wvOASIS
Our Advanced Solution with Integrated Systems

Safety Management System

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What is ERP?

○ Enterprise Resource Planning System
○ Also Known as

○ Basically the Modernization and Integration of the ALL of the State's Computer Systems, including:

- Financial Systems
- Procurement System
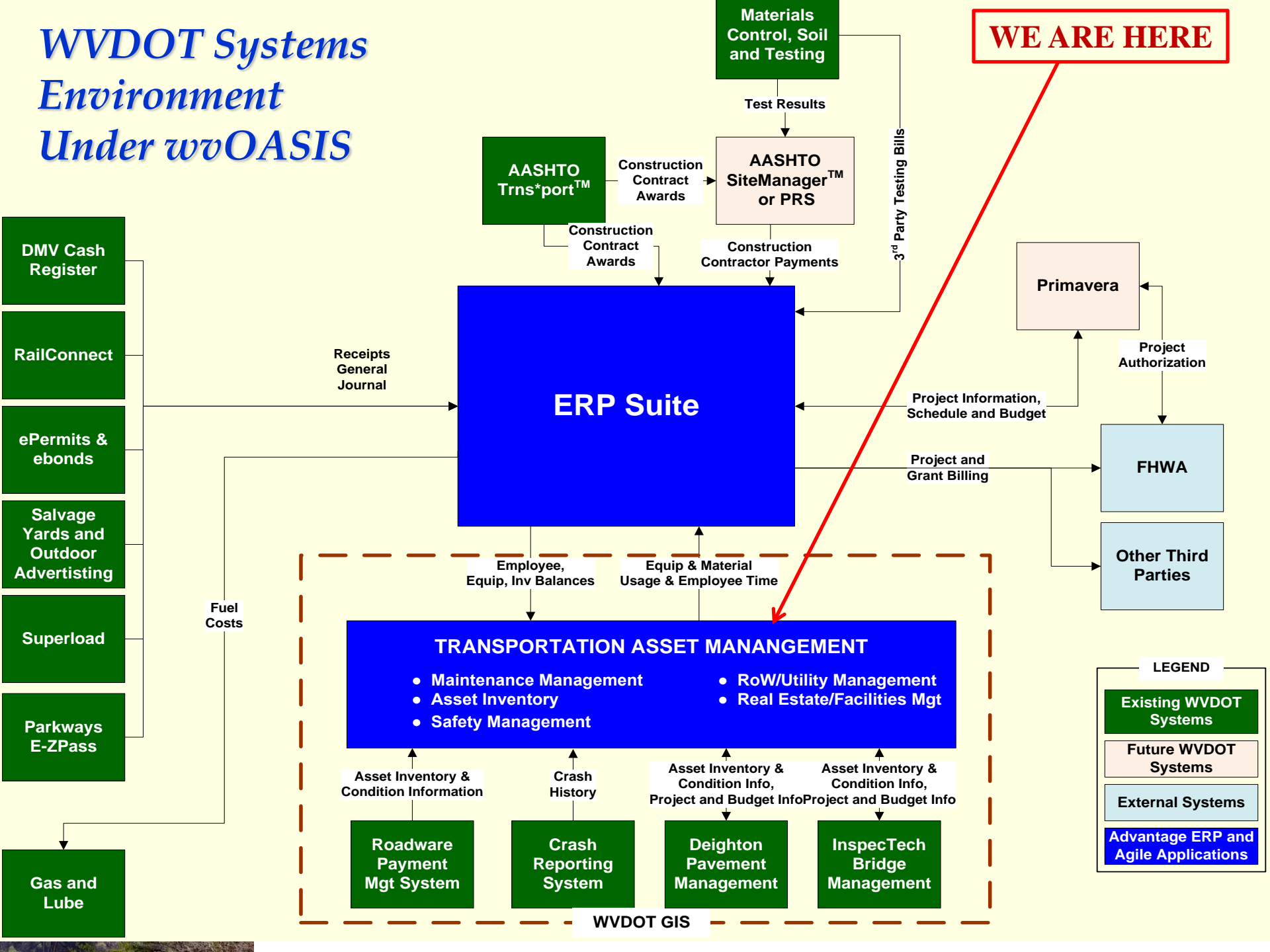- Human Resources
- Payroll
- Transportation Management System

