6.0 Agreements

As projects identified within the Miami Valley Regional ITS Architecture proceed toward implementation, various types of agreements will be required among stakeholder agencies. These agreements are necessary to establish the roles and responsibilities of each agency for a particular project. At a minimum, agreements affecting ITS project interoperability will need to be identified and drafted. Agreements will solidify the substantial efforts that the Miami Valley regional stakeholders have invested towards developing ITS project plans. Table 6.1 identifies the projects where agreements will be required among the participating stakeholders. As the Regional ITS Architecture evolves, agreements may be added or modified. The stakeholders listed in bold are anticipated to take the lead in initiating the agreements.

Agreement	**Stakeholders**
Transit Trip Planning Website	**GDRTA**, SCAT
D/SFMS Information Sharing	**ODOT** County Agencies Municipal Agencies Emergency Management Agencies Transit Agencies Media
Safety Mutual Aid	**OSHP** County Sheriffs County Emergency Management Agency Municipal Police and Fire
Archived Data Structure	**MVRPC** CCSTCC ODOT County Agencies Municipal Agencies Transit Agencies Emergency Management Agencies

Table 6.1 Agreements for Implementation

7.0 ITS Standards

ITS Standards are documented guidelines or rules specifying the interconnections among elements and the characteristics of technologies and products to be used in ITS installations. Standards describe in detail what types of interfaces should exist between ITS components and how the components will exchange information and work together to deliver certain user services. Standards define, for example, data elements and message sets used by devices and systems, or certain characteristics of a particular device. Communication protocols are collections of rules for moving data elements and messages between devices and systems within the context or framework established by the National ITS Architecture. Section 520.6(e) of TEA-21 explicitly requires that all ITS projects funded through the Highway Trust Fund "conform to the national architecture, applicable standards or provisional standards, and protocols."

ITS standards are being developed by several working groups composed of public and private sector stakeholders. The process is partially supported by the USDOT. There are seven Standards Development Organizations (SDOs) actively participating in ITS standards development activities:

- AASHTO (American Association of State Highway and Transportation Officials)
- ANSI (American National Standards Institute)
- ASTM (American Society for Testing and Materials)
- IEEE (Institute of Electrical and Electronics Engineers)
- ITE (Institute of Transportation Engineers)
- NEMA (National Electrical Manufacturers Association)
- SAE (Society of Automotive Engineers)

There are several categories of standards including the following:

- Hardware and Software Standards - define the standards for physical devices, such as fareboxes and CAD/AVL systems as well as the standards for the software that control those physical devices.
- Human Factors Standards - define how to design ITS systems safely for humans and provide consistent operating characteristics and control/interface design, such as driver warning systems. SAE has developed a series of standards for in-vehicle systems.

- Communications Standards - allow different systems to “speak” with each other in a common language, using common data elements, well-defined data structures or ”messages”, and well-understood protocols or rules for data exchange and sharing. Communication protocols define sets of rules for moving data and associated messages.

As standards are continuously being added to the National ITS Architecture, regular updates to the Miami Valley Regional ITS Architecture applicable standards will be required. Regional stakeholders will continue to evaluate standards applicable to their appropriate ITS program plans as projects are deployed and integrated with other regional ITS efforts. A list of the standards relevant to the Miami Valley Regional ITS Architecture program is presented in this section. Not all of the selected functional flow diagrams listed in Table 8.1 have ITS Standards identified at this time.