ITS Data Flows



Data flows from: Caltrans D4 CCTV (Existing)

Santa Cruz County Local ITS

To: Caltrans D4 TMC (Existing)

Existing flow: Smart Call Box Information

To: Caltrans D5 TMC (Existing)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status
Planned flow: signal control status
Planned flow: Smart Call Box Information
Planned flow: speed monitoring information

Planned flow: traffic flow Planned flow: traffic images Planned flow: vehicle probe data

Data flows from: Caltrans D4 CMS (Existing)

Santa Cruz County Local ITS

To: Caltrans D4 TMC (Existing)

Existing flow: Smart Call Box Information

Data flows from: Caltrans D4 HAR (Existing)

Santa Cruz County Local ITS

To: Caltrans D4 TMC (Existing)

Existing flow: Smart Call Box Information

Data flows from: Caltrans D4 TMC (Existing)



Santa Cruz County Local ITS

To: Caltrans D5 TMC (Existing)

Planned flow: alert notification

Planned flow: alert notification coordination

Planned flow: alert status

Planned flow: emergency plan coordination Planned flow: emergency route request

Planned flow: emergency routes

Planned flow: emergency traffic control information Planned flow: emergency traffic control request

Planned flow: evacuation coordination Planned flow: evacuation information

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination Planned flow: incident response status Planned flow: remote surveillance control Planned flow: resource coordination Planned flow: resource deployment status

Planned flow: resource request

Planned flow: road network conditions

Planned flow: road network probe information Planned flow: road network status assessment

Planned flow: threat information

Planned flow: threat information coordination Planned flow: traffic control coordination

Planned flow: traffic images

Planned flow: traffic information coordination Planned flow: transportation system status

To: Private Call Answering Center (PCAC) (Planned)

Planned flow: alert notification coordination

Planned flow: alert status

Planned flow: emergency plan coordination

Planned flow: emergency routes

Planned flow: emergency traffic control information

Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination

Planned flow: resource coordination
Planned flow: resource deployment status
Planned flow: road network conditions

Planned flow: road network status assessment Planned flow: threat information coordination

Planned flow: traffic images

Planned flow: transportation system status

ITS Data Flows (cont.)



To: Santa Cruz County Emergency Medical Services (Existing)

Planned flow: emergency traffic control information

Planned flow: incident information
Planned flow: resource deployment status

Planned flow: road network conditions

To: SCCRTC Freeway Service Patrol (Existing)

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination Planned flow: resource deployment status Planned flow: road network conditions

Planned flow: traffic images

Data flows from: Caltrans D4 Traffic Monitoring Stations (Existing)

Santa Cruz County Local ITS

To: Caltrans D4 TMC (Existing)

Existing flow: Smart Call Box Information

Data flows from: Caltrans D5 (Portable) HAR (Planned)

Santa Cruz County Local ITS

To: Caltrans D5 TMC (Existing)

Planned flow: AHS status Planned flow: alarm notification Planned flow: alert status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: fare and price information Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: logged vehicle routes Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: road network probe information
Planned flow: roadway information system status

Planned flow: safeguard system status Planned flow: secure area sensor data Planned flow: secure area surveillance data

Planned flow: signal control status

Existing flow: Smart Call Box Information

Planned flow: speed monitoring information

Planned flow: traffic flow Planned flow: traffic images Planned flow: vehicle probe data

Data flows from: Caltrans D5 CCTV (Programmed)



Santa Cruz County Local ITS

To: Caltrans D5 TMC (Existing)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status Planned flow: signal control status Existing flow: Smart Call Box Information Planned flow: speed monitoring information

Planned flow: traffic flow
Planned flow: traffic images
Planned flow: vehicle probe data

Data flows from: Caltrans D5 CMS (Programmed)

Santa Cruz County Local ITS

To: Caltrans D5 TMC (Existing)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status
Planned flow: signal control status
Existing flow: Smart Call Box Information
Planned flow: speed monitoring information

