

Appendix B: 2025 H-GAC ITS Architecture Inventory

Element Name	Element Description	Stakeholder	Element Status
Archived Data User	Users that request information from the data archive systems.	System Users	Existing
Automated Vehicle	Vehicles with connected on board systems that communicate to ITS devices.	System Users	Future
Brazoria County CCTV Cameras	CCTV cameras operated by Brazoria County.	City of Baytown	Existing
Brazoria County Freight Signal Priority	Signal priority dedicated to commercial vehicles within Brazoria County.	Brazoria County	Future
Brazoria County Signal Preemption	Signal preemption dedicated to Brazoria County emergency service providers.	Brazoria County	Existing
Brazoria County TMC	Brazoria County traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	Brazoria County	Future
Brazoria County Traffic Signals	Traffic signal system operated by Brazoria County.	Brazoria County	Existing
City of Baytown Traffic Signals	Traffic signal system operated by the City of Baytown.	City of Baytown	Existing
City of Conroe Traffic Signals	Traffic signal system operated by the City of Conroe.	City of Conroe	Existing
City of Galveston CCTV Cameras	CCTV cameras operated by the City of Galveston.	City of Galveston	Existing
City of Galveston DMS	City of Galveston dynamic message signs (DMS) operated for traffic information dissemination.	City of Galveston	Future

Element Name	Element Description	Stakeholder	Element Status
City of Galveston Parking Area Equipment	Sensors and detectors that provide parking systems with parking availability. Sensors can detect if a parking spot is taken or not.	City of Galveston	Future
City of Galveston Parking Management	Parking management for surface parking, parking lots, and parking garages within the City of Galveston.	City of Galveston	Future
City of Galveston Signal Preemption	Signal preemption dedicated to the City of Galveston emergency service providers.	City of Galveston	Existing
City of Galveston TMC	City of Galveston traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	City of Galveston	Future
City of Galveston Traffic Signals	Traffic signal system operated by the City of Galveston.	City of Galveston	Existing
City of Houston CCTV Cameras	CCTV cameras operated by the City of Houston.	City of Houston	Existing
City of Houston Data Archive	The City of Houston data archive for transportation related data.	City of Houston	Existing
City of Houston DMS	City of Houston dynamic message signs (DMS) operated for traffic information dissemination.	City of Houston	Future
City of Houston Emergency Vehicles	Emergency vehicles within the City of Houston, consisting of police, fire, and EMS.	City of Houston	Existing
City of Houston Field System Monitoring	Maintenance and construction field devices that monitor field conditions.	City of Houston	Existing
City of Houston Information Center	Traveler information for vehicles within the City of Houston.	City of Houston	Future

Element Name	Element Description	Stakeholder	Element Status
City of Houston ITS Detectors	ITS roadway detection.	City of Houston	Existing
City of Houston Maintenance and Construction	Maintenance and construction department for the City of Houston. Responsible for the oversight of construction and maintenance.	City of Houston	Existing
City of Houston Maintenance Vehicles	Maintenance and construction vehicles for the City of Houston.	City of Houston	Existing
City of Houston Parking Area Equipment	Sensors and detectors that provide parking systems with parking availability. Sensors can detect if a parking spot is taken or not.	City of Houston	Future
City of Houston Parking Management	Parking management for surface parking, parking lots, and parking garages within the City of Houston.	City of Houston	Future
City of Houston Public Safety Dispatch/EOC	Emergency management center for the City of Houston. Responsible for coordination of local resources during a disaster or large scale event.	City of Houston	Existing
City of Houston Rail Crossing	Standard at grade rail crossing within the City of Houston.	City of Houston	Existing
City of Houston RWIS	City of Houston road weather information system sensors to monitor road conditions.	City of Houston	Existing
City of Houston Signal Preemption	Signal preemption dedicated to the City of Houston emergency service providers.	City of Houston	Existing
City of Houston Speed Warning	City of Houston field equipment that monitors vehicles speeds and sends a visual or other type of warning to the driver if speeds are excessive.	City of Houston	Existing

