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## **APPENDIX F – STANDARDS ACTIVITIES**

**Table F1 – Standards Activities**

Architecture Flow Name	Standards Development Organization	Standard Title	Standard Document ID
archive requests	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
archive status	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
current asset restrictions	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
environmental conditions data	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Environmental Sensor Stations & Roadside Weather Information System	NTCIP 1204
		Object Definitions for Environmental Sensor Stations & Roadside Weather Information System	NTCIP 1204
environmental sensors control	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Environmental Sensor Stations & Roadside Weather Information System	NTCIP 1204
equipment maintenance status	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
external reports	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
field device status	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
field equipment status	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
freeway control data	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201

**Table F1 – Standards Activities (continued)**

Architecture Flow Name	Standards Development Organization	Standard Title	Standard Document ID
freeway control data	AASHTO/ITE/NEMA	NTCIP Center-to-Field Standards Group	See Footnotes
		Ramp Meter Controller Objects	NTCIP 1207
freeway control status	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Ramp Meter Controller Objects	NTCIP 1207
hri operational status	IEEE	Standard for Interface Between the Rail Subsystem and the Highway Subsystem at a Highway Rail Intersection	IEEE P1570
incident information	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Emergency Management Data Dictionary	IEEE P1512.a
incident information request	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Emergency Management Data Dictionary	IEEE P1512.a
		Standard for Traffic Incident Management Message Sets for Use by EMCs	IEEE P1512.1
incident report	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Hazardous Material IMMS for use by EMCs	IEEE P1512.3
incident response coordination	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Emergency Management Data Dictionary	IEEE P1512.a

**Table F1 – Standards Activities (continued)**

Architecture Flow Name	Standards Development Organization	Standard Title	Standard Document ID
incident response coordination	IEEE	Standard for Hazardous Material IMMS for use by EMCs	IEEE P1512.3
		Standard for Public Safety IMMS for use by EMCs	IEEE P1512.2
incident response status	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Emergency Management Data Dictionary	IEEE P1512.a
		Standard for Hazardous Material IMMS for use by EMCs	IEEE P1512.3
		Standard for Traffic Incident Management Message Sets for Use by EMCs	IEEE P1512.1
infrastructure monitoring sensor control	AASHTO/ITE/NEMA	NTCIP Center-to-Field Standards Group	See Footnotes
infrastructure monitoring sensor data	AASHTO/ITE/NEMA	NTCIP Center-to-Field Standards Group	See Footnotes
maint and constr archive data	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
		NTCIP Center-to-Center Standards Group	See Footnotes
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
maint and constr resource request	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Emergency Management Data Dictionary	IEEE P1512.a
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
	IEEE	Standard for Traffic Incident Management Message Sets for Use by EMCs	IEEE P1512.1

**Table F1 – Standards Activities (continued)**

Architecture Flow Name	Standards Development Organization	Standard Title	Standard Document ID
maint and constr resource response	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
maint and constr resource response	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Emergency Management Data Dictionary	IEEE P1512.a
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
maint and constr work plans	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
media information request	SAE	Data Dictionary for Advanced Traveler Information System (ATIS)	SAE J2353
		Message Set for Advanced Traveler Information System (ATIS)	SAE J2354
	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	SAE	Messages for Handling Strings and Look-Up Tables in ATIS Standards	SAE J2540
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	SAE	Rules for Standardizing Street Names and Route IDs	SAE J2529
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
railroad advisories	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
railroad schedules	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
remote surveillance control	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
request for road network conditions	SAE	Data Dictionary for Advanced Traveler Information System (ATIS)	SAE J2353
		Message Set for Advanced Traveler Information System (ATIS)	SAE J2354
	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	SAE	Messages for Handling Strings and Look-Up Tables in ATIS Standards	SAE J2540

**Table F1 – Standards Activities (continued)**

Architecture Flow Name	Standards Development Organization	Standard Title	Standard Document ID
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	SAE	Rules for Standardizing Street Names and Route IDs	SAE J2529
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
resource deployment status	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Emergency Management Data Dictionary	IEEE P1512.a
		Standard for Traffic Incident Management Message Sets for Use by EMCs	IEEE P1512.1
resource request	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	IEEE P1512-2000
		Standard for Emergency Management Data Dictionary	IEEE P1512.a
		Standard for Traffic Incident Management Message Sets for Use by EMCs	IEEE P1512.1
road network conditions	SAE	Data Dictionary for Advanced Traveler Information System (ATIS)	SAE J2353
	AASHTO/ITE/NEMA	Message Set for Weather Reports	NTCIP 1301
	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	SAE	Messages for Handling Strings and Look-Up Tables in ATIS Standards	SAE J2540
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	SAE	Rules for Standardizing Street Names and Route IDs	SAE J2529
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
road weather information	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
roadway information system data	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Dynamic Message Signs	NTCIP 1203

