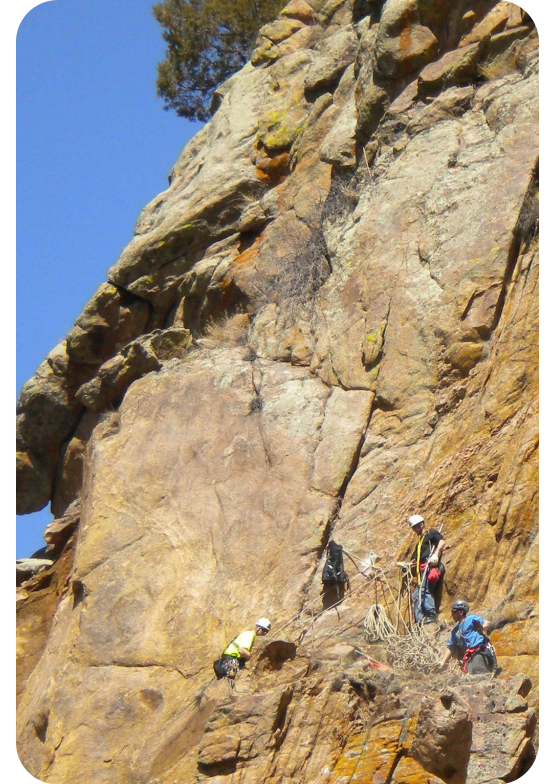




COLORADO

Department of
Transportation



**The Asset Investment Management System
(or The Power of the Line Graph)
June 2015**

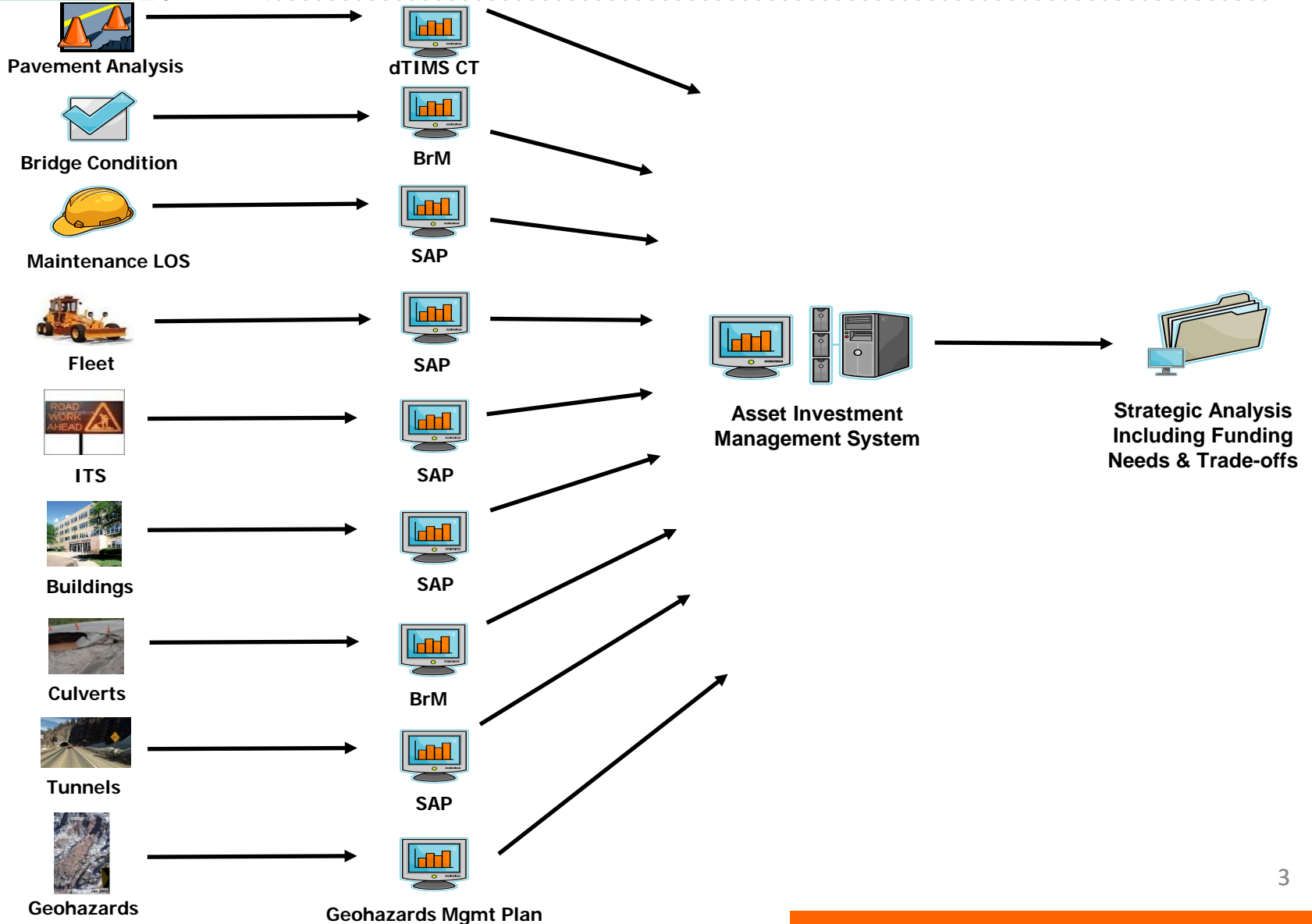