Planned flow: traffic flow Planned flow: traffic images Planned flow: vehicle probe data

Data flows from: Caltrans D5 Ramp Meters (Existing)



Santa Cruz County Local ITS

To: Caltrans D5 TMC (Existing)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status Planned flow: signal control status Existing flow: Smart Call Box Information Planned flow: speed monitoring information

Planned flow: traffic flow
Planned flow: traffic images
Planned flow: vehicle probe data

Data flows from: Caltrans D5 TMC (Existing)

Santa Cruz County Local ITS

To: Caltrans D4 CCTV (Existing)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control Planned flow: signal control data Planned flow: speed monitoring control Planned flow: traffic sensor control Planned flow: video surveillance control

ITS Data Flows (cont.)



To: Caltrans D4 TMC (Existing)

Planned flow: alert notification

Planned flow: alert notification coordination

Planned flow: alert status

Planned flow: emergency plan coordination Planned flow: emergency route request

Planned flow: emergency routes

Planned flow: emergency traffic control information Planned flow: emergency traffic control request

Planned flow: evacuation coordination Planned flow: evacuation information

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination Planned flow: incident response status Planned flow: remote surveillance control Planned flow: resource coordination Planned flow: resource deployment status

Planned flow: resource deployment sta

Planned flow: road network conditions
Planned flow: road network probe information
Planned flow: road network status assessment

Planned flow: threat information

Planned flow: threat information coordination Planned flow: traffic control coordination

Planned flow: traffic images

Planned flow: traffic information coordination Planned flow: transportation system status

ITS Data Flows (cont.)



To: Caltrans D5 (Portable) HAR (Planned)

Planned flow: AHS control information
Planned flow: alarm acknowledge
Planned flow: alert notification
Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: evacuation information Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: incident information

Planned flow: request fare and price information

Planned flow: reversible lane control Planned flow: road network conditions

Planned flow: roadway information system data

Planned flow: safeguard system control Planned flow: secure area sensor control Planned flow: secure area surveillance control

Planned flow: signal control data
Planned flow: speed monitoring control
Planned flow: traffic sensor control
Planned flow: transportation system status
Planned flow: video surveillance control

To: Caltrans D5 CCTV (Programmed)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control Planned flow: signal control data Planned flow: speed monitoring control Planned flow: traffic sensor control Planned flow: video surveillance control

ITS Data Flows (cont.)



To: Caltrans D5 CMS (Programmed)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control
Planned flow: signal control data
Planned flow: speed monitoring control
Planned flow: traffic sensor control

Planned flow: video surveillance control

To: Caltrans D5 Ramp Meters (Existing)
Planned flow: AHS control information

Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control Planned flow: signal control data Planned flow: speed monitoring control Planned flow: traffic sensor control Planned flow: video surveillance control

To: Private Call Answering Center (PCAC) (Planned)

Planned flow: incident report

Planned flow: incident response coordination

Planned flow: traffic images

ITS Data Flows (cont.)



To: Santa Cruz County Emergency Medical Services (Existing)

Planned flow: alert notification coordination

Planned flow: alert status

Planned flow: emergency dispatch requests Planned flow: emergency plan coordination

Planned flow: emergency routes

Planned flow: emergency traffic control information

Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination

Planned flow: resource coordination
Planned flow: resource deployment status
Planned flow: road network conditions

Planned flow: road network status assessment

Planned flow: suggested route

Planned flow: threat information coordination

Planned flow: traffic images

Planned flow: transportation system status
To: SCCRTC Freeway Service Patrol (Existing)

Planned flow: alert notification coordination

Planned flow: alert status

Planned flow: decision support information Planned flow: emergency dispatch requests Planned flow: emergency plan coordination

Planned flow: emergency routes

Planned flow: emergency traffic control information

Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination

Planned flow: resource coordination
Planned flow: resource deployment status
Planned flow: road network conditions

Planned flow: road network status assessment

Planned flow: suggested route

Planned flow: threat information coordination

Planned flow: traffic images

Planned flow: transportation system status

ITS Data Flows (cont.)



