Transportation Performance Management at

John Thomas, PE

Utah

- 33rd in Population
- 12th by Land Area
- 9th Most Urban State
- Utah DOT
  - 16,000 lane miles and 1,750 bridges.
  - 1,600 Employees

New Mexico

- 36th in Population
- 5th by Land Area
- 22nd Most Urban State
- New Mexico DOT
  - 143,000 lane miles and nearly 4,000 bridges and culverts.
  - How many employees?

TPM Toolbox | Guidebook | Assessment | Resources | About | Search

TPM Toolbox

Beta Release Website

This is a beta release website for the FHWA Toolbox.

Learn more about the TPM Framework

TPM Guidebook

Self-Assessment

TPM Resources

TPM Assessment Tool

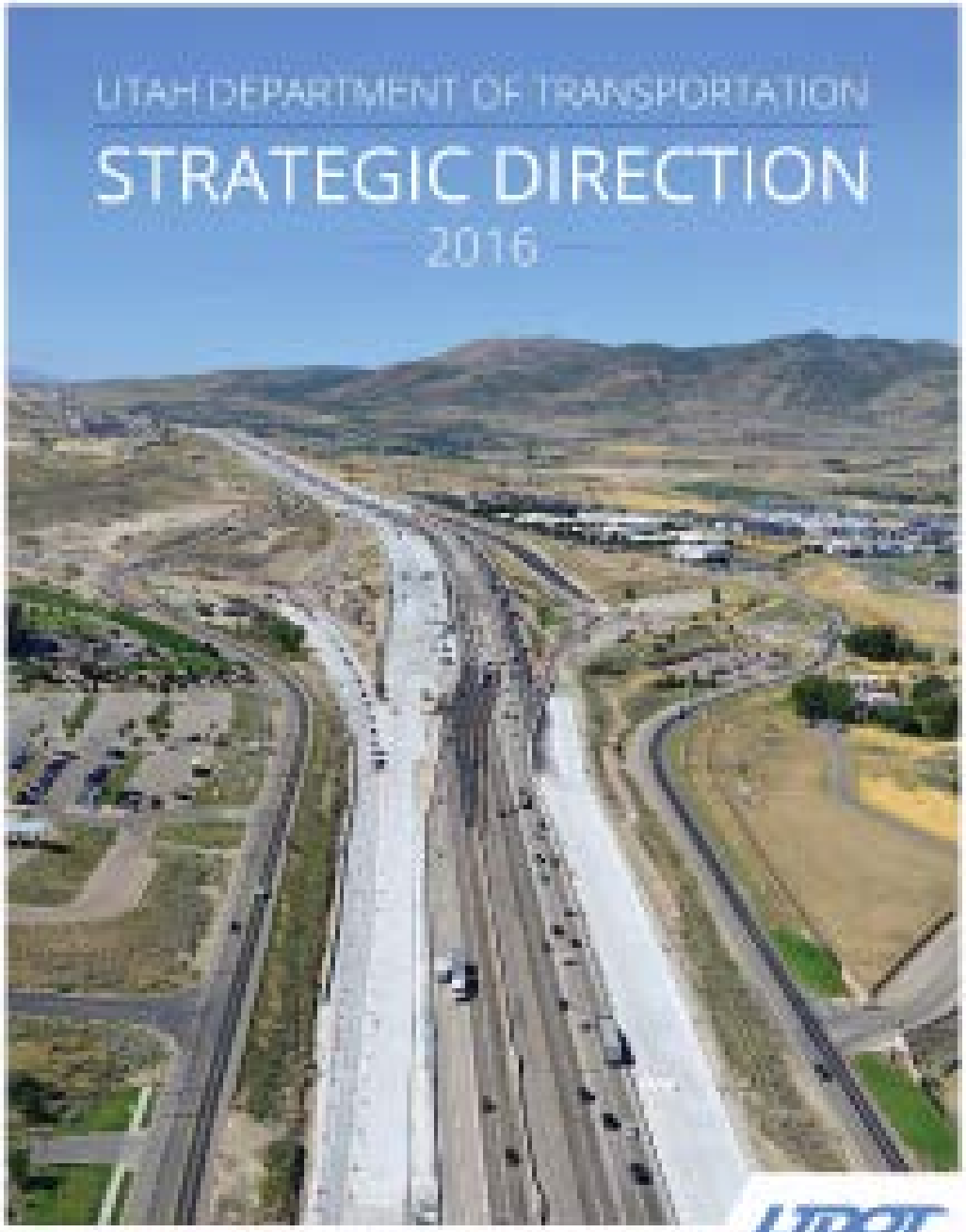
- Component 1. Strategic Direction
- Component 2. Target Setting
- Component 3. Performance-Based Planning
- Component 4. Performance-Based Programming
- Component 5. Monitoring and Adjustment
- Component 6. Reporting and Communication
- Component A. Organization and Culture
- Component B. External Collaboration and Coordination
- Component C. Data Management
- Component D. Data Usability and Analysis

Component 1: Strategic Direction

UTAH DEPARTMENT OF TRANSPORTATION

STRATEGIC DIRECTION

2016



UDOT

UDOT'S ROAD MAP

VISION
KEEPING UTAH MOVING

MISSION
Innovating transportation solutions that strengthen Utah's economy and enhance quality of life.

STRATEGIC GOALS

ZERO CRASHES, INJURIES AND FATALITIES
UDOT is committed to safety, and we won't rest until we achieve zero crashes, zero injuries and zero fatalities.

PRESERVE INFRASTRUCTURE
We believe good roads cost less, and through proactive preservation we maximize the value of our infrastructure investment for today and the future.

OPTIMIZE MOBILITY
UDOT optimizes traffic mobility by adding roadway capacity and incorporating innovative design and traffic management strategies.

