditions of this Agreement, and shall notify the Facility Owner(s) of any such transfer.
- (d) Participating Agencies may grant the right to use their fiber allocation to any other government, public education, or public utility entity provided the use is approved by all of the other Participating Agencies.

G. FUTURE USE OF FIBER OPTIC CABLE ALREADY OWNED BY INDIVIDUAL PUBLIC AGENCIES

Nothing in this Agreement precludes Participating Agencies from entering into separate agreements with other Participating Agencies to use fiber optic cable other than the Fiber Optic Cable installed pursuant to this Agreement.

H. CONTACT PERSONS AND ADDRESSES

The contact persons for the administration of this Agreement are as follows:

King County:  
John Toone, IT Project Manager  
King County Department of  
Transportation  
201 S Jackson St  
Seattle, WA 98104

City of SeaTac:  
Susan Sanderson, P.E.  
City Engineer  
City of SeaTac  
4800 S 188th St  
SeaTac, WA 98188

City of Des Moines:  
Brandon Carver, P.E., P.T.O.E.  
Associate Transportation Engineer  
City of Des Moines  
21650 11th Ave S  
Des Moines, WA 98198

City of Kent:  
Steve Mullen, P.E.  
Transportation Engineering Manager  
City of Kent  
220 Fourth Ave S  
Kent, WA 98032

City of Federal Way  
Rick Perez, P.E.  
City Traffic Engineer

City of Federal Way  
33325 Eighth Ave S  
PO Box 9718  
Federal Way WA 98063

## **VII. THE COUNTY RESPONSIBILITIES AS LEAD AGENCY**

### **A. GENERAL RESPONSIBILITY OF THE COUNTY AS LEAD AGENCY**

The County shall be responsible for the overall management of the Work necessary for the successful completion of the Fiber Optic Project, as the agent of the Participating Agencies in the Fiber Optic Project, pursuant to the terms and conditions of this Agreement. The County shall have the authority and the responsibility for negotiating and entering into such separate contracts with Facility Owners as are necessary for the specific use of their Facilities in furtherance of the Fiber Optic Project. The County will also have the authority to enter into and manage such separate contract agreements with contractors as are necessary to perform all or part of the Work associated with the Fiber Optic Project.

The County is responsible for ensuring that all applicable terms and conditions of this Agreement are included in the contracts with Facility Owners and contractors. Prior to execution of any contracts with Facility Owners or contractors, the County shall provide an opportunity for the Participating Agencies to review and comment on such agreements. In the event there is a dispute regarding any of the provisions or lack of provisions in this Agreement, such dispute shall be resolved through the Dispute Resolution process identified in this Agreement.

The County shall keep the Participating Agencies informed as to the status of the Fiber Optic Project.

### **B. AGREEMENTS, APPROVALS, PERMISSIONS, AND PERMITS**

The County shall be responsible for obtaining all necessary agreements, approvals, permissions, and permits and any other documents required or necessary for the successful completion of the Fiber Optic Project and for keeping them in place and current.

### **C. NOTICE OF INSTALLATION AND TESTING**

The County shall notify the Participating Agencies when initial installation of the Fiber Optic Cable and the Acceptance testing of all the Fiber Strands have been completed.

### **D. MAINTENANCE AND REPAIR RESPONSIBILITIES**

#### **1. Maintenance and Repair of Fiber Optic Cable, Fiber Strands, and Pathway**

Maintenance of the 72-strand and 48-strand trunk Fiber Optic Cable and trunk Fiber Strands installed pursuant to this Agreement, as well as the Pathways between and including the Demarcation Points, shall be the responsibility of the County as agent for the Participating Agencies.

For this Agreement, the Demarcation Points are the 25TA fiber vaults. A schematic of the typical fiber optic components is provided as Attachment 4, *Schematic of Typical RapidRide Fiber Optic Components*.

Maintenance of Fiber Optic Lateral Cables and Fiber Strands installed from the 25TA fiber vaults to the Participating Agencies' equipment shall be the responsibility of the Participating Agency that owns the equipment to which the lateral cable is connected.

The 25TA fiber vaults and the RapidRide cabinets shall be the responsibility of the County.

County maintenance responsibility shall continue for the term of this Agreement and for any extensions or renewals.

A summary of the maintenance responsibilities for the elements of the Fiber Optic Project is provided as Attachment 5, *Ownership and Maintenance Responsibilities of Fiber Optic Project Elements*.

In instances where service to any of the Participating Agencies has been interrupted on the County side of the Demarcation Point, the County, at the Participating Agencies' request, will repair the Fiber Optic Cable as soon as possible provided that all necessary permissions to effect the repairs have been obtained from the Facility Owner(s).

Restoration of traffic control and public safety services shall be given the highest priority. In the event of an outage, the Participating Agencies shall work promptly to restore the functionality of the Fiber Optic Cable as soon as possible and practical after restoration of any other necessary services. The Participating Agencies shall not cut or otherwise damage Fiber Optic Cable unless absolutely necessary for the safe and prompt restoration of traffic control and public safety services.

## 2. Maintenance and Repair Expenses

The Participating Agencies shall be responsible for the expense of maintenance and repair of the Fiber Optic Cable and Fiber Strands for the duration of this Agreement on a proportional basis as identified in Attachment 5, *Ownership and Maintenance Responsibilities of Fiber Optic Project Elements*. When repairs are required as a result of damage caused by a third party, the Participating Agency in whose jurisdiction the damage occurred shall seek payment from the third party for the cost of the repair. The County shall assign a designated maintenance manager who shall review ongoing maintenance expenses with Participating Agencies as reasonably requested, but at least on an annual basis.

The County may contract with a vendor capable of making any necessary repairs. The contract shall provide for around-the-clock service, defined response times, and supply guarantees.

## 3. Payments for Maintenance and Repair Expenses

Participating Agencies shall pay all amounts owed to the County within 30 Days of receipt of the billing. If a Participating Agency disputes all or a part of the payment owed to the County, then such dispute shall be resolved through the dispute resolution process identified in this Agreement.

If a Participating Agency cannot or does not make payment for charges owed within 90 Days, the Participating Agency shall be given written notice to correct the default. The Participating Agency shall have 90 Days, or such longer time after receipt of notice as the County may authorize in writing, to make payment.

If the Participating Agency and the County still cannot reach agreement on amounts owed, the dispute shall be resolved through the dispute resolution process identified in this Agreement.

E. COUNTY NONCOMPLIANCE

The County shall adhere to the terms, conditions, and requirements of the Work as provided in this Agreement, and the required record keeping as required in this Agreement. Where there has been gross negligence or willful misconduct on the part of the County, and additional Work is necessary to conform the Work to the requirements of this Agreement, it shall be at the expense of the County.

F. AUDIT

The County shall permit Participating Agencies, or their designated agent(s), from time to time (including up to six years after the expiration or termination of this Agreement) to inspect and audit all pertinent books and records of the County, contractors, subcontractors, or any other person or entity in connection with or related to the Fiber Optic Project with respect to the services provided, costs, and the compensation paid. Such audit shall occur at such reasonable times and at such reasonable location(s) as mutually agreed to by the Participating Agencies and the County.

## **VIII. FACILITY OWNER RIGHTS AND RESPONSIBILITIES**

A. PRINCIPLES FOR USE OF PARTICIPATING AGENCY FACILITIES

Use of Facilities owned by a Participating Agency shall comply with all requirements of the Participating Agency that owns them. A Facility shall be designed and constructed to maximize the reasonable, additional future use of such Facility. The general project costs shall include all fees and charges for the use of the Facility.

This Agreement shall not be construed to authorize any Participating Agency to make use of any other Participating Agency's Facilities unless such use is specifically authorized by the Participating Agency in its capacity as a Facility Owner. The Facility Owner has final approval of planning, engineering, design, material, and maintenance for all portions of the Fiber Optic Project on or within its Facilities.

B. APPROVALS

All contractors hired by the County to work within or on Facilities shall be subject to approval by Facility Owner(s). In all agreements with contractors, the Facility Owner(s) may require the County to specify that the contractors attend one or more pre-construction meetings with the appropriate Participating Agencies and Facility Owners to review installation requirements for the Work and any restrictions or other requirements that must be adhered to prior to any Work being performed in or on Facilities. The contractor agreement shall state that the Facility Owner or the Participating Agency has authority to stop inadequate or unsafe Work, or to require that inadequate or unsafe Work be corrected as provided for in this Agreement.

C. ACKNOWLEDGMENT AND ACCEPTANCE OF RISKS

In choosing to co-locate components of the Fiber Optic Project in Facilities, the Participating Agencies acknowledge that there are risks associated with having components of the Fiber Optic Project co-located within any such Facility. Participating Agencies explicitly understand that risks include bearing all costs, except such costs caused by the gross negligence or willful misconduct of the Facility Owner, including but not limited to: provision of alternative communication paths needed by the Participating Agencies, loss of Participating Agency business, and restoration of their fiber systems if they are damaged.