To: SCCRTC Smart Call Boxes (Planned)

Planned flow: AHS control information Planned flow: alarm acknowledge Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: incident notification response Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control Planned flow: secure area sensor control Planned flow: secure area surveillance control

Planned flow: signal control data
Planned flow: speed monitoring control
Planned flow: traffic sensor control
Planned flow: video surveillance control

Data flows from: Caltrans D5 Traffic Monitoring Stations (Planned)

Santa Cruz County Local ITS

To: Caltrans D5 TMC (Existing)

Planned flow: Smart Call Box Information

Data flows from: Capitola Bicycle Detection System (Existing)

Santa Cruz County Local ITS

To: Capitola Signal System (Existing)

Existing flow: Smart Call Box Information

Data flows from: Capitola Signal System (Existing)



Santa Cruz County Local ITS

To: SCCRTC Interagency Signal Management System (Planned)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status
Planned flow: signal control status
Planned flow: Smart Call Box Information
Planned flow: speed monitoring information
Planned flow: traffic control coordination

Planned flow: traffic flow Planned flow: traffic images

Planned flow: traffic information coordination

Planned flow: vehicle probe data

Data flows from: Central Coast Dial-A-Ride Operators (Existing)

Santa Cruz County Local ITS

To: SC Metro (Santa Cruz Metropolitan Transit District) (Existing)

Planned flow: alarm acknowledge Planned flow: alarm notification Planned flow: bad tag list

Planned flow: environmental probe data

Planned flow: fare and payment status
Planned flow: fare management information

Planned flow: remote vehicle disable

Planned flow: request for bad tag list

Planned flow: request for vehicle measures

Planned flow: transit fare coordination

Planned flow: transit schedule information Planned flow: transit service coordination

Planned flow: transit traveler information

Planned flow: transit traveler information coordination

Planned flow: transit traveler request
Planned flow: transit vehicle conditions
Planned flow: transit vehicle location data

Planned flow: transit vehicle operator authentication information Planned flow: transit vehicle operator authentication update

Planned flow: transit vehicle operator information Planned flow: transit vehicle passenger and use data Planned flow: transit vehicle schedule performance



To: SCCRTC Planning (Existing) Planned flow: transit archive data

Data flows from: Private Call Answering Center (PCAC) (Planned)

Santa Cruz County Local ITS

To: Caltrans D4 TMC (Existing)

Planned flow: alert notification

Planned flow: alert notification coordination Planned flow: emergency plan coordination Planned flow: emergency route request

Planned flow: emergency traffic control request

Planned flow: evacuation coordination

Planned flow: evacuation information

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination Planned flow: incident response status Planned flow: remote surveillance control Planned flow: resource coordination

Planned flow: resource request

Planned flow: road network probe information

Planned flow: threat information

Planned flow: threat information coordination Planned flow: transportation system status

To: Caltrans D5 TMC (Existing)

Planned flow: incident report

Planned flow: incident response coordination Planned flow: remote surveillance control

To: Santa Cruz (City) TMC (Planned)

Planned flow: incident report

Planned flow: incident response coordination Planned flow: remote surveillance control

To: Santa Cruz County Emergency Medical Services (Existing)

Planned flow: alert notification coordination Planned flow: decision support information Planned flow: emergency dispatch requests Planned flow: emergency plan coordination Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident report

Planned flow: incident response coordination

Planned flow: resource coordination
Planned flow: suggested route

Planned flow: threat information coordination Planned flow: transportation system status

To: SCCRTC Call Boxes (Existing)

Planned flow: incident notification response

ITS Data Flows (cont.)