Phased Implementation

WVDOT Systems Environment Under wvOASIS

WE ARE HERE

Materials Control, Soil and Testing
— Test Results →

AASHTO Trns*port™
— Construction Contract Awards →
AASHTO SiteManager™ or PRS

3rd Party Testing Bills

Construction Contract Awards

Construction Contractor Payments

ERP Suite

Receipts General Journal

Primavera
— Project Authorization →

Project Information, Schedule and Budget →

Project and Grant Billing →
FHWA

Other Third Parties

- DMV Cash Register
- RailConnect
- ePermits & ebonds
- Salvage Yards and Outdoor Advertising
- Superload
- Parkways E-ZPass
- Fuel Costs
- Gas and Lube

Employee, Equip, Inv Balances

Equip & Material Usage & Employee Time

TRANSPORTATION ASSET MANANGEMENT

- Maintenance Management
- Asset Inventory
- Safety Management
- RoW/Utility Management
- Real Estate/Facilities Mgt

Asset Inventory & Condition Information

Crash History

Asset Inventory & Condition Info, Project and Budget Info

Asset Inventory & Condition Info, Project and Budget Info

- **Roadware Payment Mgt System**
- **Crash Reporting System**
- **Deighton Pavement Management**
- **InspecTech Bridge Management**

WVDOT GIS

LEGEND
- Existing WVDOT Systems
- Future WVDOT Systems
- External Systems
- Advantage ERP and Agile Applications

Transportation Suite
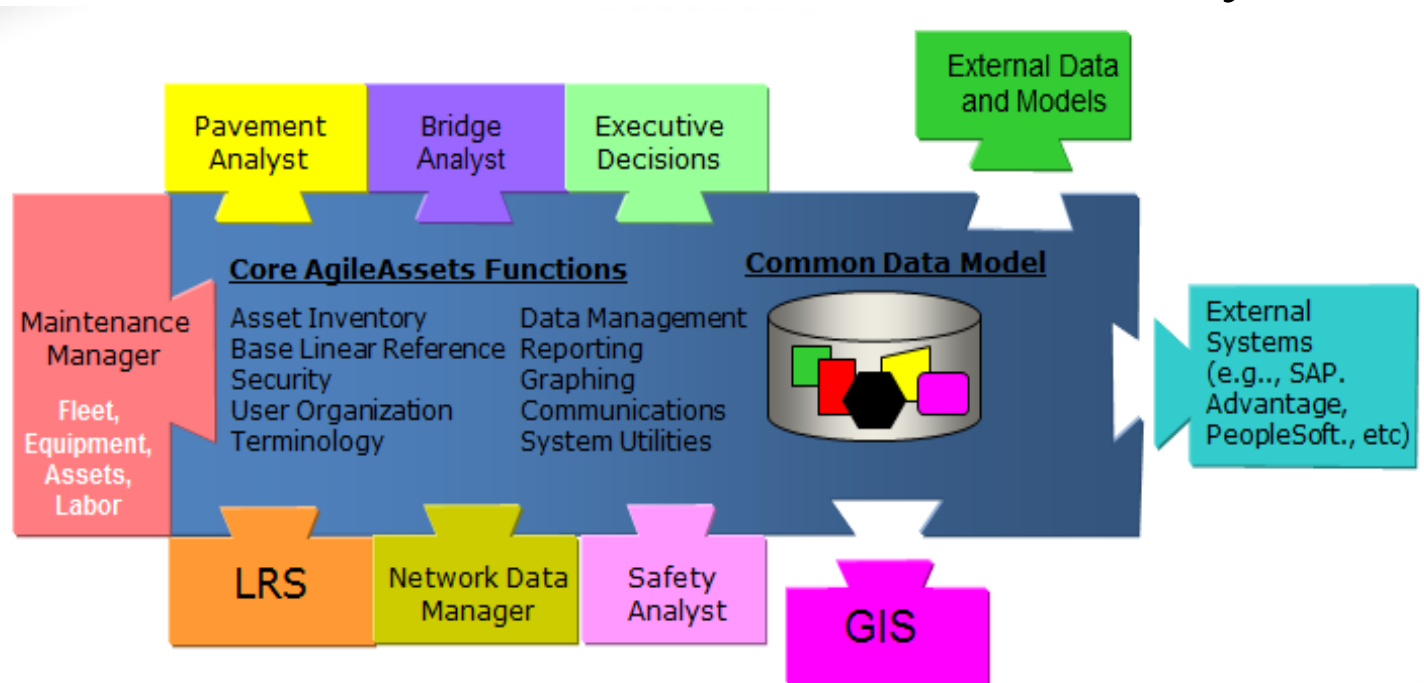
○ Being Developed by AgileAssets
○ Includes Systems for:

- Safety Management
- Transportation Asset Inventory
- Right of Way / Utility Management
- Transportation Operations Management
- Real Estate / Facilities Management
- Fleet

AgileAssets® Asset Management Suite

○ Comprehensive Transportation Asset Management System

○ Modular Framework

○ Centered around Core Functionality

What is a Safety Management System?

A Comprehensive Means of Managing Safety – in Our Case…

Highway Safety

Why do we need a Safety Management System?

○ Each Year, on the State's Public Streets & Highways:

  ○ More than **330** People Die

  ○ More than **14,000** Additional People Receive Injuries

    ○ **1,400** of those Injuries are Incapacitating

Why do we need a Safety Management System?

○ SAFETEA-LU
- ○ Made Safety a Core Program
- ○ Doubled Highway Safety Funding
- ○ Required the Development of a Strategic Highway Safety Plan

○ MAP-21
- ○ Continued Safety as a Core Program
- ○ Doubled Highway Safety Funding
- ○ Streamlined the Highway Safety Improvement Program Process
- ○ Added Performance Measures & Targets
- ○ Requires Additional Coordination of Highway Safety Related Plans/Programs

Goals for West Virginia's Safety Management System

- Ability to Conduct More Comprehensive Safety Analysis than Ever Before
  - Bigger Bang for our Buck
  - Better Analysis of Safety Improvement Effectiveness
- Ability to Conduct Analysis per Highway Safety Manual Recommendations / Guidelines
- Easily Tie "Safety" Data Together with Data from other wvOASIS Modules
  - Transportation Asset Inventory
  - Transportation Operations Management
  - Capital Project Management System (CPMS)

Agile Assets'
Safety Management System

○ First State Deployment

○ Features:

  ○ Asset Performance Management
    ○ Safety Related Database(s)
  ○ Planning Processes
    ○ Network Analysis
    ○ Benefit /Cost Analysis
    ○ Project Analysis / Evaluation
    ○ Grants Management

Phased Implementation – Phase B
Live as of January 21, 2014

○ Safety Related Databases:

   ○ Crash Records
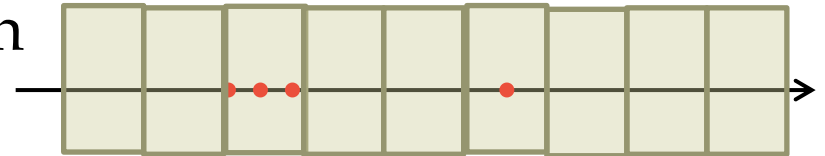
   ○ Citations

   ○ Horizontal & Vertical Curve Data

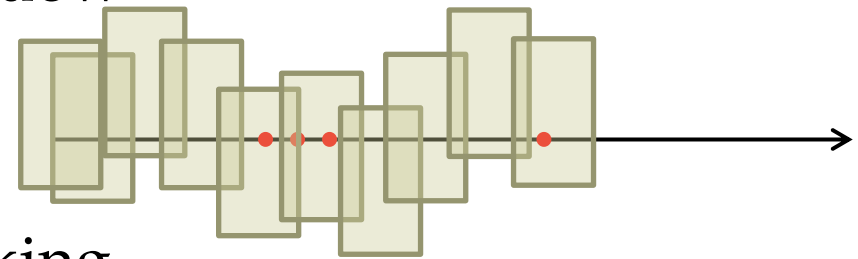# *Phased Implementation – Phase B*
Live as of January 21, 2014

