

AGENDA ITEM 38

Consider approving resolution for Memorandum of Understanding relating to the Intelligent Transportation System (ITS) Integration Program between TxDOT, City of Round Rock, and Williamson County.

Mike Weaver addressed the Court.

Moved: **Commissioner Limmer**

Seconded: **Judge Doerfler**

Motion: To approve resolution for Memorandum of Understanding relating to the ITS Integration Program between TxDOT, City of Round Rock, and Williamson County.

Vote: **5 – 0**

< Attachment >

ITS Deployment Program
FY03 ITS Integration Component

Project Description

June 23, 2003

**APPLICATION FOR PARTICIPATION IN THE
FY03 ITS INTEGRATION COMPONENT**

**of the
ITS DEPLOYMENT PROGRAM**

PROJECT DESCRIPTION

*passed in
et 3/23/04*

Project Identification Number and Name: 37c. Round Rock/Williamson County
Communications Integration

Project Location: Texas

FY03 Total to be Allocated: \$ 415,971

Submitted by: Texas Department of Transportation
June 2003

Project Contact: Brian Burk
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EXECUTIVE SUMMARY

Williamson County and the City of Round Rock are just north of Travis County containing the state capital city of Austin. Transportation between the two areas is primarily linked by the IH 35 and US 183 corridors. IH 35 is a North American Free Trade Act (NAFTA) designated corridor. Incidents and the congestion resulting from them are shared daily between the two areas. It is a symbiotic relationship near the jurisdictional boundary between the areas. Shock waves from roadway incidents in one area quickly reverberate to the other, especially during peak travel times.

The Texas Department of Transportation (TxDOT) Austin District has deployed freeway corridor traffic management (CTM) systems as part of a strategic Intelligent Transportation System (ITS) early deployment plan along the IH 35 and US 183 corridors. A CTM system exists at the jurisdictional boundary along US 183 and is scheduled for construction in August 2003 to approach jurisdictional boundaries along IH 35.

Williamson County and Round Rock each use modern computer-aided dispatch (CAD) systems to respond to reported incidents. Although undeniably linked by common transportation corridors, integration between these systems is limited to telephone technology. However, each jurisdiction has a need to be aware of roadway incidents inside the boundary of the other in a more efficient manner to plan a timely and appropriate response.

An ongoing FY01 project proposes to integrate existing Williamson County and proposed Round Rock computer aided dispatch (CAD) systems with an existing TxDOT advanced traffic management system (ATMS). Integration with ATMS will provide each area with the information needed to provide a timely and appropriate roadway incident response, especially at jurisdictional boundaries.

The FY01 ITS Integration project funded only the integration of systems (software interface). Hardware and infrastructure integration including communications equipment was not accomplished. This FY03 Integration project will complete the integration necessary to realize the potential of the FY01 integration activities.

TxDOT will act as lead agency coordinating the integration of Williamson County and Round Rock emergency management systems. TxDOT will provide the required local match with funds and services from Williamson County and the City of Round Rock as they become available.

Integration of both systems is estimated at \$900,000. Integration tasks are anticipated to begin by November 2003. Integration tasks may last 13 months.

TECHNICAL APPROACH

1. Background

Round Rock is located in Williamson County, in central Texas. Williamson County and the City of Round Rock are just north of Travis County containing the state capital city of Austin. The metropolitan planning organization (MPO) is the Capital Area Metropolitan Planning Organization (CAMPO). The CAMPO study is bounded by the Travis County line, and the city limits and extraterritorial jurisdiction (ETJ) of the cities of Austin, Round Rock, Cedar Park, Leander, and Hays. Williamson County and the Texas Department of Transportation (TxDOT) are entities cooperating with CAMPO.

Williamson County is reported to be one of the five fastest growing counties in the United States. The Texas State Data Center estimated the population of Williamson County at 240,905 in January 2000. Williamson County encompasses 1,124.3 square miles.

The population of Round Rock is estimated by the Texas State Data Center to have doubled from 30,923 in the 1990 census to 62,924 in January 2000. A large contributor to this growth is the Dell Computer Corporation. Dell employs approximately 3,400 in Round Rock. Dell employs over 22,000 in central Texas in over 50 buildings comprising 5.7 million square feet. Construction on a 570 acre complex between Austin and Round Rock began in 1999.

Round Rock is also home to the Texas League Double A Round Rock Express baseball team. The stadium located in Round Rock can accommodate nearly 10,000 fans. The Express play at the stadium an average of half of the days of the month during the average five month season. The stadium facilitates other events in addition to double A baseball games.

The major transportation corridor through the area is Interstate Highway Number 35 (IH 35). IH 35 traverses from the border with Mexico at Laredo, Texas, north, to Duluth, Minnesota. IH 35 is designated as a North American Free Trade Agreement (NAFTA) corridor.

Other significant transportation corridors in the Round Rock and Williamson county area include United States Highway Number 183 (US 183) and State Highway Loop Number 1 (LP 1). Currently, transportation improvement projects underway include rehabilitating US 183 to freeway standards into Williamson County. Another group of projects extends the urban freeway LP 1 into Williamson County intersecting construction of new freeway State Highway Number 45 (SH 45) into Round Rock. The LP 1 extension and SH45 are to be constructed as the first toll roads in the area. All of these transportation improvement projects include elements of an Intelligent Transportation System (ITS).

Integration of elements of the TxDOT ITS with Williamson County and Round Rock public safety and service systems was funded in a FY01 ITS Integration project to maximize the benefit of the ongoing highway improvement projects. This FY01 project is not complete and 0% of project funds have been expended although the partners have met on several occasions to discuss integration plans. This project has also been delayed while an FY00 project to integrate public safety systems in Austin and Travis County is completed. The FY00 project completed a regional ITS Architecture in March 2003 and integration of the Austin and Travis County computer aided dispatch system should be complete by the end of 2003.

Approximately 30% of the FY00 funds have been expended. The objectives and goals of these projects have not changed, although it has taken longer to complete than anticipated.

Currently, roadway incidents, including those related to construction activities, have a profound undesirable effect on mobility of the regional transportation network. Mobility of the general public as well as emergency services is affected by roadway incidents. The effect can be especially prominent at a jurisdictional boundary as additional sharing of information between entities is necessary to ensure efficient response.

Integration of hardware and software elements of the TxDOT ITS with Williamson County and Round Rock public safety and service systems will enhance safety, mobility, economic growth and trade, and human and natural environment. By integrating systems, these enhancements can be realized by ensuring that the right emergency and traffic control response is implemented at the right time, at the right place, with the right resources. In addition, information made available to travelers will be timely and accurate ensuring that goods and services arrive just in time by the appropriate mode and route. Finally, by working together cooperatively, protection for the community and environment is maximized.