UDOT'S CORE VALUES

- TRUST
- SAFETY
- INTEGRITY
- FISCAL RESPONSIBILITY
- PASSION
- PUBLIC RESPONSIVENESS
- DEDICATION

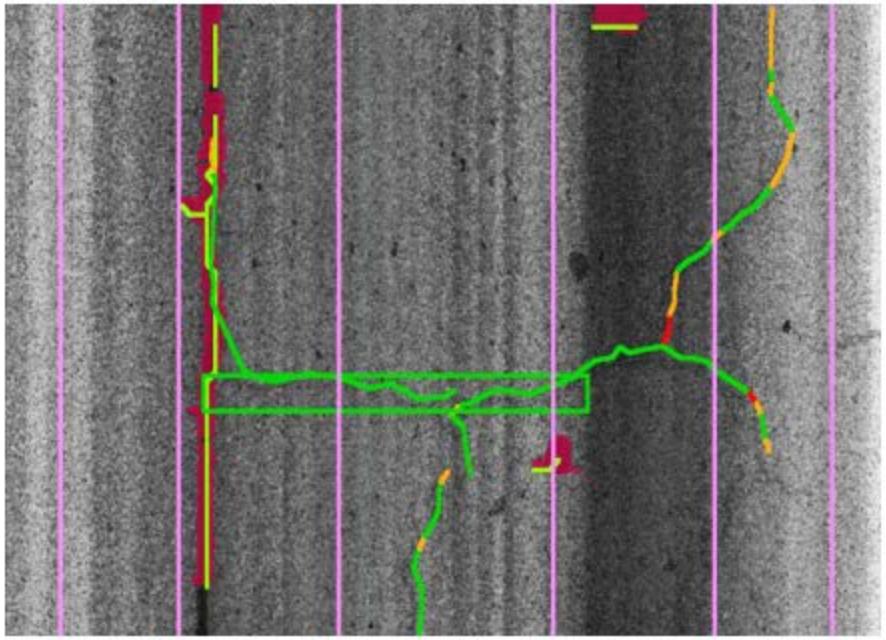
EMPHASIS AREAS

- INTEGRATED TRANSPORTATION
- INNOVATION
- COLLABORATION
- QUALITY
- EDUCATION
- TRANSPARENCY

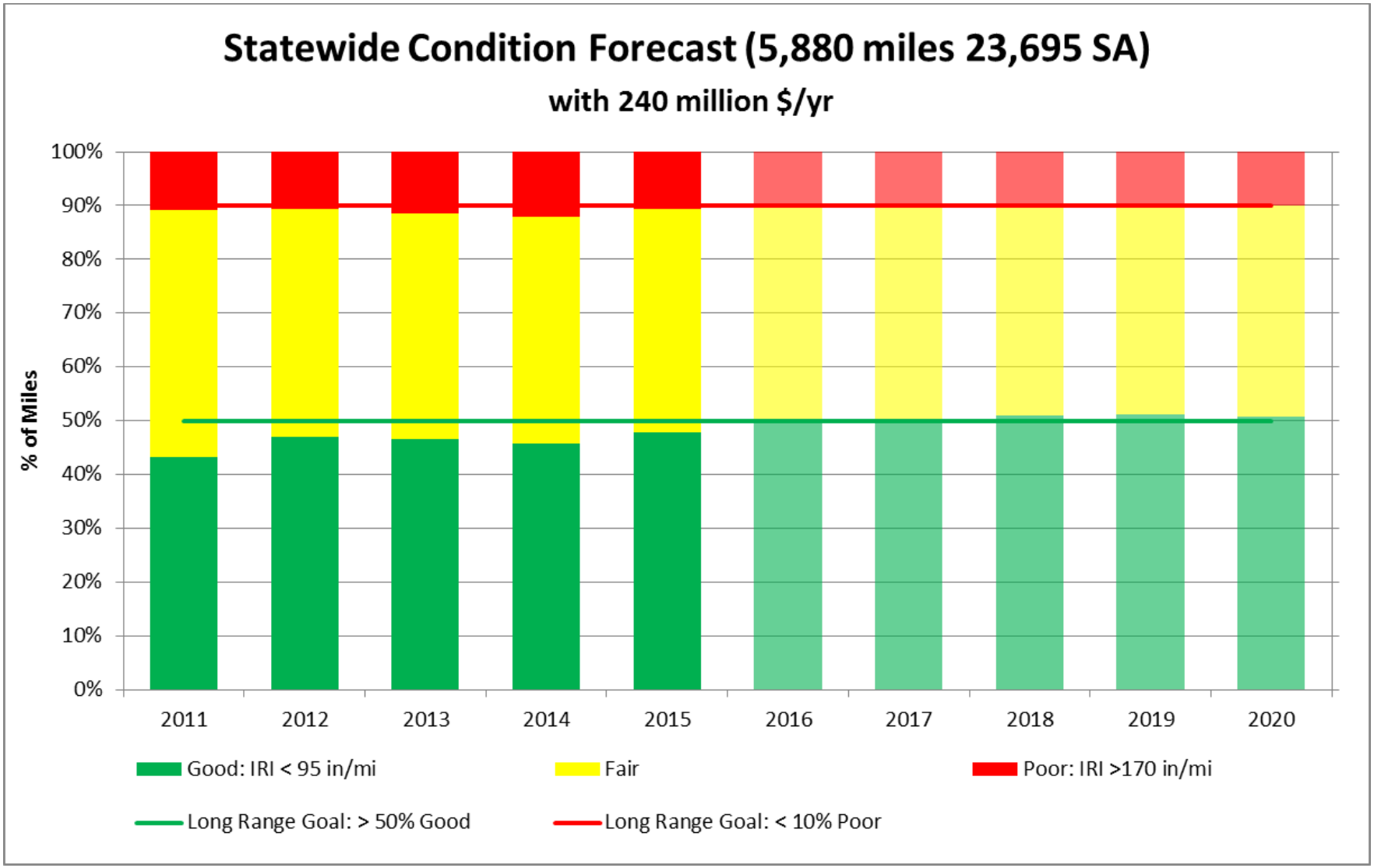
UDOT
Keeping Utah Moving

Component 2: Target Setting

Automated Pavement Data Collection

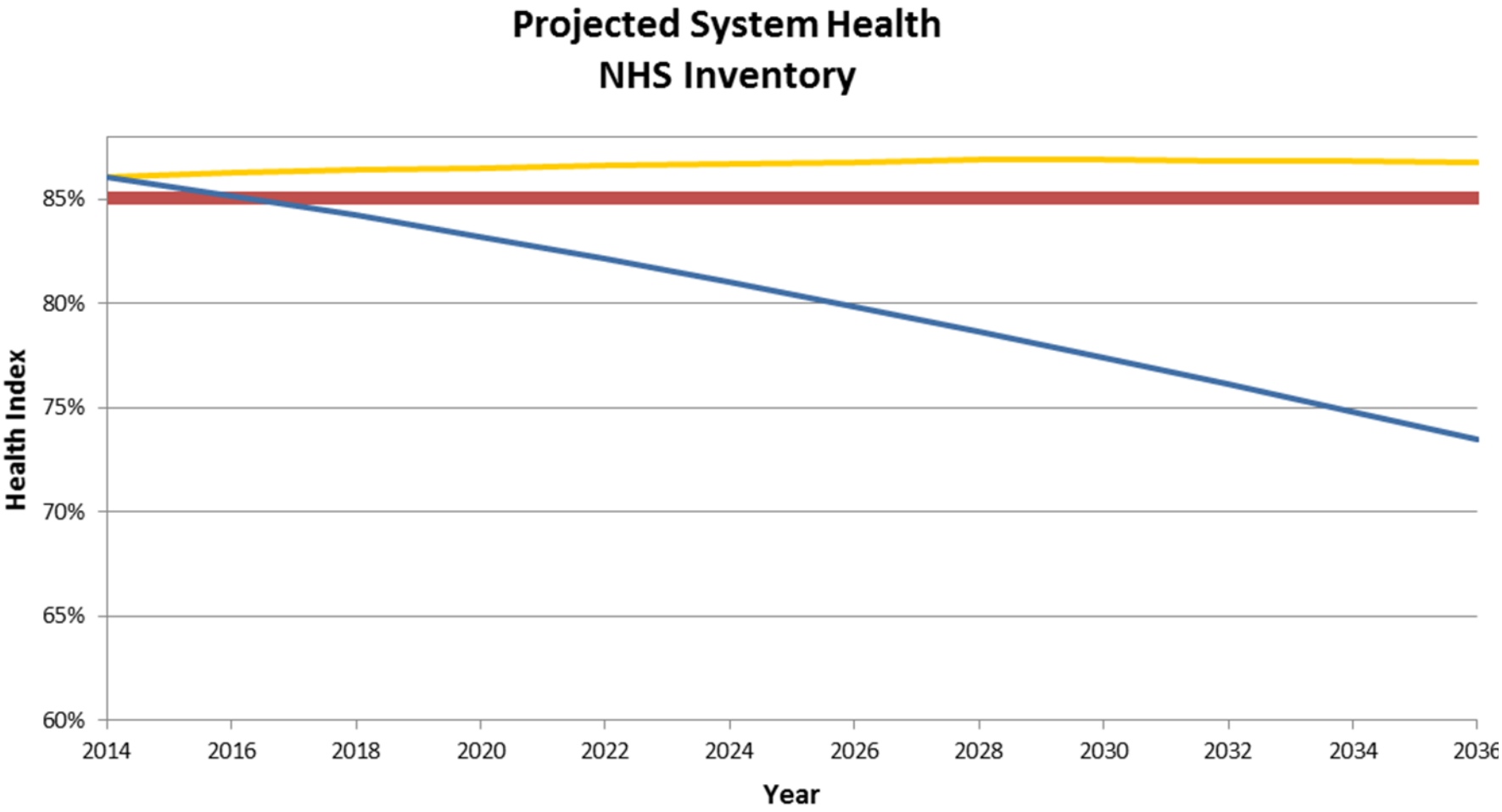


Historical Pavement Condition with Forecast



Bridge Inspections

Measuring and tracking condition of 1,750 bridges statewide


Projected System Health
NHS Inventory
Health Index
85%
80%
75%
70%
65%
60%
2014
2016
2018
2020
2022
2024
2026
2028
2030
2032
2034
2036
Year

Performance Measures from Senior Leaders Workshops

- **Zero Crashes, Injuries and Fatalities**
  - External Fatalities
  - Internal Fatalities
  - External Serious Crashes
  - Internal Injuries
  - External Crashes
  - Internal Crashes/Incidents
- **Preserve Infrastructure**
  - Pavement Conditions
  - Bridge Conditions
  - ATMS/Signal System
- **Optimize Mobility**
  - Delay
  - Reliability
  - Mode Split
  - Snow

National Goal Area	National Goal	National Performance Measures	UDOT Performance Measures	UDOT Goal	UDOT Goal Area
Safety	Achieve significant reduction in traffic fatalities and serious injuries on all public roads	Fatalities	External fatalities	Zero crashes, injuries and fatalities	Zero Fatalities
			Internal fatalities		
		Serious injury accidents	External serious crashes		
			Internal injuries		
			External crashes		
			Internal crashes/incidents		
		Non-motorized fatalities & serious injuries			