To: SCCRTC Freeway Service Patrol (Existing)

Planned flow: alert notification coordination Planned flow: decision support information Planned flow: emergency dispatch requests Planned flow: emergency plan coordination Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident report

Planned flow: incident response coordination

Planned flow: resource coordination Planned flow: suggested route

Planned flow: threat information coordination
Planned flow: transportation system status
To: SCCRTC Smart Call Boxes (Planned)
Planned flow: incident notification response

Data flows from: PVTMA All Things Transportation Website (Planned)

Santa Cruz County Local ITS

To: SCCRTC Commute Solutions (Existing)

Planned flow: broadcast information

Planned flow: emergency traveler information

Planned flow: ISP coordination
Planned flow: traveler information

Planned flow: trip plan

Planned flow: yellow pages information

To: SCCRTC Planning (Existing)
Planned flow: traveler archive data

Data flows from: Santa Cruz (City) Advanced Crosswalks (Planned)

Santa Cruz County Local ITS

To: Santa Cruz (City) Signal System (Existing)
Planned flow: roadway equipment coordination

Planned flow: Smart Call Box Information

ITS Data Flows (cont.)



To: Santa Cruz (City) TMC (Planned)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status Planned flow: signal control status Planned flow: Smart Call Box Information Planned flow: speed monitoring information

Planned flow: traffic flow
Planned flow: traffic images
Planned flow: vehicle probe data

Data flows from: Santa Cruz (City) Bicycle Detection System (Existing)

Santa Cruz County Local ITS

To: Santa Cruz (City) Signal System (Existing)

Existing flow: Smart Call Box Information

To: Santa Cruz (City) TMC (Planned)

Planned flow: Smart Call Box Information

Data flows from: Santa Cruz (City) CCTV (Existing)

Santa Cruz County Local ITS

To: Santa Cruz (City) TMC (Planned)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status
Planned flow: signal control status
Planned flow: Smart Call Box Information
Planned flow: speed monitoring information

Planned flow: traffic flow Planned flow: traffic images Planned flow: vehicle probe data



Data flows from: Santa Cruz (City) Signal System (Existing)

Santa Cruz County Local ITS

To: Santa Cruz (City) Advanced Crosswalks (Planned)

Planned flow: roadway equipment coordination

To: Santa Cruz (City) TMC (Planned)

Planned flow: freeway control status
Planned flow: request for right-of-way
Planned flow: signal control status
Planned flow: Smart Call Box Information
Planned flow: traffic control coordination

Planned flow: traffic flow Planned flow: traffic images

Planned flow: traffic information coordination

To: SCCRTC Interagency Signal Management System (Planned)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status
Planned flow: signal control status
Planned flow: Smart Call Box Information
Planned flow: speed monitoring information
Planned flow: traffic control coordination

Planned flow: traffic flow Planned flow: traffic images

Planned flow: traffic information coordination

Planned flow: vehicle probe data

Data flows from: Santa Cruz (City) TMC (Planned)

Santa Cruz County Local ITS

To: Private Call Answering Center (PCAC) (Planned)

Planned flow: incident report

Planned flow: incident response coordination

Planned flow: traffic images

ITS Data Flows (cont.)



To: Santa Cruz (City) Advanced Crosswalks (Planned)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control Planned flow: signal control data Planned flow: speed monitoring control Planned flow: traffic sensor control

Planned flow: video surveillance control

To: Santa Cruz (City) CCTV (Existing)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control Planned flow: signal control data Planned flow: speed monitoring control Planned flow: traffic sensor control Planned flow: video surveillance control

To: Santa Cruz (City) Signal System (Existing)

Planned flow: freeway control data Planned flow: signal control data Planned flow: traffic control coordination Planned flow: traffic information coordination Planned flow: traffic sensor control

Planned flow: video surveillance control

To: Santa Cruz County Emergency Medical Services (Existing)

Planned flow: emergency traffic control information

Planned flow: resource deployment status Planned flow: road network conditions

Planned flow: traffic images

To: Santa Cruz Parking (City and Private) (Planned)

Planned flow: parking demand management request

Planned flow: parking lot data request Planned flow: parking lot inputs

ITS Data Flows (cont.)