2. Project Description

This FY03 ITS Integration project supports transportation-public safety integration. Williamson County and Round Rock have computer aided dispatch (CAD) systems. An on going FY01 ITS Integration project provided funding to assist Williamson County and Round Rock in enhancing these existing CAD systems with the ability to exchange information with TxDOT 's advanced traffic management system (ATMS) software.

The FY01 ITS Integration project funded only the integration of systems (software interface). Hardware and infrastructure integration including communications equipment was not accomplished.

This FY03 ITS Integration project proposes to assist TxDOT in providing communications equipment (conduit and fiber optic cable) and hardware (multiplexers/demultiplexers and transmitters and receivers) needed to support the exchange of information between systems. The communications and hardware equipment can be used to provide the existing public safety centers with real time broadband video desired to enhance the ongoing integration efforts.

TxDOT currently installs components of a regional ITS plan with freeway corridor traffic management projects. These projects include conduit and fiber optic cable backbone used to integrate roadside devices and individual systems across jurisdictional boundaries. These freeway projects do not provide the communications equipment needed at public safety centers located off the freeway corridor. In addition, these projects have been concentrated inside the city limits of Austin.

Current competition for limited funds results in significantly delaying freeway corridor traffic management projects in the Williamson County and Round Rock area by several years. Currently, a TxDOT corridor traffic management project scheduled for contract in

August 2003 only reaches the Travis and Williamson County jurisdictional border just south of Round Rock. This FY03 ITS Integration project will accelerate the ability to exchange information between agencies in response to freeway incidents.

This FY03 ITS integration project proposes to begin installation of communications and hardware equipment at the public safety center and work toward the freeway corridor. Any improvement along the freeway corridor will be designed as an integral part of any future corridor traffic management project.

Communication and hardware equipment between public safety and TxDOT system can provide security enhancements. TxDOT freeway courtesy patrol operates in the Williamson County and Round Rock areas. Mobile data terminals in TxDOT courtesy patrol vehicles could check disabled or abandoned vehicles for "wants and warrants" prior to personnel approaching the vehicle ("wants and warrants" is a term used to describe vehicles wanted by law enforcement or vehicles registered to owners in which a warrant has been issued). This could provide law enforcement agencies with information they may not otherwise acquire. In addition, mobile data terminals could provide better coordination between TxDOT and other jurisdictions responding to incidents.

The goal areas are categorized by priority for this project in the table below:

Categorization of Priorities of the Project Partnership in Addressing ITS Goal Areas

Project Priority	Goal Area	Measure
High <input checked="" type="checkbox"/>	Safety	<ul style="list-style-type: none"> Reduction in the overall rate of crashes Reduction in the rate of crashes resulting in fatalities Reduction in the rate of crashes resulting in injuries
Medium <input type="checkbox"/>		
Low <input type="checkbox"/>		
None/NA <input type="checkbox"/>		
High <input checked="" type="checkbox"/>	Mobility	<ul style="list-style-type: none"> Reduction in travel time delay Reduction in travel time variability
Medium <input type="checkbox"/>		
Low <input type="checkbox"/>		
None/NA <input type="checkbox"/>		
High <input checked="" type="checkbox"/>	Efficiency	<ul style="list-style-type: none"> Increase in freeway and arterial throughput
Medium <input type="checkbox"/>		
Low <input type="checkbox"/>		
None/NA <input type="checkbox"/>		
High <input type="checkbox"/>	Productivity	<ul style="list-style-type: none"> Cost Savings
Medium <input checked="" type="checkbox"/>		
Low <input type="checkbox"/>		
None/NA <input type="checkbox"/>		
High <input type="checkbox"/>	Energy and the Environment	<ul style="list-style-type: none"> Decrease in vehicle emissions Decrease in vehicle energy consumption
Medium <input checked="" type="checkbox"/>		
Low <input type="checkbox"/>		
None/NA <input type="checkbox"/>		

High	<input type="checkbox"/>	Customer	• Ratings cutting across all other goal areas
Medium	<input checked="" type="checkbox"/>	Satisfaction	
Low	<input type="checkbox"/>		
None/NA	<input type="checkbox"/>		

3. Rural Projects

The integration proposed is generally considered within the CAMPO study area and is not considered rural. However, Williamson County responds to incidents outside the incorporated city limits and is therefore outside the CAMPO study area and considered rural. Information on roadway conditions such as speeds and construction lane closures can be used by Williamson County Emergency Medical Services (EMS) when planning the transport of persons in need of specialized medical attention in the Austin area. Lessons learned from this project can be expected to enhance development of additional ITS infrastructure.

4. Systems to be Integrated**A. Arterial Management Systems**

1. City of Round Rock
2. Texas Department of Transportation (TxDOT) Austin District

B. Freeway Management Systems

1. Texas Department of Transportation Austin District
2. Texas Turnpike Authority (toll roads under construction)
3. Transportation Mobility Authority (toll roads under development)

C. Transit Management Systems

1. Capital Area Rural Transportation System (CARTS)
2. N/A

D. Incident Management Systems

1. Texas Department of Transportation Austin District
2. Williamson County
3. City of Round Rock

E. Electronic Fare Payment

1. Capital Area Rural Transportation System (CARTS)
2. Texas Turnpike Authority (under construction)
3. Transportation Mobility Authority (under development)

F. Electronic Toll Collection

1. Capital Area Rural Transportation System (CARTS)
2. Texas Turnpike Authority (under construction)
3. Transportation Mobility Authority (under development)

G. Crash Prevention and Safety

1. TxDOT Austin District
2. N/A

H. Emergency Management

1. TxDOT Austin District
2. Williamson County
3. City of Round Rock

I. ITS/CVO

- 1. TxDOT
- 2. CARTS
- J. Traveler Information
 - 1. TxDOT
 - 2. CARTS
- K. Information Management – Data Archiving
 - 1. TxDOT Austin District
 - 2. Williamson County
 - 3. City of Round Rock
- L. Road Weather Management Systems
 - 1. N/A
 - 2. N/A
- M. Intermodal Freight
 - 1. N/A
 - 2. N/A
- N. Other ITS Systems
 - 1. City of Austin
 - 2. N/A
- O. Operations and Maintenance
 - 1. TxDOT Austin District
 - 2. Williamson County
 - 3. City of Round Rock

__D1__ With __D2__
 __D1__ With __D3__
 __H1__ With __H2__
 __H1__ With __H3__
 __K1__ With __K2__
 __K1__ With __K3__
 __O1__ With __O2__
 __O1__ With __O3__

5. Integration Approach

Williamson County currently utilizes a Windows based CAD system and contracts with the Software Group located in Plano, Texas for technical support of the existing CAD system. The dispatch center is located at the Williamson County Law Enforcement Bureau Headquarters Building at 508 South Rock Street in Georgetown, Texas. The Williamson County EMS Administration is located at 303 M.L.K. in Georgetown. Although there may be other points of presence for the Williamson County CAD system, it is likely that one of the above locations will be used to install communication and hardware equipment.