○ Planning Processes:

  ○ Network Analysis

    ○ Peak Search

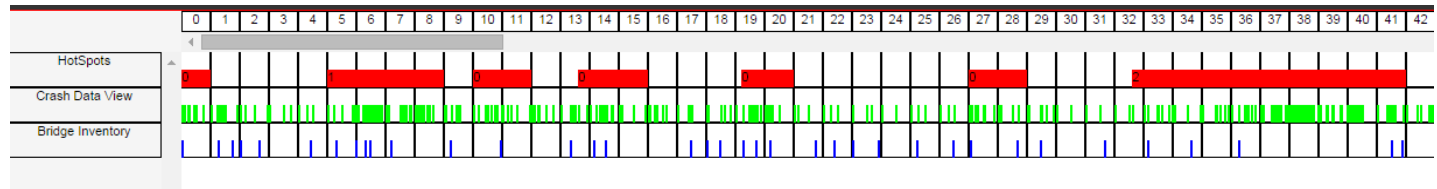   ○ Sliding Window

    ○ Simple Ranking

Phased Implementation – Phase B
Live as of January 21, 2014

○ Planning Processes:
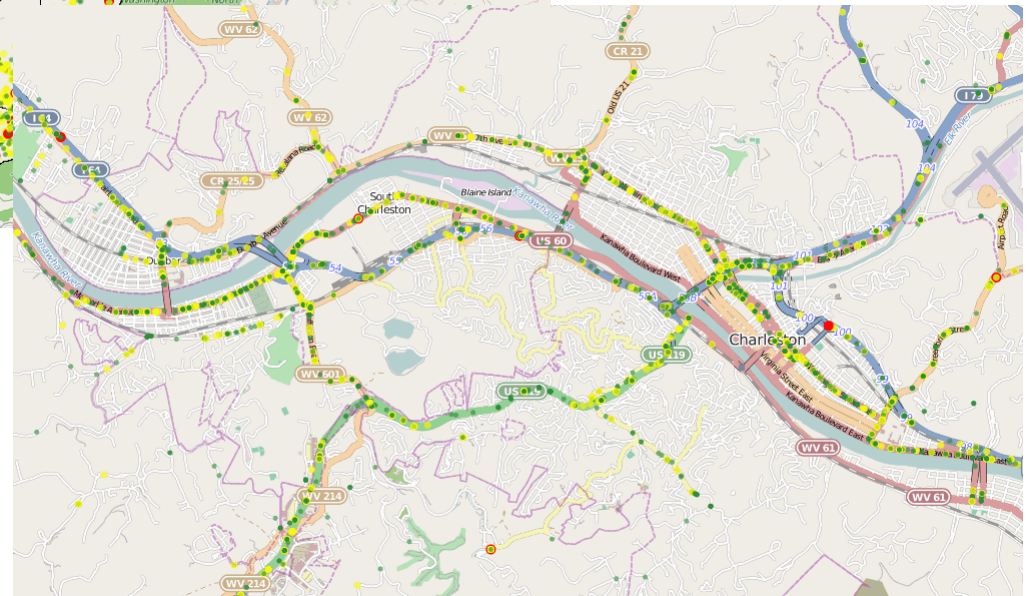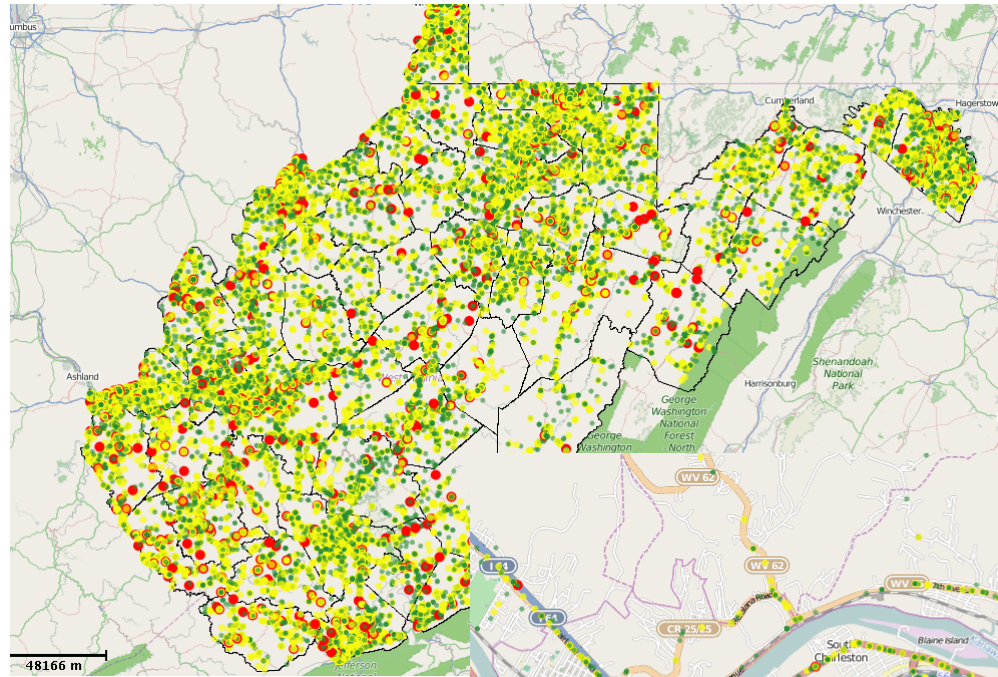
    ○ Benefit /Cost Analysis

