Fresno County Intelligent Transportation System

Strategic Deployment Plan Update

Transportation Technical Committee/Policy Advisory Committee Presentation

URS

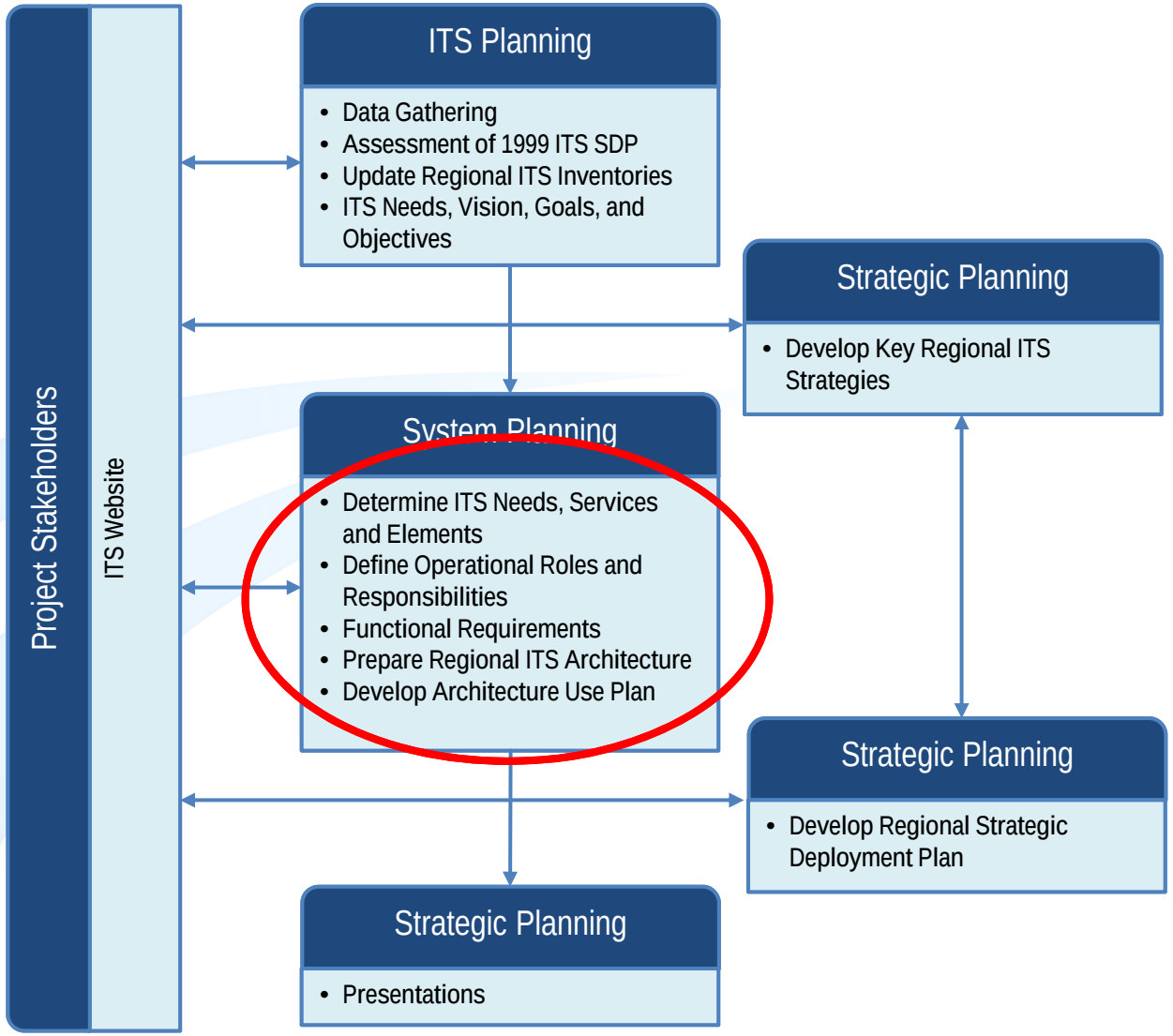
Fresno Council of Governments

November 7, 2014

Agenda

- Project Overview
- Vision, Goals, and Objectives
- User Needs Prioritization
- Candidate ITS Solutions
- Schedule & Next Steps

Detailed Work Plan



Proposed ITS Vision Statement

- **Needs-based vision**

"The ITS vision for Fresno County is to enhance safety, mobility, efficiency, and transportation productivity for all modes of transportation, and to improve the quality of life and environment through the use of cost effective ITS technologies and systems."