Rock Street is located just north of downtown Georgetown within one mile of the intersection of Interstate Highway (IH) 35 and Ranch to Market Road (RM) 2338. M.L.K. Street is located in downtown Georgetown 3 blocks west and parallel to Business Interstate Highway (BI) 35. Williamson County Administration is located along M.L.K. approximately

halfway between the intersections of BI 35 and United States Highway (US 29) and RM 2338.

Round Rock recently completed a request for proposal (RFP) for a new CAD system. This system became operational in May 2003. The CAD system is located at Round Rock Police Headquarters at 615 Palm Valley Road (US 79). Round Rock is currently developing plans to move the Police Headquarters to a location near Old Settlers Boulevard and Greenhill Drive. This relocation is in the planning stages and is expected to take place several years from now. It is possible that there are other points of presence for the Round Rock CAD system, however, it is likely that the Palm Valley location will be used to install communication and hardware equipment.

Palm Valley Road is concurrent with United States Highway (US) 79 through Round Rock. Round Rock Police Headquarters is located at the intersection of US 79 and Egger Avenue. Egger Avenue intersects US 79 less than 1 mile east of Interstate Highway (IH) 35 in Round Rock, Texas.

TxDOT Austin District currently operates and maintains an advanced traffic management system (ATMS). TxDOT Austin District ATMS is currently deployed along portions of freeway corridors in the Austin District. A combined transportation emergency and communication center (CTECC) is currently under construction and will house the TxDOT Austin District ATMS center. CTECC is located at 5010 Old Manor Road in Austin Texas near the intersection with 51st Street in Austin, Texas. The interim ATMS center is located at the Austin District Headquarters at 7901 North IH 35 in Austin, Texas. Old Manor Road intersects 51st Street just over 1 mile east of IH 35.

Currently, the Texas Transportation Commission has authorized construction of Austin District corridor traffic management systems along IH 35 to the Travis and Williamson County line at the intersection of IH 35 and State Highway (SH) 45. US 79 intersects IH 35 approximately 2.706 miles north of SH 45. US 29 intersects IH 35 approximately 8.106 miles north of US 79. RM 2338 intersects IH 35 approximately 1.391 miles north of US 29.

One of the first tasks in this project will be to meet with Williamson County and Round Rock officials to determine the best and most economical point of presence to install additional communication and hardware equipment. It may be possible for these jurisdictions to waive or provide permits necessary to install this equipment within each jurisdiction. It may also be necessary to partner with the City of Georgetown to install additional communication equipment in this jurisdiction.

It may be several years before current competition for limited construction funds can be applied to IH 35 in Williamson County. Additional communication equipment (conduit and fiber optic cable) is needed for an additional $(2.706+8.106+1.391)$ 12.203 miles along IH 35. In Round Rock, additional communication equipment (conduit and fiber optic cable) is needed for an additional 0.885 miles along US 79 from IH 35. In Georgetown, additional communication equipment may be needed for an additional 0.5 miles along BI 35 and 3rd Street from IH 35. Refer to Figure 1.

The next task will be to design a path from each CAD point of presence to the IH 35 corridor. Once reaching the IH 35 corridor the path will be planned along IH 35 until funds are exhausted. Since communication circuits are tariffed by the mile, any additional path that can be constructed along IH 35 to SH 45 will save recurring cost to lease any needed communication equipment to support the existing and proposed integration.

Once a communication equipment path is designed, TxDOT will attempt to incorporate this work in an existing project scheduled for contract in this area. TxDOT has a corridor traffic management rehabilitation project scheduled in Williamson County during fiscal 2004. It may be possible to execute one contract for this FY03 ITS Integration and Austin District rehabilitation project.

The technology used will be the same or similar to existing technology used by the TxDOT Austin District. A concrete encased duct bank consisting of 12-2 inch conduits is typically installed along the freeway corridor (Figure 2 and 3). A smaller number of conduits (2-4) may be installed along other roadways due to limited available right of way. A 48 fiber optic cable backbone is typically installed in one of the conduits (Figure 4). TxDOT Austin District video and data can be shared utilizing existing SONET multiplexers/demultiplexers or over dedicated point to point fibers in the backbone. Cost to implement will likely dictate the method used, however, the existing SONET technology is preferred (Figure 5).

Finally, any other integration other than that previously accomplished in the ongoing FY01 ITS Integration project or real time motion video will be investigated for inclusion in this project (i.e. mobile data terminals for TxDOT courtesy patrol). These opportunities will likely be limited by funds available in this project.

6. Architecture

This project agrees to follow the Architecture approach included in Section 3.2 of the Guidance. This project meets the criteria in Section 3.2.1 of the Guidance as indicated with an "X" below:

- ☒ A. A regional ITS architecture exists or is being developed.
In the discussion section below, the project proposal identifies the region, the organization (with contact) responsible for developing or maintaining the regional ITS architecture, the parts of the regional ITS architecture that will be reflected in the project design and implementation, and any updates to the regional ITS architecture that are necessary to reflect the specifics of the proposed project.
- ☐ B. A regional ITS architecture does not exist (and is not currently under development) and the project is to receive more than \$300K in funding (after takedowns) from this program in FY03.
In the discussion section below, the project description explicitly states that (1) a project level ITS architecture will be developed, using a systems engineering analysis, and the project will be designed in accordance with the project level ITS architecture and (2) the development of a regional ITS architecture will be initiated, using a systems engineering analysis, within a

year of obligation of funds. Also in the discussion section, the project description identifies the region to be included in the regional ITS architecture, the agencies/systems to be included in the project level ITS architecture, the agencies to be (initially) included in the regional ITS architecture, and the funding source(s) and schedule for both the project level and regional ITS architecture development.

C. A regional ITS architecture does not exist (and is not currently under development) and the project is to receive less than \$300K in funding (after takedowns) from this program in FY03.

In the discussion section below, the project description explicitly states that a project level ITS architecture will be developed, using a systems engineering analysis, and the project will be designed in accordance with the project level ITS architecture. Also in the discussion section below, the project description identifies the agencies/systems to be included in the project level ITS architecture, as well as the funding source(s) and schedule for this development.

Discussion

A regional ITS Architecture was complete for the Austin Region in March 2003 under an ongoing FY00 ITS Integration project. This regional Architecture is currently maintained by the TxDOT Austin District.

