

**Transportation Commission of Colorado  
Transportation Asset Management Committee  
Meeting Agenda  
Wednesday, September 18, 2013  
4201 East Arkansas Avenue**

**William Johnson, Branch Manager  
Transportation Performance Branch**

**Les Gruen, Chair  
District 9, Colorado Springs**

**Kathy Connell  
District 6, Steamboat Springs**

**Heather Barry  
District 4, Westminster**

**Sidny Zink  
District 8, Durango**

**Steven Hofmeister  
District 11, Haxtun**

**Tim Harris  
Chief Engineer**

**Debra Perkins-Smith, Director  
Division of Transportation  
Development**

**All commissioners are invited to attend this Committee meeting.**

- 1. Approve July 15 Minutes – 5 minutes**
- 2. Report Out from Commissioner Gruen – 10 minutes**
- 3. Delphi Workshop and FY15 Budget & RAMP Staff Recommendations,  
Asset Managers – 45 minutes**
- 4. Region 4 Headquarters Relocation Project, Marcella Broussard and  
David Fox – 15 minutes**

**THE AGENDA MAY BE ALTERED AT THE CHAIR'S DISCRETION**

# ASSET MANAGEMENT COMMITTEE

**Date:** July 17, 2013

**Committee Members Attending:** Commissioners Gruen, Connell, and Barry

**Others Attending:** Commissioners Reiff, Peterson, Gilliland, Aden, Ortiz, Hofmeister, Debra Perkins-Smith, Tim Harris, Scott Richrath, JoAnn Mattson, Scott McDaniel, Tony DeVito, David Fox, Marcella Broussard, Ty Ortiz, Sandi Kohrs, Jeff Zavitski (Deighton), Kerrie Neet, Johnny Olson, Dave Eller, Cole Richards, Paul Jesaitis, Ermias Weldemicael, William Johnson, Rick Zabel

## Minutes:

- The minutes from the May meeting were approved.
- **Buildings:** JoAnn provided an overview of buildings data in SAP and the direction to include more information about office space and employee satisfaction in the yearly assessments of buildings. She noted that changes are being made in SAP to reflect the work done by a consultant over the last few months in support of office space assessments and that the work continues to refine the best way to bring this information into the AIMS system for budget scenario and condition performance analysis. Marcella then shared the revised list of FY14 RAMP funded property projects, noting that the list has been revised following the regional boundary changes and statewide priority projects.  
  
Commissioner Gruen noted that he appreciates Commissioner Peterson's involvement on the Region 4 project and would like Commissioner Peterson to continue being involved in decisions of this kind. The committee approved the revised list of FY14 RAMP projects for Buildings.
- **CCCI:** Ermias provided an overview of the inflation analysis and forecast model.  
  
The committee approved the use of the forecast model by staff, reducing gross inflation by .5% for earned efficiencies and productivity. Staff will use this model for future planning and asset management modeling, checking in with the committee on a yearly basis to let them know what the model recommends.
- **Asset Management Updates:** JoAnn provided an overview of the many projects related to Asset Management currently underway. Tim noted that on Surface Treatment CDOT spent \$255 million on FY13 projects, roughly a 20% increase over FY12. Commissioner Gilliland commented that we need to keep this momentum going for FY15 and FY16. Commissioner Gruen shared that CDOT cannot lose momentum and needs to stay geared up to accelerate expenditures, recognizing that the various assets are at different stages. Scott discussed that staff budget and RAMP recommendations for asset management categories will be determined in August 2013 (FY15) and January 2014 (FY16).
- **GIS-Based Asset Management:** William shared slides showing how various DOTs are using GIS to support Asset Management. Commissioners Gilliland, Connell, Aden and Gruen all expressed strong support of CDOT using GIS to support Asset Management, and that this effort has value in supporting other activities by communicating information in an intuitive way. The Commissioners expressed that CDOT should press forward with such an effort, in a purposeful yet thoughtful way.

# MEMORANDUM

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**DEPARTMENT OF TRANSPORTATION**

4201 East Arkansas Avenue  
Denver, Colorado 80222



**TO:** Colorado Transportation Commission

**FROM:** William Johnson, Transportation Performance Branch Manager

**SUBJECT:** September Asset Management Committee Meeting

**DATE:** September 18, 2013

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## **Purpose**

This memorandum summarizes the discussion planned for the September meeting of the Colorado Transportation Commission Asset Management Committee. There are two attachments in support of this meeting:

- (1) the minutes from the July Committee meeting, and
- (2) PowerPoint Presentation covering these two topics:
  - a. Delphi Workshop: Staff Recommendations for FY15 Budget and RAMP Program 1
  - b. Region 4 Headquarters Relocation Project

## **Approvals Requested**

During the Committee meeting, staff will submit for approval:

- 1) Approval of July meeting minutes
- 2) Approval of staff recommendation for Asset Management, of FY15 Baseline Budget and FY15 RAMP Program 1 Budget

## **Background**

The Transportation Commission Asset Management Committee held its first meeting in September, 2012, during which staff provided background on the provisions in MAP-21 related to asset management, and began discussions about the Fiscal Year (FY) 2014 budget that starts on July 1, 2013. How financial resources are allocated to the transportation assets has been based on direction from the Transportation Commission in the form of the goals and objectives specified in Policy Directive 14, currently under discussion in conjunction with the Statewide Plan and MAP-21.

## **Delphi Workshop**

On August 27, staff met in a 6-hour workshop convened by Executive Director Hunt to review the projected performance and proposed FY2015 Baseline and RAMP funding for several assets. Committee guidance and material presented to the Committee in previous months informed the staff workshop.

Attendees included Director Hunt and other members of senior management, regional transportation directors, asset managers and staff from the Division of Transportation Development and the Office of Financial Management and Budget as well as the regions. The group reviewed which asset programs were RAMP-eligible, and negotiated how much FY2015 base program and RAMP funding those programs should receive.

The group engaged in an activity – using the wideband Delphi method – that allowed each individual to allocate FY2015 Baseline and RAMP funding among eligible assets. The Delphi method consists of a facilitator and participants working together through iterative rounds of discussion to come to consensus.

The group completed two Delphi rounds for the FY15 Baseline of \$583 Million (based on FY14), followed by four more rounds for RAMP: two rounds at \$150 million and two at \$165 million. The resulting recommendations from staff appear in the table below.

CDOT Delphi Workshop for FY15 Asset Management:									
(In Millions)	FY14 Baseline Budget	FY15 Baseline Amount Requested	FY15 Final Baseline Budget:	FY14 RAMP Funding (RAMP at \$160M)	FY15 RAMP Amount Requested	Delphi RAMP \$150M Average:	FY15 Total With RAMP @ \$150M	Delphi RAMP \$165M Average:	FY15 Total With RAMP @ \$160M
Surface Treatment	\$150.6	\$152.0	\$149.5	\$88.2	\$88.0	\$81.6	\$231.1	\$85.7	\$235.2
Bridge, BE & Bridge Fixed Costs	\$140.6	\$151.6	\$135.0	\$33.3	\$33.0	\$26.2	\$161.2	\$28.7	\$163.7
MLOS	\$249.0	\$256.5	\$253.1	\$0.0	\$0.0	\$0.0	\$253.1	\$0.0	\$253.1
Road Equipment	\$14.1	\$14.6	\$14.0	\$6.8	\$7.0	\$5.7	\$19.7	\$6.9	\$20.9
ITS	\$11.2	\$15.7	\$11.6	\$10.3	\$22.0	\$10.7	\$22.3	\$12.8	\$24.4
Rockfall	\$5.2	\$5.2	\$5.1	\$3.8	\$3.8	\$3.6	\$8.7	\$4.0	\$9.1
Buildings & Buildings COPs	\$6.9	\$11.6	\$9.6	\$4.4	\$13.5	\$9.8	\$19.4	\$11.2	\$20.8
Tunnels	\$0.0	\$1.5	\$1.5	\$7.4	\$11.4	\$8.2	\$9.7	\$9.9	\$11.4
Culverts	\$5.6	\$3.0	\$3.6	\$5.9	\$7.6	\$4.4	\$8.0	\$6.0	\$9.6
Walls	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total</b>	<b>\$583.2</b>	<b>\$611.7</b>	<b>\$583.0</b>	<b>\$160.1</b>	<b>\$186.3</b>	<b>\$150.2</b>	<b>\$733.2</b>	<b>\$165.2</b>	<b>\$748.2</b>

Note: A risk mitigation pool, designed to proactively mitigate risk based on pre-determined criteria and a scoring system, was discussed as part of the workshop, and will be revisited at the FY16 Workshop.

### **Region 4 Headquarters Relocation Project**

CDOT engaged an outside consultant team to evaluate The CDOT Headquarters Complex in Denver along with the Region 2 and Region 4 Headquarters Buildings, in order to determine feasibility of providing Class B working conditions for CDOT staff. The costs of bringing each of these locations up to a Class B facility was compared to other options; purchase existing buildings currently on the market and/or build to suit options. Region 4 was determined to be the highest priority project. Build to suit options on two separate sites were estimated by the consultant team for relocation of the administrative staff. Staff recommended and senior management agreed that the current headquarters maintenance activities would be relocated to a new building on a recently purchased parcel in Gilcrest, and that the remaining headquarters functions would move to a new administrative building, either at the West Yard or Promontory East.

The intent of this presentation is threefold:

- 1) Provide the Asset Management Committee with an update on the progress of this project subsequent to the presentation that was made at the May 2013, Transportation Commission Meeting.
- 2) Recommend a final preferred site selection.
- 3) Obtain the Asset Management Committee's support to present the final location to the Transportation Commission for project approval in October 2013.

**The Transportation Commission Asset Management Committee invites all Commissioners to attend.**

# STATE OF COLORADO

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**DEPARTMENT OF TRANSPORTATION**

**Chief Engineer**  
4201 East Arkansas Avenue  
Denver, CO 80222-3400  
(303) 757-9206  
(303) 757-9656 Fax



**TO:** Transportation Commissioners

**FROM:** David Fox  
Property Management – Real Estate Specialist

**DATE:** September 6, 2013

**SUBJECT:** **New Region 4 HQ Building Update September 2013, Asset Management Committee Meeting**

## **Project History**

CDOT engaged an outside consultant team to evaluate The Headquarters Complex in Denver along with the Region 2 and Region 4 Headquarters Buildings in order to determine feasibility of providing Class B working conditions for CDOT staff. The costs of bringing each of these locations up to a Class B facility was compared to other options; purchase existing buildings currently on the market and/or build to suit options. The reports issued by the outside consultant team indicated life safety and operational inefficiencies at the existing Region 4 (R4) headquarters. As a result of the reports, R4 was determined to be the highest priority project by Senior Management.

Build to suit options on two separate sites were estimated by the consultant team for relocation of the administrative staff. The new Administrative Headquarters will combine the existing Greeley staff with the Loveland and Evans engineering residencies. The consolidation of staff will result in reduced operational expenses and increased functional efficiencies.

The existing R4 Greeley complex contains a heavy duty maintenance equipment shop and a regional storeroom (Shop). R4 recently purchased a 54 acre parcel in Gilcrest. The Gilcrest parcel is being used to build a new building for consolidation of two maintenance patrols and a bridge crew (Patrol Building). The Gilcrest parcel is large enough that it can accommodate additional functions as well. The consultant team, in conjunction with Senior Management and R4 Management, determined the collocation of the Shop and the Patrol Building would create more functional efficiencies (shared wash bays, shared equipment, flexible use of all available maintenance bays, etc.) than keeping the shop with the administrative building.

On May 16, 2013, CDOT Property Management in conjunction with R4 presented a summary of the project to the Transportation Commission (TC) including the cost estimates to build the new Shop at Gilcrest and a new Administrative Headquarters for R4 at each of two locations. One site for the Administrative Headquarters is located on the north side of Business 34 and would require the acquisition of a five acre parcel (Stanley) that adjoins the existing Greeley West Maintenance Yard (West Yard). The additional five acres would be used to move some of the existing West Yard buildings north, away from the immediate Business 34 frontage. The new Administrative Headquarters would then be built south of the maintenance functions and screen the maintenance functions from the view of the traveling public. The other site is approximately one quarter mile east of the West Yard on the south side of Business 34 in the Promontory Business Park.

The two sites had a cost estimate delta of \$2.1M. R4 preferred the site with the higher cost estimate (West Yard + Stanley). The TC gave preliminary approval to the project based on the lower cost estimate of the Promontory site. R4 was told that if they could make the West Yard + Stanley project “cost neutral” to the Promontory project, by negotiating incentives from the City of Greeley (the City), they could build the project on the West Yard + Stanley site .

CDOT Property Management, Ben Stein and Kathy Young drafted a resolution for TC approval to obtain COP funding to finance the construction project. The resolution was drafted for the June TC meeting with the hope that R4 would have completed negotiations with the City by the time of the meeting. The negotiations were not complete by the June TC meeting and the resolution was removed from the agenda.

R4 and Commissioner Peterson had several meetings with the City Mayor and Planning Staff through the month of July. At the end of July, the City presented a final offer to assist CDOT with making the R4 preferred site cost neutral. The only offer the City made was for cash advances that CDOT would be required to pay off over time (loans). The City's offer was presented to Ben Stein and Tim Harris to vet with Senior Management. The response that R4 and Property Management received from Senior Management was that the City's offer did not accomplish the requirement of creating a cost neutral project at the West Yard + Stanley site.

On August 5, 2013, R4 Program Engineer Keith Sheaffer sent an email to the City informing them that CDOT had chosen to move forward with the Promontory site because it has a lower project cost estimate. The City responded kindly, saying they would do what they could to make the chosen site a successful project.

### **Current Action Items**

On September 3, 2013, Commissioner Peterson and R4 asked Property Management and the contracted real estate consultant firm to review the existing cost estimates. They specifically wanted review of three items:

1. The cost to bring utilities to the West Yard + Stanley site
2. The cost of demo and relocation of four buildings at the West Yard + Stanley site
3. The cost of site work required to grade and manage storm water at the Promontory site

On September 4, 2013, CBRE and Property Management began re-evaluating the existing cost estimates against current Property Management construction project costs to see if any elements may have been overlooked or overstated. CDOT also engaged a third party civil engineering firm to provide an independent site work estimate based upon the scope of work that is being proposed for both sites.