**D. ACCESS TO AND USE OF FACILITIES**

The County shall obtain access to and use of Facilities from Facility Owners for the purpose of installing, maintaining, and repairing components of the Fiber Optic Project, including all agreements, approvals, permissions, and permits required. Such access shall be subject to Facility availability as determined by the Facility Manager and any conditions specified by the Facility Owner.

**1. Permission to Enter**

Access to Facilities shall be allowed only after the Facility Owner has been notified and permission has been granted by the Facility Owner.

**2. Requests for Access**

All requests for access to Facilities must be made through the appropriate Facility Manager in writing, and shall be subject to the terms and conditions of this Agreement.

In the event of an emergency, requests for access may be made in person or by telephone. In such cases, prompt written documentation of the request will follow.

**3. Buildings**

If the County desires to use space in any building, the County shall comply with the restrictions and conditions specified by the designated building manager.

**4. Conformance to Regulations**

Access to and use of any Facility shall be in conformance with all codes, regulations, and requirements.

**E. BUILDING ENTRANCES**

Where applicable, in the event that a Building Entrance owned or controlled by one of the Participating Agencies is not usable for either entering a building or for providing access to the location in a building where the Participating Agencies have installed Fiber Optic Project components, the County has the responsibility for making alternative arrangements for building access with the building owner. The expense associated with an alternative Building Entrance shall be borne by the Participating Agencies using the building.

**F. MODIFICATIONS TO FACILITIES**

At the County's request, the Facility Owner shall make necessary modifications to any existing Facilities to enable building access for the Fiber Optic Project. Any requests by the County for such modifications shall be made to the Facility Owner and/or Manager.

**G. RELOCATION OF FIBER OPTIC CABLE**

The County will work with the Facility Owner to ensure that the Fiber Optic Cable within or on Facilities is designed and constructed to minimize the likely need for future relocation. The Facility Owner has the right of pre-approval and post-construction acceptance of any work required either to remove cable from within or on Facilities or to place cable within or on alternative Facilities.

- 1. All relocations of Fiber Optic Cable, regardless of reason, will be managed by the County. All relocations will be managed as a part of and under the terms and conditions of this Agreement.**

2. Notice

Except for emergency situations, the Facility Owner will give the County at least 90 Days notice of the need to relocate any components of the Fiber Optic Project located within or on Facilities.

3. Relocation

When relocation is required, the Facility Owner may, when possible, provide substitute Facilities within or on which the Participating Agencies may relocate the components of the Fiber Optic Project.

H. PROPERTY RIGHTS

Nothing in the terms of this Agreement shall be construed to convey to the Participating Agencies any property rights in existing Facilities of a Facility Owner. Nothing in the terms of this Agreement shall be construed to compel a Facility Owner to maintain any of its Facilities for a period longer than is necessary for its own service requirements. In the event that Facilities are abandoned by the Facility Owner, the Participating Agencies may remain in such Facilities at their own risk, subject to the approval of the Facility Owner. Any ownership rights in Facilities created or constructed as part of the Fiber Optic Project will be allocated per this Agreement.

I. DEFAULT AND DISPUTE RESOLUTION

The Participating Agencies desire, if possible, to resolve disputes, controversies, and claims ("Disputes") arising out of this Agreement without litigation.

To that end, if any Participating Agency believes that another Participating Agency, whether as a Participating Agency, Facility Owner, or Lead Agency, has failed to perform any obligation under this Agreement or has performed such obligation in a manner inconsistent with this Agreement, then the Participating Agency shall provide written notice to all Participating Agencies, stating with specificity the nature of the Dispute.

Thereafter, each Participating Agency shall appoint a knowledgeable, responsible management representative to meet within 30 Days of the date of the written notice and negotiate in good faith to resolve any Dispute.

The Participating Agencies agree that the discussions and correspondence among the representatives for purposes of Dispute resolution shall be treated as confidential information developed for purposes of settlement, shall be exempt from discovery and production, and shall not be admissible in any action or proceeding arising under or concerning this Agreement without the agreement of the parties to the dispute. Documents identified in or provided with such communications that are not prepared for purposes of the negotiations are not so exempted and may, if otherwise admissible, be admitted in evidence in any such action or proceeding.

If the negotiations between the Participating Agencies do not resolve the Dispute within 60 Days of the initial written request, the Dispute shall be submitted to mediation with a mediator chosen by mutual agreement of the parties.

Each Participating Agency shall bear its own cost of these Dispute resolution procedures. The Participating Agencies that are party to the mediation shall equally share the fees of the mediation and the mediator.

Nothing in this paragraph precludes any Participating Agency from seeking relief from King County Superior Court should mediation efforts be unsuccessful.

## **IX. RELATIONSHIP BETWEEN THE COUNTY AND CONTRACTORS**

### **A. RESPONSIBILITY**

The County as Lead Agency is responsible for ensuring that the applicable terms and conditions of this Agreement are included in agreements with Facility Owners and contractors. However, each contractor shall be held liable for any negligence, intentional acts, or willful or wanton misconduct caused by its performance or failure to perform the work under this Agreement or any contracts with the County.

### **B. APPROVALS**

All contractors hired by the County to work within or on Facilities shall be subject to approval by Facility Owners. In all agreements with contractors, the Facility Owner(s) may require the County to require such contractors to attend a pre-construction meeting with the appropriate authority to review installation requirements and work restrictions prior to any work being performed in or on Facilities. The contractor's agreement shall state that the Facility Owner or the jurisdiction having rights-of-way has authority to stop Work or require that inadequate Work be corrected.

### **C. INSURANCE**

Prior to undertaking any work under any this Agreement, the County shall ensure that all contractors, at no expense to the County, Participating Agencies and Facility Owner(s), have obtained and filed with the County acceptable evidence of a policy or policies of insurance as enumerated in this Agreement.

## **X. INDEMNIFICATION AND LIMITATION OF LIABILITY**

### **A. LIMITATION OF LIABILITY AND INDEMNITY – THE COUNTY AS LEAD AGENCY**

The County, when acting in the capacity as Lead Agency, shall not be liable, in law or in equity, to the Facility Owner, Participating Agencies, or any subsequent user for any damages relating to the interruption of service or interference with the operation of the Fiber Optic Project, except to the extent caused by the gross negligence or willful misconduct of the County. The Facility Owners and Participating Agencies shall indemnify and save harmless the County, its officers, employees, and agents from all claims, actions, liability, and damages of any nature arising out of any act or omission, except in the event of gross negligence or willful misconduct by the County in connection with this Agreement.

If any claim arises to which this indemnification provision may be applicable, the Facility Owner shall immediately upon learning of such claim notify the County, and upon such notice, the County shall promptly notify the Participating Agencies. The Participating Agencies may, at their option, settle or compromise such claim. In no event shall the Facility Owner or the County have the right to pay, settle, or otherwise compromise such claim without the prior written consent of the Participating Agencies, who shall not unreasonably withhold such consent.

**THE COUNTY AS LEAD AGENCY SHALL NOT BE LIABLE TO THE FACILITY OWNER, PARTICIPATING AGENCIES, OR THEIR USERS OR ANY SUBSEQUENT USER UNDER ANY CIRCUMSTANCES FOR INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR DAMAGES ALLEGED TO HAVE ARISEN DUE TO AN INTERRUPTION OF SERVICE OR DAMAGE TO ANY FIBER OPTIC CABLE OR ASSOCIATED EQUIPMENT.**

**B. LIMITATION OF LIABILITY AND INDEMNITY – FACILITY OWNERS**

Facility Owners, when acting in that capacity, shall not be liable, in law or in equity, to the County as Lead Agency, to Participating Agencies, or to any subsequent user for any damages relating to the interruption of service or interference with the operation of the Fiber Optic Project, except to the extent caused by the gross negligence or willful misconduct of the Facility Owner. The County as Lead Agency and Participating Agencies shall indemnify and save harmless Facility Owners and Facility Owners' officers, employees, and agents from all claims, actions, liability, and damages of any nature arising out of any act or omission, except in the event of gross negligence or willful misconduct by the Facility Owner in connection with this Agreement.

If any claim arises to which this indemnification provision may be applicable, the Facility Owner shall immediately upon learning of such claim notify the County as Lead Agency, and upon such notice, the County shall promptly notify the Participating Agencies. The Participating Agencies may, at their option, settle or compromise such claim. In no event shall the Facility Owner or the County have the right to pay, settle, or otherwise compromise such claim without the prior written consent of the Participating Agencies, who shall not unreasonably withhold such consent.