This FY03 ITS Integration project will directly support many goals identified in the Architecture, in particular, Goal #2: Enhance/Facilitate Incident Management and Goal #6: Integrated Transportation Services. The FY03 ITS Integration project also supports several operational concepts identified in the Architecture including detection and verification/dispatch. The City of Round Rock and Williamson County are identified in the architecture under future agreements. Williamson County and Round Rock are identified as Owning Stakeholder in the Architecture Inventory of Regional Subsystems/Terminators. Williamson County and Round Rock are included as Owning Stakeholder in Architecture List of Regional Market Packages for EMI Emergency Response, ATMS08 Incident Management Subsystem, EM3 Mayday Support. This FY03 ITS Integration project will support the architecture flows and processes identified in the Architecture for each of these systems and market packages.

7. ITS Standards

A standards plan has not been developed for this FY03 ITS Integration project. Any standards utilized will be determined by ongoing FY00, FY01, and FY02 ITS Integration projects.

TxDOT proposes to utilize an existing statewide integrator to develop a standards plan for this project. The applicable standards relating to CAD integration can be found in the existing FY00 and FY01 proposals. The FY00 proposal describes standards considered for integration with Austin Travis County CAD and mobile data terminals. The FY01 proposal describes standards considered for integration with Round Rock and Williamson County CAD. The FY02 proposal describes standards considered for Austin Traffic Signal real time video integration.

It is proposed that the TxDOT statewide integrator can develop a comprehensive standards plan for all existing ITS Integration projects in the TxDOT Austin District. The process can begin immediately under previously approved projects.

It is expected that the TxDOT statewide integrator will meet with stakeholders to identify current standards in use and opportunities to utilize additional standards. These recommendations will be documented and incorporated into integration plans. This process may include training when and where available for all stakeholders.

The proposed integration project agrees to:

- Follow the ITS Standards approach included in Section 3.3 of the Guidance
- Provide a standards plan or standards strategy, as discussed in section 3.3 of the Guidance.
- Cooperate with the analysis of the project as a potential test site for the US DOT sponsored ITS Standards Testing Program.
- Be prepared to serve as an ITS standards testing site if selected to participate in the testing program.

ITS Standards Contact:

Name: Brian Burk
Organization: TxDOT Austin District
Address: 7901 N. IH 35, Austin, Texas 78753
Phone: (512) 832-7014
Fax: (512) 832-7246
E-mail: bburk@dot.state.tx.us

The project meets the criteria indicated with an "X" below:

☐ A detailed standards plan is complete. The plan is attached as Appendix 1 to this project proposal.

- X A detailed standards plan is not complete and the project does not involve a deployment of CMS/DMS, as part of an AMBER Program. It will be prepared and submitted to the FHWA Division Office or the FTA Regional Office by December 2003.

8. Evaluation of Benefits

This project agrees to participate in Evaluation of Benefits as described under Section 3.4 of the Guidance.

If this project is selected for independent evaluations, the project will cooperate with the independent evaluators and participate in evaluation planning and progress review meetings to ensure a mutually acceptable, successful implementation of the independent evaluation.

This project agrees to collect, document, and annually report cost accounting data.

Evaluation Contact:

Name: Brian Burk
 Organization: TxDOT Austin District
 Address: 7901 N. IH 35, Austin, TX 78753
 Phone: (512) 832-7014
 Fax: (512) 832-7246
 E-mail: bburk@dot.state.tx.us

This project agrees to perform a local evaluation funded from Project resources and submit a Local Evaluation Report documenting the lessons learned in meeting project goals and objectives. In addition, the Local Evaluation Report will include the following evaluation products/activities identified with an "X" (*identify at least two*):

- X Evaluate the institutional issues associated with achieving cooperation among public sector agencies, and document how they were overcome.
- X Provide a brief lessons learned report on the technical and institutional issues encountered in integrating ITS components.
- ___ Provide an evaluation report on the lessons learned in employing innovative financing or procurement and/or public-private partnering techniques.
- ___ Produce a lessons learned report on the experiences, challenges and approaches used in achieving consistency with the National ITS Architecture and/or implementation of ITS standards.
- ___ Produce a case study on the planning process used to achieve integration into an approved plan and program developed under an area-wide (Statewide and/or metropolitan) planning process, which also complies with applicable State air quality implementation plans.
- ___ Provide the appropriate metropolitan planning process with data generated by ITS technologies and services, and provide a report on plans or intentions for archiving the data and using it.

In the discussion section below, the project proposal identifies the steps that will be taken to meet the evaluation requirements.

Discussion

Evaluations will be funded from project resources including an existing state funded project. The local evaluation guidelines above will be incorporated by work order. The project partners will develop goal areas where the project is expected to yield benefit.

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REPORT REQUIREMENTS & SCHEDULE

9. Reporting Requirements

The proposed integration project will conform to the following reporting requirements outlined in section 3.5 of the guidance package:

- ☒ The EDL Reporting Requirements (outlined in section 3.5.1)
- ☒ The Quarterly Reporting Requirements (outlined in section 3.5.2)

10. Start Date

It is anticipated that the project could begin as soon as November 2003.

11. Expected Completion Date

It is anticipated that the project may be completed as late as December 2004.

12. Milestones and Expected Completion Date

Milestones	Expected Completion Date
Complete Standards Plan	End of November 2003
Complete design of communication equipment path	December 2003
Complete plans for inclusion in TxDOT project	February 2004
Contract TxDOT project	June 2004.
Complete TxDOT project	October 2004
Complete local evaluation	November 2004
Complete FY03 project	December 2004

These milestones and dates are tentative and subject to change.

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ITS Deployment Program
FY03 ITS Integration Component

Project Description

June 23, 2003

FINANCIAL PLAN

It is intended that funding for the proposed integration project will be obligated through the use of an:

- ☒ FHWA-State DOT Partnership/Project Agreement.
☐ FHWA Procurement Agreement (grant, contract, cooperative agreement, etc.).
☐ FTA Grant Agreement.
☐ FMCSA Partnership Agreement.