To: SCCRTC Interagency Signal Management System (Planned)

Planned flow: alert notification

Planned flow: emergency plan coordination Planned flow: emergency route request

Planned flow: emergency traffic control request

Planned flow: evacuation information
Planned flow: incident information
Planned flow: incident response status
Planned flow: remote surveillance control

Planned flow: resource request

Planned flow: road network probe information

Planned flow: threat information

Planned flow: traffic control coordination Planned flow: traffic information coordination Planned flow: transportation system status

Data flows from: Santa Cruz County Emergency Medical Services (Existing)

Santa Cruz County Local ITS

To: Caltrans D4 TMC (Existing)

Planned flow: emergency traffic control request

Planned flow: incident information
Planned flow: incident response status
Planned flow: remote surveillance control

Planned flow: resource request

To: Caltrans D5 TMC (Existing)

Planned flow: alert notification

Planned flow: alert notification coordination
Planned flow: emergency dispatch response
Planned flow: emergency plan coordination
Planned flow: emergency route request
Planned flow: emergency traffic control request

Planned flow: emergency vehicle tracking data Planned flow: environmental probe data Planned flow: evacuation coordination Planned flow: evacuation information

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination Planned flow: incident response status

Planned flow: incident status

Planned flow: remote surveillance control Planned flow: resource coordination

Planned flow: resource request

Planned flow: road network probe information

Planned flow: threat information

Planned flow: threat information coordination Planned flow: transportation system status

ITS Data Flows (cont.)



To: Private Call Answering Center (PCAC) (Planned)

Planned flow: alert notification coordination
Planned flow: emergency dispatch response
Planned flow: emergency plan coordination
Planned flow: emergency vehicle tracking data

Planned flow: environmental probe data Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident report

Planned flow: incident response coordination

Planned flow: incident status

Planned flow: resource coordination

Planned flow: threat information coordination

Planned flow: threat information coordination Planned flow: transportation system status

To: Santa Cruz (City) TMC (Planned)

Planned flow: emergency traffic control request Planned flow: remote surveillance control

Planned flow: resource request

Data flows from: Santa Cruz County HRI (Planned)

Santa Cruz County Local ITS

To: Santa Cruz County Signal System (Existing)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway equipment coordination Planned flow: roadway information system status

Planned flow: safeguard system status Planned flow: signal control status

Planned flow: speed monitoring information

Planned flow: traffic flow Planned flow: traffic images Planned flow: vehicle probe data

Data flows from: Santa Cruz County Signal System (Existing)



Santa Cruz County Local ITS

To: Santa Cruz County HRI (Planned)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway equipment coordination Planned flow: roadway information system data

Planned flow: safeguard system control
Planned flow: signal control data
Planned flow: speed monitoring control
Planned flow: traffic sensor control
Planned flow: video surveillance control

To: SCCRTC Interagency Signal Management System (Planned)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status
Planned flow: signal control status
Planned flow: Smart Call Box Information
Planned flow: speed monitoring information
Planned flow: traffic control coordination

Planned flow: traffic flow Planned flow: traffic images

Planned flow: traffic information coordination

Planned flow: vehicle probe data

Data flows from: Santa Cruz Parking (City and Private) (Planned)

Santa Cruz County Local ITS

To: Santa Cruz (City) TMC (Planned)

Planned flow: parking demand management response

Planned flow: parking information

Data flows from: SC Metro (Santa Cruz Metropolitan Transit District) (Existing)



Santa Cruz County Local ITS

To: Central Coast Dial-A-Ride Operators (Existing)

Planned flow: alarm acknowledge Planned flow: alarm notification Planned flow: bad tag list

Planned flow: environmental probe data
Planned flow: fare and payment status
Planned flow: fare management information
Planned flow: remote vehicle disable

