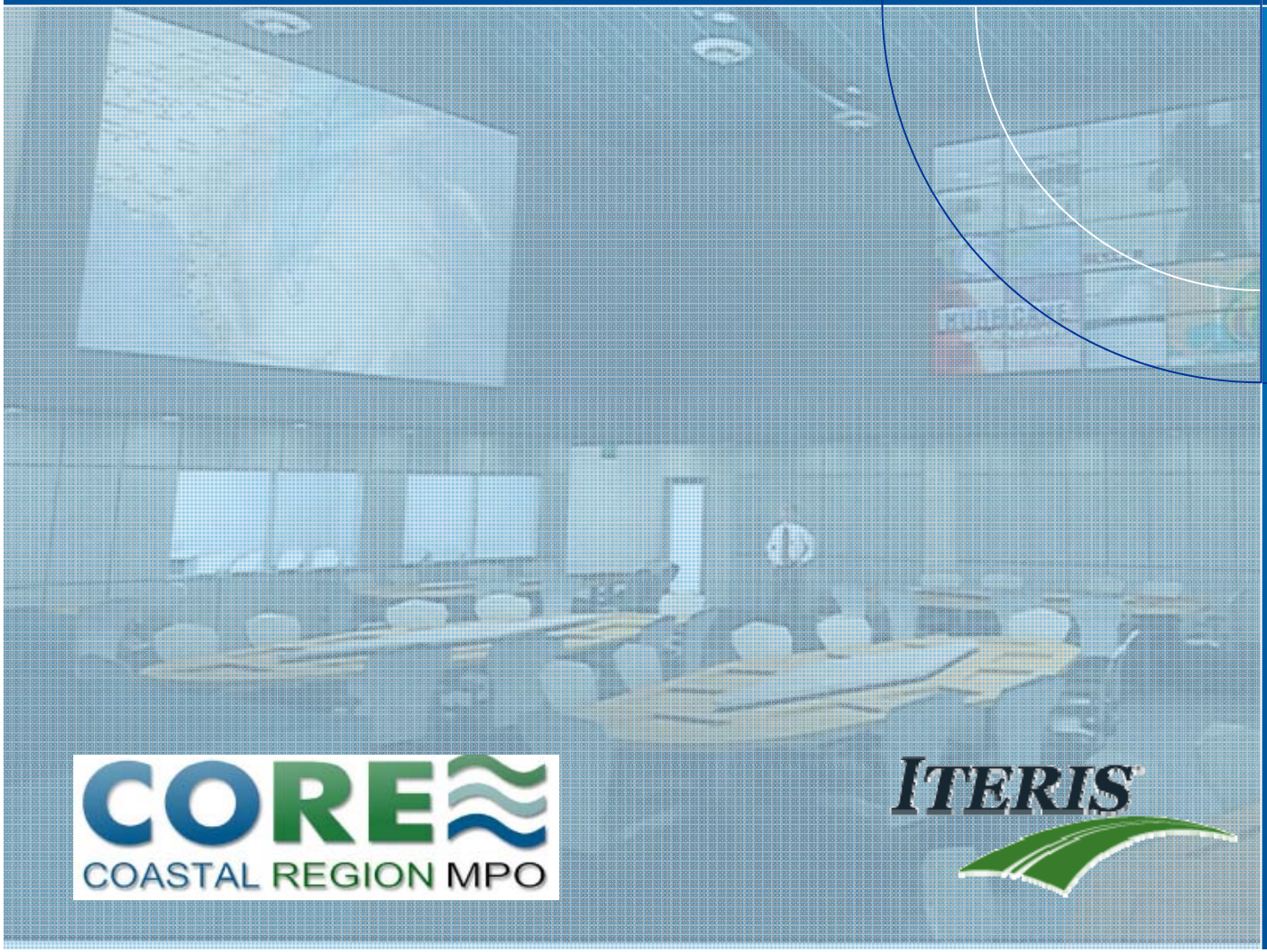
Stakeholder Meeting

ATMS and Traffic Management Center



April 23, 2014

CORE COASTAL REGION MPO

ITERIS

CDM Smith

Agenda

1. Introduction and Overview of ATMS Feasibility Study
2. Planned Emergency Operations Center
3. Existing Systems and Infrastructure Needs
4. Operational Needs and Goals
5. Next Steps – Phase II
6. Questions