Element Name	Element Description	Stakeholder	Element Status
City of Houston TMC	City of Houston traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	City of Houston	Existing
City of Houston Tow and Go Service Patrol	H-GAC freeway safety service patrol dispatch.	Houston Galveston Area Council	Existing
City of Houston Traffic Signals	Traffic signal system operated by the City of Houston.	City of Houston	Existing
City of Pearland CCTV Cameras	CCTV cameras operated by the City of Pearland.	City of Pearland	Existing
City of Pearland Signal Preemption	Signal preemption dedicated to the City of Pearland emergency service providers.	City of Pearland	Existing
City of Pearland TMC	City of Houston traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	City of Pearland	Existing
City of Pearland Traffic Signals	Traffic signal system operated by the City of Pearland.	City of Pearland	Existing
City of Sugar Land CCTV Cameras	CCTV cameras operated by the City of Sugar Land.	City of Sugar Land	Existing
City of Sugar Land Signal Preemption	Signal preemption dedicated to the City of Sugar Land emergency service providers.	City of Sugar Land	Existing
City of Sugar Land TMC	City of Sugar Land traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	City of Sugar Land	Existing
City of Sugar Land Traffic Signals	Traffic signal system operated by the City of Sugar Land.	City of Sugar Land	Existing

Element Name	Element Description	Stakeholder	Element Status
Commercial Vehicle Dispatch Center	Commercial vehicle operations center. Responsible for notifying commercial vehicles of hazards or weather that affect commercial vehicle routes.	Commercial Vehicle Operators	Existing
Commercial Vehicle Information Services	Traveler information for commercial vehicle operators.	Commercial Vehicle Operators	Existing
Commercial Vehicle Parking Management Center	Parking management for commercial vehicles. Notify commercial vehicle drivers of available lots.	Commercial Vehicle Operators	Future
Commercial Vehicles	Privately owned commercial vehicles traveling within the Region.	Commercial Vehicle Operators	Existing
Driver	Operators of vehicles.	System Users	Planned
Fort Bend County TMC	Fort Bend County traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	Fort Bend County	Future
Fort Bend County Traffic Signals	Traffic signal system operated by Fort Bend County.	Fort Bend County	Existing
Fort Bend County Transit Buses	Fort Bend County transit vehicles.	Fort Bend County	Existing
Fort Bend County Transit Data Archive	Fort Bend County data archive for transit data.	Fort Bend County	Existing
Fort Bend County Transit Dispatch Center	Fort Bend County transit operations center where buses depart.	Fort Bend County	Existing
Fort Bend County Transit Parking Area Equipment	Parking provided by Fort Bend County for transit users.	Fort Bend County	Existing

Element Name	Element Description	Stakeholder	Element Status
Fort Bend County Transit Parking Management	Parking management for surface parking, parking lots, and parking garages within Fort Bend County.	Harris County Transit	Existing
Fort Bend County Transit Passenger Counters	Fort Bend County bus passenger counter system.	Fort Bend County	Existing
Fort Bend Transit Trip Planning	Online routing application to assist travelers in developing a customized transit plan for an upcoming trip.	Fort Bend County	Existing
Harris County CCTV Cameras	CCTV cameras operated by Harris County.	Harris County	Existing
Harris County Data Warehouse	Harris County data archive for transportation related data.	Harris County	Existing
Harris County DMS	Harris County dynamic message signs operated for traffic information dissemination.	Harris County	Future
Harris County Emergency Vehicles	Emergency vehicles within the City of Houston, consisting of police, fire, and EMS.	Harris County	Existing
Harris County Field System Monitoring	Maintenance and construction field devices that monitor field conditions.	Harris County	Existing
Harris County Flood Control District Center	Flood control district for Harris County. Responsible for flood monitoring and weather monitoring.	Harris County Flood Control District	Existing
Harris County Flood Control District RWIS	Sensors that detect high waters. Alert staff of high water locations.	Harris County Flood Control District	Existing
Harris County Freight Signal Priority	Signal priority dedicated to commercial vehicles within Harris County.	Harris County	Future
Harris County ITS Detectors	ITS roadway detection.	Harris County	Existing