**Table F1 – Standards Activities (continued)**

Architecture Flow Name	Standards Development Organization	Standard Title	Standard Document ID
roadway information system data (continued)	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Dynamic Message Signs	NTCIP 1203
roadway information system status	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Dynamic Message Signs	NTCIP 1203
roadway maintenance status	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
roadway treatment system control	AASHTO/ITE/NEMA	NTCIP Center-to-Field Standards Group	See Footnotes
roadway treatment system status	AASHTO/ITE/NEMA	NTCIP Center-to-Field Standards Group	See Footnotes
signal control data	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Actuated Traffic Signal Controller Units	NTCIP 1202
		Objects for Signal Control Priority	NTCIP 1211
		Objects for Signal Systems Master	NTCIP 1210
signal control status	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Actuated Traffic Signal Controller Units	NTCIP 1202
		Objects for Signal Systems Master	NTCIP 1210
track status	IEEE	Standard for Interface Between the Rail Subsystem and the Highway Subsystem at a Highway Rail Intersection	IEEE P1570

**Table F1 – Standards Activities (continued)**

Architecture Flow Name	Standards Development Organization	Standard Title	Standard Document ID
traffic archive data	ASTM	ADMS Data Dictionary Specifications	ASTM DD 17.54.00.2
	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
traffic control coordination	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	AASHTO/ITE/NEMA	Objects for Signal Systems Master	NTCIP 1210
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
traffic flow	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Transportation System Sensor Objects	NTCIP 1209
traffic images	AASHTO/ITE/NEMA	Data Dictionary for Closed Circuit Television (CCTV)	NTCIP 1205
		Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Video Switches	NTCIP 1208
traffic information coordination	ITE	Message Sets for External TMC Communication (MS/ETMCC)	ITE TM 2.01
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	ITE TM 1.03
traffic sensor control	AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
		Transportation System Sensor Objects	NTCIP 1209
traveler information for media	SAE	Data Dictionary for Advanced Traveler Information System (ATIS)	SAE J2353
		Message Set for Advanced Traveler Information System (ATIS)	SAE J2354



**Table F1 – Standards Activities (continued)**

Architecture Flow Name	Standards Development Organization	Standard Title	Standard Document ID
traveler information for media (continued)	SAE	Messages for Handling Strings and Look-Up Tables in ATIS Standards	SAE J2540
	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
	SAE	Rules for Standardizing Street Names and Route IDs	SAE J2529
video surveillance control	AASHTO/ITE/NEMA	Data Dictionary for Closed Circuit Television (CCTV)	NTCIP 1205
		Global Object Definitions	NTCIP 1201
		NTCIP Center-to-Field Standards Group	See Footnotes
video surveillance control	AASHTO/ITE/NEMA	NTCIP Center-to-Field Standards Group	See Footnotes
		Object Definitions for Video Switches	NTCIP 1208
weather information	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
work plan coordination	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
work plan feedback	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
work zone information	AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes

## Footnotes

### *NTCIP Center-to-Center Standards Group*

Standards Development Organization	Standard Title	Standard Document ID
AASHTO/ITE/NEMA	Application Profile for Common Object Request Broker Architecture (CORBA)	NTCIP 2305
	Application Profile for Data Exchange ASN.1 (DATEX)	NTCIP 2304
	Application Profile for File Transfer Protocol (FTP)	NTCIP 2303
	Base Standard: Octet Encoding Rules (OER)	NTCIP 1102
	CORBA Naming Convention	NTCIP 1104

## Footnotes (continued)

### *NTCIP Center-to-Center Standards Group*

Standards Development Organization	Standard Title	Standard Document ID
AASHTO/ITE/NEMA	CORBA Near-Real Time Data Service	NTCIP 1106
	CORBA Security Service	NTCIP 1105
	Information Profile for CORBA	NTCIP 2502
	Information Profile for DATEX	NTCIP 2501
	Internet (TCP/IP and UDP/IP) Transport Profile	NTCIP 2202
	Subnet Profile for Ethernet	NTCIP 2104

### *NTCIP Center-to-Field Standards Group*

Standards Development Organization	Standard Title	Standard Document ID
AASHTO/ITE/NEMA	Application Profile for File Transfer Protocol (FTP)	NTCIP 2303
	Application Profile for Simple Transportation Management Framework (STMF)	NTCIP 2301
	Application Profile for Trivial File Transfer Protocol	NTCIP 2302
	Base Standard: Octet Encoding Rules (OER)	NTCIP 1102
	Class B Profile	NTCIP 2001
	Internet (TCP/IP and UDP/IP) Transport Profile	NTCIP 2202
	Point to Multi-Point Protocol Using RS-232 Subnetwork Profile	NTCIP 2101
	Simple Transportation Management Framework (STMF)	NTCIP 1101
	Simple Transportation Management Protocol (STMP)	NTCIP 1103
	Subnet Profile for Ethernet	NTCIP 2104
	Subnet Profile for PMPP Over FSK modems	NTCIP 2102
	Subnet Profile for Point-to-Point Protocol using RS 232	NTCIP 2103
	Transportation Transport Profile	NTCIP 2201