        ○ Links to the National Crash Modification Factor Clearinghouse

    ○ Project Analysis / Evaluation

        ○ Profile Viewer

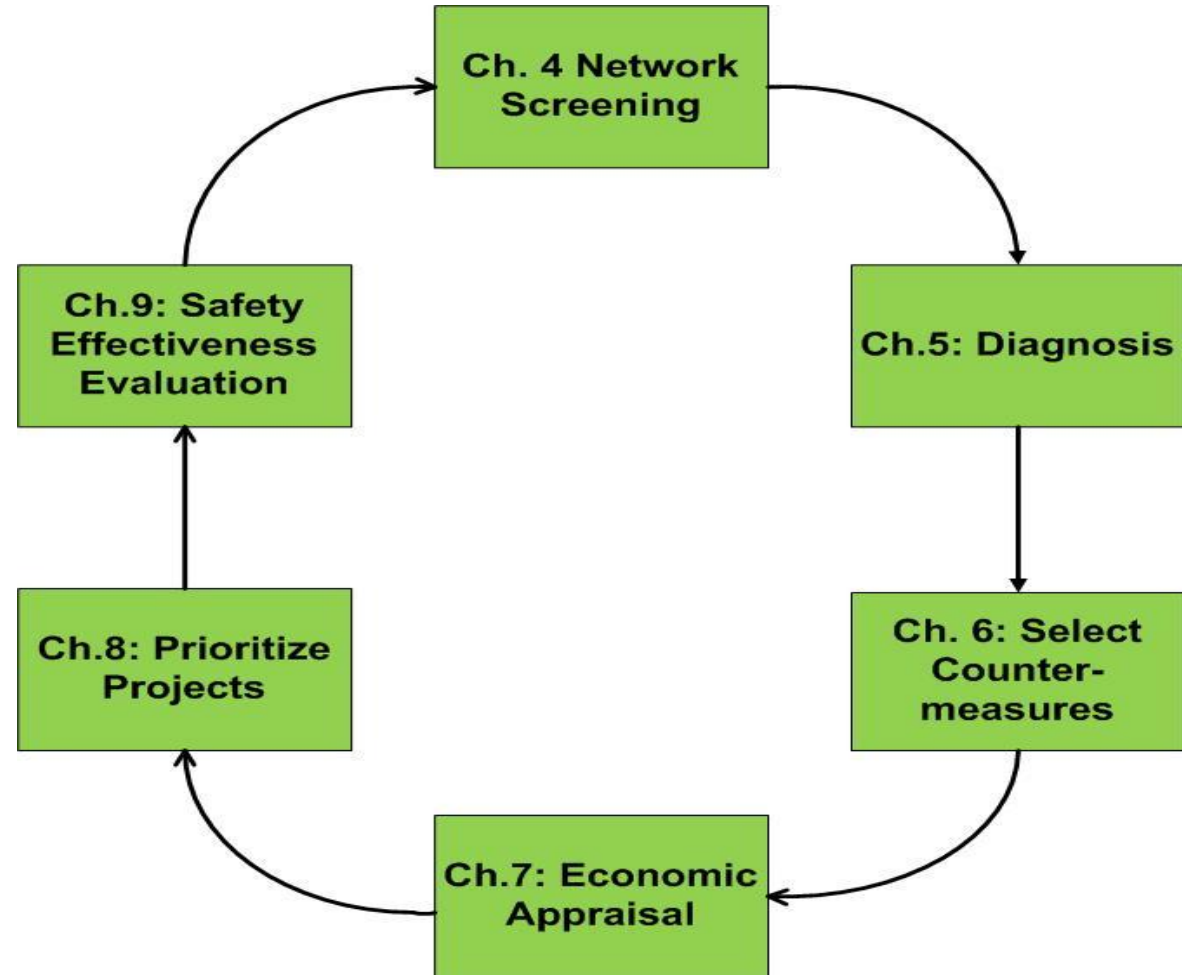   ○ Heat Maps

        ○ Before & After Snapshots

Heat Maps

Safety Analyst Module:
100% Configurable to the Volume 1 of the Highway Safety Manual

Phased Implementation – Phase B
Live as of January 21, 2014

○ Integration with Additional Phase B Functionality

- ○ Linear Referencing System

- ○ GIS Mapping Components

- ○ Transportation Asset Inventory

  - ○ Roadway Inventory

  - ○ Barrier

  - ○ Pavement Markings

  - ○ Signs

  - ○ Ditches

Phased Implementation – Phase E
Go-Live Scheduled for July of 2015

○ Safety Related Databases:

- ○ EMS Run Data

- ○ State Trauma Registry Data

- ○ DMV Driver Database

  - ○ Licenses

  - ○ Convictions

- ○ DMV Vehicle Registration Database

Phased Implementation – Phase E
Go-Live Scheduled for July of 2015

- Cradle to Grave Project Management Processes with Phases for:
  - Proposed
  - Recommended
  - Scheduled
  - Authorized
  - Completed
- Ability to handle
  - Infrastructure Projects
  - Non-Infrastructure Projects

Phased Implementation – Phase E
Go-Live Scheduled for July of 2015

○ Planning Processes:
- ○ Integration with CPMS
  - ○ Direct Submission of Projects from SMS – "Recommended" Status
  - ○ Receipt of Project Data/Status Updates
    - ○ Scheduling
    - ○ Funding
    - ○ Obligation
- ○ Additional Project Analysis / Evaluation

Phased Implementation – Phase E
Go-Live Scheduled for July of 2015

○ Planning Processes:
- ○ Grant Management Functionality
  - ○ Used by:
    - ○ Governor's Highway Safety
    - ○ Commission on Drunk Driving Prevention
  - ○ Allows Electronic Grant:
    - ○ Application
    - ○ Evaluation
    - ○ Awarding
    - ○ Expenditure & Outcome Analysis

Phased Implementation – Phase E
Go-Live Scheduled for July of 2015

- Integration with Additional Phase E Functionality
  - Transportation Asset Inventory
    - 79 Assets in Addition to Phase B, including:
      - Highway Railroad Grade Crossings
      - Construction Projects & History
      - Signals
      - Lighting
      - ITS
      - Full Implementation of All MIRE Data Elements
      - Additional Roadside Features