Planned flow: request for bad tag list
Planned flow: request for vehicle measures
Planned flow: transit fare coordination
Planned flow: transit schedule information
Planned flow: transit service coordination
Planned flow: transit traveler information

Planned flow: transit traveler information coordination

Planned flow: transit traveler request
Planned flow: transit vehicle conditions
Planned flow: transit vehicle location data

Planned flow: transit vehicle operator authentication information Planned flow: transit vehicle operator authentication update

Planned flow: transit vehicle operator information Planned flow: transit vehicle passenger and use data Planned flow: transit vehicle schedule performance

Planned flow: vehicle location

To: SC Metro Fare Management System (Planned)

Planned flow: bad tag list

Planned flow: fare and payment status
Planned flow: fare management information

Planned flow: request for bad tag list Planned flow: transit fare coordination

Planned flow: transit vehicle passenger and use data

To: SC Metro Traveler Information System (Programmed)

Planned flow: demand responsive transit plan

Planned flow: emergency traveler information request

Planned flow: environmental probe data Planned flow: personal transit information Planned flow: transit and fare schedules Planned flow: transit fare information Planned flow: transit incident information Planned flow: transit request confirmation Planned flow: transit traveler information

Planned flow: traveler profile
Planned flow: traveler request
Planned flow: trip confirmation
Planned flow: trip request
Planned flow: vehicle probe data
Planned flow: yellow pages request

ITS Data Flows (cont.)



To: SCCRTC Planning (Existing)

Planned flow: transit archive data

To: University of California Santa Cruz Parking System (Planned)

Planned flow: parking lot data request

Planned flow: tag data

Data flows from: SC Metro Fare Management System (Planned)

Santa Cruz County Local ITS

To: SC Metro (Santa Cruz Metropolitan Transit District) (Existing)

Planned flow: bad tag list

Planned flow: fare and payment status
Planned flow: fare management information
Planned flow: request for bad tag list
Planned flow: transit fare coordination

Planned flow: transit vehicle passenger and use data

Data flows from: SC Metro Traveler Information System (Programmed)

Santa Cruz County Local ITS

To: SC Metro (Santa Cruz Metropolitan Transit District) (Existing)

Planned flow: broadcast information

Planned flow: demand responsive transit request Planned flow: emergency traveler information

Planned flow: selected routes

Planned flow: transit fare and passenger status Planned flow: transit information request Planned flow: transit information user request

Planned flow: traveler information

Planned flow: trip plan

Planned flow: yellow pages information

Data flows from: SCCRTC Call Boxes (Existing)

Santa Cruz County Local ITS

To: Private Call Answering Center (PCAC) (Planned)

Planned flow: incident notification

To: SCCRTC Freeway Service Patrol (Existing)

Planned flow: alarm notification
Planned flow: incident notification
Planned flow: secure area sensor data
Planned flow: secure area surveillance data

Data flows from: SCCRTC Commute Solutions (Existing)



Santa Cruz County Local ITS

To: PVTMA All Things Transportation Website (Planned)

Planned flow: emergency traveler information request

Planned flow: ISP coordination Planned flow: traveler profile Planned flow: traveler request Planned flow: trip confirmation Planned flow: trip request

Planned flow: yellow pages request

Data flows from: SCCRTC Freeway Service Patrol (Existing)

Santa Cruz County Local ITS

To: Caltrans D4 TMC (Existing)

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination Planned flow: incident response status Planned flow: remote surveillance control

Planned flow: resource request

To: Caltrans D5 TMC (Existing)

Planned flow: alert notification

Planned flow: alert notification coordination
Planned flow: emergency dispatch response
Planned flow: emergency plan coordination
Planned flow: emergency route request
Planned flow: emergency traffic control request
Planned flow: emergency vehicle tracking data

Planned flow: environmental probe data Planned flow: evacuation coordination Planned flow: evacuation information

Planned flow: incident command information coordination

Planned flow: incident information Planned flow: incident report

Planned flow: incident response coordination Planned flow: incident response status

Planned flow: incident status

Planned flow: remote surveillance control Planned flow: resource coordination Planned flow: resource request

Planned flow: road network probe information

Planned flow: threat information

Planned flow: threat information coordination Planned flow: transportation system status

ITS Data Flows (cont.)