**THE FACILITY OWNER SHALL NOT BE LIABLE TO THE PARTICIPATING AGENCIES OR THEIR USERS OR ANY SUBSEQUENT USER UNDER ANY CIRCUMSTANCES FOR INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR DAMAGES ALLEGED TO HAVE ARISEN DUE TO AN INTERRUPTION OF SERVICE OR DAMAGE TO ANY FIBER OPTIC CABLE OR ASSOCIATED EQUIPMENT.**

**C. LIMITATION OF LIABILITY AND INDEMNITY – PARTICIPATING AGENCIES**

A Participating Agency, when acting in that capacity, shall not be liable, in law or in equity, to the Lead Agency, the Facility Owners or any other Participating Agency, or any subsequent user for any damages relating to interruption of service or interference with the operation of the Fiber Optic Project, except to the extent caused by the gross negligence or willful misconduct of that Participating Agency. The County as Lead Agency, the Facility Owner, and the other Participating Agencies shall indemnify and save harmless a Participating Agency and its officers, employees, and agents from all claims, actions, liability, and damages of any nature arising out of any act or omission, except in the event of gross negligence or willful misconduct by that Participating Agency in connection with this Agreement.

If any claim arises to which this indemnification provision may be applicable, the Facility Owner shall immediately upon learning of such claim notify the County as Lead Agency, and upon such notice, the County shall promptly notify the Participating Agencies. The Participating Agencies may, at their option, settle or compromise such claim. In no event shall the Facility Owner or the County have the right to pay, settle or otherwise compromise such claim without the prior written consent of the Participating Agencies, who shall not unreasonably withhold such consent.

**A PARTICIPATING AGENCY SHALL NOT BE LIABLE TO THE COUNTY AS LEAD AGENCY, THE FACILITY OWNER, OR OTHER PARTICIPATING AGENCIES OR THEIR USERS OR ANY SUBSEQUENT USER UNDER ANY CIRCUMSTANCES FOR INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OR DAMAGES ALLEGED TO HAVE ARISEN DUE TO AN INTERRUPTION OF SERVICE OR DAMAGE TO ANY FIBER OPTIC CABLE OR ASSOCIATED EQUIPMENT.**

## **XI. ADDITIONAL TERMS AND CONDITIONS**

### **A. LAWS, LICENSES, AND PERMITS**

#### **1. General Requirement**

All work done under this Agreement shall comply with all applicable federal, state, and local laws, and all rules, regulations, orders, and directives of relevant administrative agencies.

#### **2. Licenses, Permits, and Similar Authorizations**

The Participating Agencies shall have and maintain in effect at all times all necessary franchises, licenses, permits, consents, and easements from federal, state, and local authorities and the owners of rights-of-way and private property. The Participating Agencies will comply with all requirements thereof to install, construct, maintain, operate, and remove any fiber optic installation(s).

### **B. PERFORMANCE**

Each Participating Agency will perform all of its obligations under this Agreement in a timely manner.

### **C. AGREEMENT TERM**

This Agreement shall become effective upon the execution of all Participating Agencies, and unless terminated in accordance with the terms of this Agreement, shall continue to a term of 20 years.

One year prior to the expiration of this 20-year period, the Participating Agencies shall in good faith negotiate a renewal agreement for an additional 20-year period or terminate their participation according to the provisions of this Agreement. Under the terms of any renewal agreement, the Participating Agencies shall continue to make payments as specified in this Agreement.

Terms and conditions of this Agreement that have expired shall remain in effect until superseded by a new agreement.

### **D. TERMINATION FOR CAUSE**

Any Participating Agency may terminate this Agreement in the event that another party fails to perform its obligations as described in this Agreement, and such failure has not been corrected to the reasonable satisfaction of the other in a timely manner after notice of breach has been provided by such other Party.

Notice of termination shall be given by the Participating Agency terminating this Agreement to the others not less than 45 Days prior to the effective date of termination.

### **E. FORCE MAJEURE**

The term "force majeure" shall include, without limitation by the following enumeration: acts of nature, acts of civil or military authorities, terrorism, fire, accidents, shutdowns for purpose of emergency repairs, and industrial, civil or public disturbances causing the inability to perform the requirements of this Agreement. If a party is rendered unable, wholly or in part, by a force majeure event or any other cause not within such party's control, to perform or comply with any obligation or condition of this Agreement, upon giving notice and reasonably full particulars to the other party, such obligation or condition shall be suspended only for the time and to the extent commercially practicable to restore normal operations. In

the event that any party ceases to be excused pursuant to this provision, then the other parties, including the County as Lead Agency, shall be entitled to exercise any remedies otherwise provided for in this Agreement. Whenever a force majeure event causes a party to allocate limited resources between or among a party's other obligations, the Work under this Agreement shall receive no less priority in respect to such allocation than any of the Participating Agencies' other projects.

**F. NO WAIVER**

No term or provision hereof shall be deemed waived or consented to, and no breach excused unless such waiver or consent shall be in writing and signed by the Participating Agency claimed to have waived or consented.

Failure of any one or more Participating Agencies to insist upon strict performance of, or a Participating Agency's waiver of, any of the terms, conditions, or obligations of this Agreement, shall not be a waiver of any other term, condition, covenant, or obligation, or of any subsequent default by breach of the same or other term, condition, covenant or obligation contained herein by any one or more Participating Agencies, nor shall such action or inaction by any one or more Participating Agencies be construed as to bind or prejudice any other Participating Agency.

**G. SEVERABILITY**

In the event any section, sentence, clause, or phrase of this Agreement is adjudicated to be invalid or illegal by a court of competent jurisdiction, the remainder of this Agreement shall be unaffected by such adjudication and all other provisions shall remain in full force and effect as though the section, clause, or phrase so adjudicated to be invalid had not been included herein. The Participating Agencies agree to negotiate a replacement section, sentence, clause, or phrase that is legal and most closely represents the original intent of the Participating Agencies.

**H. RIGHTS CUMULATIVE**

The rights and remedies of the Participating Agencies provided for under this Agreement are in addition to any other rights and remedies provided by law. The failure to exercise on any occasion any right shall not operate to forfeit such right on another occasion. The use of one remedy shall not exclude or waive the right to use another.

**I. CONTRACTUAL RELATIONSHIP**

This Agreement does not constitute the Participating Agencies as the agent or legal representative of a Facility Owner for any purpose whatsoever. The Participating Agencies are not granted any express or implied right or authority to assume or create any obligation or responsibility on behalf of or in the name of the Facility Owner or to bind the Facility Owner in any manner or thing whatsoever.

**J. HEADINGS**

The titles of sections are for convenience only and do not define or limit the contents.

**K. APPLICABLE LAW AND VENUE**

This Agreement shall be construed and interpreted in accordance with the laws of the State of Washington, and venue of any action brought hereunder shall be in the Superior Court for King County.

L. BINDING EFFECTS

The provisions, covenants, and conditions in the General Terms and Conditions apply to bind the Participating Agencies and their legal heirs, representatives, successors, and assigns.

M. ASSIGNMENT

No Participating Agency shall assign its rights or assign its duties under this Agreement without the prior written consent of the other Participating Agencies, which consent shall not be unreasonably withheld.

N. NOTICES

All notices and other materials to be delivered hereunder shall be in writing and shall be delivered or mailed to the addresses as identified in this Agreement.

O. MODIFICATION OR AMENDMENT

No modification to or amendment of the provisions of the General Terms and Conditions shall be effective unless in writing and signed by authorized representatives of the Participating Agencies to this Agreement. The Participating Agencies expressly reserve the right to modify any agreement, from time to time, by mutual agreement.

P. EXECUTED IN COUNTERPARTS

This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute but one instrument.

IN WITNESS WHEREOF, the Participating Agencies hereto have executed this Agreement on the respective dates indicated below.

Approved as to Form

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Kevin Desmond  
General Manager, King County Metro Transit

---

Marcine Anderson  
Prosecuting Attorney

Approved as to Form

---

Todd Cutts  
Acting City Manager, City of SeaTac

---

Mary Mirante-Bartolo  
City Attorney

Approved as to Form

---

Anthony Piasecki  
City Manager, City of Des Moines

---

Pat Bosmans  
City Attorney

Approved as to Form

---

Suzette Cook  
Mayor, City of Kent

---

Tom Brubaker  
City Attorney

Approved as to Form

---

Brian Wilson  
Interim City Manager, City of Federal Way

---

Patricia A. Richardson  
City Attorney

## **Attachment 1**

### **Project Elements: A-Line RapidRide Fiber Optic Project**

#### Element 1 (Trunk: State Route 518 to South 216th Street)

The installation of a 72-strand fiber trunk line with fiber distribution as follows:

King County RapidRide:	24 Strands (1-24)
Local Agency Communication (City of SeaTac):	24 Strands (25-48)
Interagency Communications:	24 Strands (49-72)

#### Element 2 (TSC Laterals: State Route 518 Street to South 208th Street)

The installation of 12-strand fiber laterals, from trunk to traffic signal control cabinets.

#### Element 3 (ITS Laterals: State Route 518 to South 208th Street)

The installation of 12-strand fiber laterals, from trunk line to ITS cabinets.