Infrastructure Condition	Maintain highway infrastructure asset system in state of good repair	Pavement condition on Interstate and NHS	Ride condition (IRI) of Interstate, NHS, Level 1 & 2 roads	Pavement and Bridges in good condition	Preserve Infrastructure
		Performance of Interstate and NHS			
		Bridge condition on NHS	Bridge condition (BHI) of NHS, State, and Local Federal-aid bridges		
			ATMS/Signal System		
Performance	Achieve significant reduction in congestion on NHS	Peak hour travel time interstate & NHS in SLC	Delay	Optimize traffic mobility	Optimize Mobility
		Reliable travel times interstate & NHS	Reliability		
			Mode split		
			Snow		
Freight		Interstate reliable truck travel times			
		Uncongested interstate for trucks			
CMAQ		Excessive delay per capita			
		Short tons of pollutant			

Target Setting

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Keeping Utah Moving

Component 3: Performance-Based Planning

2015 - 2040 Long Range Transportation Plan (LRP)

The Utah Department of Transportation (UDOT) develops a long-range transportation plan (LRP) for rural areas that is designed to "Keep Utah Moving" now and into the future. This 2015-2040 Plan forecasts transportation needs over the next 25 years, and identifies a list of projects that will strengthen Utah's economy and enhance our quality of life.

What are the geographic areas of planning responsibility?

How can I continue to comment?

How are transportation needs assessed?

How can I access the plan?

FINAL

FHWA/FTA APPROVED 1 October 2016

UDOT electronic Program Management

Statewide Transportation Improvement Program

STIP 2017-2022

epm345_stip_report (Rev 1154)

Report Run on: Dec 10, 2016, 12:11 P.M.