Element Name	Element Description	Stakeholder	Element Status
Harris County MAP Service Patrol	Harris County freeway safety service patrol dispatch.	Harris County	Existing
Harris County Public Safety Dispatch/EOC	Emergency management center for Harris County. Responsible for coordination of local resources during a disaster or large scale event.	Harris County	Existing
Harris County Public Works	Public works department for Harris County, handles the transportation system operated by Harris County.	Harris County	Existing
Harris County Public Works Vehicles	Vehicles owned and operated by Harris County.	Harris County	Existing
Harris County Rail Crossing	Standard at grade rail crossing within Harris County.	Harris County	Existing
Harris County Signal Preemption	Signal preemption dedicated to Harris County emergency service providers.	Harris County	Existing
Harris County Speed Warning	Harris County field equipment that monitors vehicles speeds and sends a visual or other type of warning to the driver if speeds are excessive.	Harris County	Existing
Harris County TMC	Harris County traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	Harris County	Existing
Harris County Traffic Signals	Traffic signal system operated by Harris County.	Harris County	Existing
Harris County Transit Buses	Harris County transit vehicles.	Harris County Transit	Existing
Harris County Transit Data Archive	Harris County data archive for transit data.	Harris County Transit	Existing

Element Name	Element Description	Stakeholder	Element Status
Harris County Transit Dispatch Center	Harris County transit operations center where buses depart.	Harris County Transit	Existing
Harris County Transit Parking Area Equipment	Parking provided by Harris County for transit users.	Harris County Transit	Existing
Harris County Transit Parking Management	Parking management for surface parking, parking lots, and parking garages within Harris County.	Harris County Transit	Existing
Harris County Transit Passenger Counters	Harris County bus passenger counter system.	Harris County Transit	Existing
Harris County Transit Trip Planning	Online routing application to assist travelers in developing a customized transit plan for an upcoming trip.	Harris County Transit	Existing
HCTRA CCTV Cameras	CCTV cameras operated by HCTRA.	HCTRA	Existing
HCTRA DMS	HCTRA dynamic message signs (DMS) operated for traffic information dissemination.	HCTRA	Existing
HCTRA TMC	HCTRA traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	HCTRA	Existing
HCTRA Toll Collection	HCTRA roadway equipment that scans toll tags and processes toll payments.	HCTRA	Existing
HCTRA Toll Payment Center	HCTRA toll operations center where toll payments are processed.	HCTRA	Existing
Houston METRO Buses	Houston METRO transit vehicles.	Houston METRO	Existing
Houston METRO Data Archive	Houston METRO data archive for transportation related data.	Houston METRO	Existing

Element Name	Element Description	Stakeholder	Element Status
Houston METRO Dispatch Center	Houston METRO transit operations center where buses depart.	Houston METRO	Existing
Houston METRO HOV Lane Control	High occupancy vehicle (HOV) lane equipment managed by Houston METRO.	Houston METRO	Existing
Houston METRO HOV Lane TMC	Traffic Management and lane management for high occupancy vehicle (HOV) lanes operated by Houston METRO.	Houston METRO	Existing
Houston METRO Parking Area Equipment	Parking provided by Houston METRO for transit users.	Houston METRO	Existing
Houston METRO Parking Management	Parking management for surface parking and parking lots for Houston METRO Park and Ride.	Houston METRO	Existing
Houston METRO Passenger Counters	Houston METRO bus passenger counter system.	Houston METRO	Existing
Houston METRO Reversible Lanes	Lanes managed by Houston METRO in which traffic may travel in either direction depending on traffic conditions or time of day.	Houston METRO	Existing
Houston METRO Toll Collection	Houston METRO roadway equipment that scans toll tags and processes toll payments.	Houston METRO	Existing
Houston METRO Toll Payment Center	Houston METRO toll operations center where toll payments are processed.	Houston METRO	Existing
Houston METRO Traveler Information Communications	Provides vehicles with HOV Lane information.	Houston METRO	Existing