#### Element 4 (Trunk: South 216th Street to Kent Des Moines Road)

The installation of a 72-strand trunk line with fiber distribution as follows:

King County RapidRide:	24 Strands (1-24)
Local Agency Communication (City of Des Moines):	24 Strands (25-48)
Interagency Communications:	24 Strands (49-72)

#### Element 5 (TSC Laterals: South 216th to Kent Des Moines Road)

The installation of 12-strand fiber laterals, from trunk to traffic signal control cabinets.

#### Element 6 (ITS Laterals: South 216th to Kent Des Moines Road)

The installation of 12-strand fiber laterals, from trunk line to ITS cabinets.

#### Element 7 (Trunk: Kent Des Moines Road to South 272nd Street)

The installation of a 72-strand trunk line with fiber distribution as follows:

King County RapidRide:	24 strands (1-24)
Local Agency Communication (City of Kent):	24 strands (25-48)
Interagency Communications:	24 strands (48-72)

#### Element 8 (TSC Laterals: South 240th Street to South 272nd Street)

The installation of 12-strand fiber laterals, from trunk to traffic signal control cabinets.

#### Element 9 (ITS Laterals: South 240th Street to South 272nd Street)

The installation of 12-strand fiber laterals, from trunk line to ITS cabinets.

#### Element 10 (Trunk: South 272nd Street to South 320th Street)

The installation of a 72-strand fiber trunk line along Pacific Highway South with fiber distribution as follows:

King County RapidRide:	24 Strands (1-24)
Local Agency Communication (City of Federal Way):	24 Strands (25-48)
Interagency Communication:	24 strands (49-72)

#### Element 11 (South 320th Street Trunk: Pacific Highway South to 25th Avenue South)

The installation of a 48-strand fiber trunk line along South 320th Street with fiber distribution as follows:

King County RapidRide:	24 Strands (1-24)
Local Agency Communication (City of Federal Way):	24 Strands (25-48)

#### Element 12 (23rd Avenue South Trunk: South 316th Street to South 320th Street)

The installation of a 48-strand fiber trunk line along 23rd Avenue South with fiber distribution as follows:

King County RapidRide:	24 Strands (1-24)
Local Agency Communication (City of Federal Way):	24 Strands (25-48)

#### Element 13 (ITS Laterals: South 276th Street to South 320th Street on Pacific Highway South and South 316th Street and South 317th Street on 23rd Avenue South)

The installation of 12-strand fiber laterals, from trunk line to ITS cabinets.

#### Element 14 (TSC Laterals: 20th Avenue South, 23rd Avenue South, and 25th Avenue South on South 320th Street; and South 316th Street and South 317th Street on 23rd Avenue South)

The installation of 12-strand fiber laterals, from trunk to traffic signal control cabinets.

#### Element 15 (Fiber Termination Cabinets)

The installation of five (5) fiber termination cabinets at the following locations:

State Route 518, South 188th Street, South 216th Street, Kent-Des Moines Road, and South 320th Street

#### Element 16 (Fiber Connections to Fiber Termination Cabinets)

The installation of a 144-count fiber connection from the 72-count trunk to the termination cabinets (State Route 518, South 188th Street, South 216th Street, Kent-Des Moines Road, and South 320th Street).

#### Element 17 (Fiber Connection to WSDOT at South 320th Street/Interstate 5)

The installation of a 12-strand fiber cable from the splice vault at South 320th Street/25th Avenue South to the closed circuit television (CCTV) cabinet (CC-016) in the southwest quadrant of the South 320th Street/Interstate 5 interchange.

#### Element 18 (Fiber Connection to the WSDOT Mini-Hub at State Route 518)

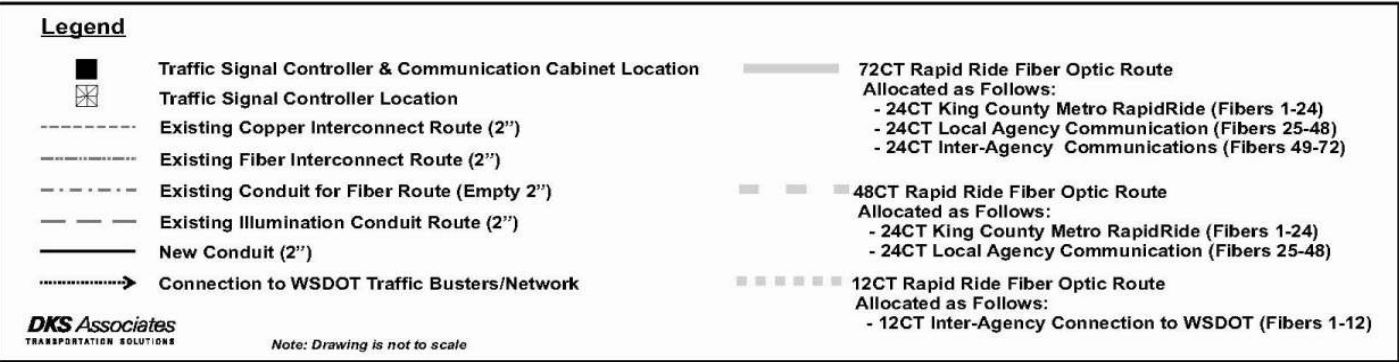
The installation of a 12-strand fiber cable from the fiber termination cabinet to the WSDOT fiber mini-hub at State Route 518.

#### Elements Constructed by Others:

For a portion of Element 10, (72-strand fiber trunk cable: South 272nd Street to South 320th Street), King County will enter into an agreement with the City of Federal Way. The City of Federal Way will design and install the portion of this project from South Dash Point Road to South 308th Street. The City of Federal Way will design and construct this work as part of Pacific Highway South - HOV Lanes Phase IV.

A-LINE RAPIDRIDE

Fiber Route Schematic



### Attachment 3: Fiber Optic Project Cost Estimate

Description	Units		Subtotal
Communication Equipment and Infrastructure	LS		\$1,128,050
Fiber Optic Cable	LS		\$461,900
Traffic Control	LS		\$158,994
Force Account - Conduit Replacement	Est		\$25,000
Force Account - Additional Junction Box	Est		\$5,000
Force Account - Subsurface Utility Locate	Est		\$40,000
Subtotal			<b>\$1,818,944</b>
Design Allowance	5%		\$90,947
County-Provided Total		Tax is included in this	\$271,390
<b>Construction Item Total</b>			<b>\$2,181,281</b>

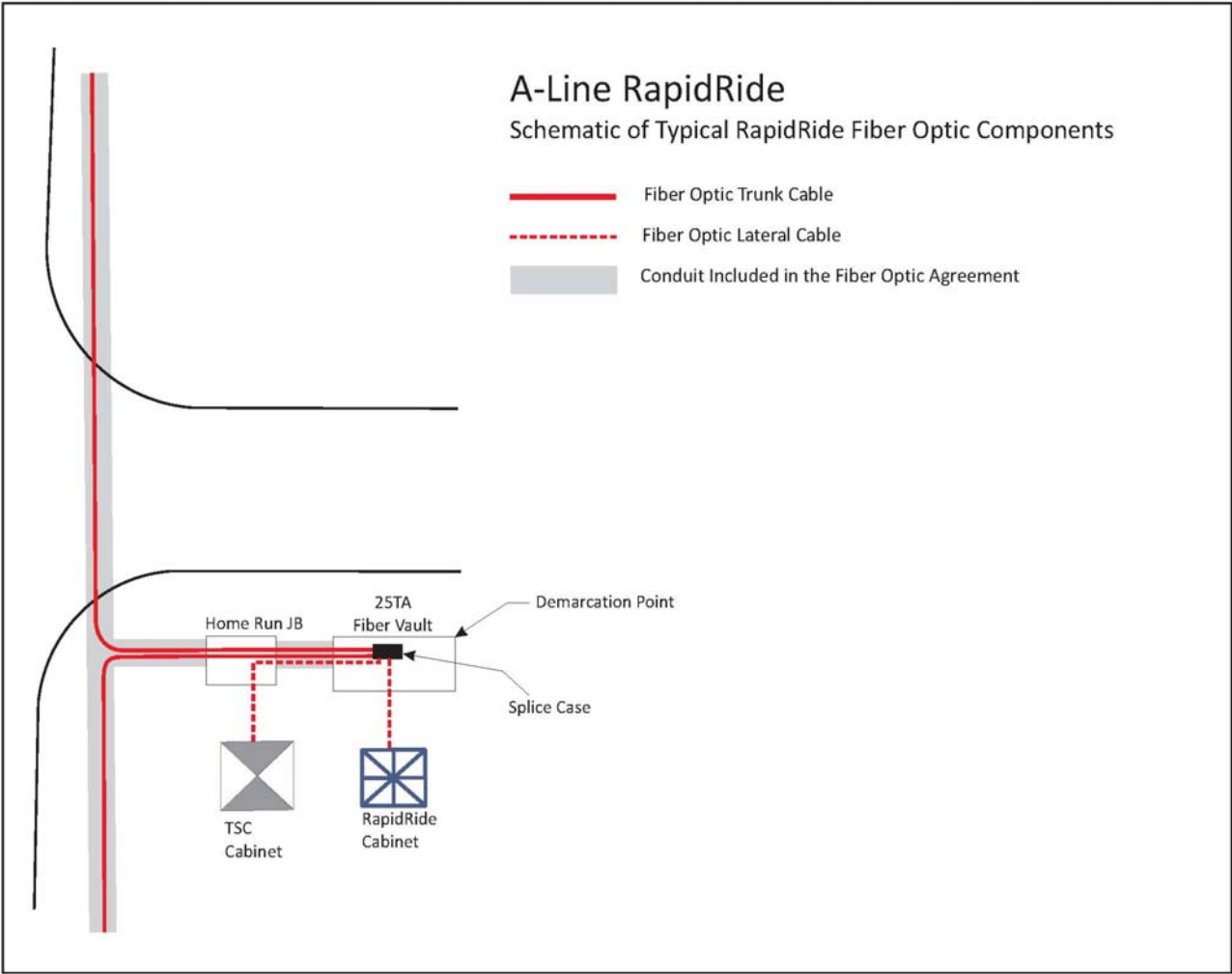
Tax	9%	<u>\$171,890</u>
Subtotal		\$2,353,171