### **Next Steps**

Commissioner Peterson is scheduling a meeting with Property Management and R4 to discuss the cost estimates during the week of September 9, 2013. The independent civil engineering firm has committed to providing a preliminary estimate of the elements questioned by R4 no later than September 12, 2013. Based on the results of the meeting with Property Management, Commissioner Peterson and R4; combined with review of the third party estimates, a consensus site recommendation will be made to the Asset Management Committee on September 18, 2013. The Asset Management Committee will then be requested to recommend a budget supplement for \$7M needed for project funding in FY 14, with the balance of the project to be funded in FY 15 for approval at the October TC Meeting.

### **Design Build GMP Contracting Update**

CDOT advertised a Request for Qualifications for a Design Build Firm for this project in accordance with the State Buildings Program guidelines. The selected team will be awarded a Guaranteed Maximum Price (GMP) Design Build Contract. CDOT received bids from 13 of the most well respected design and construction teams in Colorado. The 13 submittals have been short listed to three firms. The three firms will be submitting cost proposals and interviewing for the project on September 25, 2013. It is anticipated that a contract could be signed with the awarded design build team shortly after TC approval of the project anticipated in October.

### **Real Estate Contract Update**

CDOT currently has Letters of Intent (LOI's) that reserve the right to purchase each of the properties needed for this project. The LOI's are good through September. CDOT and CBRE are working to extend the terms of the LOI's in order to keep the properties secured for an eventual purchase after obtaining TC approval in October.

# Transportation Asset Management



**TC Asset Management Committee**  
**September 18, 2013**  
**CDOT**

# Agenda

**Delphi Workshop: FY15 Staff Recommendations**

**Region 4 Headquarters Relocation Project**



# Agenda



**Delphi Workshop: FY15 Staff Recommendations**

**Region 4 Headquarters Relocation Project**



# Overview and Ground Rules

## FY14 Budget with FY14 RAMP at \$160M:

	FY14 RAMP = \$160 Million		
<u>Asset:</u>	<u>FY14 Budget</u>	<u>FY14 RAMP</u>	<u>FY14 Budget + RAMP</u>
Surface Treatment	\$150.6	\$88.2	\$238.8
Structures			
Bridge & BE	\$140.6	\$33.3	\$173.9
Tunnels	\$0.0	\$7.4	\$7.4
Culverts	\$5.6	\$5.9	\$11.5
Walls	<i>\$0.5 incl. in Brdg</i>	<i>\$0.0</i>	<i>\$0.0</i>
MLOS	\$249.0	\$0.0	\$249.0
Fleet	\$14.1	\$6.8	\$20.9
ITS (excludes new capital)	\$11.2	\$10.3	\$21.5
Rockfall	\$5.2	\$3.8	\$9.0
Buildings	\$6.9	\$4.4	\$11.3
<b>Total</b>	<b>\$583.2</b>	<b>\$159.9</b>	<b>\$743.1</b>

- FY14 RAMP Dollars must be spent by December, 2014.



# RAMP Eligible AM Criteria

## Summary of Eligible Programs:

For an asset management program to be RAMP-eligible, it must:

1. Be able to **demonstrate** with a **quantified performance measure** the **benefit of additional investment**.
2. Have an **existing asset management system** that has, among other features, the ability to establish a performance target (e.g. maximize life cycle otherwise optimize performance) and at the same time minimize cost in achieving that performance target.
3. **Distinguish between annual maintenance activities and capital preservation, and replacement activities, and fund only capital preservation and replacement.** Crack filling and data gathering, for example, are not RAMP-eligible activities. Those should be addressed through the baseline budget setting process.
4. Be able to **expend its RAMP funding by the December following the fiscal year of advancement.** Fiscal Year 2014 RAMP must be spent by December 2014.

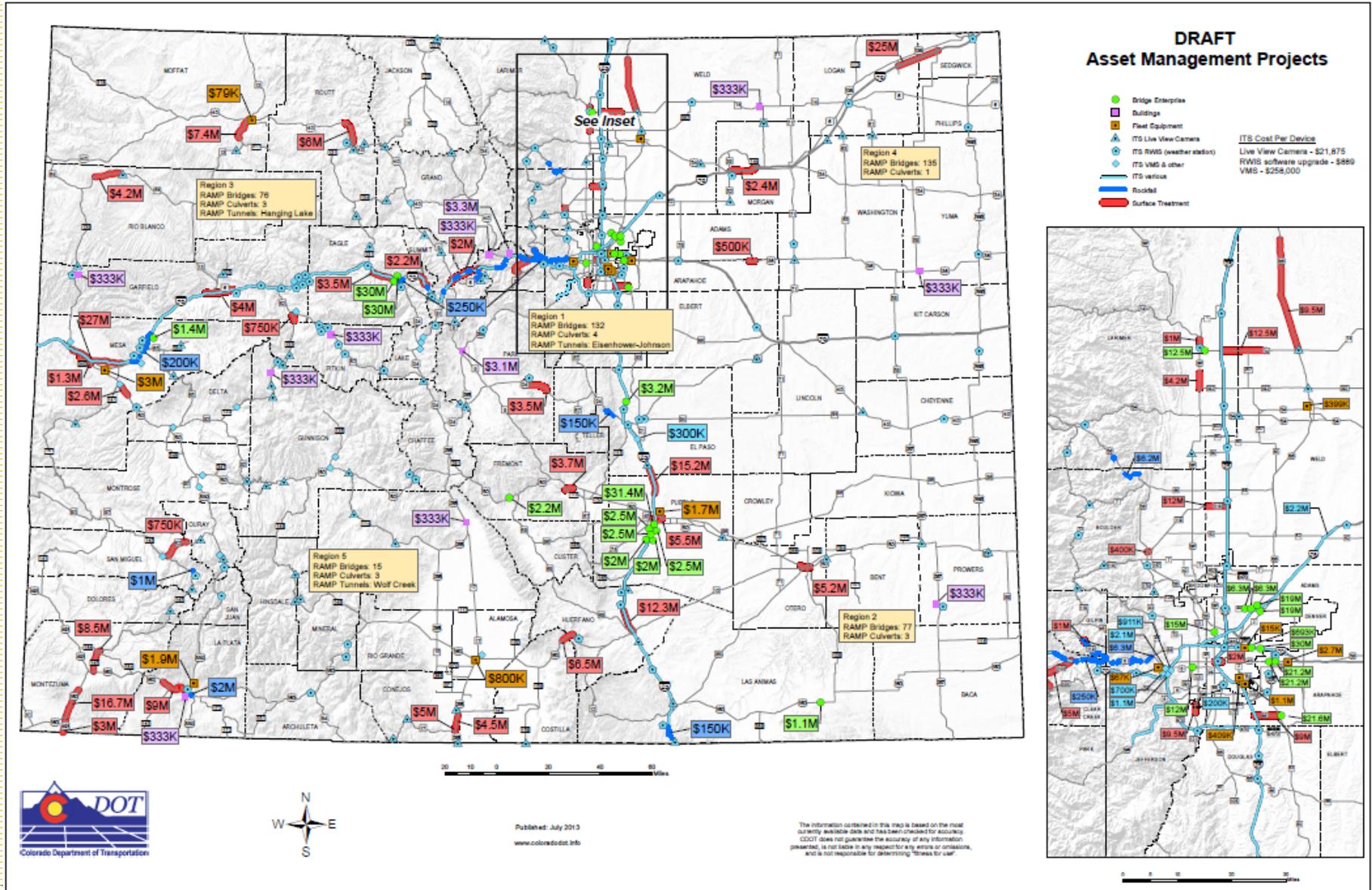


# FY14 RAMP Programs

RAMP Eligible Programs	RAMP Ineligible Programs
Surface Treatment	MLOS: Roadway Surface
Bridge	MLOS: Traffic Services
Fleet	MLOS: Tunnels
ITS	MLOS: Structures
Tunnels	Bridge: Walls
Culverts	
Rockfall Mitigation	
Buildings	



# FY14 Budget and RAMP Asset Map



# Overview and Ground Rules

## Pre-Delphi FY15 Budget and FY15 RAMP Requests:

	FY15 Requested Funds		
	<u>FY15 Budget Request</u>	<u>FY15 RAMP Request</u>	<u>FY15 Budget + RAMP</u>
<b>Asset:</b>			
Surface Treatment	\$152.0	\$88.0	\$240.0
<b>Structures</b>			
Bridge Enterprise	\$95.4	\$0.0	\$95.4
Bridge Fixed Costs	\$18.0	\$0.0	\$18.0
Bridge	\$38.2	\$33.0	\$71.2
Tunnels	\$1.5	\$11.4	\$12.9
Culverts	\$3.0	\$7.6	\$10.6
Walls	\$0.0	\$0.0	\$0.0
MLOS	\$256.5	\$0.0	\$256.5
Fleet	\$14.6	\$7.0	\$21.6
ITS (excludes new capital)	\$15.7	\$22.0	\$37.7
Rockfall	\$5.2	\$3.8	\$9.0
<b>Buildings</b>			
Buildings - COP	\$2.7	\$0.0	\$2.7
Buildings	\$8.9	\$13.5	\$22.4
Risk Mitigation	\$0.0	\$5.0	\$5.0
<b>Total</b>	<b>\$611.7</b>	<b>\$191.3</b>	<b>\$803.0</b>



# Overview and Ground Rules

## Delphi Rounds:

- Rounds One and Two: Each participant owns \$583 million.  
Baseline Budget
- Tabulate average allocation. Discuss.
- Rounds Three and Four: Each participant owns \$150 million.  
RAMP Program 1.
- Tabulate average allocation. Discuss.
- Rounds Five and Six: Each participant owns \$165 million.  
RAMP Program 1.
- Tabulate average allocation. Discuss.



# Proposed TC Goals in Draft Policy Directive 14

- **Pavement:**

- Maintain pavement condition level of TBD% High and Moderate Drivability Life for Interstates.
- Maintain pavement condition level of TBD% High and Moderate Drivability Life for state highway NHS, excluding Interstates.
- Maintain pavement condition level of TBD % High and Moderate Drivability Life on the total NHS. (Placeholder; to be revised after Federal guidance issued.)
- Maintain pavement condition level of TBD % High and Moderate Drivability Life for state highway non-NHS roadways.
- Maintain pavement condition level of TBD % High and Moderate Drivability Life for the state highway system.

- **Bridge:**

- Maintain the percent of NHS bridge total deck area that is not structurally deficient at or above 90%.
- Maintain the percent of NHS state highway bridge total deck area that is not structurally deficient at or above 90%.
- Maintain the percent of state highway total bridge deck area that is not structurally deficient at or above 90%.
- Meet bridge goals in the Risk-Based Asset Management Plan.

- **Maintenance:**

- Maintain an LOS B grade for snow and ice removal.
- Maintain an overall MLOS B- grade for the state highway system.