13. Integration/Rural Infrastructure Amount:

Total Amount to be Allocated: \$ 415,971

Minimum Required for Integration Activities, Rural Infrastructure Deployment
or CMS/DMS deployment as part of an AMBER Program \$ 582,359

Amount Used for Integration Activities: \$ 900,000
Amount Used for CMS/DMS Deployment as part of an AMBER
Program \$ 0
Amount Used for Rural Infrastructure Deployment: \$ 0

**Total Amount for Integration Activities, Rural Infrastructure
Deployment and CMS/DMS: Deployment as part of an AMBER
Program.** \$ 900,000

Identify Each Integration Activity, Rural Infrastructure Deployment, or CMS/DMS Deployment as part of an AMBER Program.	Specify Amount of Funding for Each Integration Activity, Rural Infrastructure Deployment, or CMS/DMS as part of an AMBER Program
Standards Plan performed by TxDOT statewide integrator (100% existing State project 0914-00-180)	\$10,000
Preliminary Engineering for conduit and fiber between TxDOT center and local centers (100% existing TxDOT salaried employees)	\$48,058
Construction of conduit and fiber between TxDOT center and local centers. (50% Congressional designation + 20% non-federal + 30% other match)	\$761,942
Hardware equipment between TxDOT center and local centers. (50% Congressional designation + 20% non-federal + 30% other match)	\$70,000

ITS Deployment Program
FY03 ITS Integration Component

Project Description

June 23, 2003

Local evaluation plan (may be performed by TxDOT statewide integrator) (100% existing State project 0914-00-180)	\$10,000
TOTAL	\$900,000.00

14. 20% Minimum Match Amount:

20% Minimum Match Amount:

\$ 234,446.40

A minimum 20% of the total cost of the project must be from non-Federally derived funding sources, as statutorily required, and must consist of either cash, substantial equipment or facilities contributions that are wholly utilized as an integral part of the project, or personnel services dedicated full-time to the proposed integrated deployment for a substantial period, as long as such personnel are not otherwise supported with Federal funds.

Identify Non-Federal Funding Source	Identify Type of Funds (cash, equipment or facilities, or full-time personnel services)	Identify Major: (1) Integration Activities, (2) Rural Infrastructure Deployment, (3) CMS/DMS as part of a an AMBER Program Supported with These Funds	Specify Amount of Funding (\$)
Existing TxDOT funds (0914-00-180)	Cash	Standards Plan performed by TxDOT statewide integrator	\$10,000.00
Existing TxDOT salaries (func 100s)	Personnel Services	Preliminary Engineering for conduit and fiber between TxDOT center and local centers	\$48,058.00
TxDOT	Cash	Construction of conduit and fiber between TxDOT center and local centers.	\$152,388.40
TxDOT	Cash	Hardware equipment between TxDOT center and local centers.	\$14,000.00
Existing TxDOT funds (0914-00-180)	Cash	Local evaluation plan	\$10,000.00
		TOTAL	\$234,446.40

Note: Personnel identified for the 20% Match will be from the State or local agency or a university and will have the following responsibilities including working full-time on the project during the specified time interval. State personnel will develop plans, specifications, and estimate for State DOT bid contract.

15. 30% Match Amount:

30% Match Amount:

\$ 249,582.60

A minimum of 30% of the total cost of the Project may come from a variety of funding sources and may include the value of Federally supported projects directly associated with the proposed integration project.

Identify Funding Source	Identify Type of Funds (cash, equipment or facilities, or personnel services)	Identify Major: (1) Integration Activities, (2) Rural Infrastructure Deployment, or (3) CMS/DMS as part of an AMBER Program Supporting Integration Proposed with These Funds	Specify Amount of Funding (\$)
TxDOT	Cash	Construction of conduit and fiber between TxDOT center and local centers.	\$228,582.60
TxDOT	Cash	Hardware equipment between TxDOT center and local centers.	\$21,000.00
		TOTAL	\$249,582.60

Note: Personnel identified for the 30% Match will be from the State or local agency or a university and will have the following responsibilities including working full-time on the project during the specified time interval.

PARTICIPATING AGENCIES AND ORGANIZATIONS**16. Project Participants and Roles and Responsibilities**

Lead Agency	Texas Department of Transportation Austin District
Roles and Responsibilities	Program Management, Construction, TxDOT AUS ATMS Integration
Contact	Brian Burk

Agency Responsible for Long-term O&M	Texas Department of Transportation Austin District
Roles and Responsibilities	Conduit and Fiber Optic Cable and Hardware Equipment
Contact	Brian Burk

Participating Agency	Williamson County
Roles and Responsibilities	Integration of Williamson County CAD System
Contact	John Sneed

Participating Agency	City of Round Rock
Roles and Responsibilities	Integration of Round Rock CAD System
Contact	Rick White