To: Private Call Answering Center (PCAC) (Planned)

Planned flow: alert notification coordination Planned flow: emergency dispatch response Planned flow: emergency plan coordination Planned flow: emergency vehicle tracking data

Planned flow: environmental probe data Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident report

Planned flow: incident response coordination

Planned flow: incident status

Planned flow: resource coordination

Planned flow: threat information coordination Planned flow: transportation system status

To: SCCRTC Call Boxes (Existing)

Planned flow: alarm acknowledge

Planned flow: incident notification response Planned flow: secure area sensor control Planned flow: secure area surveillance control

To: SCCRTC Smart Call Boxes (Planned)

Planned flow: alarm acknowledge
Planned flow: barrier system control
Planned flow: incident notification response
Planned flow: local signal preemption request
Planned flow: secure area sensor control
Planned flow: secure area surveillance control

To: TAMC Freeway Service Patrol (Existing)

Planned flow: alert notification coordination
Planned flow: decision support information
Planned flow: emergency dispatch requests
Planned flow: emergency dispatch response
Planned flow: emergency plan coordination
Planned flow: emergency vehicle tracking data
Planned flow: environmental probe data

Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident report

Planned flow: incident response coordination

Planned flow: incident status
Planned flow: resource coordination
Planned flow: suggested route

Planned flow: threat information coordination Planned flow: transportation system status

Data flows from: SCCRTC Interagency Signal Management System (Planned)



Santa Cruz County Local ITS

To: Capitola Signal System (Existing)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control
Planned flow: signal control data
Planned flow: speed monitoring control
Planned flow: traffic control coordination
Planned flow: traffic information coordination

Planned flow: traffic sensor control
Planned flow: video surveillance control

To: Santa Cruz (City) Signal System (Existing)

Planned flow: AHS control information

Planned flow: barrier system control
Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control Planned flow: signal control data

Planned flow: speed monitoring control Planned flow: traffic control coordination Planned flow: traffic information coordination

Planned flow: traffic sensor control Planned flow: video surveillance control

To: Santa Cruz (City) TMC (Planned)

Planned flow: alert status

Planned flow: emergency plan coordination

Planned flow: emergency routes

Planned flow: emergency traffic control information

Planned flow: incident information

Planned flow: resource deployment status Planned flow: road network conditions

Planned flow: road network status assessment

Planned flow: traffic control coordination

Planned flow: traffic images

Planned flow: traffic information coordination

ITS Data Flows (cont.)



To: Santa Cruz County Signal System (Existing)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control

Planned flow: signal control data

Planned flow: speed monitoring control
Planned flow: traffic control coordination
Planned flow: traffic information coordination

Planned flow: traffic sensor control
Planned flow: video surveillance control

To: Scotts Valley Signal System (Existing)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control

Planned flow: signal control data
Planned flow: speed monitoring control
Planned flow: traffic control coordination
Planned flow: traffic information coordination
Planned flow: traffic sensor control

Planned flow: video surveillance control
To: Watsonville Signal System (Planned)

o. Watsonville Signal System (Flanned)

Planned flow: AHS control information Planned flow: barrier system control

Planned flow: environmental sensors control

Planned flow: freeway control data Planned flow: hri control data Planned flow: hri request

Planned flow: reversible lane control

Planned flow: roadway information system data

Planned flow: safeguard system control

Planned flow: signal control data

Planned flow: speed monitoring control
Planned flow: traffic control coordination
Planned flow: traffic information coordination

Planned flow: traffic sensor control Planned flow: video surveillance control



Data flows from: SCCRTC Planning (Existing)

Santa Cruz County Local ITS

To: Central Coast Dial-A-Ride Operators (Existing)