# Surface Treatment



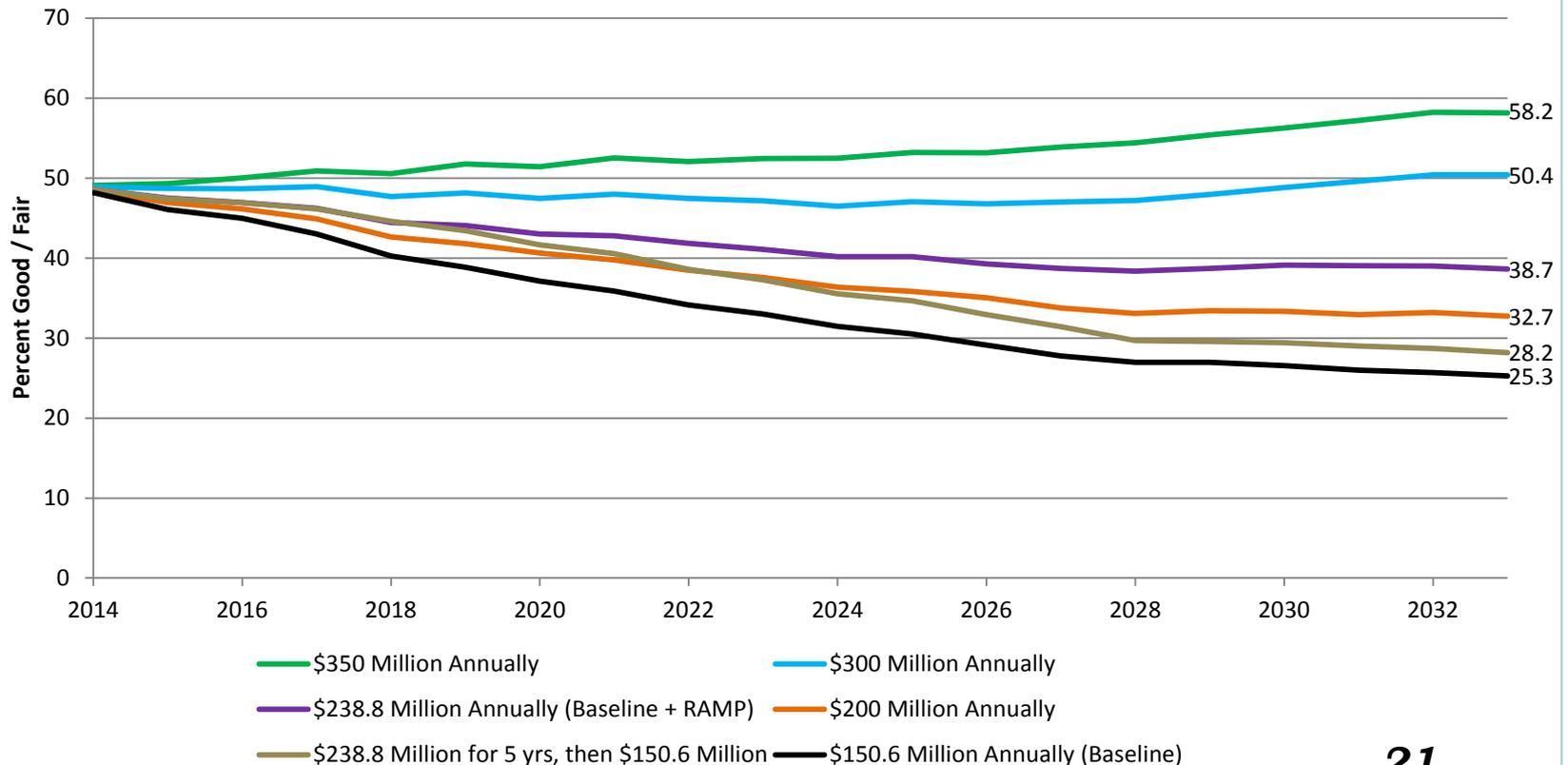
Bill Schiebel

# Pavement Management

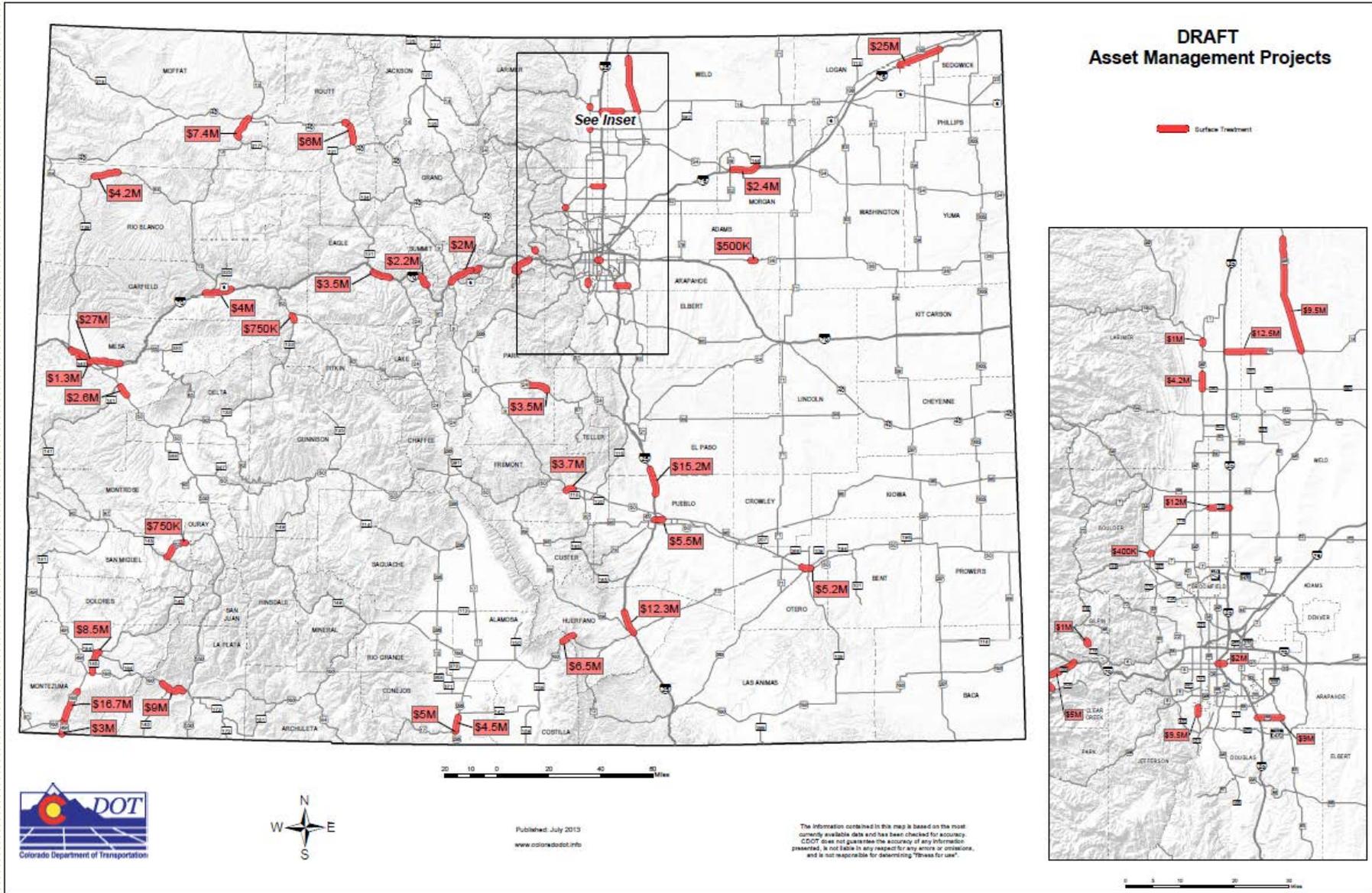
## FY14 RSL Analysis Assumptions

- Timeframe: 20 years
- Traffic (AADT) is factor in analysis
- Cost Inflation Rate: 3.0%
- Treatment Costs based on past 5 years of project data
- 60% G/F Statewide is current PD14 goal for statewide pavement condition

**Surface Treatment Percent Good / Fair Based on RSL  
Funding Scenarios including FY14 Baseline Budget & RAMP (\$238.8 M)**



# FY14 Surface Treatment Asset Map



# FY15 Delphi Recommendation

## Delphi Voting:

FY15 Budget: **\$152M**

FY15 RAMP: **\$88M**

**Total FY15: \$240M**

## FY14 Final:

**Budget: \$150.6M, RAMP: \$88.2M, Total: \$238.8M**



# Bridge



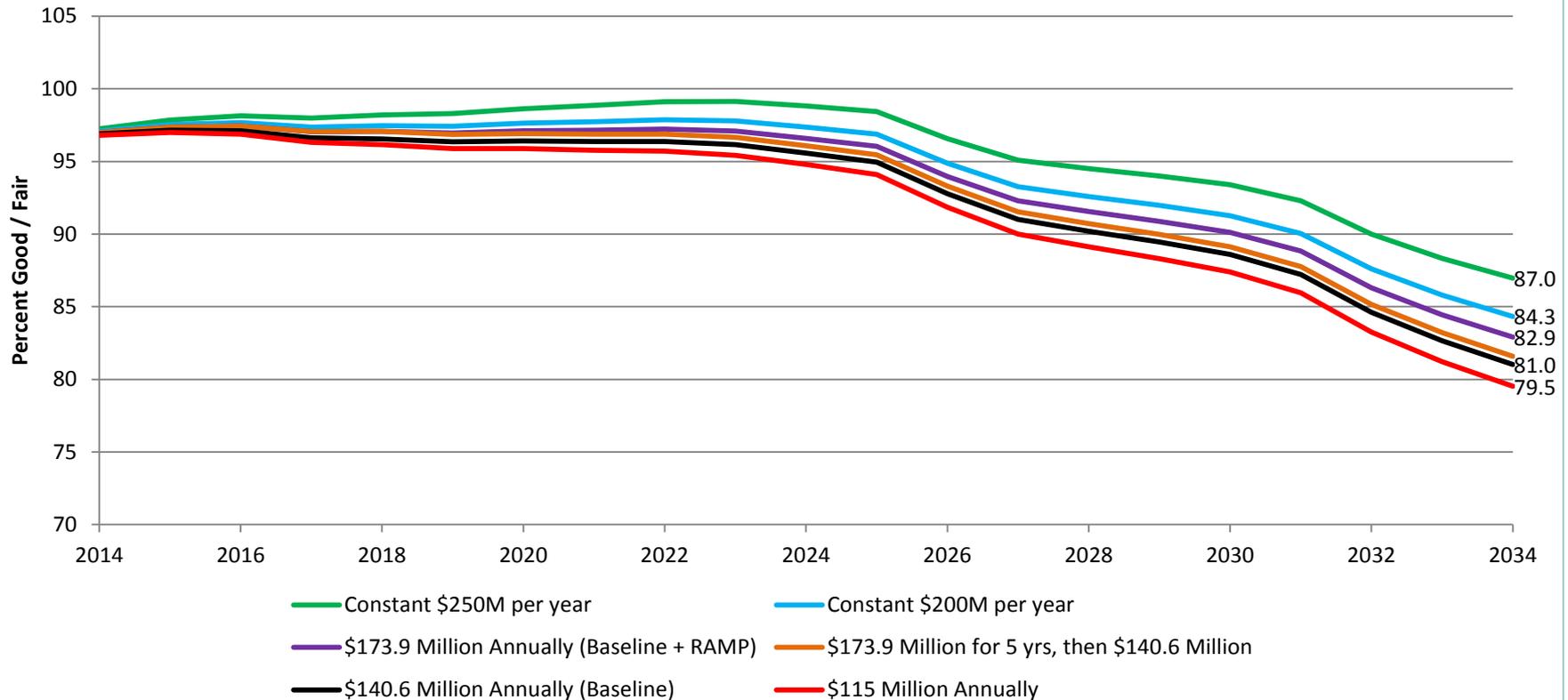
Josh Laipply

# Bridge Management

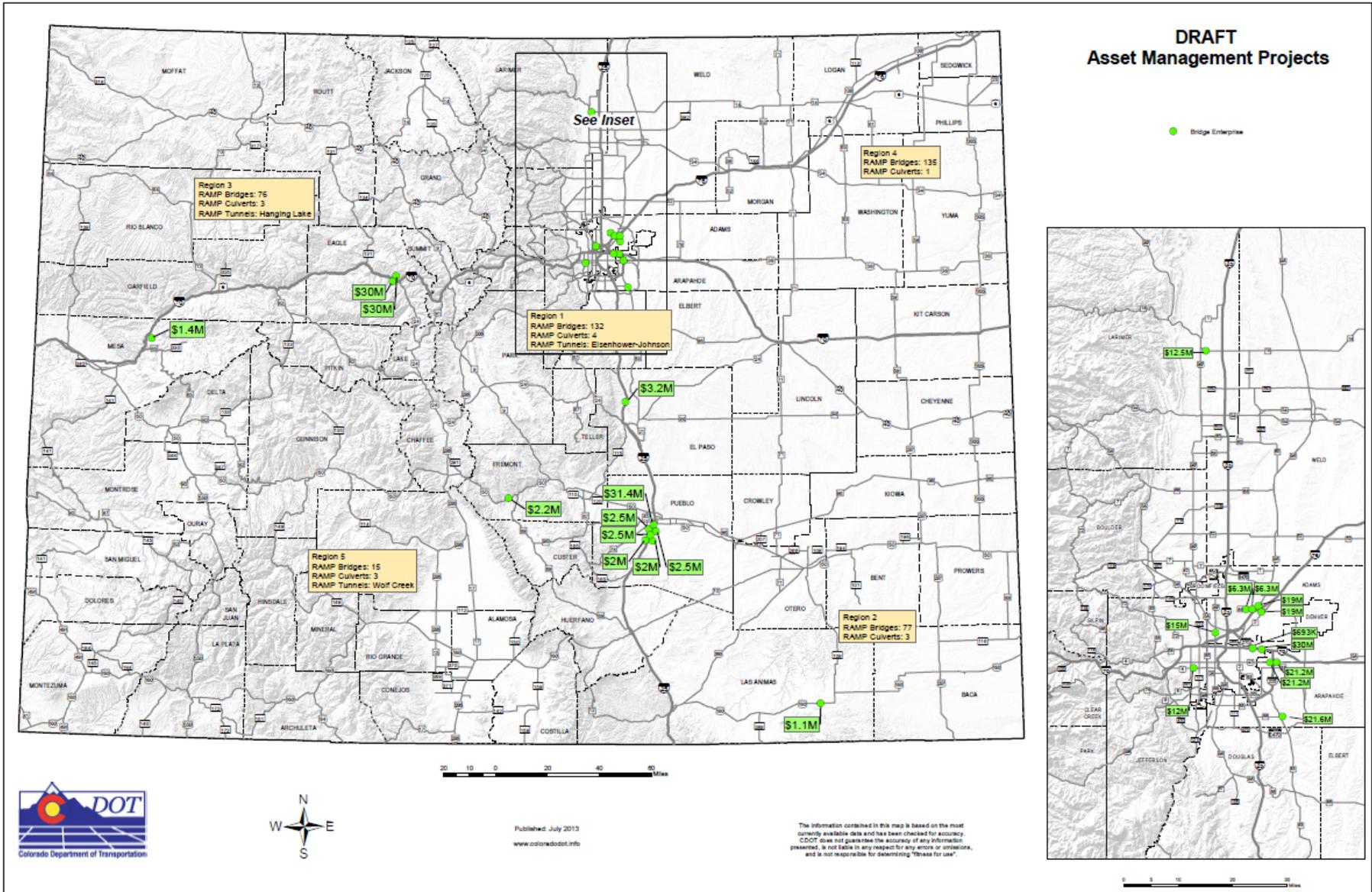
## Analysis Assumptions

- Timeframe: 20 years
- Cost Inflation Rate: 3.0%
- Treatment: Bridge replacement at age 65
- Based on inventory of all CDOT owned major vehicular bridges including bridge enterprise bridges (does not include tunnels)

**Bridge Percent Good / Fair Based on Age  
Funding Scenarios including FY14 Baseline Budget & RAMP**

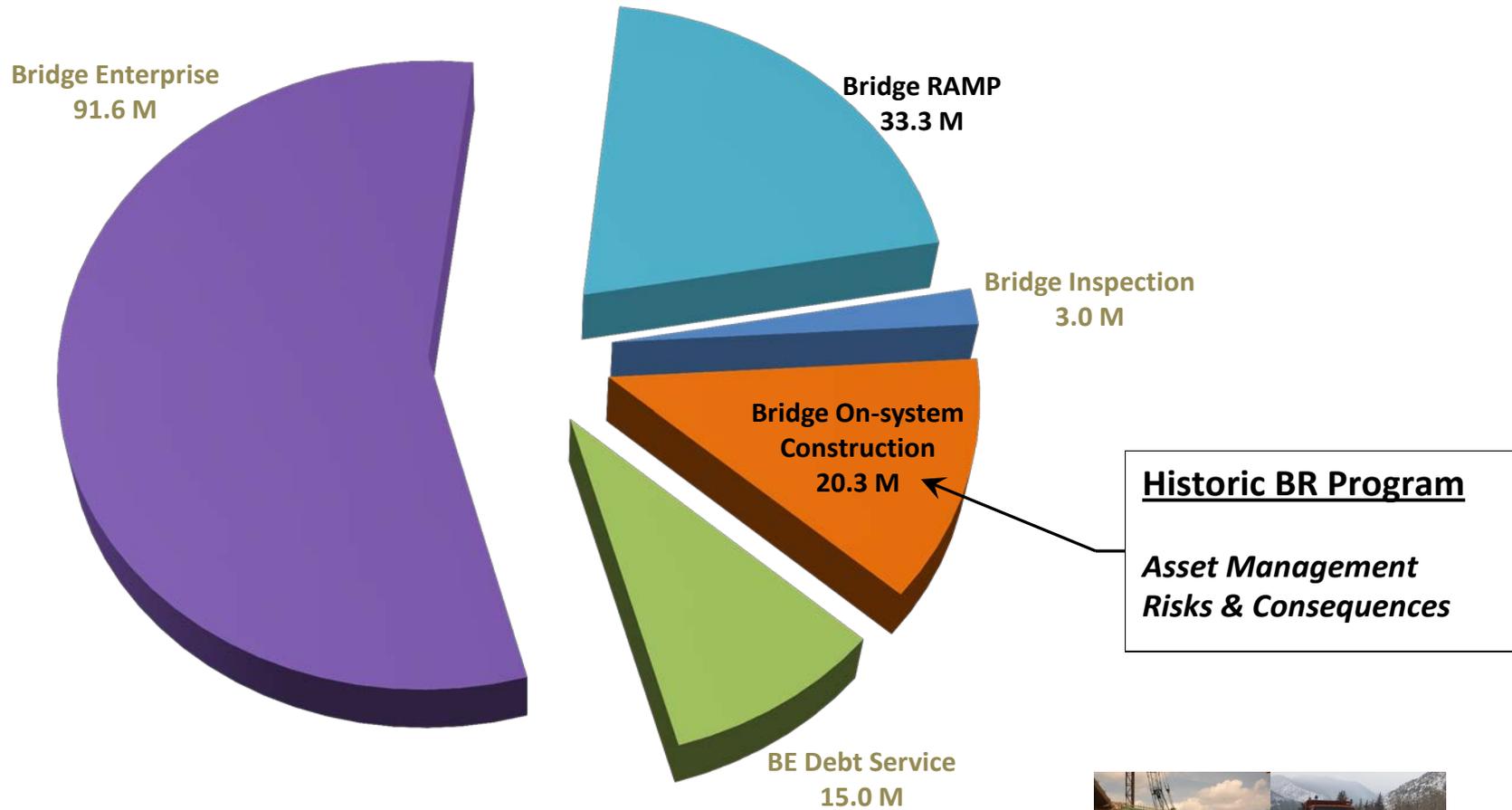


# Bridge FY14 Asset Map



# Bridge Revenue History

## FY14 Bridge Investment



# FY15 Delphi Recommendation

## Required Investment:

FY15 BE Investment, Debt Service, NBIS program:

**\$113.4M**

## Delphi Voting:

FY15 Budget Non-BE investment: **\$ 38.2M**

FY15 RAMP: **\$ 33.0M**

**Total FY15: \$184.6M**

**FY14 Final:**

**Budget: \$140.6M, RAMP: \$33.3M, Total: \$173.9M**



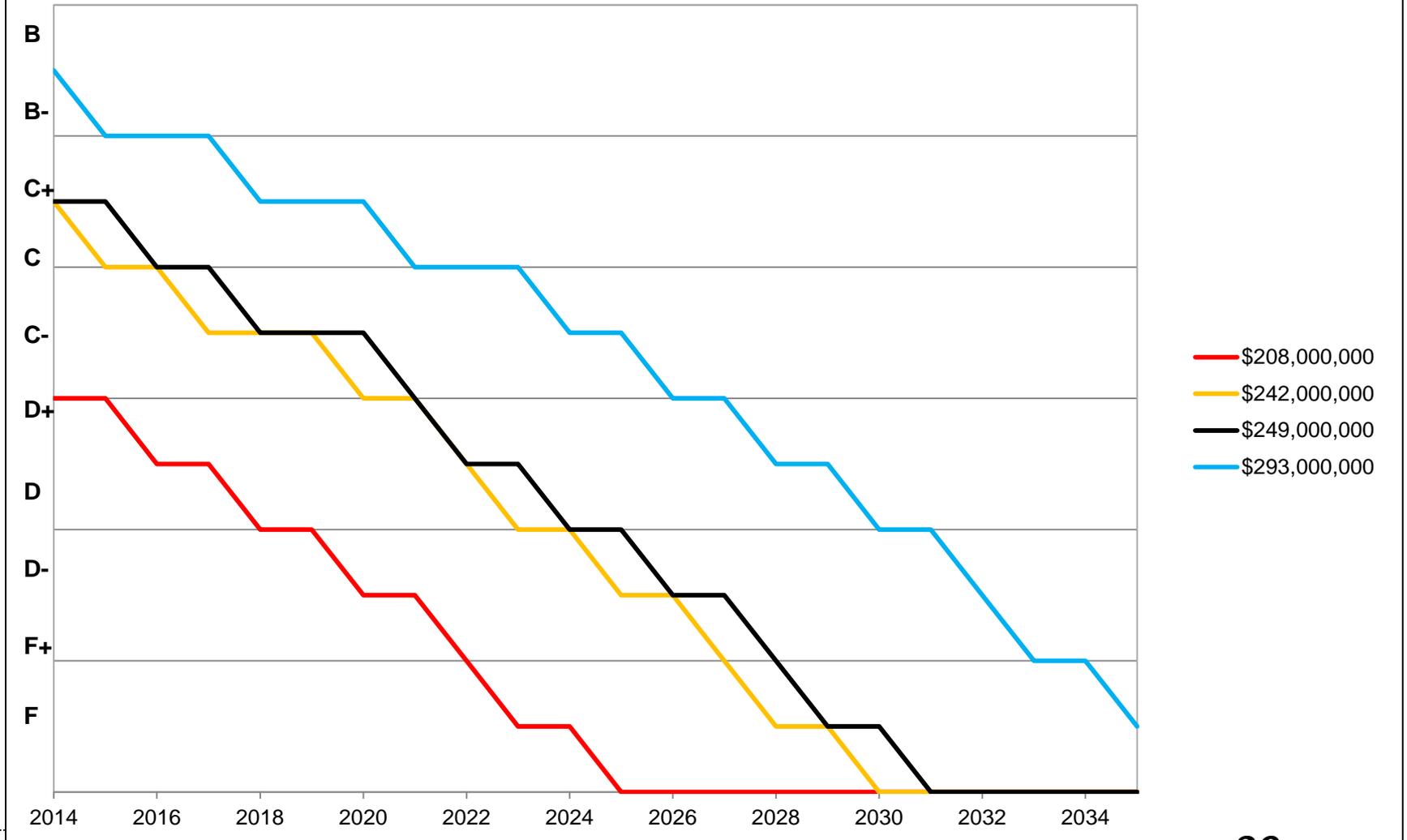
# Maintenance Levels of Service



Dave Wieder

# Maintenance Management

Overall Maintenance Levels of Service, 3% Cost Infl. Rate  
Budget Scenarios Considered for FY14 Budget, \$249M Selected

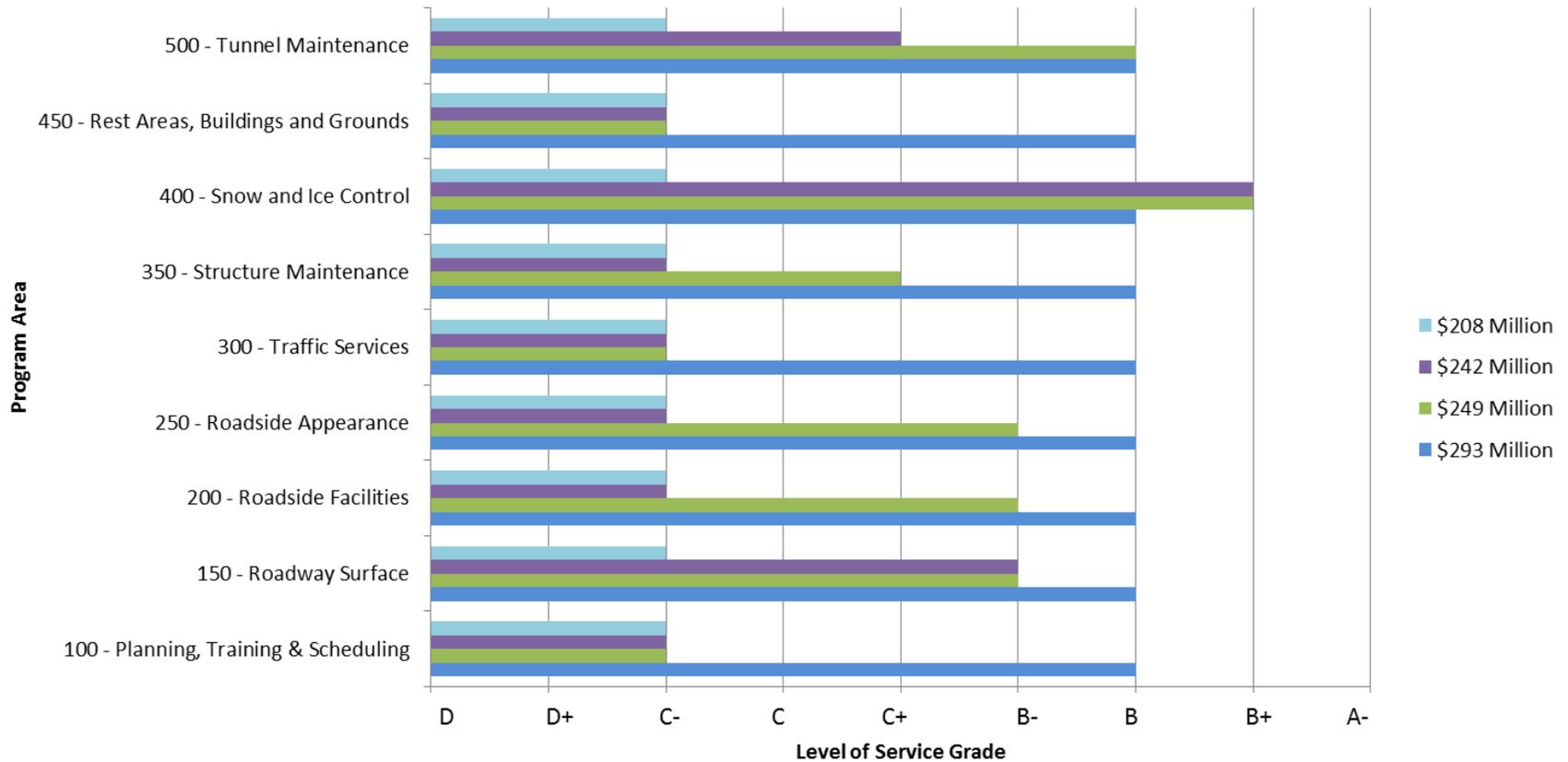


# Maintenance Management

## Analysis Assumptions

- Timeframe: 1 year
- 20-year same if revenue matches inflation
- \$208M gets all MPAs to a C-, \$293M gets all MPAs to a B.
- \$242M and \$249M prioritize MPAs