Agenda Item 1

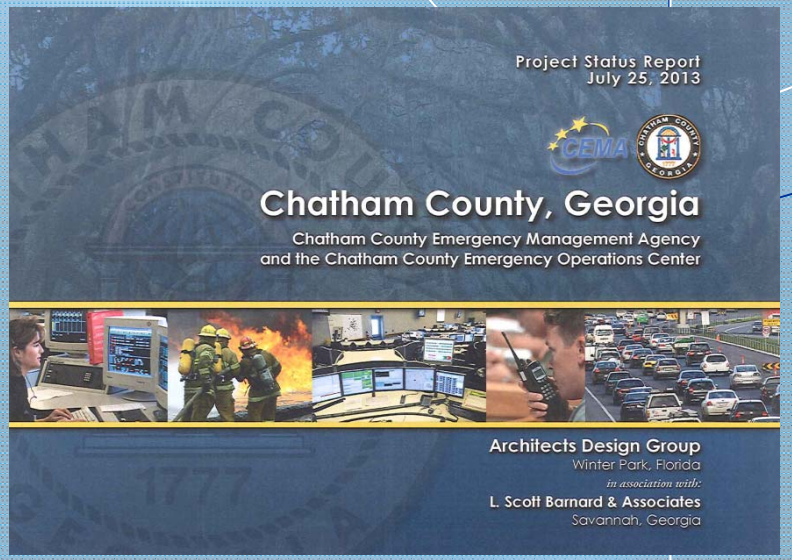
INTRODUCTION AND OVERVIEW OF ATMS FEASIBILITY STUDY

Chatham County Intelligent Transportation System and Traffic Control Center Strategic Plan

- **Phase 1**
  - January 2013 to March 2014
- **Phase II**
  - February 2014 to Fall 2014

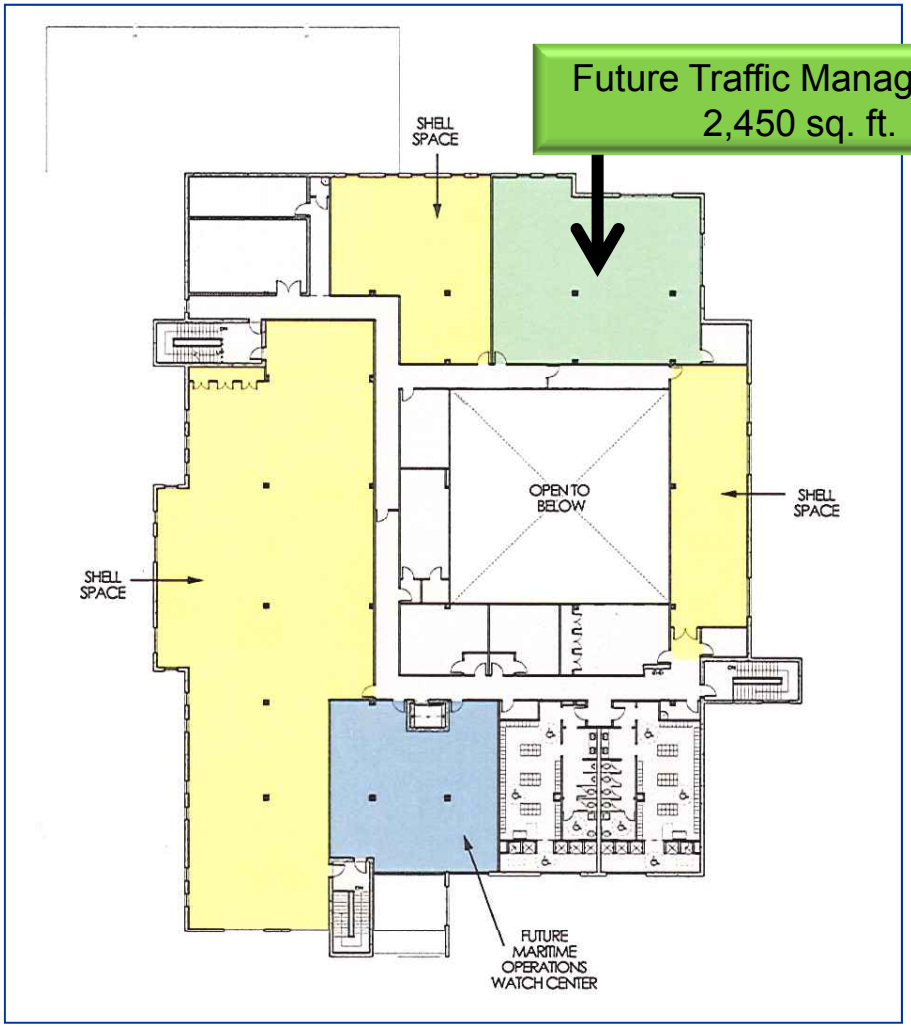
Agenda Item 2

PLANNED CEMA EMERGENCY OPERATIONS CENTER



Planned Emergency Operations Center

Planned Emergency Operations Center



Agenda Item 3

EXISTING SYSTEMS AND INFRASTRUCTURE NEEDS

Existing Systems and Infrastructure Needs

A. Existing Systems and Needs

- Study Region: Chatham, Effingham, and Bryan Counties
- Agencies that own/maintain traffic signals in region:
  - City of Savannah
  - GDOT
  - Chatham County
  - City of Pooler
- Goal of Inventory:
  - Determine the state of the existing traffic signal systems, traffic control devices, and Intelligent Transportation Systems (ITS) devices