Fresno County Plan Update Vision

- ITS competes for funding in RTP
- Provide Local Blueprint within County
- Improve I-5/SR-99 Corridor Mobility
- Facilitate East-West Mobility
- Update Regional Architecture and Standards
- Link Urban areas and address rural challenges
- Integrate new Transit Initiatives into Plan

Goals and Objectives That Support the Vision Statement

Enhance Productivity

- To reduce the travel delay and increase the reliability and predictability of moving people and goods for all transportation users.
- To improve the ability of users and operators to perform travel planning using real-time travel information.

Improve Safety

- To reduce the number and severity of motor vehicle collisions and associated injuries and fatalities.
- To improve the average response time of emergency services.

Goals and Objectives That Support the Vision Statement

Improve the Environment

- To increase the use of public transit and other shared ride alternatives.
- To reduce harmful emissions per unit of travel for all transportation modes.

Increase Efficiency

- To reduce congestion and associated costs.
- To optimize the operational efficiency of goods and people movement on existing facilities.

Goals and Objectives That Support the Vision Statement

Create a State of the Art Transportation System

- To establish an ITS architecture that is open, receptive, and adaptable to meet future area architecture needs and is consistent to the maximum degree possible with national standards and architecture.

Promote Sustainability

- To ensure technology is implemented in an environmentally responsible manner.
- To account for social and economic factors in transportation technology improvement decision making.

Results of Needs Prioritization

1999 Fresno County ITS SDP	
ITS Need	Score
Lack of Integration/ Cooperation/ Coordination/ Common Communications	33
Signal Coordination (Needed)	22
Emergency Response Time	19
Air Quality	18
Funding	15
Lack of Traveler Information	12
Staffing	9
Red Light Running	7
GIS Mapping/Mapping Standards/Old Maps	5
Visibility Related Incidents (Fog/Dust)	3
Lack of Surveillance	2
Data Needs (Data needed for transportation planning & evaluation purposes)	1
Incidents (General)	1
Lack of Known Standards	1

2014 Fresno COG ITS Plan	
ITS Need	Score
Info exchange between Caltrans & local agencies	44
Signal timing/coordination	37
Timely incident information to travelers	21
Data collection on freeways/ expressways	21
Staffing (added by Stakeholders)	20
Congestion information to travelers	20
Remotely modify signal timing	18
Automatic Vehicle Location system (transit)	18
Data collection and archiving	18
Transfers between routes, providers and modes (transit)	16
Incident response	16
Speed enforcement at high risk locations (arterial)	15
Web-based trip planner (transit)	15
Improve ramp metering operations	15