### MLOS Budget Analysis



# FY15 Delphi Recommendation

## Delphi Voting:

FY15 Budget: \$ 256.5M

FY15 RAMP: \$0M

Total FY15: \$256.5M

## FY14 Final:

Budget: \$249.0M, RAMP: \$0M, Total: \$249.0M

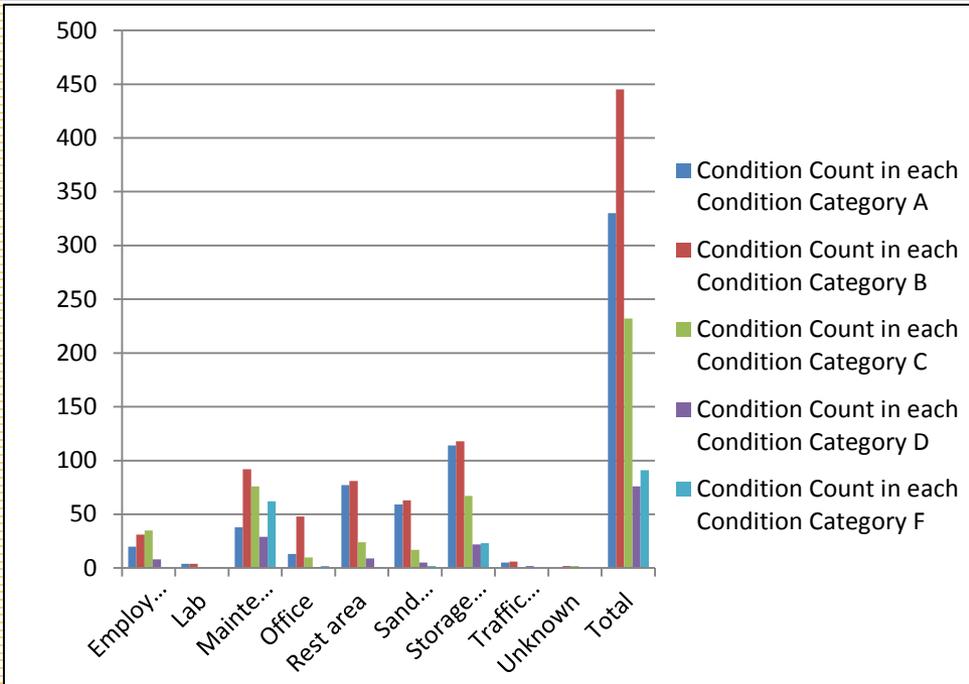


# Property Management



Marcella Broussard

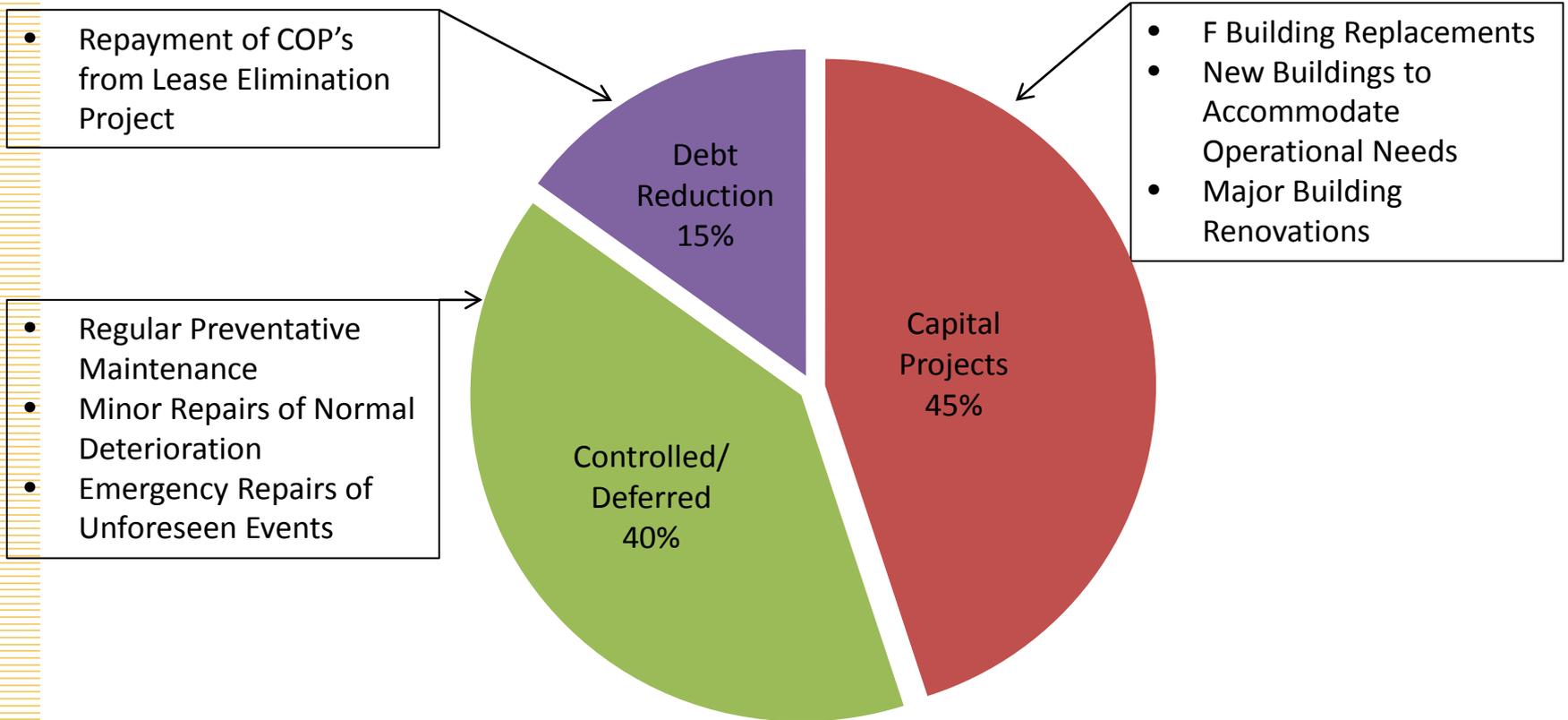
# Existing Building Inventory Rating



Building Type	Condition				
	A	B	C	D	F
Employee housing	20	31	35	8	0
Lab	4	4	1	0	1
Maintenance/repair	38	92	76	29	62
Office	13	48	10	1	2
Rest area	77	81	24	9	1
Sand shed	59	63	17	5	2
Storage Shed	114	118	67	22	23
Traffic shop	5	6	0	2	0
Unknown	0	2	2	0	0
<b>Total</b>	<b>330</b>	<b>445</b>	<b>232</b>	<b>76</b>	<b>91</b>

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# Property Management Budget Distribution

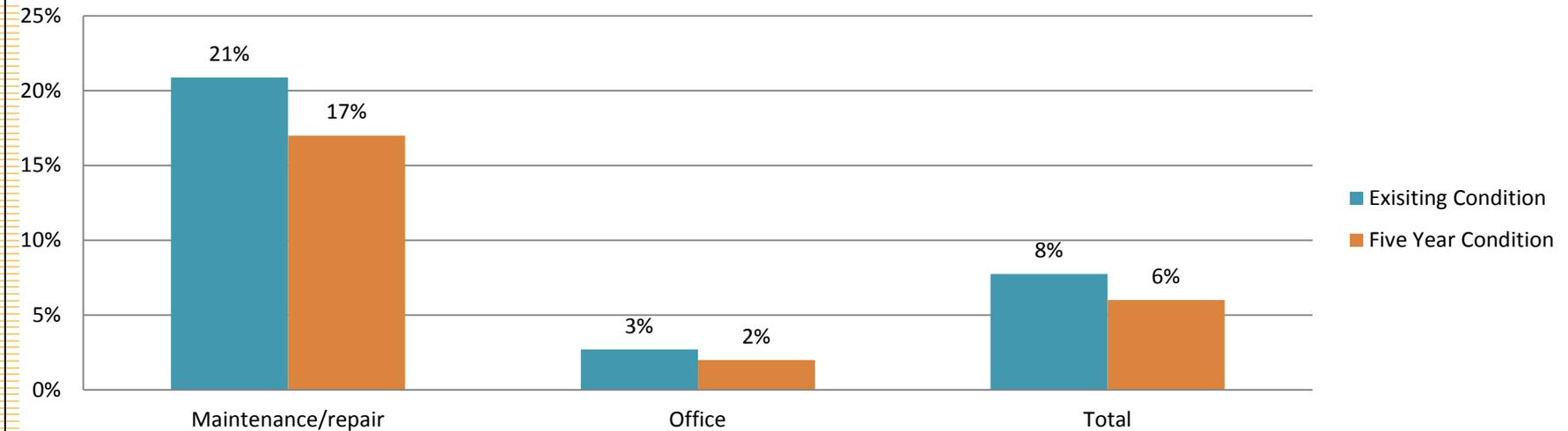


Garage Space Converted to Offices



# F Building Replacement Plan

## 5 Year Baseline + Ramp Reduction of F Buildings



F Building



A Building

# Benefits Of RAMP Projects



## R1 KOA Master Site Improvement

- Eliminates One F Building
- Eliminates Two D Building
- Repurposes Two B Buildings
- Fixes Major Site Drainage Problems
- Safe Welding Bays
- Inside New Equip Receiving
- Consolidates all R1 Mechanics
- Consolidates:
  - Weed Crew
  - Bridge Crew
  - Traffic Crew

## R3 Walden Vehicle Storage Facility Replacements

- Eliminates One F Building
- Eliminates One D Building
- Replaces Both with One Efficient A Building



# FY14 Buildings List

FY14 Baseline without RAMP:	FY14 Baseline Request plus RAMP:
\$6.9 Million	\$11.3 Million
\$2.0 Million Controlled Maintenance	\$2.0 Million Controlled Maintenance
\$.35 Million Deferred Maintenance	\$.35 Million Deferred Maintenance
\$4.55 Million Capital:	\$8.95 Million Capital:
Fairplay (15-bay vehicle storage facility + site needs + training room, replaces older bldg) \$2.55m* (net of \$450k in FY13)	Fairplay 15-bay vehicle storage facility + site needs + training room, replaces older bldg) \$2.55m* (net of \$450k in FY13)
CO Sand Sheds (6) \$2.0m	CO Sand Sheds (6) \$2.0m
Berthoud Falls	Berthoud Falls
Snowmass	Snowmass
New Raymer	New Raymer
Durango	Durango
Villa Grove	Villa Grove
Gobbler's Knob	Gobbler's Knob
	Empire (17-bay vehicle storage facility replacement) \$3.4m
	CO Sand Sheds (3) \$1.0m
	(work thru backlog)
	Colbran
	Douglas Pass Summit
	Joes



# FY15 Buildings List

BUILDINGS	
FY15 Baseline Request without RAMP	FY15 Baseline Request plus RAMP
\$8.9 Million	\$22.4 Million
\$4.0 Million Controlled/Deferred Maintenance	\$4.0 Million Controlled Maintenance
\$100k Code Review	\$100k Code Review
\$4.8 Million Capital	\$11.6 Million Capital / \$16.2 Million Capital
Eight Sand Sheds \$2.7m	Eight Sand Sheds \$2.7m
Twin Lakes Extensions & Roof \$730k	Twin Lakes Extensions & Roof \$730k
Crook Six Bay \$1.13m	Crook Six Bay \$1.13m
Sugar City South Additional Funding \$240k	Sugar City South Additional Funding \$240k
	<b>RAMP Projects</b>
	\$12 Million Region 1 KOA Master Improvement
	\$1.5 Million R3 Walden VSF Replacements
Note: Increase to Controlled/Deferred required to maintain existing buildings at a C-rating and prevent from falling to a D-rating.	



# FY15 Delphi Recommendation

## Required Investment:

Certificates of Participation **\$2.7M**

## Delphi Voting:

FY15 Budget: **\$ 8.9M**

FY15 RAMP: **\$13.5M**

**Total FY15: \$25.1M**

## FY14 Final:

Budget: \$6.9M, RAMP: \$4.4M, Total: \$11.3M



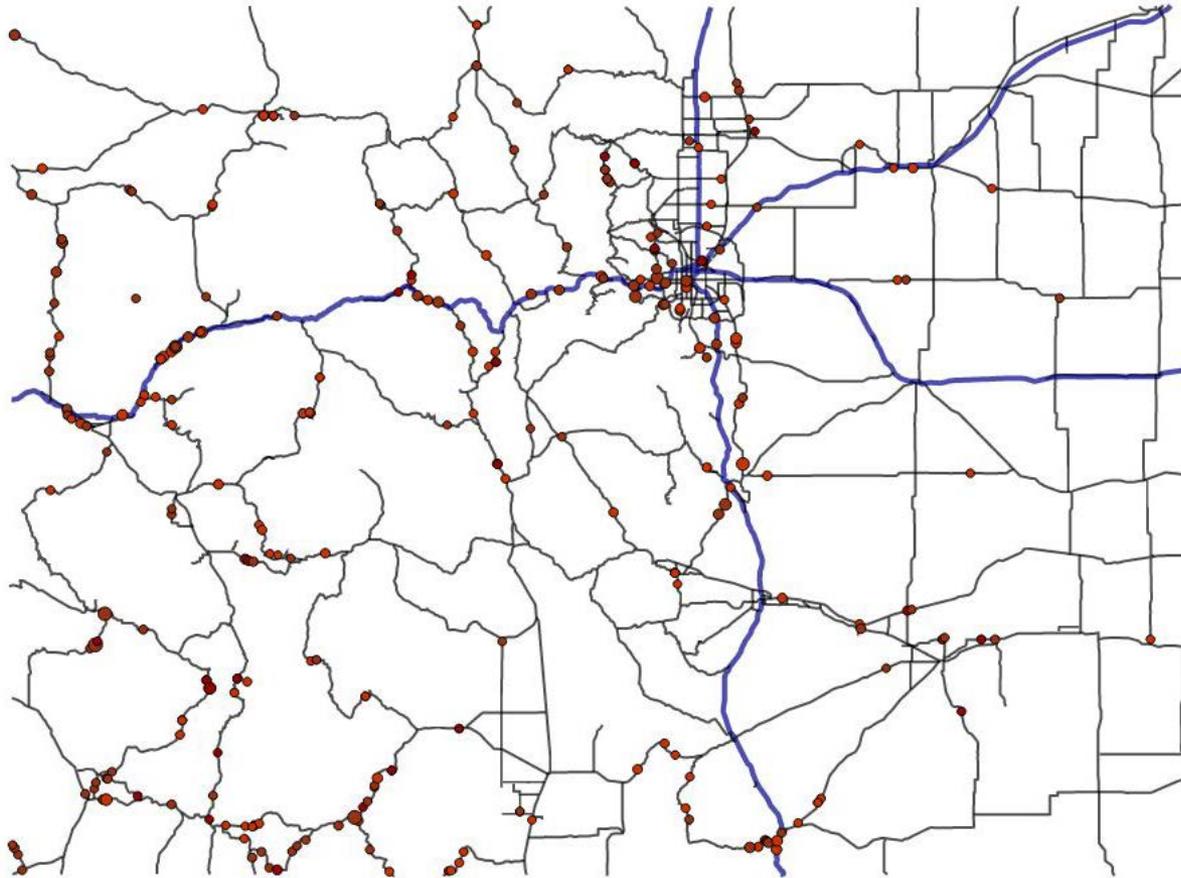
# Culverts, Tunnels



Josh Laipply

# Poor Culverts

CDOT Known Poor Culverts



## Poor Culverts

- 292 Poor Culverts
- 21 Poor Culverts on Interstates
- 61 Poor Culverts on NHS (non-Interstate)



# Culverts



What are the costs of shutting down I-70?

## Needs of Poor Culverts

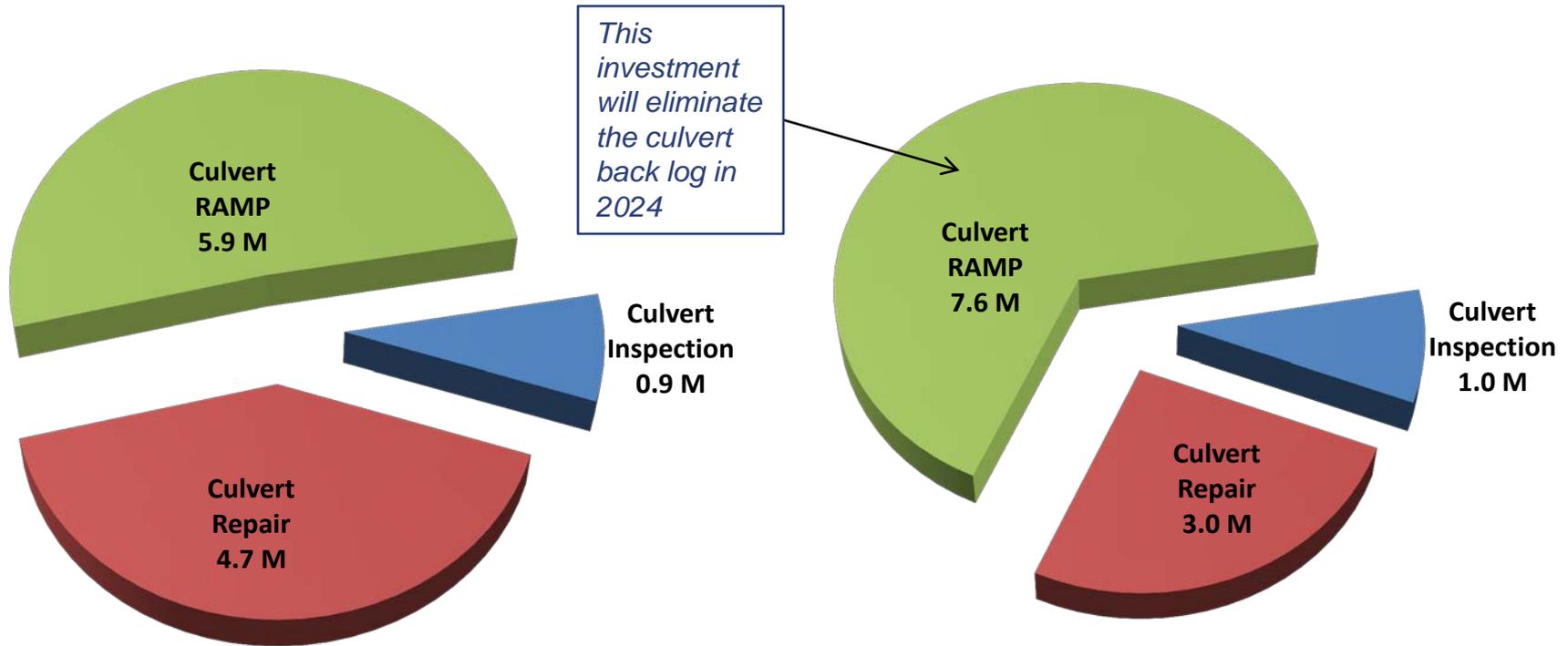
- \$80-million to replace all poor culverts
- \$6-million to replace all poor culverts on the Interstates
- \$17-million to replace all poor culverts on the NHS (non-interstate)