Existing Systems and Needs

Savannah Region Traffic Device Inventory Data

Agency	No. of Signals	2070 Controllers	Fiber Communications	Adaptive
Savannah	301	90%	55%	0%
GDOT	94	100%	40%	0%
Chatham County	27	65%	Est. low %	0%
Pooler	8	100%	88%	0%

Other than Savannah and Pooler, virtually all city/town signals in the tri-county area are maintained by GDOT

Existing Systems and Needs

Savannah Region Traffic Device Inventory Data

Agency	No. of Signals	Wireless	Video Detection	Video Surveillance (Intersections)
Savannah	301	15%	2%	5%
GDOT	94	25%	9%	0%
Chatham County	27	4%	7%	22%
Pooler	8	0%	0%	0%

Summary of Phase 1 Activities and Findings

A. Existing Systems and Needs

- **Freeway Traffic Management (GDOT)**
  - Georgia Navigator 511
  - Regional Dynamic Message Signs (DMS)
    - 4 on Freeways (I-95, I-516)
    - 2 on Arterials (Hwy 17, Hwy 204)
  - Closed Circuit TVs (CCTV)
    - 1 on I-16
    - 3 on I-95
  - Automated Traffic Recorders (ATR)
    - 11 on Freeways
    - 8 on Arterials

Summary of Phase 1 Activities and Findings

A. Existing Systems and Needs

- **Infrastructure Needs**
  - ❖ **Communication**
    - o **City of Savannah - more capacity fiber (single mode)**
    - o **GDOT – 35% signals have no communications**
    - o **Chatham County – 96% have no communications**
    - o **Pooler – cannot communicate with signals (but has fiber to most)**
  - ❖ **Controller and Cabinet Upgrades**
    - o **GDOT/City of Pooler – No upgrades needed**
    - o **Savannah – 10% need upgrading to 2070s + 332/336 Cabs**
    - o **Chatham County - 33% need upgrading to 2070s + 332/336 Cabs**

Summary of Phase 1 Activities and Findings

A. Existing Systems and Needs

- **Infrastructure Needs (continued)**
  - ITS Field Devices (All Agencies) :
    - CCTV Cameras
    - DMS (fixed and portable)
    - System Detection
      - Adaptive Control
      - Video detection

- **What could pull all this together?**

  TRAFFIC MANAGEMENT CENTER

Summary of Phase 1 Activities and Findings

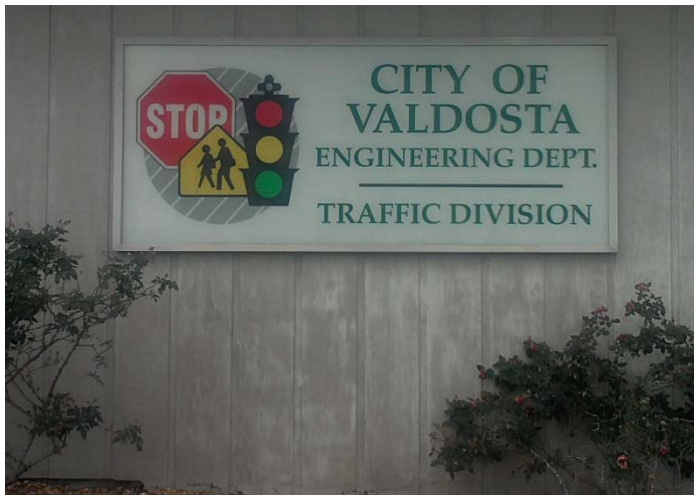
B. Lessons Learned from Scan Tours

- Jacksonville Regional TMC
  - 200+ digital cameras
  - 93 DMS
  - 6 weather stations
  - 288 microwave detectors
  - 100 Bluetooth arterial devices
  - 29 wind sensors
  - Will soon manage 460 traffic signals from TMC

- DOT, FHP, Sheriff, Fire to co-locate
- $2.6 million in initial funds for original building and TMC

Summary of Phase 1 Activities and Findings

B. Lessons Learned from Scan Tours



- City of Valdosta
  - 127 Signals
  - 117 can be communicated with from TMC
  - 26 CCTV cameras (surveillance)
  - 100% 2070 controllers
- City spent $1.4 million on TMC
- GDOT paid $350,000 for fiber (10 years ago)