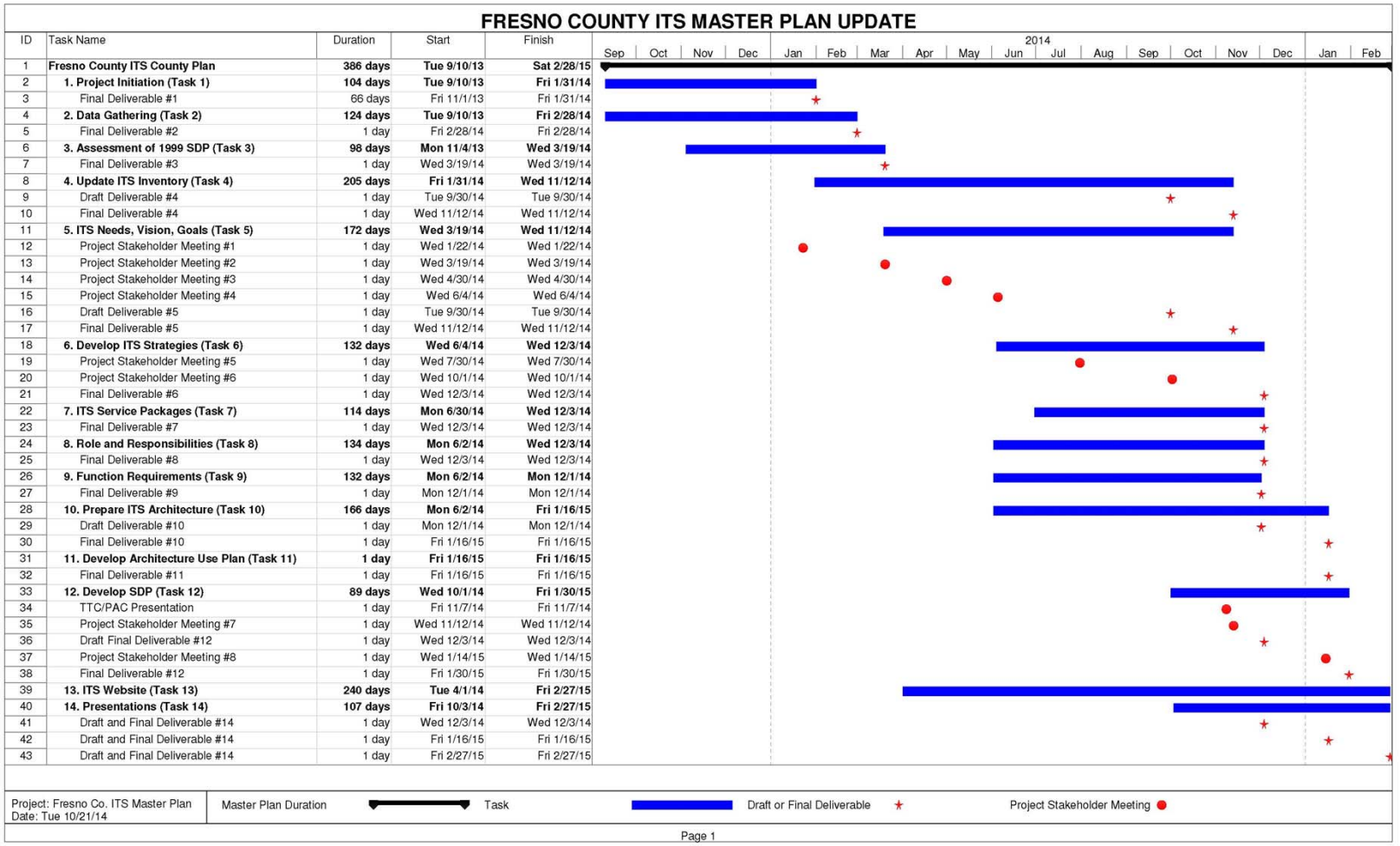
Potential Project Concept List

- Communications Interties (links)/ Data Exchange Network (DEN)
- Signal Coordination Projects by City or Region
- Additional Changeable Message Signs (CMS) in Key Locations
- Implementation of 511 System for Valley/ Study of Regional Advanced Traveler Information Systems (ATIS) Project
- Expansion of Caltrans Traffic Operations Systems (TOS)
- Transit Management System Completion/Expansion with Transit Information System

Potential Project Concept List

- Demand-Responsive or Adaptive Control Systems
- Computer Aided Dispatch Integration
- Railroad Highway Interface Technology
- Common Fare Equipment Deployment
- Integrated Smart Corridors/Adaptive Ramp Metering
- Downtown Fresno Parking Management System
- Remote Surveillance and Incident Scene Management
- Alternate Route Plans Database/Website