# Culvert Investment Strategy

FY14 Culvert Investment = \$11.5M

FY15 Culvert Investment = \$11.6M

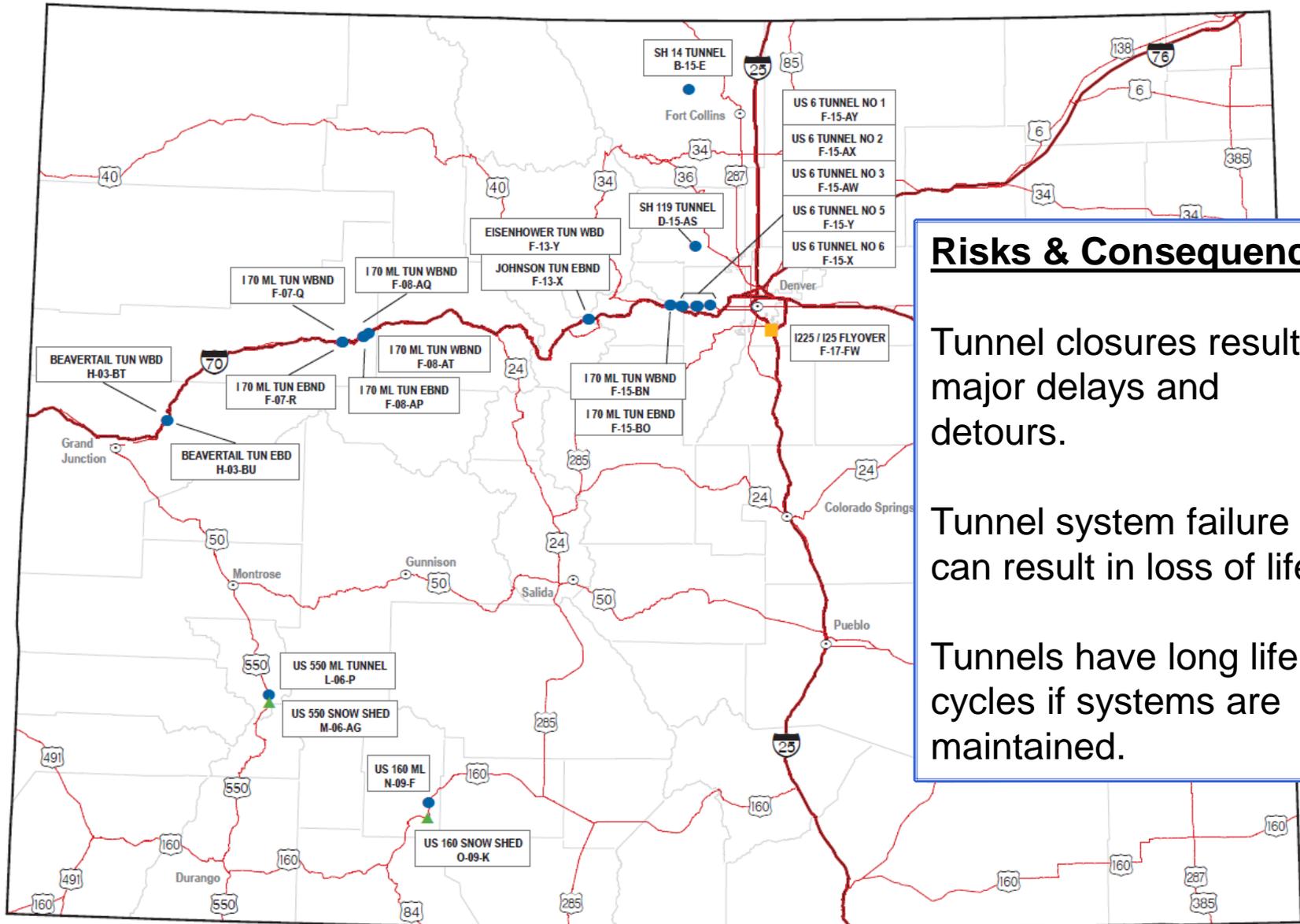


**Culvert Budget Request FY15**

Culvert Inspection	1.0 M	<i>\$80M backlog</i>
Culvert Repair	3.0 M	<i>Yearly investment needed</i>
Culvert RAMP	7.6 M	<i>eliminate backlog over 10 years</i>
<b>Total</b>	<b>11.6 M</b>	



# Tunnels



**Risks & Consequences**

Tunnel closures result in major delays and detours.

Tunnel system failure can result in loss of life.

Tunnels have long life cycles if systems are maintained.

# FY15 Delphi Recommendation

## Delphi Voting:

FY15 Budget (Culverts): \$ 3.0M

FY15 Budget (Tunnels): \$ 1.5M

FY15 RAMP (Culverts): \$ 7.6M

FY15 RAMP (Tunnels): \$ 11.4M

**Total FY15: (Culverts): \$10.6M**

**Total FY15: (Tunnels): \$12.9M**

## FY14 Final:

Culverts Budget: \$5.6M, RAMP: \$5.9M, Total: \$11.5M

Tunnels Budget: \$0M, RAMP: \$7.4M, Total: \$7.4M



# ITS

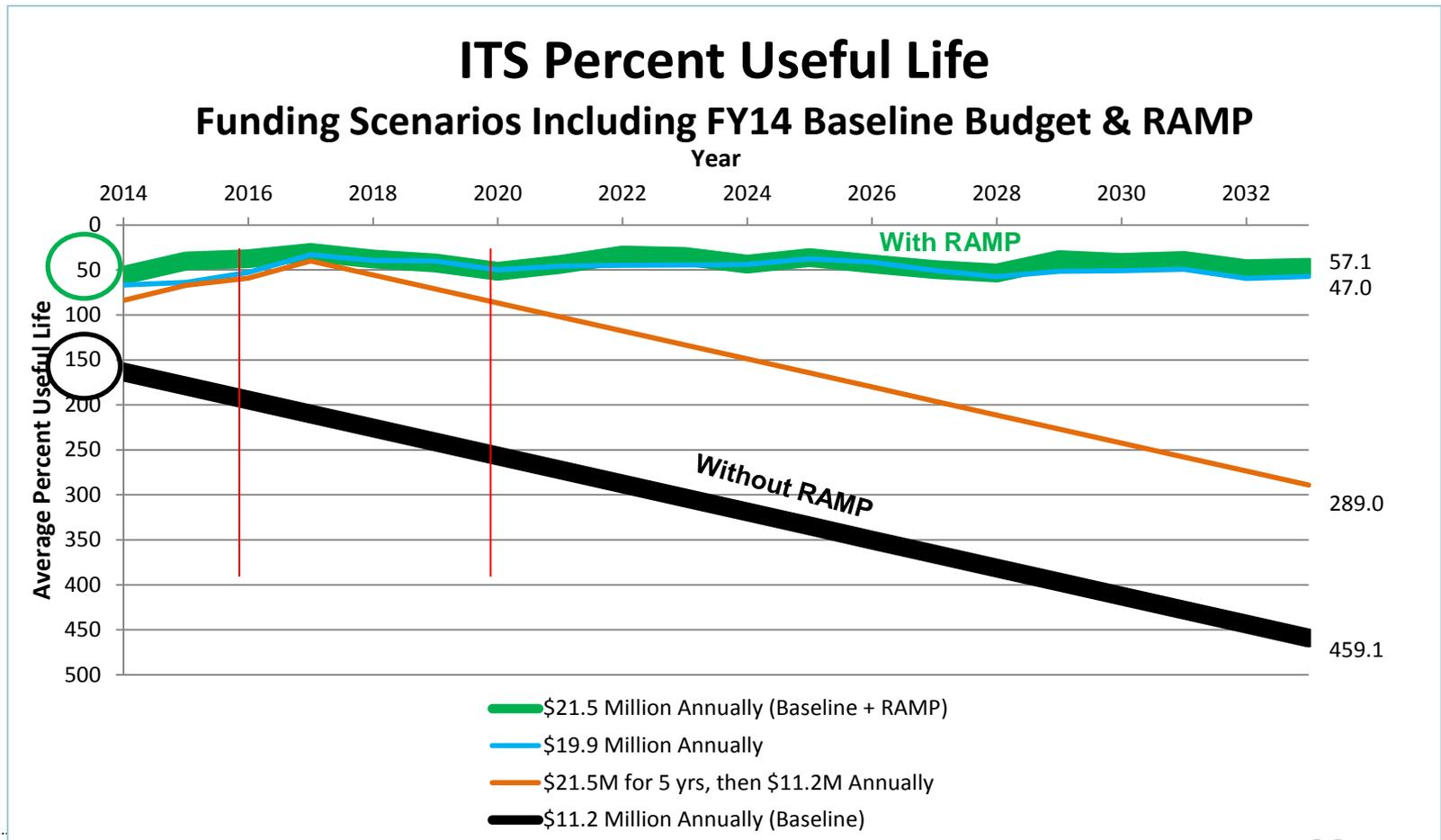


Rich Sembrat

# ITS Maint., Ops, Replacement

## Analysis Assumptions

- Y-axis based on mfg. spec. modified by actual experience
- Timeframe: 20 years, 3% inflation
- Assumes July 1 expenditure
- Excludes new capital requests
- Excludes growth of capital inventory

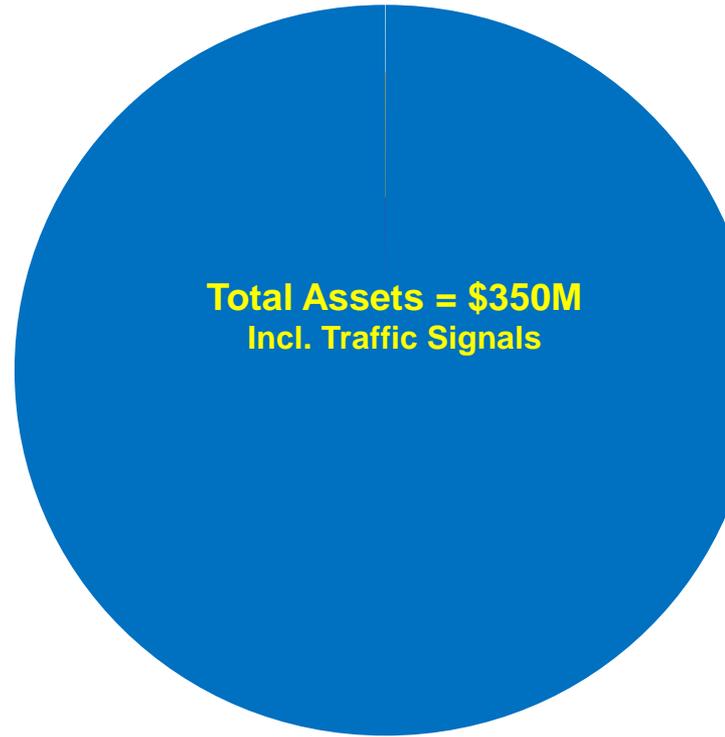
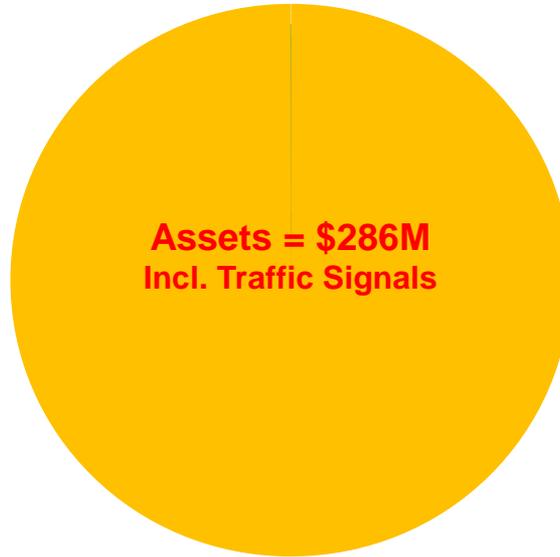


# ITS FY15 *Baseline* Budget Request

**FY13**



**FY14**



**Baseline = \$9.8M**

- Inventory =
- Devices
- Fiber Optic Cable
- Electronics
- Node Buildings

**FY15 Request:**

- \$11.6M (Real Baseline Need)
- +\$ .4M (3% Inflation on FY14)
- +\$ 1.0M (1.5% for New Assets)