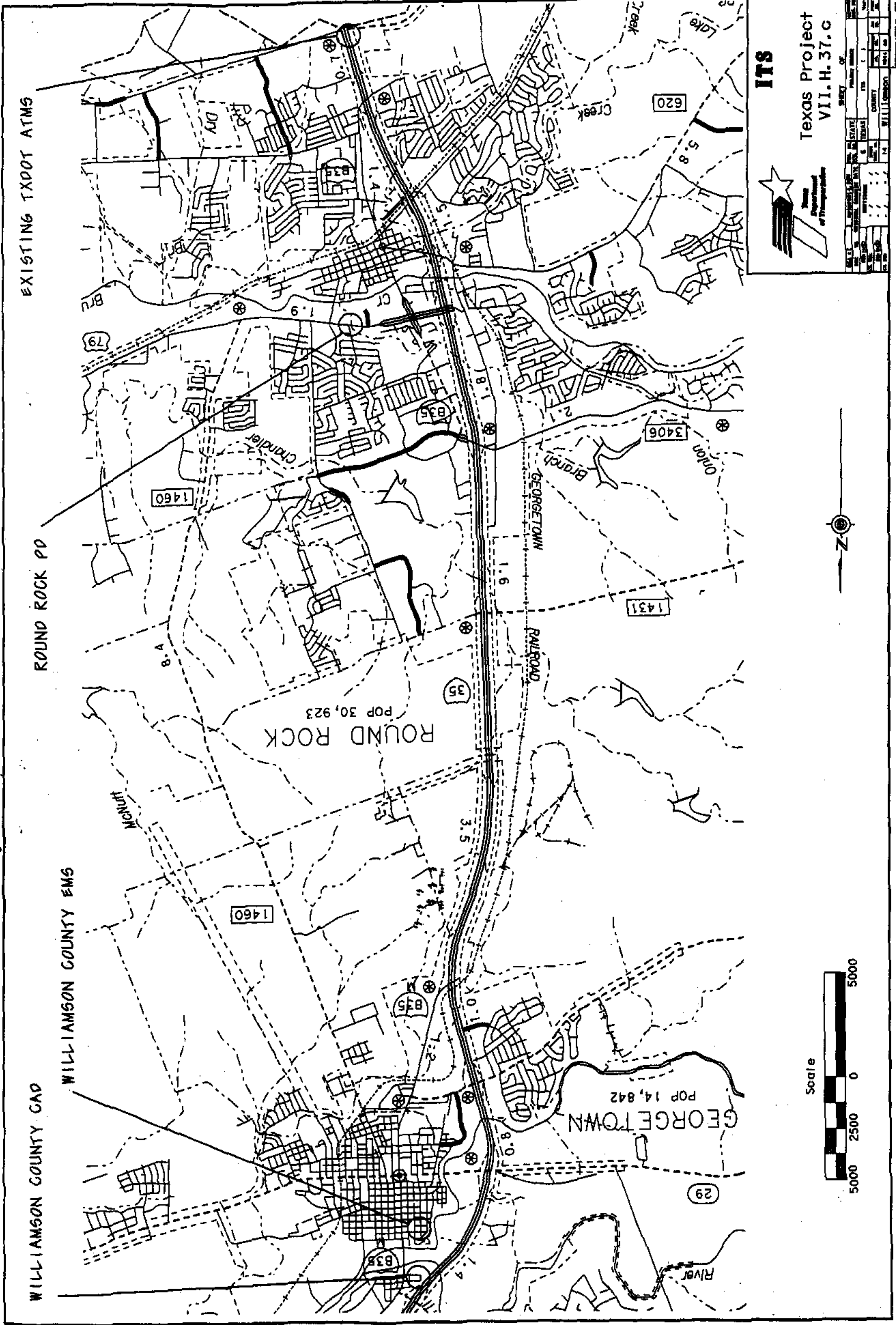
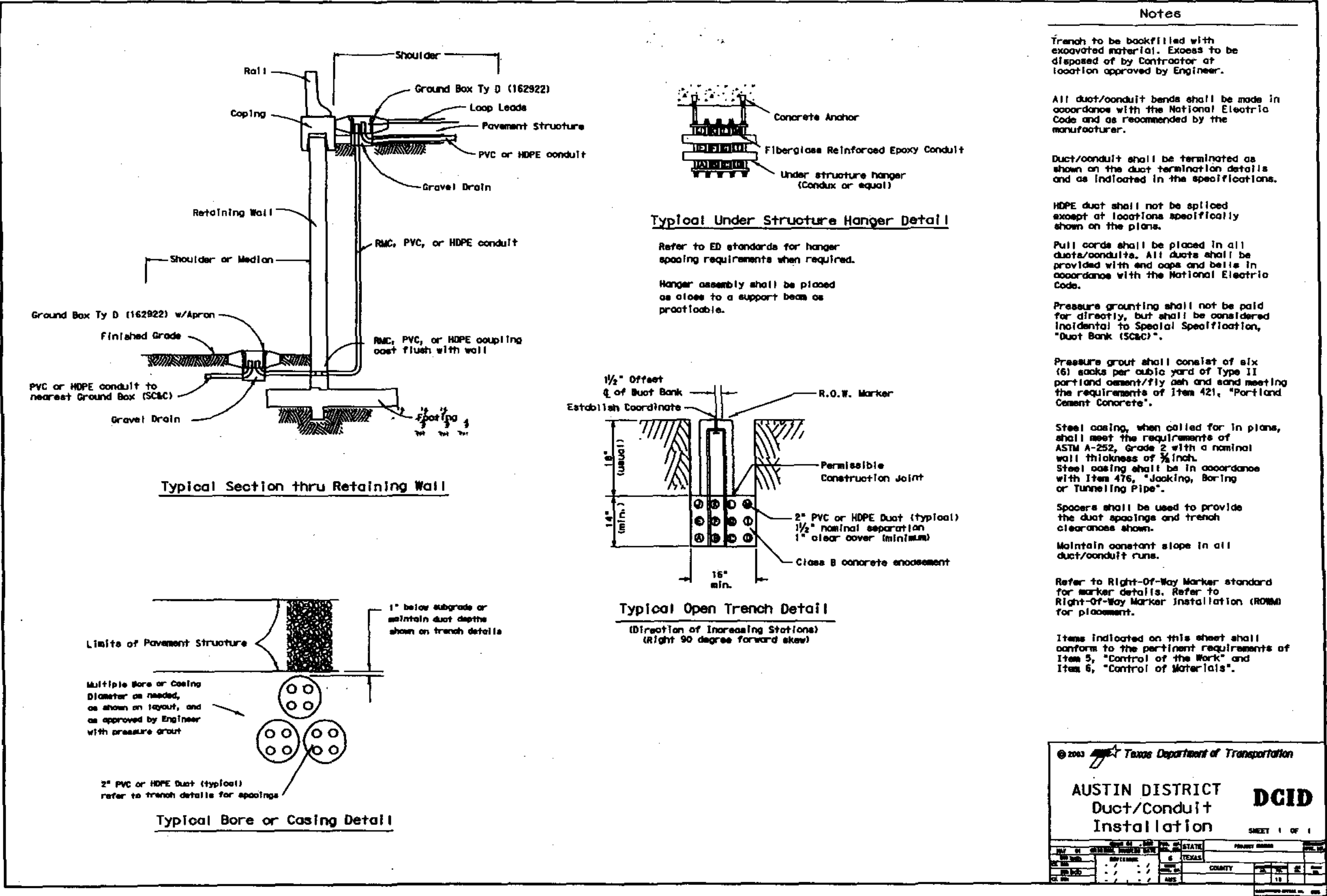