Element Name	Element Description	Stakeholder	Element Status
Houston METRO Trip Planning	Online routing application to assist travelers in developing a customized transit plan for an upcoming trip.	Houston METRO	Existing
League City CCTV Cameras	CCTV cameras operated by League City.	League City	Existing
League City TMC	League City traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	League City	Existing
League City Traffic Signals	Traffic signal system operated by League City.	League City	Existing
Local Agencies CCTV Cameras	CCTV cameras operated by local agencies.	Local Agencies	Future
Local Agencies Data Archive	Local agency data archive for transportation related data.	Local Agencies	Future
Local Agencies DMS	Local Agencies dynamic message signs (DMS) operated for traffic information dissemination.	Local Agencies	Future
Local Agencies Emergency Vehicles	Emergency vehicles within Local Agencies, consisting of police, fire, and EMS.	Local Agencies	Future
Local Agencies Field System Monitoring	Maintenance and construction field devices that monitor field conditions.	Local Agencies	Future
Local Agencies Information Center	Traveler information for vehicles within Local Agencies.	Local Agencies	Future
Local Agencies ITS Detectors	ITS roadway detection owned by Local Agencies.	Local Agencies	Future
Local Agencies Maintenance and Construction	Maintenance and construction department for Local Agencies. Responsible for the oversight of construction and maintenance.	Local Agencies	Future

Element Name	Element Description	Stakeholder	Element Status
Local Agencies Maintenance Vehicles	Maintenance and construction vehicles for Local Agencies.	Local Agencies	Future
Local Agencies Parking Area Equipment	Sensors and detectors that provide parking systems with parking availability. Sensors can detect if a parking spot is taken or not.	Local Agencies	Future
Local Agencies Parking Management	Parking management for surface parking, parking lots, and parking garages within Local Agencies.	Local Agencies	Future
Local Agencies Public Safety Dispatch/EOC	Emergency management center for Local Agencies. Responsible for coordination of local resources during a disaster or large scale event.	Local Agencies	Future
Local Agencies Rail Crossing	Standard at grade rail crossing within Local Agencies.	Local Agencies	Future
Local Agencies RWIS	Local Agencies road weather information system sensors to monitor road conditions.	Local Agencies	Future
Local Agencies Signal Control	Local Agency field elements that monitor and control signalized intersections.	Local Agencies	Future
Local Agencies Signal Preemption	Signal preemption dedicated to Local Agencies emergency service providers.	Local Agencies	Future
Local Agencies Speed Warning	Local Agencies field equipment that monitors vehicles speeds and sends a visual or other type of warning to the driver if speeds are excessive.	Local Agencies	Future
Local Agencies TMC	Local Agencies traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	Local Agencies	Future

Element Name	Element Description	Stakeholder	Element Status
Local Agencies Toll Collection	Local Agencies roadway equipment that scans toll tags and processes toll payments.	Local Agencies	Future
Local Agencies Toll Payment Center	Local Agencies toll operations center where toll payments are processed.	Local Agencies	Future
Local Agencies Traffic Monitoring	Local Agencies roadside equipment that provides traffic monitoring equipment through connected vehicles.	Local Agencies	Future
Local Agencies Traffic Signals	Local Agencies traffic signals.	Local Agencies	Future
Local Agencies Wrong Way Driver Detection	Local Agencies electronic warning signs, field sensors, or other devices used in the operation of wrong-way vehicle detection and warning.	Local Agencies	Future
Local Broadcast Media	Local media that provide traffic or incident information to the public.	Media	Future
Missouri City CCTV Cameras	CCTV cameras operated by Missouri City.	Missouri City	Existing
Missouri City Signal Preemption	Signal preemption dedicated to Missouri City emergency service providers.	Missouri City	Existing
Missouri City TMC	Missouri City traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	Missouri City	Existing
Missouri City Traffic Signals	Traffic signal system operated by Missouri City.	Missouri City	Existing
National Weather Service	National Weather Services that provides weather information to travelers.	National Weather Service	Planned