**\$13.0M**



# ITS FY15 RAMP Request

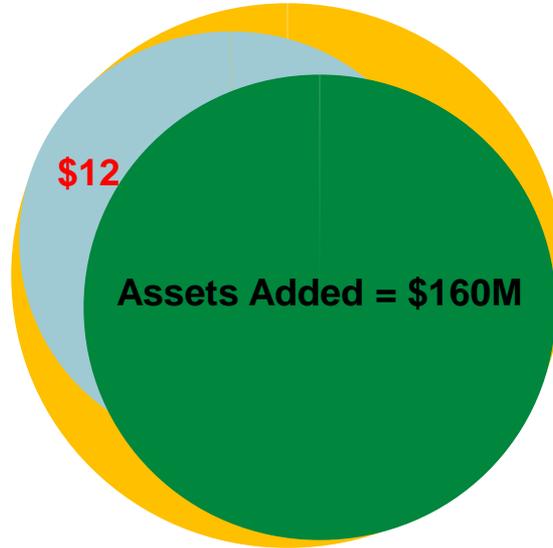
**FY13**



Total Assets = \$126M

Cap. Replacement  
= \$0

**FY14**



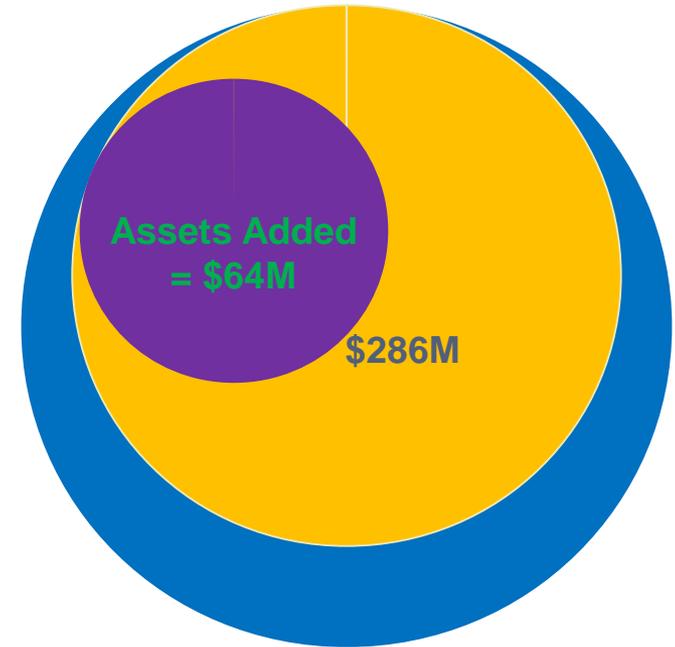
Total Assets = \$286M

Cap. Replacement  
= \$10.3M (RAMP)

Then Received \$160M more Inventory  
(Assume 20-year life = \$8M Cap Repl Need)

Adjusted FY14 Cap. Repl. Need  
= \$10.3M + \$8M = \$18.3M

**FY15**



Total Assets = \$350M

Adjusted Cap. Repl. Need for FY15  
(Assume 20-year Life for Added \$64M)

\$18.3M (Adjusted FY14 Cap Repl Need)  
+ \$0.5M (3% Inflation on FY14)  
+ \$3.2M (20-Yr = 5% Repl for Add'l. Assets)

**\$22M**



# FY15 Delphi Recommendation

## Delphi Voting:

FY15 Baseline Budget: **\$15.7M**  
-\$ 2.7M Signal Removal in Delphi  
**\$13.0M**

FY15 RAMP: **\$22.0M**

**Total FY15: \$35M**

## FY14 Final:

**Budget: \$11.2M, RAMP: \$10.3M, Total: \$21.5M**



# Fleet / Road Equipment

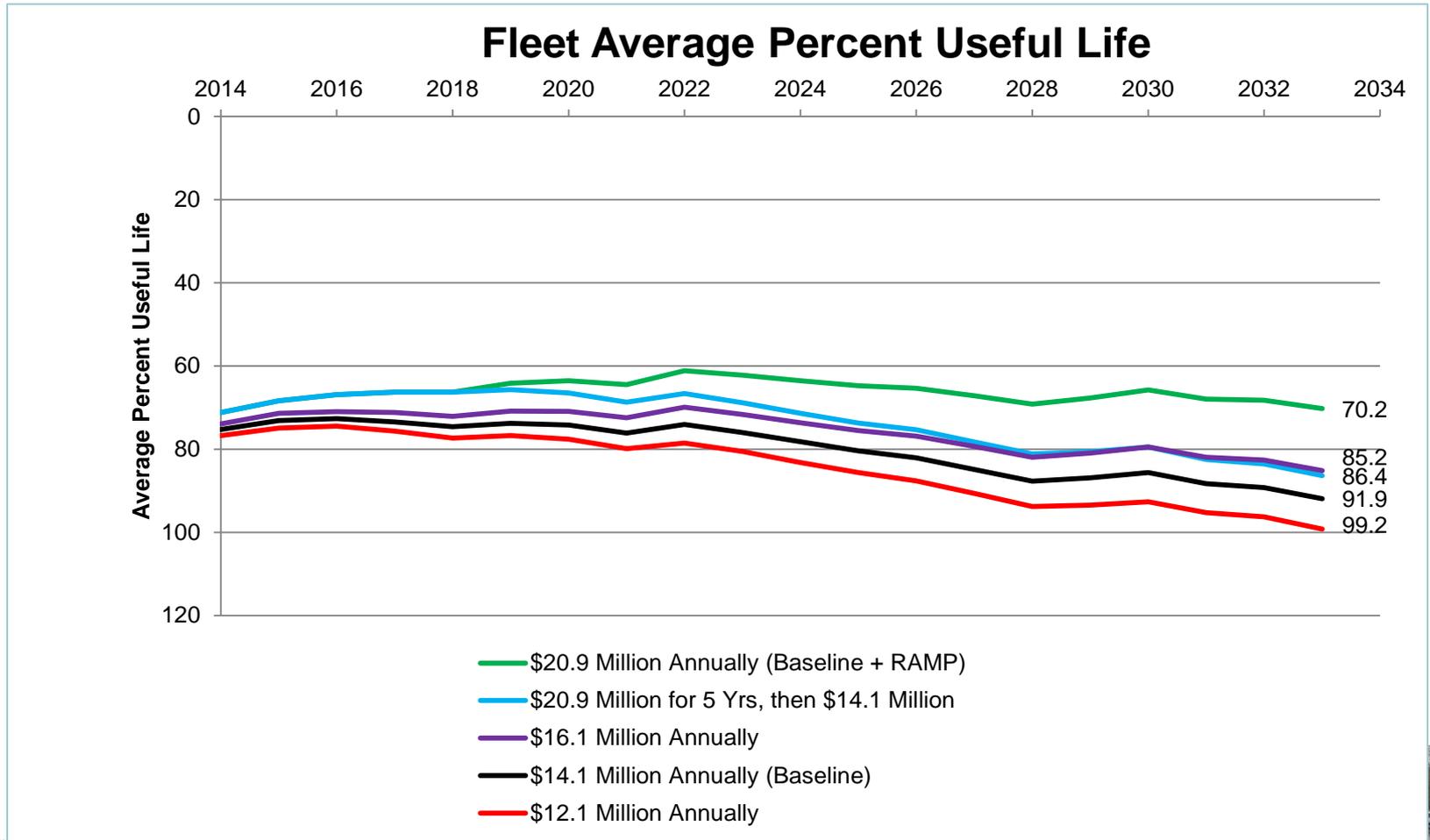


Dave Wieder

# Road Equipment Asset Management

## Analysis Assumptions

- Based on % useful life
- Timeframe: 20 years
- 3.0% inflation rate
- \$0 in the first year to account for time lag in purchasing heavy equipment



# Road Equipment Budget and Expenditures

<b>FY14 Road Equipment Services Budget and Funds Spent Through 8/16/13</b>		
<b>Total Budget</b>	<b>Equipment \$</b>	<b>RAMP \$</b>
\$19,000,000	\$14,000,000	\$5,000,000
<b>Total \$ Spent</b>	<b>Equipment</b>	<b>RAMP</b>
\$3,974,702	\$2,952,926	\$1,021,776
<b>Total \$ Remaining</b>	<b>Equipment</b>	<b>RAMP</b>
\$15,025,298	\$11,047,074	\$3,978,224
<b>Total % Spent</b>	<b>Equipment</b>	<b>RAMP</b>
20.92%	21.09%	20.44%



# FY15 Delphi Recommendation

## Delphi Voting:

FY15 Budget: **\$14.6M**

FY15 RAMP: **\$7M**

**Total FY15: \$21.6M**

## FY14 Final:

Budget: \$14.1M, RAMP: \$6.8M, Total: \$20.9M



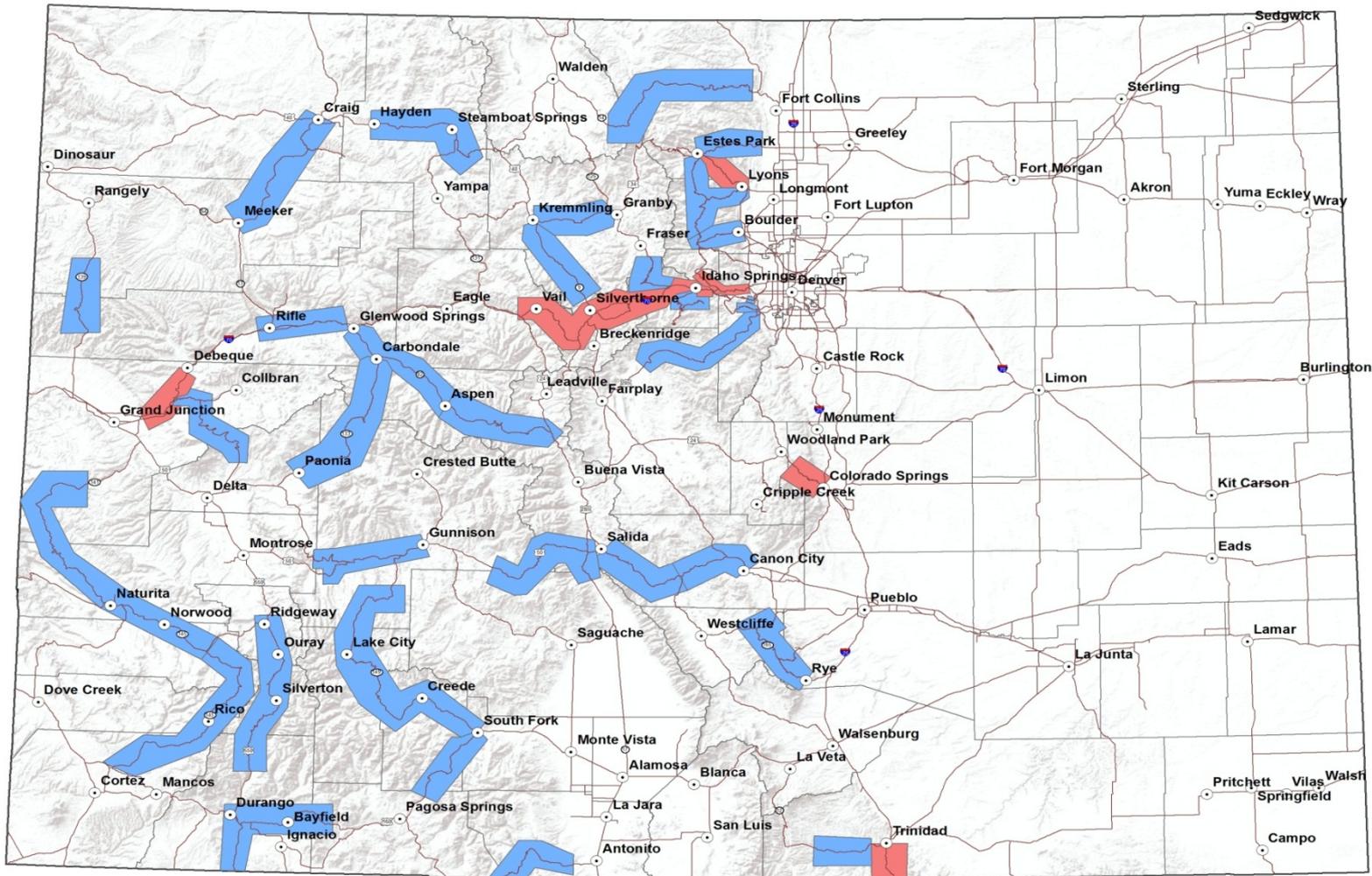
# Rockfall Mitigation



Ty Ortiz

# Rockfall Corridor Map

The corridors in red are the high risk corridors; the methodology is being refined and these are subject to change.