Construction Engineering	15%	\$352,976
Construction Contingencies	10%	\$235,317

Cost Between South Dash Point Road and South 312 <sup>th</sup> Street (Pac Hwy HOV Phase VI)	\$54,970
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<b>Construction Total</b>	<b>\$2,996,434</b>
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Attachment 4: Schematic of Typical RapidRide Fiber Optic Components



Attachment 5: Ownership and Maintenance Responsibilities of Fiber Optic Project Elements

Project Element	Ownership	Maintenance	
		Agency	Proportional Cost Sharing
<b>Element 1 (State Route 518 to S 216th St): 72-strand fiber trunk cable</b>		King County	King County (50%) City of SeaTac (50%)
King County RapidRide: 24 Strands (1-24)	King County		
City of SeaTac Communication 24 Strands (25-48)	City of SeaTac		
Interagency Communications: 24 Strands (49-72)	King County		
<b>Element 2 (State Route 518 St to S 208th St): 12-strand fiber laterals, trunk to traffic signal control cabinets</b>	City of SeaTac	City of SeaTac	City of SeaTac (100%)
<b>Element 3 (State Route 518 to S 208th St): 12-strand fiber laterals, trunk line to ITS cabinets</b>	King County	King County	King County (100%)
<b>Element 4 (S 216th St to Kent Des Moines Road): 72-strand fiber trunk cable</b>		King County	King County (50%) City of Des Moines (50%)
King County RapidRide: 24 Strands (1-24)	King County		
City of Des Moines Communication 24 Strands (25-48)	City of Des Moines		
Interagency Communications: 24 Strands (49-72)	King County		
<b>Element 5 (S 216th St to Kent Des Moines Road): 12-strand fiber laterals, trunk to traffic signal control cabinets</b>	City of Des Moines	City of Des Moines	City of Des Moines (100%)
<b>Element 6 (S 216th St to Kent Des Moines Road): 12-strand fiber laterals, trunk line to ITS cabinets</b>	King County	King County	King County (100%)
<b>Element 7 (Kent Des Moines Road to S 272nd St): 72-strand fiber trunk cable</b>		King County	King County (50%) City of Kent (50%)
King County RapidRide: 24 strands (1-24)	King County		
City of Kent Communication: 24 strands (25-48)	City of Kent		
Interagency Communications: 24 strands (49-72)	King County		
<b>Element 8 (S 240th St to S 272nd St): 12-strand fiber laterals, trunk to traffic signal control cabinets</b>	City of Kent	City of Kent	City of Kent (100%)
<b>Element 9 (S 240th St to S 272nd St): 12-strand fiber laterals, trunk to ITS cabinets</b>	King County	King County	King County (100%)
<b>Element 10 (S 272nd St to S 320th St): 72 strand trunk cable</b>		King County	King County (50%) City of Federal Way (50%)
King County RapidRide: 24 Strands (1-24)	King County		
City of Federal Way 24 Strands (25-48)	City of Federal Way		
Interagency Communication: 24 Strands (49-72)	King County		
<b>Element 11 ( Pacific Highway S to 25th Ave S): S 320th St 48-strand fiber trunk cable</b>		King County	King County (50%) City of Federal Way (50%)
King County RapidRide: 24 Strands (1-24)	King County		
City of Federal Way Communication: 24 Strands (25-48)	City of Federal Way		
<b>Element 12 (S 316th St to S 320th St): 23rd Ave S 48-strand fiber trunk cable</b>		King County	King County (50%) City of Federal Way (50%)
King County RapidRide: 24 Strands (1-24)	King County		
City of Federal Way Communication: 24 Strands (25-48)	City of Federal Way		
<b>Element 13 (S 276th St to S 320th St on Pacific Highway S, and S 316th St and S 317th St on 23rd Ave S): 12-strand fiber laterals, trunk to ITS cabinets</b>	King County	King County	King County (100%)
<b>Element 14 (20th Ave S, 23rd Ave S, and 25th Ave S on S 320th St; and S 316th St and S 317th St on 23rd Ave S): 12-strand fiber laterals, trunk to traffic signal control cabinets</b>	City of Federal Way	City of Federal Way	City of Federal Way (100%)
<b>Element 15 (Fiber Termination Cabinets): Five (5) fiber termination cabinets at State Route 518, S 188th St, S 216th St, Kent Des Moines Road, and S 320th St</b>	King County	King County	King County (100%)
<b>Element 16 (Connections to Fiber Termination Cabinets): 144-count fiber connection from the 72-count trunk to the termination cabinets at State Route 518, S 188th St, S 216th St, Kent Des Moines Road, and S 320th St</b>	King County	King County	King County (100%)
<b>Element 17 (Fiber Connection to WSDOT at S 320th St/I-5): 12-strand fiber cable from splice vault at S 320th St/25th Ave S to CCTV cabinet at I-5.</b>	King County	King County	King County (50%) City of Federal Way (50%)
<b>Element 18 (Fiber Connection to WSDOT at State Route 518): 12-strand fiber cable to WSDOT mini-hub at State Route 518</b>	King County	King County	King County (100%)

**Agreement between the City of Federal Way and King County for the Construction and Implementation of Intelligent Transportation System Improvements to Support the A-Line RapidRide Project**

This AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2009 by and between the City of Federal Way, hereinafter referred to as the “City,” and King County, hereinafter referred to as the “County,” both of which may be collectively referred to as the “Parties.”

**WHEREAS**, the King County Ordinance No. 15582 (Transit Now Ordinance) identified a number of transit service measures to be implemented using the one-tenth of one percent sales and use tax collected through Transit Now that focus on capital, operating, and maintenance improvements that are expected to expand and improve bus service on local streets and arterials within King County; and

**WHEREAS**, one of the programs specifically identified in the Transit Now Ordinance was the development and implementation of a bus rapid transit program in five distinct corridors, including new bus rapid transit services connecting the Tukwila International Boulevard Link Station and the Federal Way Transit Center; and

**WHEREAS**, the key elements of bus rapid transit include new, low floor, hybrid diesel-electric buses; improved frequency of bus service; improved traffic operations; and transit stations with real time passenger information signs; and

**WHEREAS**, mutually beneficial contractual arrangements with other public entities that leverage public funds to provide both new and better bus service to cities employers is a key strategy identified in the Transit Now Ordinance approved by King County voters in the general election on November 7, 2006; and

**WHEREAS**, the County, along with the City of Des Moines, the City of Kent, and the City of Federal Way developed the Pacific Highway South/International Boulevard RapidRide Proposal, dated December 18, 2007 (“RapidRide Proposal”) which identified a set of capital improvements to improve the speed, safety, and reliability of transit service along the corridor; and

**WHEREAS**, the County’s bus rapid transit along this corridor is named A-Line RapidRide and the Parties are interested in advancing the implementation of this project; and

**WHEREAS**, the approved King County transit capital program includes funding to support these investments in traffic signal systems and communication necessary to implement A-Line RapidRide; and

**NOW, THEREFORE IN CONSIDERATION OF THE MUTUAL PROMISES, COVENANTS AND AGREEMENTS SET FORTH HEREIN, AND FOR OTHER GOOD AND VALUABLE CONSIDERATION, THE SUFFICIENCY OF WHICH IS HEREBY ACKNOWLEDGED BY BOTH PARTIES, THE PARTIES AGREE AS FOLLOWS:**