Planned flow: archive requests Planned flow: archive status

To: PVTMA All Things Transportation Website (Planned)

Planned flow: archive requests Planned flow: archive status

To: SC Metro (Santa Cruz Metropolitan Transit District) (Existing)

Planned flow: archive requests Planned flow: archive status

Data flows from: SCCRTC Smart Call Boxes (Planned)

Santa Cruz County Local ITS

To: Caltrans D5 TMC (Existing)

Planned flow: AHS status
Planned flow: alarm notification
Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: incident notification

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status Planned flow: secure area sensor data Planned flow: secure area surveillance data

Planned flow: signal control status
Planned flow: Smart Call Box Information

Planned flow: speed monitoring information

Planned flow: traffic flow Planned flow: traffic images Planned flow: vehicle probe data

To: Private Call Answering Center (PCAC) (Planned)

Planned flow: incident notification

Planned flow: Smart Call Box Information

To: SCCRTC Freeway Service Patrol (Existing)

Planned flow: alarm notification
Planned flow: barrier system status
Planned flow: incident notification
Planned flow: secure area sensor data
Planned flow: secure area surveillance data
Planned flow: Smart Call Box Information

<u>Data flows from: Scotts Valley Bicycle Detection System (Existing)</u>



Santa Cruz County Local ITS

To: Scotts Valley Signal System (Existing)
Existing flow: Smart Call Box Information

Data flows from: Scotts Valley Signal System (Existing)

Santa Cruz County Local ITS

To: SCCRTC Interagency Signal Management System (Planned)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status
Planned flow: signal control status
Planned flow: Smart Call Box Information
Planned flow: speed monitoring information
Planned flow: traffic control coordination

Planned flow: traffic flow Planned flow: traffic images

Planned flow: traffic information coordination

Planned flow: vehicle probe data

Data flows from: TAMC Freeway Service Patrol (Existing)

Santa Cruz County Local ITS

To: SCCRTC Freeway Service Patrol (Existing)

Planned flow: alert notification coordination
Planned flow: decision support information
Planned flow: emergency dispatch requests
Planned flow: emergency dispatch response
Planned flow: emergency plan coordination
Planned flow: emergency vehicle tracking data
Planned flow: environmental probe data
Planned flow: evacuation coordination

Planned flow: incident command information coordination

Planned flow: incident report

Planned flow: incident response coordination

Planned flow: incident status
Planned flow: resource coordination
Planned flow: suggested route

Planned flow: threat information coordination Planned flow: transportation system status

Data flows from: University of California Santa Cruz Parking System (Planned)

ITS Data Flows (cont.)



Santa Cruz County Local ITS

To: SC Metro (Santa Cruz Metropolitan Transit District) (Existing)

Planned flow: parking information Planned flow: request tag data Planned flow: tag update

Data flows from: Watsonville Advanced Crosswalks (Planned)

Santa Cruz County Local ITS

To: Watsonville Signal System (Planned)
Planned flow: Smart Call Box Information

Data flows from: Watsonville Bicycle Detection System (Existing)

Santa Cruz County Local ITS

To: Watsonville Signal System (Planned)
Planned flow: Smart Call Box Information

Data flows from: Watsonville Signal System (Planned)

Santa Cruz County Local ITS

To: SCCRTC Interagency Signal Management System (Planned)

Planned flow: AHS status

Planned flow: barrier system status

Planned flow: environmental conditions data Planned flow: environmental probe data Planned flow: freeway control status

Planned flow: hov data Planned flow: hri status

Planned flow: intersection blockage notification

Planned flow: request for right-of-way Planned flow: reversible lane status

Planned flow: roadway information system status

Planned flow: safeguard system status
Planned flow: signal control status
Planned flow: Smart Call Box Information
Planned flow: speed monitoring information
Planned flow: traffic control coordination

Planned flow: traffic flow Planned flow: traffic images

Planned flow: traffic information coordination

Planned flow: vehicle probe data