Element Name	Element Description	Stakeholder	Element Status
Other Transit Management Centers	Other transit management centers in the region that require service coordination	Local Agencies	Existing
Pedestrian	A person walking along a road.	System Users	Existing
Personal Information Device	A device that provides travelers with traveler information.	System Users	Planned
Texas City Traffic Signals	Traffic signal system operated by Texas City.	Texas City	Existing
The Woodlands Regional Transit Authority Buses	The Woodlands Regional Transit Authority transit vehicles.	The Woodlands Regional Transit Authority	Existing
The Woodlands Regional Transit Authority Data Archive	The Woodlands Regional Transit Authority data archive for transportation related data.	The Woodlands Regional Transit Authority	Existing
The Woodlands Regional Transit Authority Dispatch Center	The Woodlands Regional Transit Authority transit operations center where buses depart.	The Woodlands Regional Transit Authority	Existing
The Woodlands Regional Transit Authority Parking Area Equipment	Parking provided by The Woodlands Regional Transit Authority for transit users.	The Woodlands Regional Transit Authority	Existing
The Woodlands Regional Transit Authority Parking Management	Parking management for surface parking and parking lots for The Woodlands Regional Transit Authority.	The Woodlands Regional Transit Authority	Existing
The Woodlands Regional Transit Authority Passenger Counters	The Woodlands Regional Transit Authority bus passenger counter system.	The Woodlands Regional Transit Authority	Existing

Element Name	Element Description	Stakeholder	Element Status
The Woodlands Regional Transit Authority Trip Planning	Online routing application to assist travelers in developing a customized transit plan for an upcoming trip on The Woodlands Regional Transit Authority.	The Woodlands Regional Transit Authority	Existing
The Woodlands Traffic Signals	Traffic signal system operated by The Woodlands.	The Woodlands Regional Transit Authority	Existing
Transit Traveler Fare Management	Regional transit traveler fare management system.	System Users	Existing
Traveler	User of the transportation network.	System Users	Existing
TxDOT Beaumont CCTV Cameras	CCTV cameras operated by the TxDOT Beaumont District.	TxDOT Beaumont District	Existing
TxDOT Beaumont Data Warehouse	TxDOT Beaumont District data archive for transportation related data.	TxDOT Beaumont District	Existing
TxDOT Beaumont DMS	TxDOT Beaumont District dynamic message signs (DMS) operated for traffic information dissemination.	TxDOT Beaumont District	Existing
TxDOT Beaumont Emergency Management	TxDOT Beaumont District section that handles emergency transportation operations and communications.	TxDOT Beaumont District	Existing
TxDOT Beaumont Field System Monitoring	TxDOT Beaumont District maintenance and construction field devices that monitor field conditions.	TxDOT Beaumont District	Existing
TxDOT Beaumont Information Center	Traveler information for vehicles within the TxDOT Beaumont District.	TxDOT Beaumont District	Existing

Element Name	Element Description	Stakeholder	Element Status
TxDOT Beaumont ITS Detectors	TxDOT Beaumont District ITS roadway detection.	TxDOT Beaumont District	Existing
TxDOT Beaumont Maintenance and Construction	Maintenance and construction section for TxDOT Beaumont District. Responsible for the oversight of construction and maintenance.	TxDOT Beaumont District	Existing
TxDOT Beaumont Maintenance Vehicles	Maintenance and construction vehicles for TxDOT Beaumont District.	TxDOT Beaumont District	Existing
TxDOT Beaumont Queue Warning	TxDOT Beaumont District queue warning systems that detect queuing and relay information to ITS devices.	TxDOT Beaumont District	Future
TxDOT Beaumont Rail Crossing	Standard at grade rail crossing within the TxDOT Beaumont District.	TxDOT Beaumont District	Existing
TxDOT Beaumont RWIS	TxDOT Beaumont road weather information system sensors to monitor road conditions.	TxDOT Beaumont District	Future
TxDOT Beaumont Speed Warning	TxDOT Beaumont District field equipment that monitors vehicles speeds and sends a visual or other type of warning to the driver if speeds are excessive.	TxDOT Beaumont District	Future
TxDOT Beaumont TMC	TxDOT Beaumont District traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	TxDOT Beaumont District	Existing
TxDOT Beaumont Traffic Signals	TxDOT Beaumont District traffic signals.	TxDOT Beaumont District	Existing