## **Section 1. Purpose**

The purpose of this Agreement is to establish the roles and responsibilities of the Parties regarding the construction the A-Line RapidRide Intelligent Transportation Systems (ITS) Improvements (the “A-Line ITS Improvements”). The Parties accept the RapidRide Proposal as the guiding document for project design of the Improvements. The A-Line ITS Improvements will be constructed in 2 phases. Phase1 (Phase 1 Improvements) will be designed and constructed by the County. Phase 2 (Phase 2 Improvements) will be designed and incorporated into Pacific Highway S HOV Phase 4. The City shall be responsible for the design construction of the Phase 2 Improvements

## **Section 2. County Responsibilities for Phase 1 Improvements**

- 2.1 The County shall be responsible for all work activities required to design, construct, and inspect the Phase 1 Improvements. A summary of the Phase 1 Improvements is provided in Attachment A. The estimated cost for the Phase 1 Improvements is \$731,114.
- 2.2 The County shall submit to the City plans implementing the Phase 1 Improvements for the City’s review and approval before initiating construction. The City will have the opportunity to review and provide written comments on the plans for consistency with the recommended Phase 1 Improvements. The County shall submit these plans to the City in electronic form.
- 2.3 The County shall be responsible for the administration of any contracts it enters into for the performance of its responsibilities under this Agreement. The County shall provide the City with quarterly progress reports to identify work progress and other matters of significance in the performance of this Agreement. Before the issuance of a change order or any acceptance of contractor’s work, the County shall notify the City and provide the City with the opportunity to comment on and inspect the work.
- 2.4 However, neither the City’s comments on, nor inspection of, the Phase 1 Improvements constructed pursuant to this Agreement will relieve the County of its responsibility for said improvements.
- 2.5 The County shall develop new traffic signal timing plans for signal coordination and transit signal priority consistent with the RapidRide Proposal. The City shall review and approve the new traffic signal timing plans.

## **Section 3. City Responsibilities for Phase 1 Improvements**

- 3.1 Upon notification by the County of completion of the Phase 1 Improvements identified in Section 2, the City shall review the Phase 1 Improvements. If the City finds that any work does not meet the terms of the final plans, specifications, and approved change orders, the City will prepare a punch list of such items and submit it to the County. The work shall be promptly corrected by the County at no cost to the City. Notice of acceptance will not constitute acceptance of any unauthorized or defective work or material.

- 3.2 The City shall implement new traffic signal coordination and transit signal priority timing plans consistent with the RapidRide Proposal. The principles for the implementation and on-going operations of transit signal priority and other signal operation elements are provided in Attachment C.
- 3.3 The City agrees to permit the County to install in its traffic signal controller cabinets an interface panel that is pre-wired to accept connections to transit priority request generator. The interface panel will be jointly approved and located by the Parties. The following intersections on Pacific Highway South will be equipped with the interface panels:  
S 276th St  
S 288<sup>th</sup> St  
S Dash Point Road  
S 312<sup>th</sup> St  
S 316th St
- 3.4 The City shall permit the County to install new County-owned Intelligent Transportation System (ITS) communications and terminate the ITS cabinet power conductors to a new 20 amp breaker installed in the existing service cabinet.

#### **Section 4. City Responsibilities for Phase 2 Improvements**

- 4.1 The City shall be responsible for all work activities required to design, construct, and inspect the Phase 2 Improvements. A summary of the Phase 2 Improvements is included in Attachment A. The cost estimate for Phase 2 Improvements is provided in Attachment B.
- 4.2 The City shall submit to the County plans implementing the Phase 2 Improvements for the County's review and approval before initiating construction. The County will have the opportunity to review and provide written comments on the plans for consistency with the recommended Phase 2 Improvements. The City shall submit these plans to the County in electronic form.
- 4.3 The City shall be responsible for the administration of any contracts it enters into for the performance of its responsibilities under this Agreement. Before the issuance of a change order or any acceptance of contractor's work, the City shall notify the County and provide the County with the opportunity to comment on and inspect the work.
- 4.4 The City shall implement new traffic signal coordination and transit signal priority timing plans consistent with the RapidRide Proposal. The principles for the implementation and on-going operations of transit signal priority and other signal operation elements are provided in Attachment C.

- 4.5 The City agrees to install in its traffic signal controller cabinets an interface panel that is pre-wired to accept connections to transit priority request generator. The interface panel will be jointly approved and located by the Parties. The following intersections on Pacific Highway South will be equipped with the interface panels:  
S 304<sup>th</sup> St  
S 308<sup>th</sup> St
- 4.6 The City shall permit the County to install new County-owned Intelligent Transportation System (ITS) communications and terminate the ITS cabinet power conductors to a new 20 amp breaker installed in the existing service cabinet.

## **Section 5. County Responsibilities for Phase 2 Improvements**

- 5.1 Upon notification by the City of the completion of the Phase 2 Improvements, the County shall review the Phase 2 Improvements. If the County finds that any work does not meet the terms of the final plans, specifications, and approved change orders, the County will prepare a punch list of such items and submit it to the City. The work shall be promptly corrected by the City at no cost to the County. Notice of acceptance will not constitute acceptance of any unauthorized or defective work or material.
- 5.2 However, neither the County's comments on, nor inspection of, the Phase 2 Improvements constructed pursuant to this Agreement will relieve the City of its responsibility for said improvements.
- 5.3 The County shall develop new traffic signal timing plans for signal coordination and transit signal priority consistent with the RapidRide Proposal. The City shall review and approve the new traffic signal timing plans

## **Section 6. Fiber Optic Cable Installed on Pacific Highway South and on S 320<sup>th</sup> St**

- 6.1 With the Phase 1 Improvements, the County shall install a 72-count fiber cable on Pacific Highway S as a part of the A-Line ITS Improvements. This cable size will provide future communication capacity which could be used by the local agencies for other purposes.
- 6.2 With the Phase 2 Improvements, the City shall install a 72-count fiber cable on Pacific Highway S as a part of the A-Line ITS Improvements, in addition to a City-owned 24-count fiber cable. This cable size will provide future communication capacity which could be used by the local agencies for other purposes. The distribution of the fiber discussed in Sections 6.1 and 6.2 is as follows:

King County Metro Rapid Ride	24 strands
City of Federal Way Communications	24 strands
Inter-agency Communications	24 strands

- 6.3 With the Phase 1 Improvements, the County shall install a 48-count fiber cable on S 320<sup>th</sup> St as part of the A-Line ITS Improvements. This cable size will provide future

communication capacity which could be used by the City local agencies for other purposes. The City's strands will be terminated in the City Of Federal Way's signal controller cabinets at the following intersections:

Pacific Highway S at S 320<sup>th</sup> Street  
20<sup>th</sup> Avenue S at S 320<sup>th</sup> Street  
23<sup>rd</sup> Avenue S at S 320<sup>th</sup> Street  
25<sup>th</sup> Avenue S at S 320<sup>th</sup> Street  
23<sup>rd</sup> Avenue S at S 317<sup>th</sup> Street  
23<sup>rd</sup> Avenue S at S 316<sup>th</sup> Street

The distribution of the fiber is as follows:

King County Metro Rapid Ride	24 strands
City of Federal Way Communications	24 strands

- 6.4 Concurrent with this Agreement, the Parties will enter into a separate fiber optic project agreement to establish the terms and conditions for the ownership and maintenance of the 72-count fiber cable and the 48-count fiber cable.
- 6.5 The City shall permit the County to use city-owned conduit in order to route the fiber optic cable associated with the A-Line ITS Improvements.
- 6.5 The City and County will work jointly to encourage WSDOT to complete a 24-count fiber connection between Federal Way City Hall and the intersection of Pacific Highway and S 320<sup>th</sup> Street by June 10, 2010 to facilitate RapidRide communications. The distribution of the fiber is as follows:

King County Metro Rapid Ride	2 strands
City of Federal Way Communications	20 strands
WSDOT / King County / Federal Way	2 strands

The City will own the 24-count fiber connection and shall allow County use of the 4 strands.

## Section 7. Financing

- 7.1 **Total Project Budget.** The total project budget for Phase 1 and Phase 2 Improvements is \$828,916.
- 7.2 **County Contribution for Phase 2 Improvements Installed by the City.** Upon completion of the Phase 2 Improvements, the City will invoice the County for the actual cost of this work. The County will make payment to the City within (30) days of receipt of an invoice for work determined to be performed in accordance with the terms of this Agreement.

- 7.3 **County Contribution for King County Road Services Performed Work.** The County will pay for the work performed by King County Road Services for work performed on behalf of the City in direct support during the construction and acceptance of the Phase 1 and Phase 2 Improvements. The County will arrange for King County Road Services to bill the A-Line ITS Project directly for this work. The estimated budget for King County Road Services work is \$10,000.