Figure 1



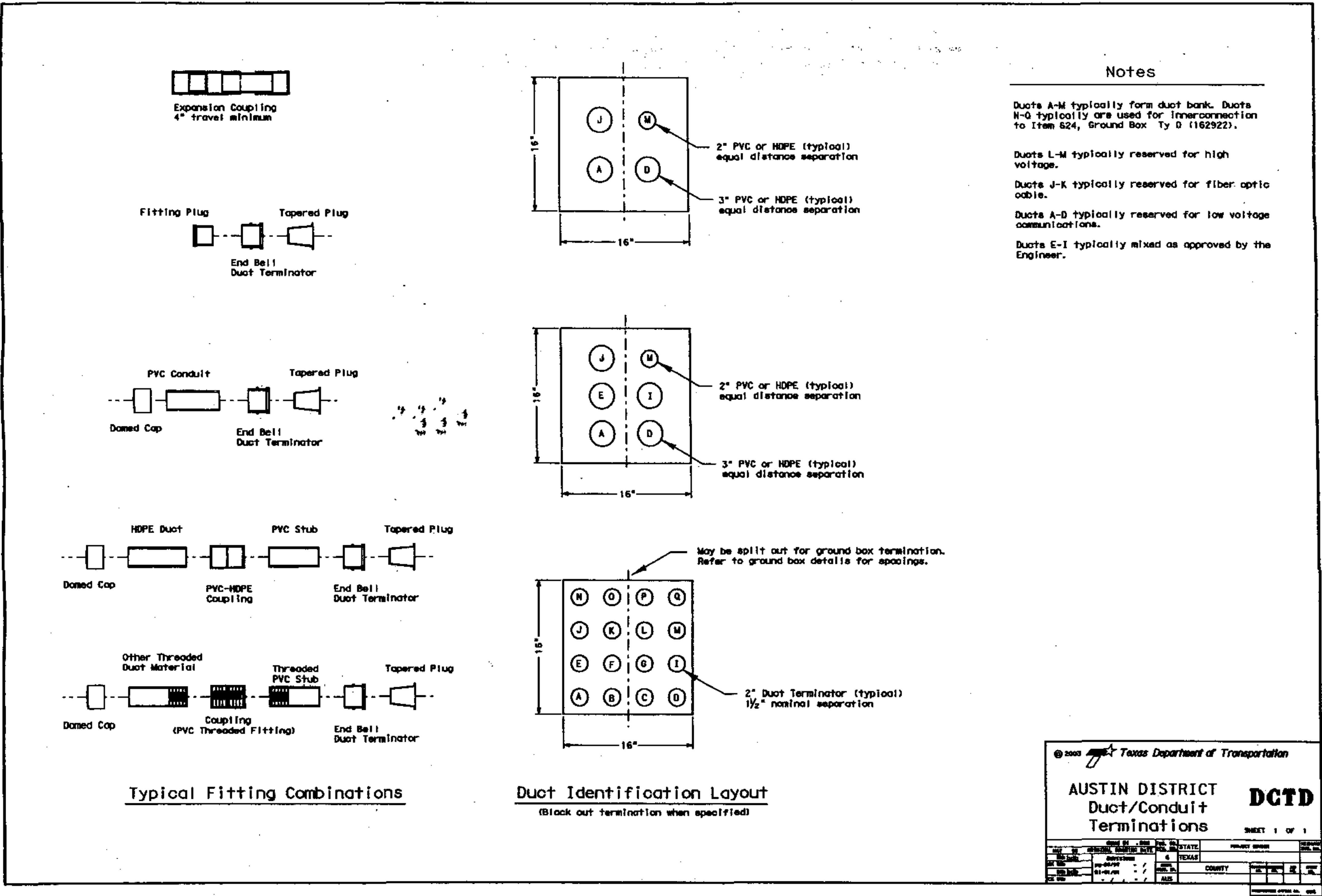


Figure 3

Typical Fiber Optic Cable Assignments

FIBER NUMBER	* BUFFER TUBE COLOR	* FIBER COLOR	FIBER FUNCTION	TASK LABEL
1	BLUE	BLUE	DATA	Reserved
2	BLUE	ORANGE	DATA	Reserved
3	BLUE	GREEN	DATA	Reserved
4	BLUE	BROWN	DATA	Reserved
5	BLUE	SLATE	DATA	Reserved
6	BLUE	WHITE	DATA	Reserved
7	BLUE	RED	UNASSIGNED	Future
8	BLUE	BLACK	UNASSIGNED	Future
9	BLUE	YELLOW	VIDEO	Unavailable
10	BLUE	VIOLET	VIDEO	Unavailable
11	BLUE	ROSE	UNASSIGNED	Future
12	BLUE	AQUA	VIDEO	Unavailable
13	ORANGE	BLUE	VIDEO	Unavailable
14	ORANGE	ORANGE	VIDEO	Unavailable
15	ORANGE	GREEN	VIDEO	Unavailable
16	ORANGE	BROWN	VIDEO	Unavailable
17	ORANGE	SLATE	VIDEO	Unavailable
18	ORANGE	WHITE	VIDEO	Unavailable
19	ORANGE	RED	VIDEO	Unavailable
20	ORANGE	BLACK	VIDEO	Unavailable
21	ORANGE	YELLOW	VIDEO	Unavailable
22	ORANGE	VIOLET	VIDEO	Unavailable
23	ORANGE	ROSE	VIDEO	Unavailable
24	ORANGE	AQUA	VIDEO	Unavailable
25	GREEN	BLUE	VIDEO	Unavailable
26	GREEN	ORANGE	VIDEO	Unavailable
27	GREEN	GREEN	VIDEO	Unavailable
28	GREEN	BROWN	VIDEO	Unavailable
29	GREEN	SLATE	VIDEO	Unavailable
30	GREEN	WHITE	VIDEO	Unavailable
31	GREEN	RED	VIDEO	Unavailable
32	GREEN	BLACK	VIDEO	Unavailable
33	GREEN	YELLOW	DATA	IH 0035
34	GREEN	VIOLET	DATA	IH 0035
35	GREEN	ROSE	DATA	IH 0035
36	GREEN	AQUA	DATA	IH 0035
37	BROWN	BLUE	DATA	LP 0001
38	BROWN	ORANGE	DATA	LP 0001
39	BROWN	GREEN	DATA	LP 0001
40	BROWN	BROWN	DATA	LP 0001
41	BROWN	SLATE	DATA	US 0290
42	BROWN	WHITE	DATA	US 0290
43	BROWN	RED	DATA	US 0290
44	BROWN	BLACK	DATA	US 0290
45	BROWN	YELLOW	DATA	US 0183
46	BROWN	VIOLET	DATA	US 0183
47	BROWN	ROSE	DATA	US 0183
48	BROWN	AQUA	DATA	US 0183

* COLOR CODING PER TIA/EIA-598 SPECIFICATIONS

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Austin District
F. O. Cable
Assignments