Element Name	Element Description	Stakeholder	Element Status
TxDOT Beaumont Truck Parking Availability Sign	TxDOT Beaumont District truck parking availability signs that provide truck drivers with information regarding available parking spaces.	TxDOT Beaumont District	Planned
TxDOT Beaumont Variable Speed Limits	TxDOT Beaumont District dynamic speed limit signs that adjust speed limits in response to changing conditions.	TxDOT Beaumont District	Future
TxDOT Beaumont Wrong Way Driver Detection	TxDOT Beaumont District electronic warning signs, field sensors, or other devices used in the operation of wrong-way vehicle detection and warning.	TxDOT Beaumont District	Future
TxDOT Houston CCTV Cameras	CCTV cameras operated by the TxDOT Houston District.	TxDOT Houston District	Existing
TxDOT Houston Data Warehouse	TxDOT Houston District data archive for transportation related data.	TxDOT Houston District	Existing
TxDOT Houston DMS	TxDOT Houston District dynamic message signs (DMS) operated for traffic information dissemination.	TxDOT Houston District	Existing
TxDOT Houston Emergency Management	TxDOT Houston District section that handles emergency transportation operations and communications.	TxDOT Houston District	Existing
TxDOT Houston Field System Monitoring	TxDOT Houston District maintenance and construction field devices that monitor field conditions.	TxDOT Houston District	Existing
TxDOT Houston Information Center	Traveler information for vehicles within TxDOT Houston District.	TxDOT Houston District	Existing
TxDOT Houston ITS Detectors	TxDOT Houston District ITS roadway detection.	TxDOT Houston District	Existing

Element Name	Element Description	Stakeholder	Element Status
TxDOT Houston Maintenance and Construction	Maintenance and construction section for TxDOT Houston District. Responsible for the oversight of construction and maintenance.	TxDOT Houston District	Existing
TxDOT Houston Maintenance Vehicles	Maintenance and construction vehicles for TxDOT Houston District.	TxDOT Houston District	Existing
TxDOT Houston Queue Warning	TxDOT Houston District queue warning systems that detect queuing and relay information to ITS devices.	TxDOT Houston District	Future
TxDOT Houston Rail Crossing	Standard at grade rail crossing within the TxDOT Houston District.	TxDOT Houston District	Existing
TxDOT Houston RWIS	TxDOT Houston District road weather information system sensors to monitor road conditions.	TxDOT Houston District	Existing
TxDOT Houston Signal Preemption	Signal preemption dedicated to emergency service providers.	TxDOT Houston District	Existing
TxDOT Houston Speed Warning	TxDOT Houston field equipment that monitors vehicles speeds and sends a visual or other type of warning to the driver if speeds are excessive.	TxDOT Houston District	Future
TxDOT Houston TMC	TxDOT Houston traffic management center that can operate city roadside equipment including traffic signal system and traffic control and management.	TxDOT Houston District	Existing
TxDOT Houston Toll Collection	TxDOT Houston roadway equipment that scans toll tags and processes toll payments.	TxDOT Houston District	Existing
TxDOT Houston Toll Payment Center	TxDOT Houston toll operations center where toll payments are processed.	TxDOT Houston District	Existing

Element Name	Element Description	Stakeholder	Element Status
TxDOT Houston Traffic Metering	Traffic management that uses signals to control the flow of vehicles entering a freeway.	TxDOT Houston District	Existing
TxDOT Houston Traffic Signals	Traffic signal system operated by TxDOT Houston.	TxDOT Houston District	Existing
TxDOT Houston Truck Parking Availability Sign	TxDOT Houston truck parking availability signs that provide truck drivers with information regarding available parking spaces.	TxDOT Houston District	Future
TxDOT Houston Variable Speed Limits	Dynamic signs that adjust speed limits in response to changing conditions.	TxDOT Houston District	Existing
TxDOT Houston Wrong Way Driver Detection	TxDOT Houston electronic warning signs, field sensors, or other devices used in the operation of wrong-way vehicle detection and warning.	TxDOT Houston District	Existing
Vehicles	User of the transportation system.	System Users	Existing
Vulnerable Road User	A person within the transportation network that is not protected by a vehicle.	System Users	Existing