## **Section 8. Schedule**

- 8.1 The scheduled date to begin construction of the Phase 1 Improvements is January 15, 2010.
- 8.2 The scheduled date for completion of the Phase 1 Improvements is July 31, 2010.
- 8.3 The scheduled date for beginning RapidRide service is summer 2010.
- 8.4 The scheduled date to begin construction of the Phase 2 Improvements is February 2011
- 8.5 The scheduled date for completion of the Phase 2 Improvements is November 2011

## **Section 9. Ownership and Maintenance of Completed Improvements**

- 9.1 The A-line ITS Improvements to existing City-owned conduit, junction boxes, and traffic signal control equipment shall become the property of the City upon their completion and final acceptance. The separate, concurrent agreement on the terms and conditions for the sharing of fiber optic installation projects will establish the ownership and maintenance responsibilities for the 72 strand and 48 strand fiber optic cables.

## **Section 10. Insurance and Indemnification**

- 10.1 **Insurance Requirements for Phase 1 Improvements.** If the County uses a contractor to perform work under this Agreement, after taking into account the scope of work and services which may be performed by its contractor(s), the County shall require that the County's contractor maintain Commercial General Liability, Professional Liability if professional services are required, Automobile Liability insurance, Statutory Workers Compensation, Employers Liability/Stop Gap and other insurance as may be required with prudent limits of liability as established by a County risk assessment.
- 10.2 Any such contractor insurance specified in Subsection 10.1 shall insure the County, its contractor, and the City and its officers, officials, agents and employees against loss arising out of or in connection with activities, performed in furtherance of this Agreement by the County's contractor. Contractor's general and automobile liability insurance and other liability insurance as may be required shall include the City and its officers, officials, agents and employees as an additional insured and shall contain standard

separation of insureds language. The County's contractor's insurance shall be primary to and not contributing with any insurance or self insurance that may be carried by the City.

- 10.3 **Insurance Requirements for Phase 2 Improvements.** If the City uses a contractor to perform work under this Agreement, after taking into account the scope of work and services which may be performed by its contractor(s), the City shall require that the City's contractor maintain Commercial General Liability, Professional Liability if professional services are required, Automobile Liability insurance, Statutory Workers Compensation, Employers Liability/Stop and other insurance as may be required with prudent limits of liability as established by a City risk assessment.
- 10.4 Any such contractor insurance specified in Subsection 10.4 shall insure the City, its contractor, and the County and its officers, officials, agents and employees against loss arising out of or in connection with activities, performed in furtherance of this Agreement by the City's contractor. Contractor's general and automobile liability insurance and other liability insurance as may be required shall include the County and its officers, officials, agents and employees as an additional insured and shall contain standard separation of insureds language. The City's contractor's insurance shall be primary to and not contributing with any insurance or self insurance that may be carried by the County.
- 10.5 **Indemnification and Hold Harmless.** To the maximum extent permitted by law, each Party shall protect, defend, indemnify and save harmless the other Party, its officers, officials, employees and agents while acting within the scope of their employment as such, from any and all suits, costs, claims, actions, losses, penalties, judgments, and/or awards of damages, of whatsoever kind arising out of, or in connection with, or incident to the services associated with this Agreement caused by or resulting from each Party's own negligent acts or omissions. Each Party agrees that it is fully responsible for the acts and omissions of its own subcontractors, their employees and agents, acting within the scope of their employment as such, as it is for the acts and omissions of its own employees and agents. Each Party agrees that its obligations under this provision extend to any claim, demand, and/or cause of action brought by or on behalf of any of its employees or agents. The foregoing indemnity is specifically and expressly intended to constitute a waiver of each Party's immunity under Washington's Industrial Insurance Act, RCW Title 51, as respects the other Party only, and only to the extent necessary to provide the indemnified Party with a full and complete indemnity of claims made by the indemnitor's employees. The Parties acknowledge that these provisions were specifically negotiated and agreed upon by them. Each Party shall require similar indemnification language in all Agreements with subcontractors entered into in conjunction with this Agreement.

## **11. Effective Date and Term of Agreement**

This Agreement shall take effect upon the latest date on which one of the Parties executes this Agreement, and shall continue unless terminated pursuant to the terms of this Agreement.

## **12. Agreement Termination**

Either Party may terminate this Agreement in the event that the other Party materially breaches this Agreement. Written notice of such termination and a description of the breach must be given via certified mail by the Party terminating this Agreement to the other Party not less than sixty (60) days prior to the effective date of termination. The breaching Party shall be given this sixty days in which to cure its material breach. If the breaching Party fails to cure within sixty days, the Agreement is immediately terminated. Upon termination, the Parties shall determine final costs and payments to be made by each Party.

## **13 Entire Agreement and Amendments**

**13.1 Entire Agreement.** This document contains all terms, conditions and provisions agreed upon by the Parties hereto, and shall not be modified except by written amendment.

**13.2 Amendments.** Except as otherwise provided for in this Agreement, amendments may be made to this Agreement within the previously approved budget or other applicable authority for and on behalf of the City by its **City Manager**, and for and on behalf of the County by its General Manager of the Transit Division and shall be in writing and executed by such duly authorized representative of each Party. No variation or alteration of the terms of this Agreement shall be valid unless made in writing and signed by authorized representatives of the Parties hereto.

## **14. Notification and Identification of Contacts**

**14.1 Notice.** Any notice or communication required or permitted to be given pursuant to this Agreement shall be in writing, and shall be sent postage prepaid by U.S. Mail, return receipt requested, to the contact persons and addresses identified in Subsection 14.2 of this Agreement unless otherwise indicated by the Parties in writing.

**14.2 Contact Persons and Addresses.** The contact persons for the administration of this Agreement are as follows:

### **City of Federal Way**

Rick Perez, PE  
City Traffic Engineer  
City of Federal Way  
P.O. Box 9718  
Federal Way, WA 98063-9718

### **King County, Metro Transit:**

David Cantey, Transit Speed & Reliability  
201 S Jackson Street  
KSC-TR-0411  
Seattle, Washington 98104-3856  
(206) 684-6794

## **15. Dispute Resolution Process**

The Parties, through their designated representatives identified in Subsection 14.2 of this Agreement, shall use their best efforts to resolve any disputes pertaining to this Agreement that may arise between the Parties. If these designated representatives are unable to resolve a dispute, the responsible Project Directors of both Parties shall review the matter and attempt to resolve it. If they are unable to resolve the dispute, the matter shall be reviewed by the department directors of the Parties or their designees. The Parties agree to exhaust each of these procedural steps before seeking to resolve disputes in a court of law or any other forum.

## **16. Records Retention and Audit**

During the progress of the Work and for a period not less than three (3) years from the date of completion of the Work or for the retention period required by law, whichever is greater, records and accounts pertaining to the Work and accounting therefore are to be kept available by the Parties for inspection and audit by representatives of the Parties and copies of all records, accounts, documents, or other data pertaining to the Work shall be furnished upon request. Records and accounts shall be maintained in accordance with applicable state law and regulations.

## **17. Compliance with Applicable Laws**

The Parties agree to comply with all applicable federal, state, and local laws, rules, and regulations, including those pertaining to nondiscrimination, and agree to require the same of any subcontractors providing services or performing any of the Work using funds provided under this Agreement.

## **18. Legal Relations**

- 18.1 **No Partnership or Joint Venture.** No joint venture, agent-principal relationship or partnership is formed as result of this Agreement. No employees or agents of one Party or any of its contractors or subcontractors shall be deemed, or represent themselves to be, employees or agents of the other Party.
- 18.2 **No Third Party Beneficiaries.** It is understood and agreed that this Agreement is solely for the benefit of the Parties hereto and gives no right to any other person or entity.
- 18.3 **Assignment.** Neither this Agreement, nor any interest herein, may be assigned by either Party without the prior written consent of the other Party.
- 18.4 **Binding on Successors and Assigns.** This Agreement, and all of its terms, provisions, conditions, and covenants, together with any exhibits and attachments now or hereafter

made a part hereof, shall be binding on the Parties and their respective successors and assigns.

- 18.5 **Mutual Negotiation and Construction.** This Agreement and each of the terms and provisions hereof shall be deemed to have been explicitly negotiated between, and mutually drafted by both Parties.
- 18.6 **Waiver of Default.** Waiver of any default shall not be deemed to be a waiver of any subsequent default; as such, failure to require full and timely performance of any provision at any time shall not waive or reduce the right to insist upon complete and timely performance of any other provision thereafter. Waiver of breach of any provision of this Agreement shall not be deemed to be a waiver of any other or subsequent breach and shall not be construed to be a modification of the terms of this Agreement unless stated to be such in writing, signed by duly authorized representatives of the Parties, and attached to the original Agreement.
- 18.7 **Applicable Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Washington.
- 18.8 **Jurisdiction and Venue.** The King County Superior Court, situated in Seattle, Washington, shall have exclusive jurisdiction and venue over any legal action arising under this Agreement.
- 18.9 **Rights and Remedies.** The Parties' rights and remedies in this Agreement are in addition to any other rights and remedies provided by law.
- 18.10 **Severability.** If any provisions of this Agreement are held invalid by a court of competent jurisdiction, the remainder of the Agreement shall not be affected thereby if such remainder would then continue to serve the purposes and objectives originally contemplated by the Parties.
- 18.11 **Entire Agreement.** This Agreement embodies the Parties' entire understanding and agreement on the issues covered by it, except as may be supplemented by subsequent written amendment to this Agreement, and supersedes any prior negotiations, representations or draft agreements on this matter, either written or oral.
- 18.12 **Survival.** Each of the provisions of this Section 18 shall survive any expiration or termination of Agreement.