Sources: USGS, ESRI, TANA, AND

# Rockfall Funding Distribution

**Risk Reduction – 60% to 70%**

**Maintenance – 15% to 20%**

**Emergency – 15% to 20%**



# Rockfall Maintenance

Funding for maintenance is from baseline



# FY15 Delphi Recommendation

## Delphi Voting:

FY15 Budget: **\$5.2M**

FY15 RAMP: **\$3.8M**

**Total FY15: \$9M**

## FY14 Final:

**Budget: \$5.2M, RAMP: \$3.8M, Total: \$9.0M**



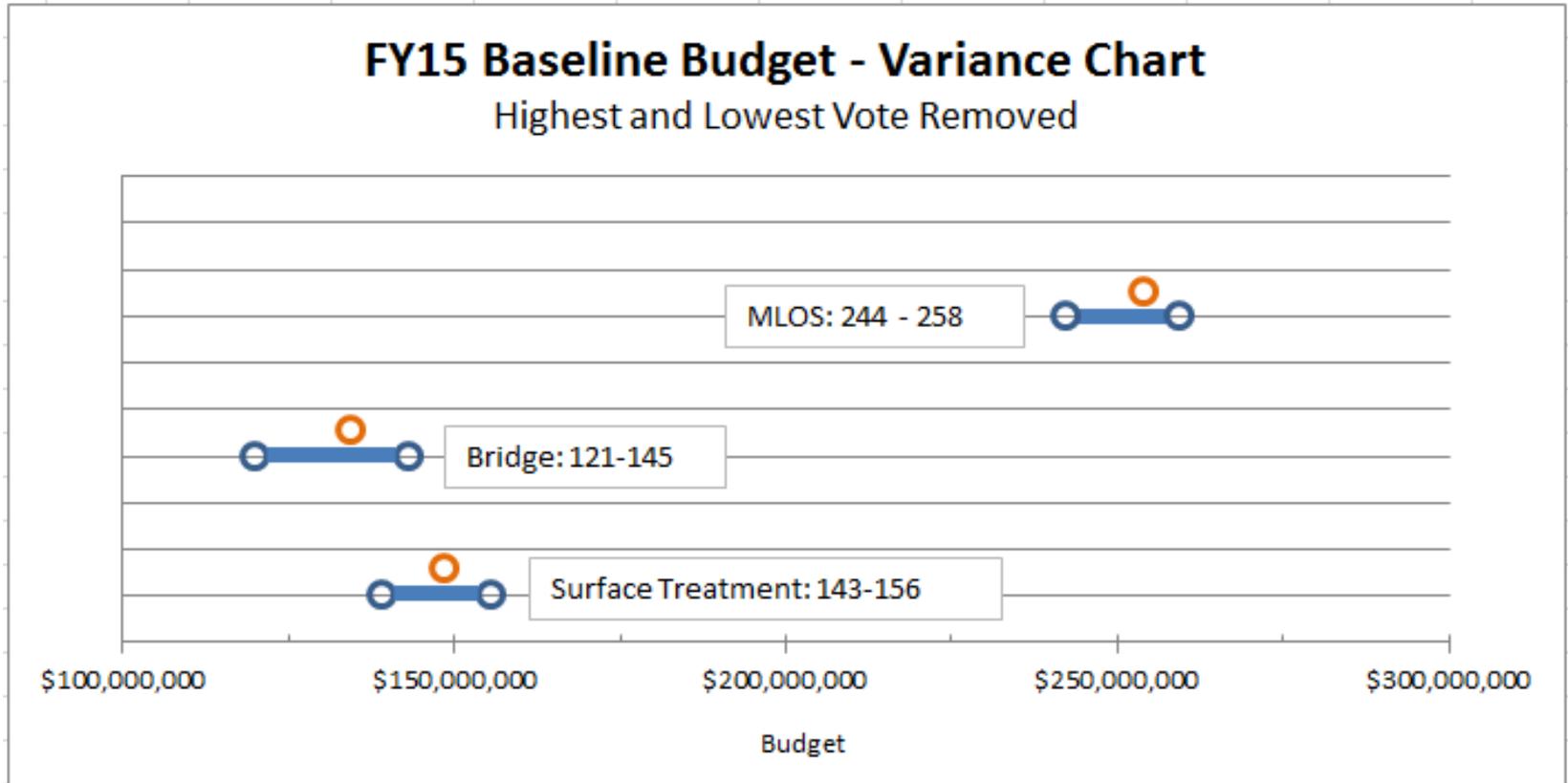
# Staff Recommendations

CDOT Delphi Workshop for FY15 Asset Management:									
(In Millions)	FY14 Baseline Budget	FY15 Baseline Amount Requested	FY15 Final Baseline Budget:	FY14 RAMP Funding (RAMP at \$160M)	FY15 RAMP Amount Requested	Delphi RAMP \$150M Average:	FY15 Total With RAMP @\$150M	Delphi RAMP \$165M Average:	FY15 Total With RAMP @\$160M
Surface Treatment	\$150.6	\$152.0	\$149.5	\$88.2	\$88.0	\$81.6	\$231.1	\$85.7	\$235.2
Bridge, BE & Bridge Fixed Costs	\$140.6	\$151.6	\$135.0	\$33.3	\$33.0	\$26.2	\$161.2	\$28.7	\$163.7
MLOS	\$249.0	\$256.5	\$253.1	\$0.0	\$0.0	\$0.0	\$253.1	\$0.0	\$253.1
Road Equipment	\$14.1	\$14.6	\$14.0	\$6.8	\$7.0	\$5.7	\$19.7	\$6.9	\$20.9
ITS	\$11.2	\$15.7	\$11.6	\$10.3	\$22.0	\$10.7	\$22.3	\$12.8	\$24.4
Rockfall	\$5.2	\$5.2	\$5.1	\$3.8	\$3.8	\$3.6	\$8.7	\$4.0	\$9.1
Buildings & Buildings COPs	\$6.9	\$11.6	\$9.6	\$4.4	\$13.5	\$9.8	\$19.4	\$11.2	\$20.8
Tunnels	\$0.0	\$1.5	\$1.5	\$7.4	\$11.4	\$8.2	\$9.7	\$9.9	\$11.4
Culverts	\$5.6	\$3.0	\$3.6	\$5.9	\$7.6	\$4.4	\$8.0	\$6.0	\$9.6
Walls	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>Total</b>	<b>\$583.2</b>	<b>\$611.7</b>	<b>\$583.0</b>	<b>\$160.1</b>	<b>\$186.3</b>	<b>\$150.2</b>	<b>\$733.2</b>	<b>\$165.2</b>	<b>\$748.2</b>

Note: A risk mitigation pool, designed to proactively mitigate risk based on pre-determined criteria and a scoring system, was discussed as part of the workshop, and will be revisited at the FY16 Workshop.



# Variance in Baseline Voting

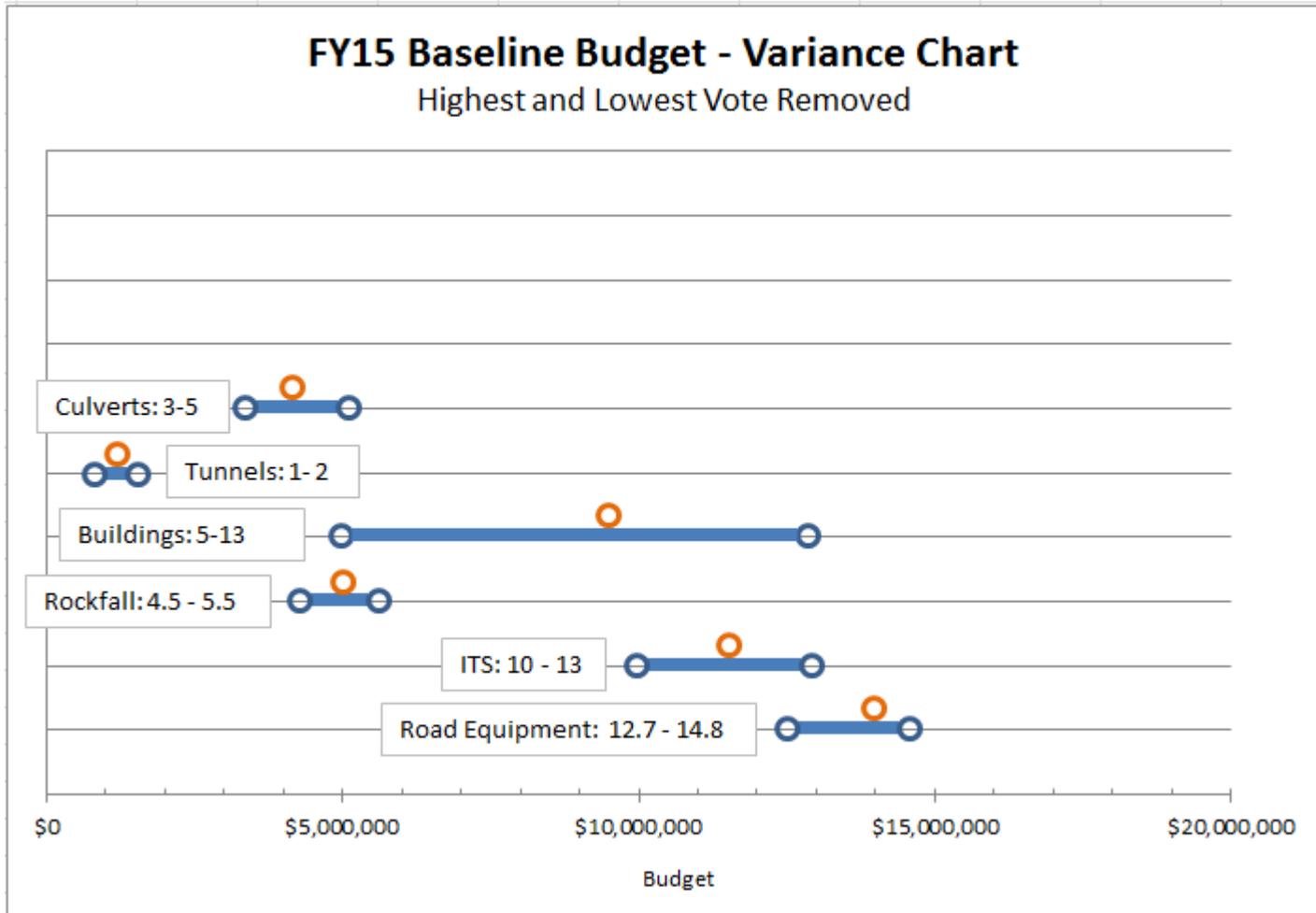


Blue indicates the range of votes.

Orange dot shows staff recommendation.



# Variance in Baseline Voting



Blue indicates the range of votes.  
Orange dot shows staff recommendation.



# Agenda

**Delphi Workshop: FY15 Staff Recommendations**



**Region 4 Headquarters Relocation Project**



# R4 HQ Relocation Project

- Project Scope
- Project Update
- Property Attribute Discussion
- Final Site Recommendation



# R4 HQ Relocation Project

- Project Scope

## Admin Building

Property Required: 5 acres

Building Size: 27,000 sf net core assignable space Apprx 40,000 with cold storage/common space/circulation and mechanical

Fleet Parking: 100 Light duty Fleet Vehicles

Employee Parking: 1.1 to 1 Ration of spaces to employee

## Maintenance Building

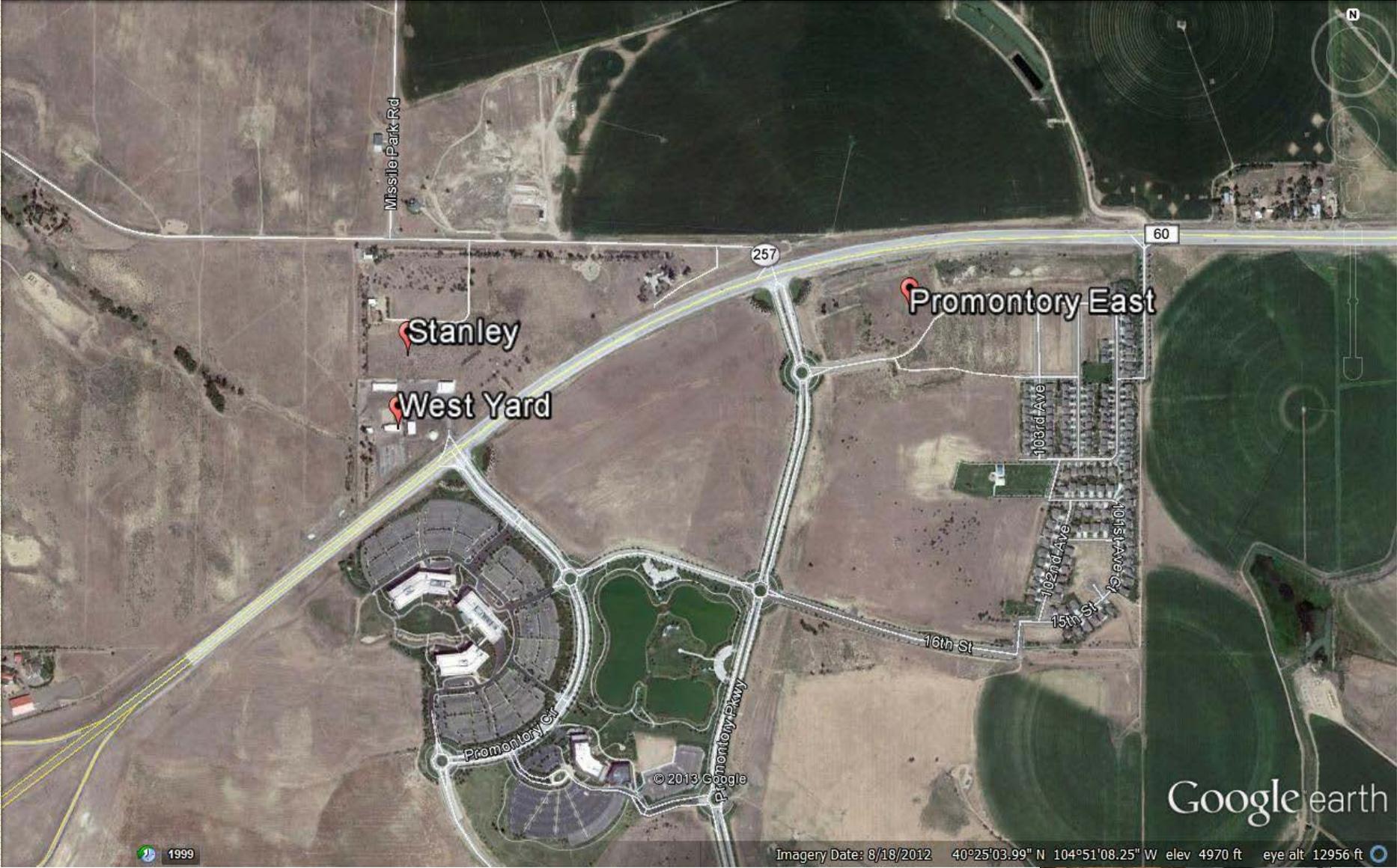
Property Required: Being built on 54 Acre Parcel CDOT Already Owns

Building Size: 21,000 Includes: Welding Bays and Heavy duty Mechanics Bays with lifts and cranes

Parking: 15 Spaces.



# R4 HQ Relocation: Site Map



# R4 HQ Relocation: Property Attributes

		West Yard Site + Stanley	East Promontory Site
Description		CDOT Owns West Yard, Purchase 5.0 AC to the North	Purchase 5.0 AC in Promontory Park Adjacent to Residential
Expense		\$2.1M >Than Promontory East (Cost Estimate Delta Currently Under Final Review)	
		Attribute	Attribute
Financial	Risks	Potential Unforeseen Utility Extension Costs	Potentially Still required to move West Yard
		Potential Unforeseen Existing Building Demo & Relo Costs	Architectural Review Board Requirements Could Increase Initial Construction Cost
		Colocation with Maintenance Activities Could Negatively Impact Future Property Vale	\$15,000 Annual Park Maintenance Fee
			Could Be Assessed Additional Road Maintenance Fees for Heavy Truck Traffic
	Opportunities	Reuse & Improvement to Existing Property	Market Confirming Property with High Residual Value (Lower than Promontory West due to Residential)
			Lowered Construction Risk due to Utilities Stubbed to Site
Strategic	Risks	Limited Future Expansion	Limited Future Expansion
		Not in a Professional Office Park Environment	Removes Premier Business Park Property from Greeley Tax Rolls
		On Site Cross Traffic Between Administrative and Maintenance	Limited Administrative & Maintenance Collaboration
			Incompatible for Full Region Staff Meetings (Large Quantity of Orange Trucks)
			Limitation on Building Types and Property Usage
			Site Layout Requires Architecture Review Board Approval
			Potential Changes to Covenant Requirements
			No Immediate Access from US 34
	Opportunities	Immediate Access to US 34 at Existing Traffic Signal	Access Within the Park to Amenities in Other Buildings
		Engineering/Admin/Maintenance Collaboration	Professional Office Park Environment
Improves Visual Entrance to Greeley with Administrative Facility		Allows for Efficiency of On Site Admin Fleet Maintenance	

# Future TC AM Committee Meetings

- **October:** Budget Workshop and Resolution will include Asset Management Budget Recommendations
- **December:** Risk-Based Asset Management Plan Presentation