FOCA

SHEET 1 OF 1

DATE	06/23/03	STATE	TEXAS
PROJECT NUMBER			
COUNTY	TRAVIS		

Figure 4

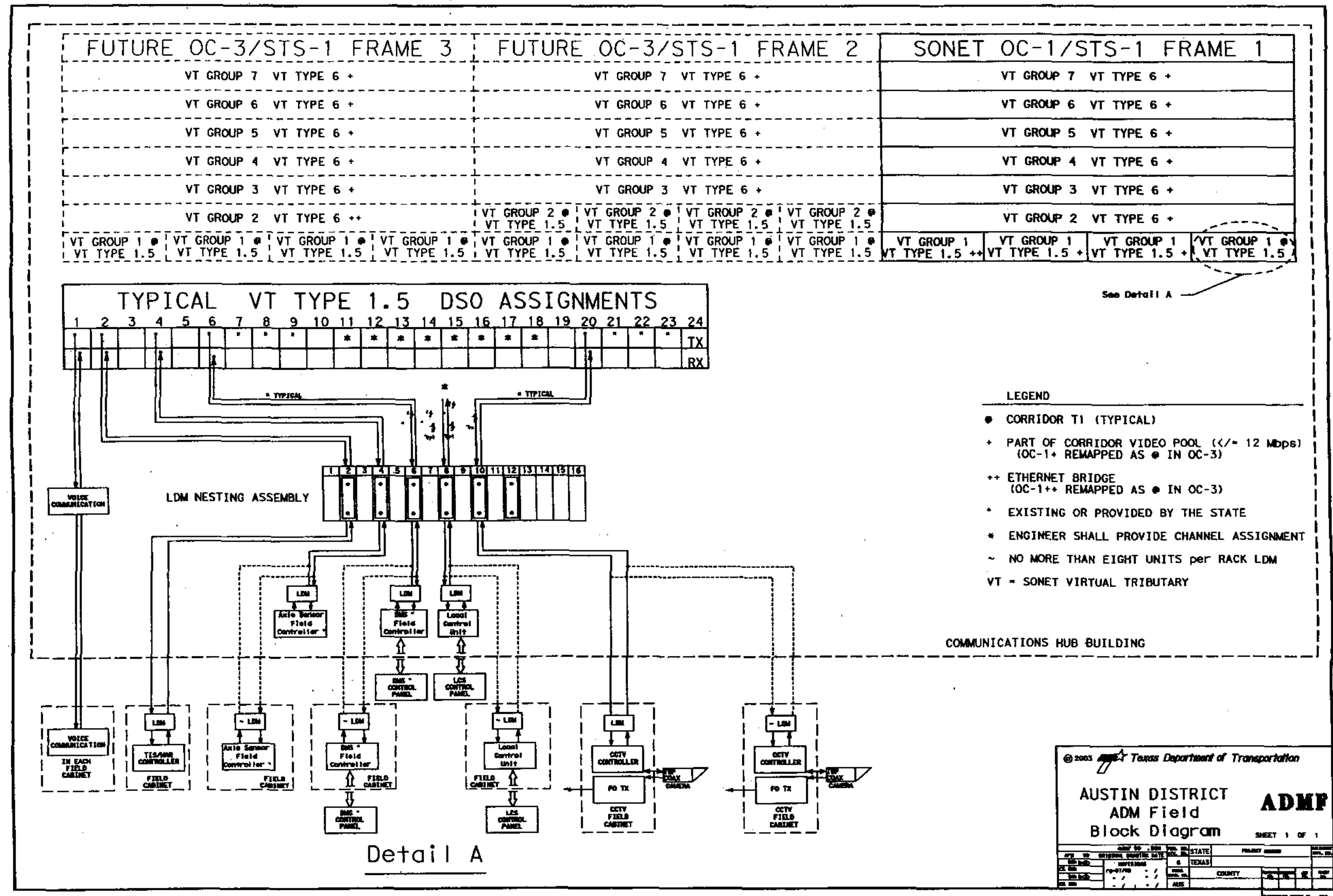


Figure 5

**MEMORANDUM OF UNDERSTANDING
Relating to the ITS Integration Program**

By and Among

**Texas Department of Transportation
Williamson County
City of Round Rock**

WITNESSETH

WHEREAS, individual government entities in the Williamson County/Round Rock area operate various public safety and service systems, and;

WHEREAS, these systems would benefit from regional integration and shared information flows, and;

WHEREAS, the Transportation Equity Act for the 21st Century (TEA-21), P.L. 105-178, Sections 5201 – 5213 (23 USC 307 note), authorizes Federal funding to accelerate the integration and interoperability of intelligent transportation systems in metropolitan and rural areas, and;

WHEREAS, the signatories believe that the public good is best served by using FY01 and FY03 Congressionally designated funds for the integration and electronic information sharing of systems in the Williamson County/Round Rock Area, and;

WHEREAS, a cooperative effort between regional governmental entities is necessary to facilitate planning, financing, and construction of such regional integration;

NOW, THEREFORE, Texas Department of Transportation (TxDOT), Williamson County, and the City of Round Rock agree as follows:

1. Each agency will cooperate, assign appropriate staff, and seek and apply for funding to plan and implement regionally integrated systems sharing information between public safety and public service radio communication, computer-aided dispatch (CAD), mobile data terminal (MDT), and intelligent transportation system (ITS) described in the project proposal dated 02/23/2001 and 06/20/2003.
2. TxDOT, with the assistance of Williamson County and the City of Round Rock, will be the lead agency responsible for coordinating all activities with other agencies to ensure that integration is completed according to the National ITS Architecture and other regional plans.

3. TxDOT shall perform or cause to be performed integration tasks related to TxDOT's advanced traffic management system (ATMS).
4. The City of Round Rock shall perform or cause to be performed integration tasks related to the City's computer aided dispatch (CAD) system.
5. Williamson County shall perform or cause to be performed integration tasks related to the County's computer aided dispatch (CAD) system at no cost to the County.
6. The signatories are committed to ongoing maintenance and operation of each system involved in the integration in which they have vested an interest.
7. The signatories, except for Williamson County, shall provide matching funds proportionate to the vested interest in each system integrated when possible and authorized by each respective governing body to do so. Williamson County will not be required to provide any type of funds associated with this project.
8. Each signatory shall be responsible for providing assistance in defining requirements for a regional ITS Architecture consistent with the National ITS Architecture.
9. The signatories are committed to an evaluation of benefits as described in the Proposal.
10. The parties agree that no party is an agent, servant, or employee of any other party and agree that each party is responsible for any liability for its individual acts and deeds as well as the acts and deeds of its contractors, employees, representatives, and agents.
11. Nothing in the agreement shall be construed or interpreted to obligate any funds other than staff commitments.
12. Additional agreement(s) will be executed for funding obligations or other obligations from those outlined in this agreement, if necessary.
13. This MOU may be terminated by anyone of the undersigned parties upon a 30 days written notice to the other signatories. Any one party may withdraw from this MOU anytime for this purpose.
14. Any alteration, addition, or deletion to the terms of this understanding shall be by amendment hereto in writing and executed by all parties.
15. The MOU will become effective when fully executed by all parties to this understanding.

Comment: Doesn't this contradict #11?

Comment: Doesn't a regional ITS Architecture already exist?

STATE OF TEXAS

Recommended for Approval

Executed for the Executive Director and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By: _____
Robert B. Daigh, P.E.
Typed or Printed Name
District Engineer, Austin District
Title
Date

By: _____
Carlos A. Lopez, P.E.
Typed or Printed Name
Director, Traffic Operations Division
Title
Date

WILLIAMSON COUNTY

By: John C. Daigh
Title: County Judge
Date: 3-23-04

CITY OF ROUND ROCK

By: _____
Title: _____
Date: _____