## 19. Execution of Agreement — Counterparts

This Agreement may be executed in two (2) counterparts, either of which shall be regarded for all purposes as an original.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the date indicated under their signatures.

KING COUNTY  
DEPARTMENT OF TRANSPORTATION  
METRO TRANSIT DIVISION

CITY OF FEDERAL WAY

\_\_\_\_\_  
By: Kevin Desmond, General Manager

Dated: \_\_\_\_\_

\_\_\_\_\_  
By: Brian Wilson, Interim City Manager

Dated: \_\_\_\_\_

APPROVED AS TO FORM:

By: \_\_\_\_\_  
Senior Deputy Prosecuting Attorney

Dated: \_\_\_\_\_

APPROVED AS TO FORM:

By: \_\_\_\_\_  
Patricia Richardson, City Attorney

Dated: \_\_\_\_\_

**Attachment A**  
**A-Line ITS Improvements**

PHASE 1 IMPROVEMENTS		Cost of Improvements	Financial Plan	
			County	City
1.	Install new ITS cabinets at signalized intersections.	\$731,114	\$731,114	-0-
2.	The following intersections on Pacific Highway S will be equipped for TSP and include all of the required communications hardware: <ul style="list-style-type: none"> <li>• S 276<sup>th</sup> Street</li> <li>• S 288<sup>th</sup> Street</li> <li>• Dash Point Road</li> <li>• S 304<sup>th</sup> Street</li> <li>• S 308<sup>th</sup> Street</li> <li>• S 312<sup>th</sup> Street</li> <li>• S 316<sup>th</sup> Street</li> </ul>			
3.	Install antennas and wireless access points as indicated on the design drawings. Install fiber termination panel and Ethernet switch in each ITS cabinet.			
4.	Install fiber termination panel in the traffic controller cabinet at the following intersections: <ul style="list-style-type: none"> <li>• (Rick: the fiber term cabinet will b in the City fiber vault at S 320<sup>th</sup>)S 320<sup>th</sup> St and 20<sup>th</sup> Ave S</li> <li>• S 320<sup>th</sup> St and 23<sup>rd</sup> Ave S</li> <li>• S 320<sup>th</sup> St and 25<sup>th</sup> Ave S</li> <li>• S 316<sup>th</sup> St and 23<sup>rd</sup> Ave S</li> <li>• S 317<sup>th</sup> St and 23<sup>rd</sup> Ave S</li> </ul>			
5.	Install vaults for fiber splicing and cable storage.			
6.	Install fiber from 25 <sup>th</sup> Ave S to the WSDOT CCTV cabinet at I-5.			
7.	Upgrade Type 1 junction boxes to Type 2 junction boxes to accommodate the fiber cable as indicated on the design drawings.			
8.	Install small sections of new conduit at S 272 <sup>nd</sup> Street and Pacific Highway S, S 320 <sup>th</sup> and Pacific Highway S, and S 320 <sup>th</sup> St and 25 <sup>th</sup> Ave S.			
9.	Develop and install new traffic signal timing to support corridor signal coordination and transit signal priority			
	<b>Subtotal</b>			
PHASE 2 IMPROVEMENTS				
1.	Install approximately 7,000 feet of fiber cable between Dash Point Road and S 312 <sup>th</sup> St.	\$97,802	\$97,802	-0-
2.	Install vaults for fiber splicing and cable storage			
	<b>Subtotal</b>	\$97,802	\$97,802	-0-
<b>Total</b>		\$828,916	\$828,916	-0-

**Attachment B**  
**Phase 2 Improvements**

Description	Units	Quantity	Unit Price	Sub Total
Design (KPG, Inc.)				\$22,000
Lump sum breakdown of construction item: "TRANSIT SIGNAL PRIORITY SYSTEM, COMPLETE"				
Conduit, PVC, 2 in, Sch 40	LF	150.0	\$15.00	\$2,250
Splice Vault, 25TA	EA	2.0	\$3,000.00	\$6,000
Powerbar, rackmounted	EA	2.0	\$50.00	\$100
Antenna Cable, CAT5e	LF	200.0	\$5.00	\$1,000
RapidRide Communication Cabinet, 336A	EA	2.0	\$5,100.00	\$10,220
Fiber Optic Cable, 12 Count	LF	150.0	\$4.00	\$500
Fiber Optic Cable, 72 Count	LF	5800.0	\$6.00	\$35,800
Item Subtotal				\$54,970

**Traffic Control Items**

Traffic Control Supervisor	HR	40	\$60.00	\$2,400
Flaggers and Spotters	HR	40	\$48.00	\$1,920
Other Temporary Traffic Control**	LS	0.015	\$250,000.00	\$3,750
Sequential Arrow Sign	HR	40	\$5.00	\$200
Traffic Control Subtotal				\$8,270

Construction Subtotal				\$63,240
Construction management (12.5%)				\$7,905
Construction Total				\$71,145

Project Subtotal				\$93,145
Project Administration (5%)				\$4,657
<b>Phase 2 Total</b>				<b>\$97,802</b>

\*\* 5 days/340 working days

## **Attachment C**

### **Principles for the Implementation and Ongoing Operation of Transit Signal Priority Projects and All Other Signal Operations Projects in Support of A-Line RapidRide**

1. The Parties recognize that it will be necessary for the City to update signal timings in response to changing traffic conditions.
2. The City agrees to re-evaluate and comprehensively update signal timings along the corridor at least once every 3 to 5 years. City updates will include an analysis of transit signal priority (TSP) settings and modifications. The County will fund the initial signal timings installed by the A-Line RapidRide ITS Improvements.
3. The City agrees to make a good faith effort to sustain the travel time advantage for transit along the corridor that is at least equal to what was achieved with the initial TSP installation.
4. The Parties have established a goal of providing TSP for 80% of all RapidRide coaches that arrive at and benefit from transit signal priority either through a green extension or a red reduction.
5. The City agrees to assign a Traffic Engineer who will have responsibility for the operation of all TSP intersections in the City. If the City contracts for its traffic engineering services, it will include this work in its contract. The city employee or the approved city representative will be the primary liaison between the City and King County Metro. The Parties commit to work together to maintain and improve the operation of TSP as an ongoing element of the City's traffic signal system.
6. The City agrees to notify King County Metro anytime it retimes or significantly adjusts signal timing along the corridor. In these instances, the Parties agree to cooperate in the development of signal timing and transit signal priority parameters in order to maintain or improve TSP operations.
7. The Parties agree to jointly prepare and issue an annual TSP evaluation report.
8. The Parties have agreed that the signal timings and TSP settings for the initial TSP installations and all other signal related improvements will be the same as or very close to what was submitted with the Proposal. The description of TSP tier level that is associated with the initial timing proposal will be used as a guide for any refinements or modifications made at the time of implementation.

Tier 1: With Tier 1, the green times for the non-transit movements are truncated by 15-percent or less of the programmed phase split time. This approach provides a minimal amount of travel time savings for transit, but also has virtually no impact to general purpose traffic.

Tier 2: Tier 2 will shorten the non-transit phases based on the level of service of the conflicting phases, rather than a specific percentage of the phase split time. This approach attempts to minimize the affect of TSP on heavy traffic movements and utilize time from movements with less delay. The non-transit green times are truncated as follows:

- Level of Service (LOS) A or B: If the conflicting phase has a level of service A or B, it is assumed that up to 30% of the total phase split could be allocated to TSP.
- LOS C: If the conflicting phase has a level of service C, it is assumed that up to 25% of the total phase split could be allocated to TSP.
- LOS D: If the conflicting phase has a level of service D, it is assumed that up to 20% of the total phase split could be allocated to TSP.
- LOS E or F: If the conflicting phase has a level of service E or F, it is assumed that only 10% to 15% of the total phase split could be allocated to TSP.
- Tier Two is similar to the level of TSP currently used by King County Metro on its TSP corridors.

Tier 3: Tier Three represents an approach whereby the non-transit movements are shortened to the minimum green times allowable for each phase. Tier Three provides a timing strategy that maximizes transit delay reduction while maintaining service to each non-TSP phase.

Tier 4: Tier Four would allow for non-transit vehicle and/or pedestrian phases to be re-sequenced or omitted in order to transition to the TSP phase as quickly as possible. Tier Four level of priority is similar to the priority strategy typically used for light rail service.