Region	PIN	Status / Fund	Project No.	Rt.	Beg	Len	PIN Description / Project Location	Concept Description	Prior	2017	2018	2019	2020	CD	Total	Fed Aid	State	Other
Salt Lake County Projects																		
SALT L	11419	Advertised	F-0089(351)0	15			SR-89; Beck Street Ramp to I-15 NB, D-672											
		Adv Dt: 11/05/16					FROM US-89; MP .00 - .12											
		NHPP_BR							$145,000	$1,155,000	$0	$0	$0	$0	$1,300,000	$1,211,990	$88,010	$0
SALT L	9807	Subst Comp	F-0068(67)57	68	56	1	SR-68; 2100 S. to California	Major Rehabilitation - Roadway										
		Adv Dt: 05/24/14					SR-68; MP 56.33 - 57.34											
		EQ_BONUS(MG)							$4,161,000	$0	$0	$0	$0	$0	$4,161,000	$3,879,300	$281,700	$0
		L_BETTERMENT							$0	$113,713	$0	$0	$0	$0	$113,713	$0	$0	$113,713
		NHPP_BR							$20,000	$0	$0	$0	$0	$0	$20,000	$18,646	$1,354	$0
		NHPP_NHS							$285,000	$0	$0	$0	$0	$0	$285,000	$265,706	$19,295	$0
		NHS							$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
		STP_FLX_ST							$1,080,000	$0	$0	$0	$0	$0	$1,080,000	$1,006,884	$73,116	$0
		ST_BRIDGE							$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
			Total						$5,546,000	$113,713	$0	$0	$0	$0	$5,659,713	$5,170,536	$375,464	$113,713
SALT L	11203	Active	S-0068(95)41	68	41	1	SR-68; Bangerter Hwy to 12600 S	TIF - Transportation Investment Fund/Widen Existing Facili>>										
		To Be Adv Dt: 12/21/16					SR-68; MP 40.82 - 42.31											
		ST_CONCPT_D2							$8,404	$0	$0	$0	$0	$0	$8,404	$0	$8,404	$0
		ST_TIF							$4,052,450	$22,524,370	$10,423,180	$0	$0	$0	$37,000,000	$0	$37,000,000	$0
			Total						$4,060,855	$22,524,370	$10,423,180	$0	$0	$0	$37,008,404	$0	$37,008,404	$0
SALT L	11082	Scoping	F-0068(73)52	68	52	1	Redwood Road; 4100 South to 4700 South	Intersection Improvements										
		To Be Adv Dt: 03/23/17					SR-68; MP 52.31 - 53.31											
		STP_URB_SL							$10,000	$4,291,190	$3,427,537	$0	$0	$0	$7,728,727	$7,205,492	$0	$523,235

Project Lists

- Pavement
- Bridges
- Capacity
- Safety,
- Etc.

Performance Based Planning

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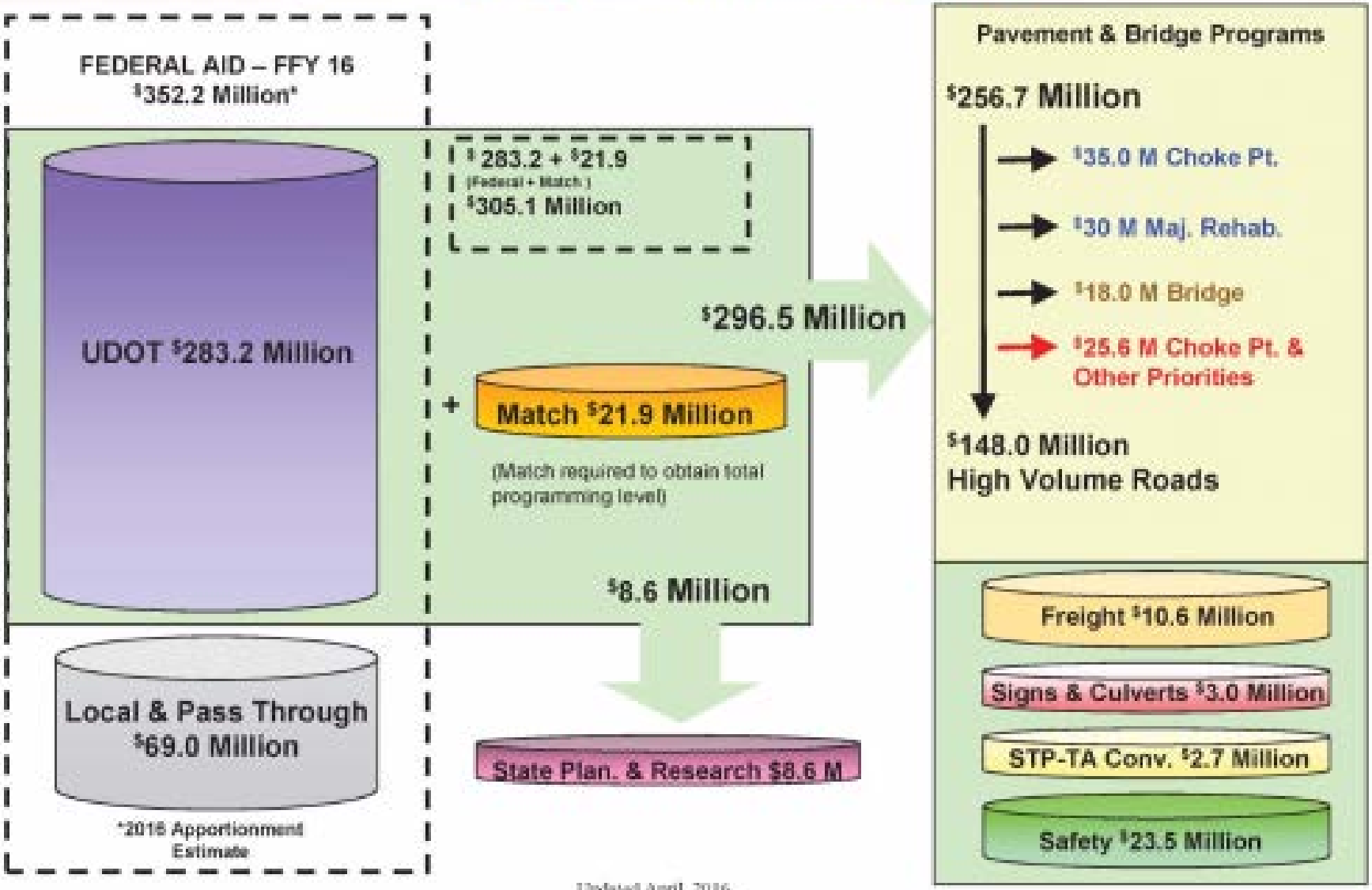
Keeping Utah Moving