Updated Schedule



FRESNO COUNTY ITS MASTER PLAN UPDATE

ID	Task Name	Duration	Start	Finish
1	**Fresno County ITS County Plan**	**386 days**	**Tue 9/10/13**	**Sat 2/28/15**
2	**1. Project Initiation (Task 1)**	**104 days**	**Tue 9/10/13**	**Fri 1/31/14**
3	Final Deliverable #1	66 days	Fri 11/1/13	Fri 1/31/14
4	**2. Data Gathering (Task 2)**	**124 days**	**Tue 9/10/13**	**Fri 2/28/14**
5	Final Deliverable #2	1 day	Fri 2/28/14	Fri 2/28/14
6	**3. Assessment of 1999 SDP (Task 3)**	**98 days**	**Mon 11/4/13**	**Wed 3/19/14**
7	Final Deliverable #3	1 day	Wed 3/19/14	Wed 3/19/14
8	**4. Update ITS Inventory (Task 4)**	**205 days**	**Fri 1/31/14**	**Wed 11/12/14**
9	Draft Deliverable #4	1 day	Tue 9/30/14	Tue 9/30/14
10	Final Deliverable #4	1 day	Wed 11/12/14	Wed 11/12/14
11	**5. ITS Needs, Vision, Goals (Task 5)**	**172 days**	**Wed 3/19/14**	**Wed 11/12/14**
12	Project Stakeholder Meeting #1	1 day	Wed 1/22/14	Wed 1/22/14
13	Project Stakeholder Meeting #2	1 day	Wed 3/19/14	Wed 3/19/14
14	Project Stakeholder Meeting #3	1 day	Wed 4/30/14	Wed 4/30/14
15	Project Stakeholder Meeting #4	1 day	Wed 6/4/14	Wed 6/4/14
16	Draft Deliverable #5	1 day	Tue 9/30/14	Tue 9/30/14
17	Final Deliverable #5	1 day	Wed 11/12/14	Wed 11/12/14
18	**6. Develop ITS Strategies (Task 6)**	**132 days**	**Wed 6/4/14**	**Wed 12/3/14**
19	Project Stakeholder Meeting #5	1 day	Wed 7/30/14	Wed 7/30/14
20	Project Stakeholder Meeting #6	1 day	Wed 10/1/14	Wed 10/1/14
21	Final Deliverable #6	1 day	Wed 12/3/14	Wed 12/3/14
22	**7. ITS Service Packages (Task 7)**	**114 days**	**Mon 6/30/14**	**Wed 12/3/14**
23	Final Deliverable #7	1 day	Wed 12/3/14	Wed 12/3/14
24	**8. Role and Responsibilities (Task 8)**	**134 days**	**Mon 6/2/14**	**Wed 12/3/14**
25	Final Deliverable #8	1 day	Wed 12/3/14	Wed 12/3/14
26	**9. Function Requirements (Task 9)**	**132 days**	**Mon 6/2/14**	**Mon 12/1/14**
27	Final Deliverable #9	1 day	Mon 12/1/14	Mon 12/1/14
28	**10. Prepare ITS Architecture (Task 10)**	**166 days**	**Mon 6/2/14**	**Fri 1/16/15**
29	Draft Deliverable #10	1 day	Mon 12/1/14	Mon 12/1/14
30	Final Deliverable #10	1 day	Fri 1/16/15	Fri 1/16/15
31	**11. Develop Architecture Use Plan (Task 11)**	**1 day**	**Fri 1/16/15**	**Fri 1/16/15**
32	Final Deliverable #11	1 day	Fri 1/16/15	Fri 1/16/15
33	**12. Develop SDP (Task 12)**	**89 days**	**Wed 10/1/14**	**Fri 1/30/15**
34	TTC/PAC Presentation	1 day	Fri 11/7/14	Fri 11/7/14
35	Project Stakeholder Meeting #7	1 day	Wed 11/12/14	Wed 11/12/14
36	Draft Final Deliverable #12	1 day	Wed 12/3/14	Wed 12/3/14
37	Project Stakeholder Meeting #8	1 day	Wed 1/14/15	Wed 1/14/15
38	Final Deliverable #12	1 day	Fri 1/30/15	Fri 1/30/15
39	**13. ITS Website (Task 13)**	**240 days**	**Tue 4/1/14**	**Fri 2/27/15**
40	**14. Presentations (Task 14)**	**107 days**	**Fri 10/3/14**	**Fri 2/27/15**
41	Draft and Final Deliverable #14	1 day	Wed 12/3/14	Wed 12/3/14
42	Draft and Final Deliverable #14	1 day	Fri 1/16/15	Fri 1/16/15
43	Draft and Final Deliverable #14	1 day	Fri 2/27/15	Fri 2/27/15

Contact Information

Peggy Arnest

Associate Regional Planner

Fresno Council of Governments

2035 Tulare Street, Suite 201

Fresno, CA 93721

Phone: (559) 233-4148 ext. 241

Fax: (559) 233-9645

Email: parnest@fresnocog.org

Doug Smith, PE

Vice President

URS Corporation

2020 East First Street, Ste 400

Santa Ana, CA 92705

Phone: (714) 835-6886

Fax: (714) 973-4086

Email: douglas.smith@urs.com