Summary of Phase 1 Activities and Findings

- Second visit to traffic management centers
  - Two centers in Atlanta region
    - Cobb County TMC
    - GDOT TMC

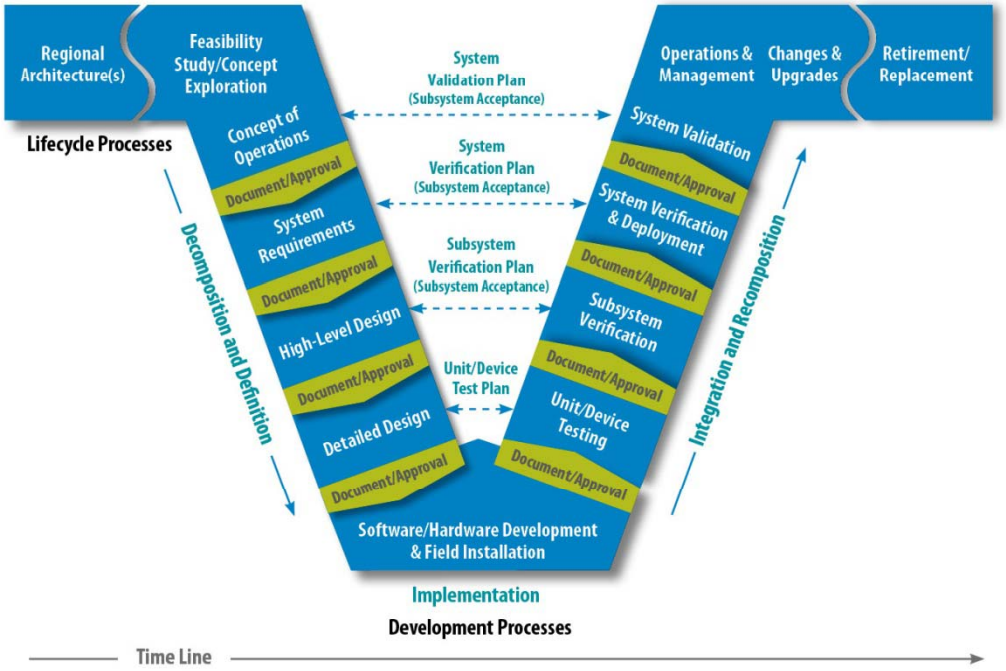
Agenda Item 4

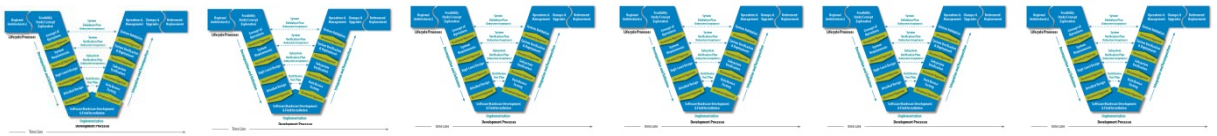
OPERATIONAL NEEDS AND GOALS

Operational Needs and Goals

- **Operations vs. Infrastructure**
  - **People vs. equipment**
  - **Future vs. past**
- **What are "Needs"?**
  - **Responsibilities**
- **What are "Wants"?**
  - **Improvements**
- **Opportunity Costs**
  - **Projects, wants, and needs align**

Systems Engineering





Needs by Functional Area

- **Traffic Management**
  - **Maximize efficiency of signals**
  - **Address congestion**
  - **Incident management**
- **Traveler information**
  - **Provide information to the public**
  - **Provide information to media**
- **Public Transportation**
  - **Monitor fleet**
  - **Work with other areas**

Needs by Functional Area

- **Commercial Vehicles**
  - **Safety**
  - **Part of larger efforts (national and regional)**
- **Emergency Management**
  - **Hurricane evacuation and coordination**
- **Archived Data**
  - **Planning**
  - **Operations analysis**
- **Maintenance and Construction**
  - **Work zones**
  - **Fleet management**

Agenda Item 5

NEXT STEPS – PHASE II

Alternatives Evaluation and Implementation Plan

- Phase II
  - Schedule: early February to the Fall, 2014
- Task 1 – Goals and Objectives – long range aspirations for mobility and traffic management in the region
- Task 2 – Traffic Management Improvement Options – to meet short, medium and long term needs
- Task 3 – Regional Traffic Management – building on tours, making the case for regional traffic management through case studies
- Task 4 – Preparation of the Strategic Plan – responsibilities, costs, funding, etc.
- Task 5 – Implementing the Strategic Plan – first steps (optional)

Agenda Item 6

QUESTIONS

Contact Information

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