Component 4: Performance-Based Programming

Federal Program Funding & Projections

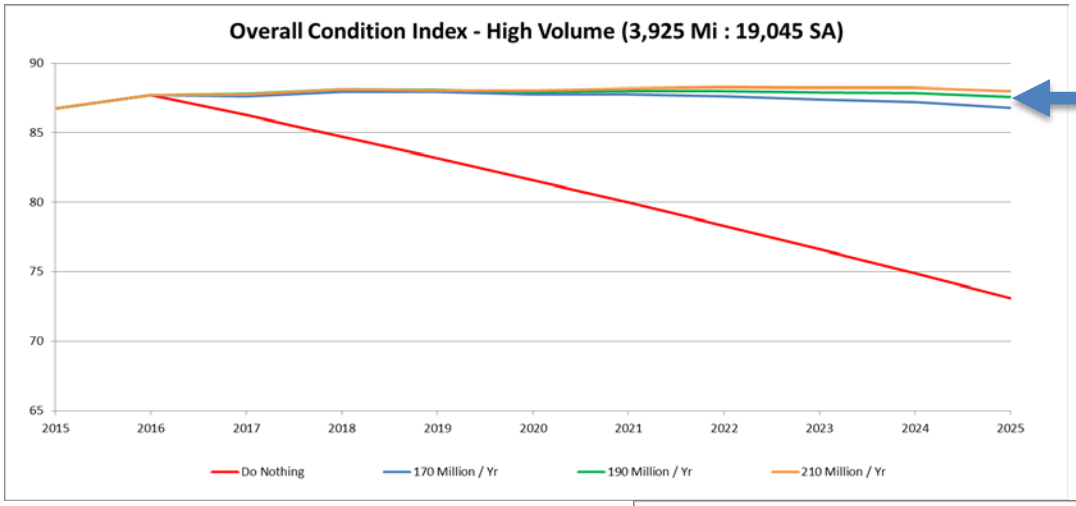
"DRAFT" Commission STIP Workshop Preparation 2016



Updated April, 2016

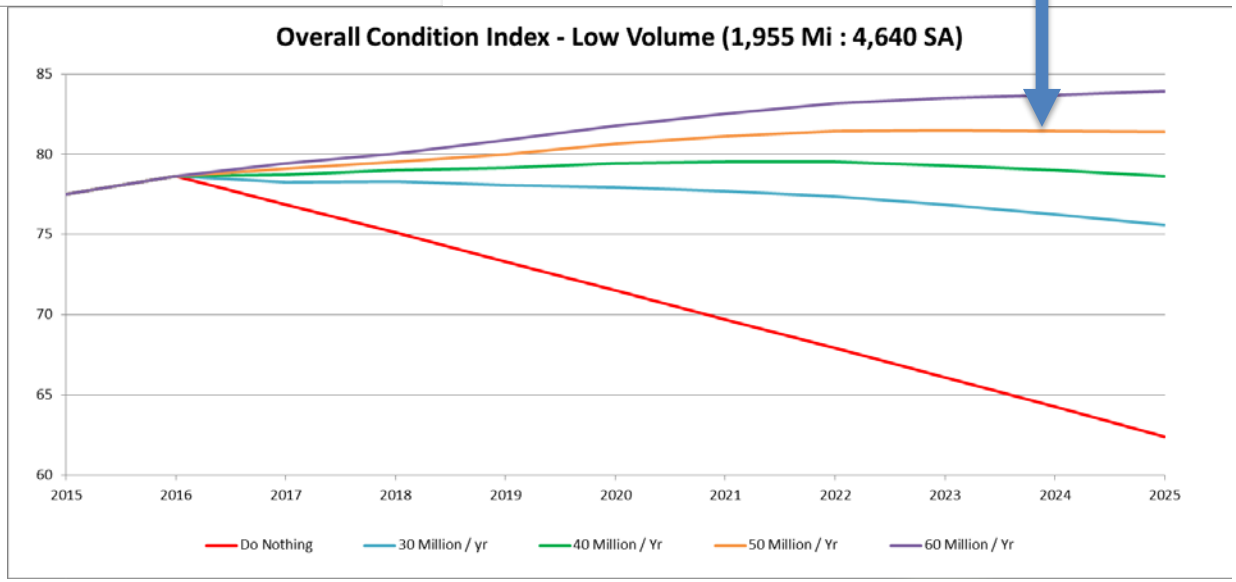
Component 5: Monitoring and Adjustment

Pavement Management Goals



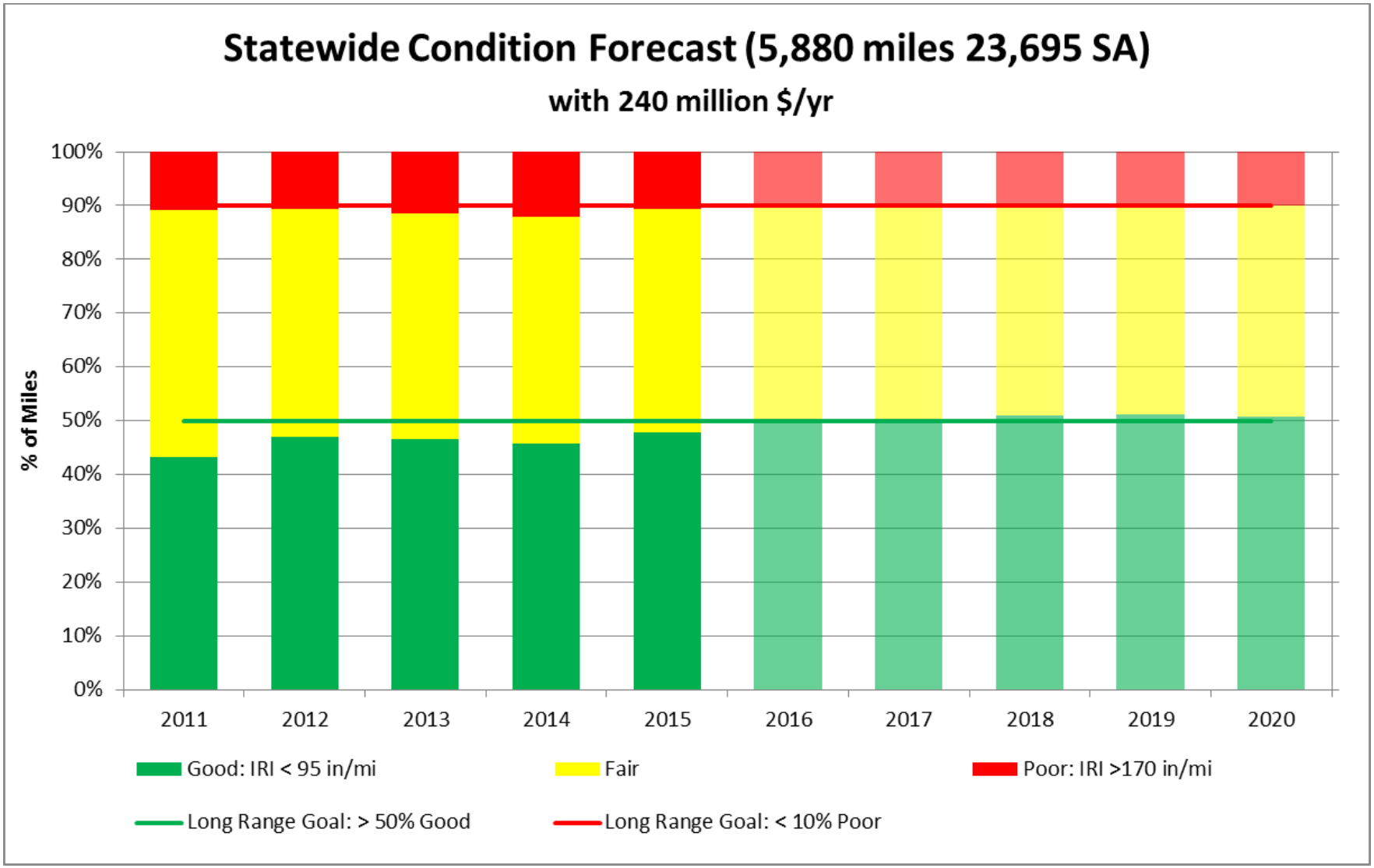
#1 - Sustain High Volume System condition

#2 - Improve Low Volume System condition to previous levels



dTIMS Model System Condition - 10 Year Forecast

Historical Pavement Condition with Forecast



Component 6: Reporting and Communication

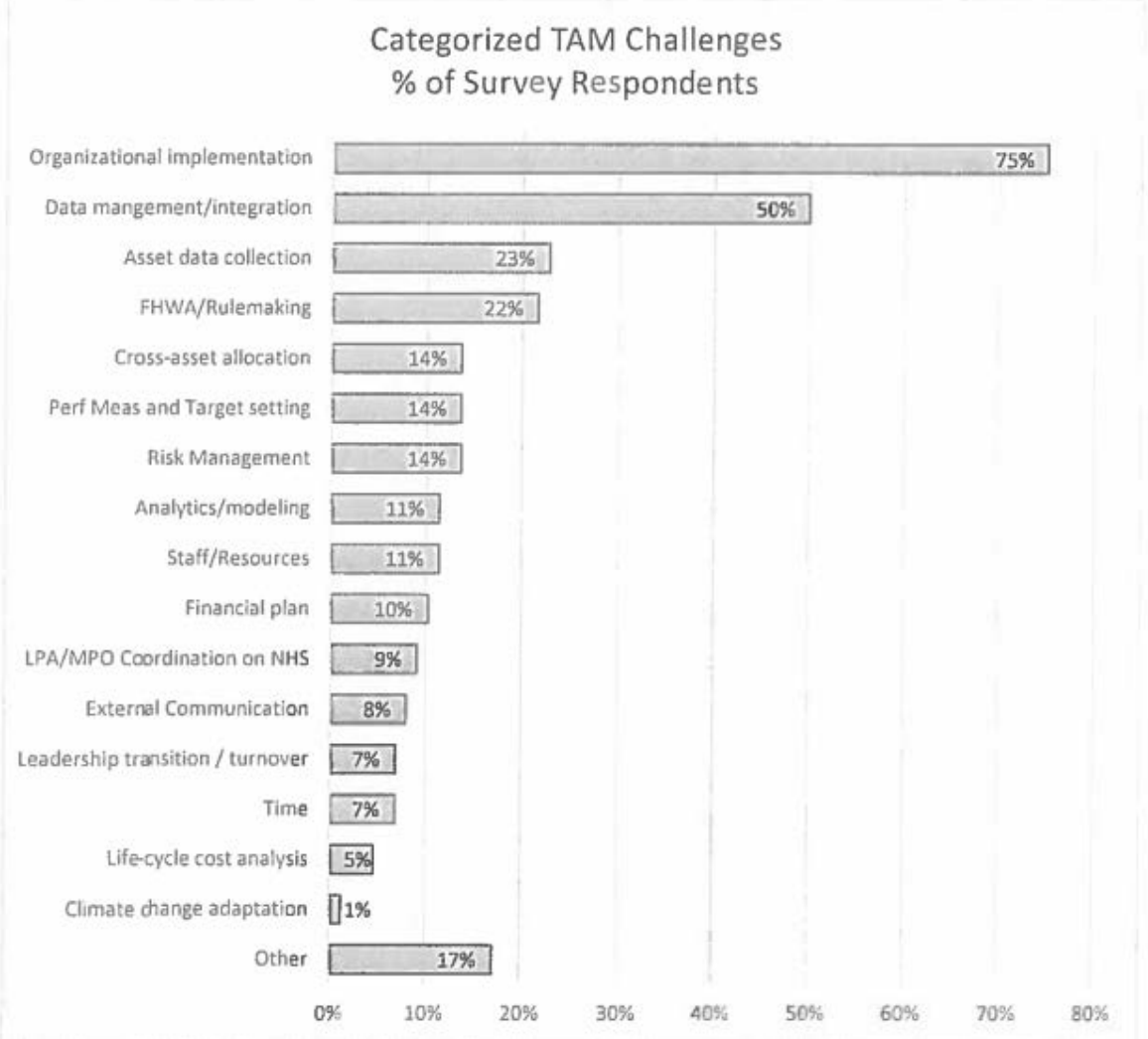
Tools, Strategic Direction, Long Range Plan, STIP

Component A: Organization and Culture

Survey of DOT's

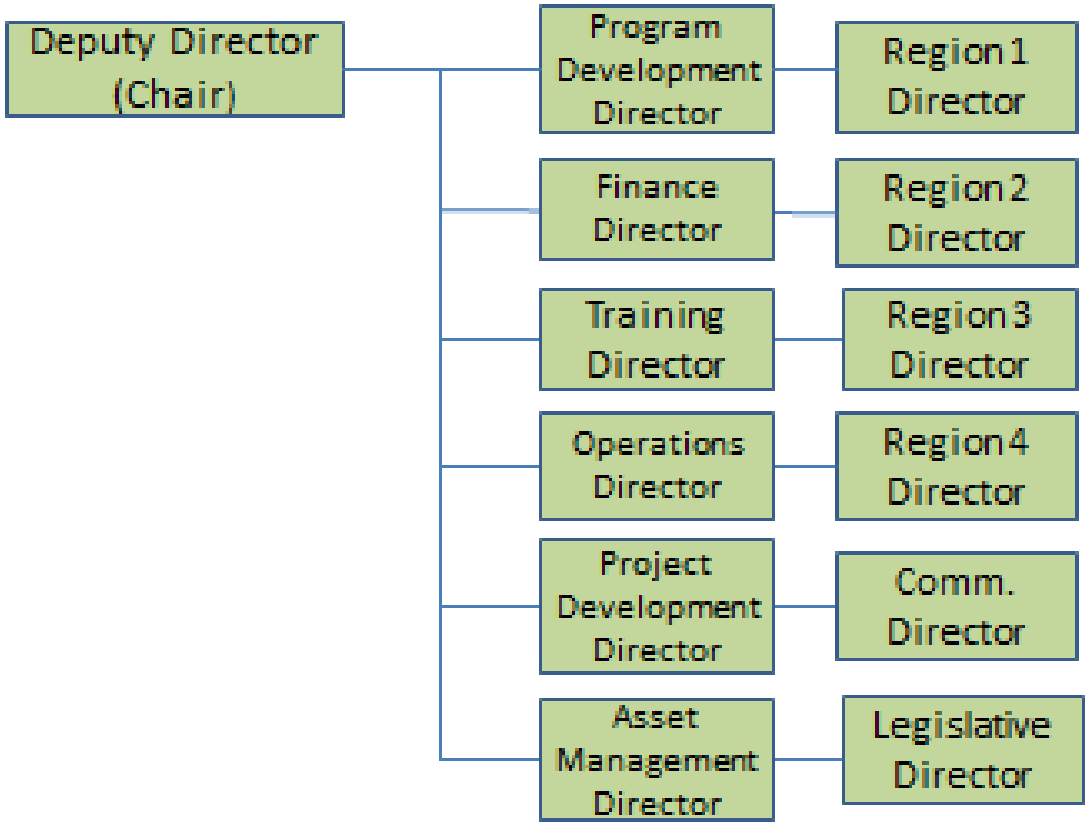
Biggest Challenges

Respondents were asked to indicate the three biggest challenges they feel they are facing in effectively implementing TAM in their agency. All but four respondents offered at least one idea, and a total of 242 challenges were mentioned. These responses were categorized into the following themes:

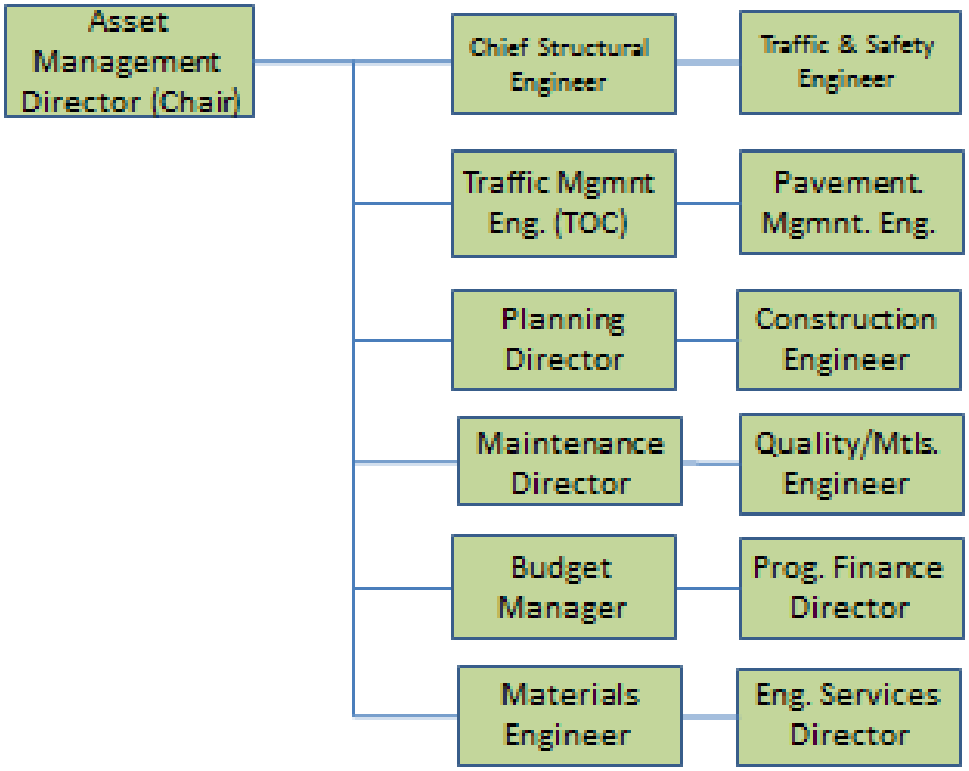


UDOT Performance Management Organization

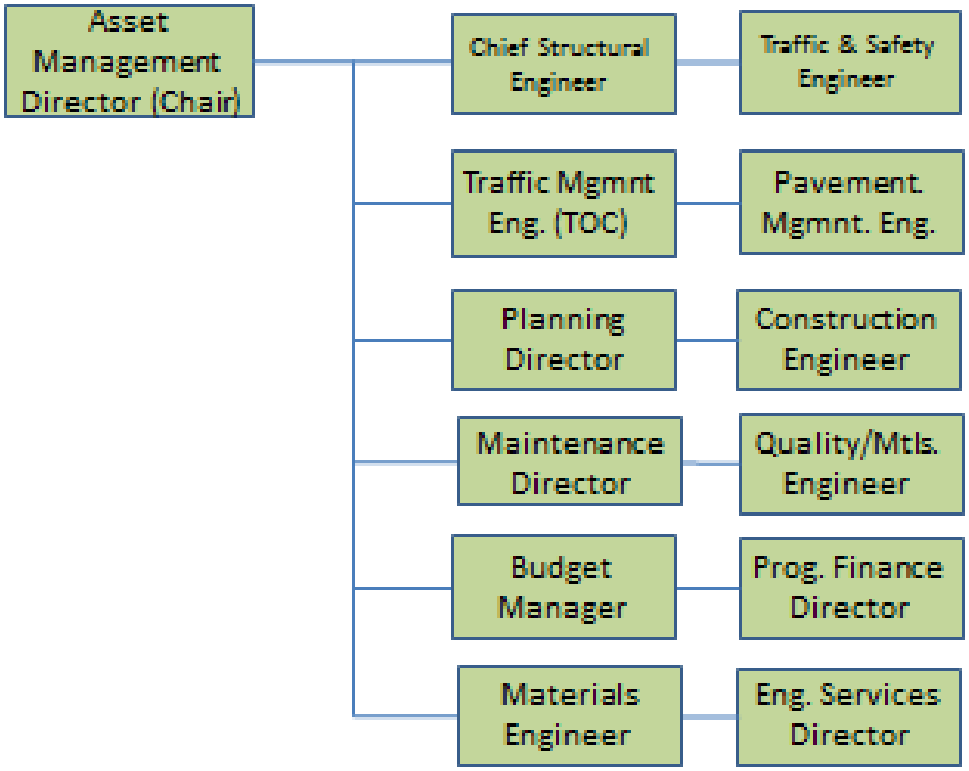
Asset Management Steering Council

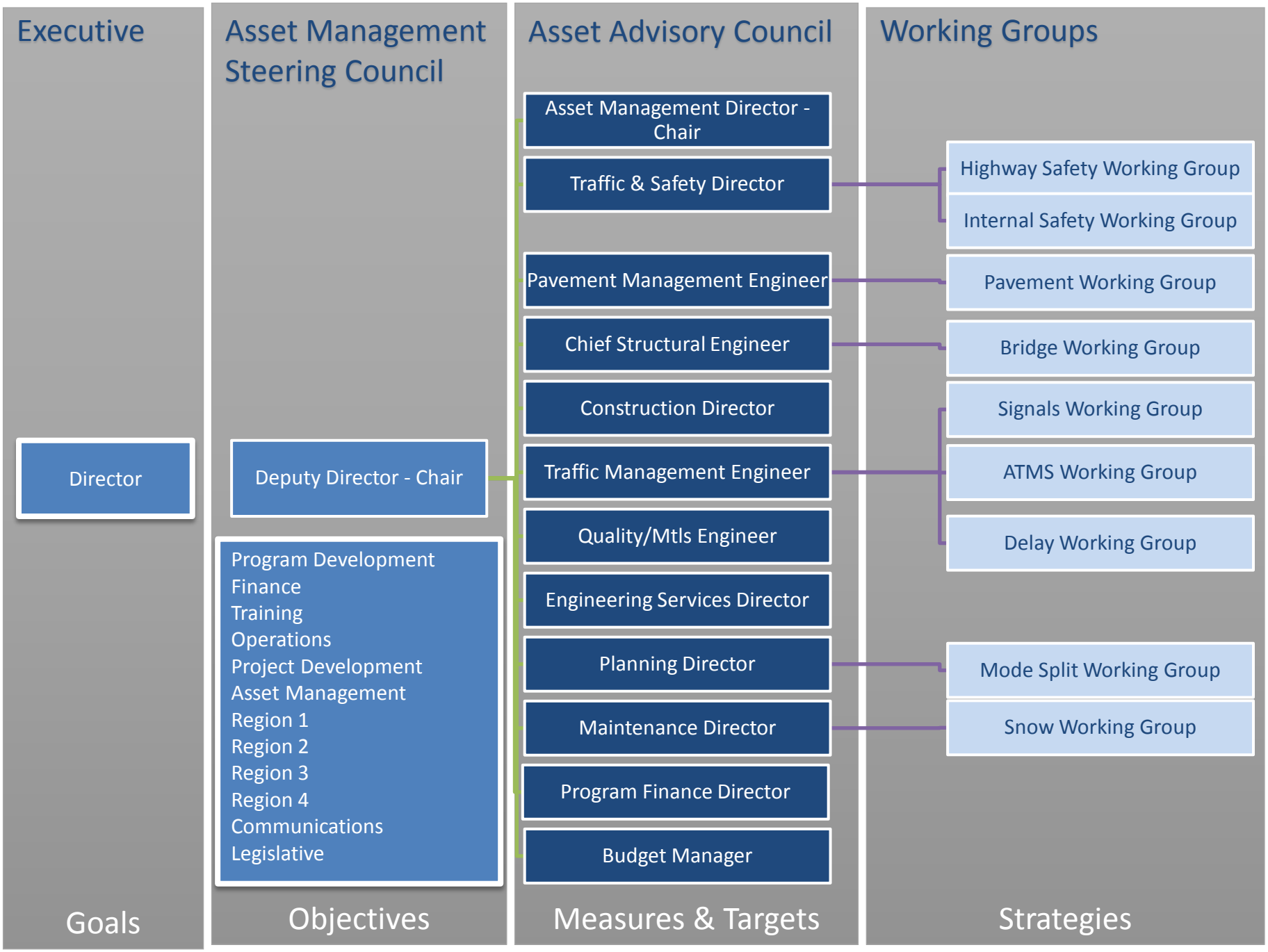


Asset Advisory Committee



Asset Advisory Committee




Executive
Asset Management Steering Council
Asset Advisory Council
Working Groups
Asset Management Director - Chair
Traffic & Safety Director
Highway Safety Working Group
Internal Safety Working Group
Pavement Management Engineer
Pavement Working Group
Chief Structural Engineer
Bridge Working Group
Construction Director
Signals Working Group
Director
Deputy Director - Chair
Traffic Management Engineer
ATMS Working Group
Quality/Mtls Engineer
Delay Working Group
Program Development
Finance
Training
Operations
Project Development
Asset Management
Region 1
Region 2
Region 3
Region 4
Communications
Legislative
Engineering Services Director
Planning Director
Mode Split Working Group
Maintenance Director
Snow Working Group
Program Finance Director
Budget Manager
Goals
Objectives
Measures & Targets
Strategies

Strategies

Mobility Strategies

Manage Capacity

Education

Planning

Preservation Strategies

Strategic Investments

Integration of Management Systems

Safety Strategies

Incident/Accident Prevention

Infrastructure Preservation

Public Outreach/Education

Enforcement/Emergency Services

Safety Integration in Business Practices

Infrastructure Improvement

Component B: External Collaboration and Coordination

External Collaboration and Coordination

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Component C: Data Management

UDOT Keeping Utah Moving

Component D: Data Usability and Analysis

UDOT has 100's of items available on UPlan. Here are 4 common ways to search:

Ribbon

Gallery

By Region

Search Bar

Data Usability and Analysis

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Tools