Making Stuff Up





AIMS





Internal Communication

What: Budget Setting Workshop

Who:

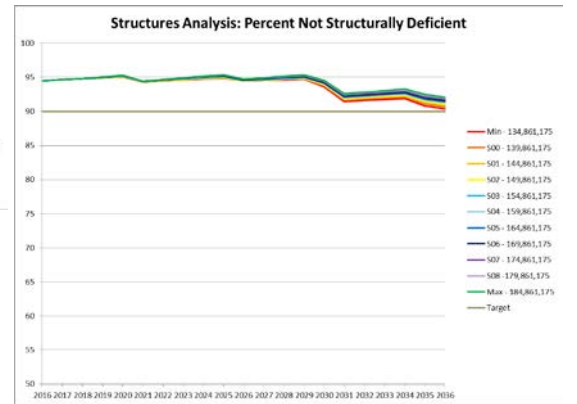
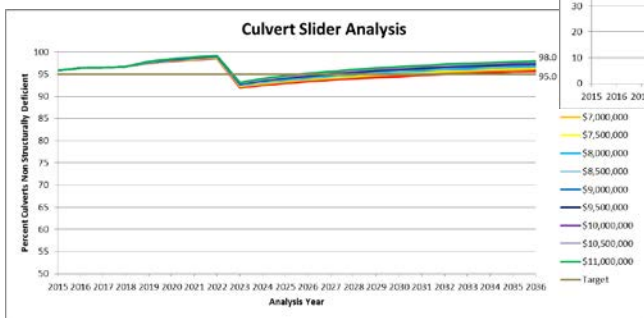
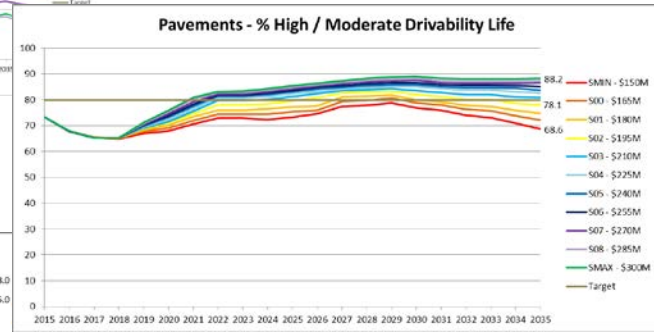
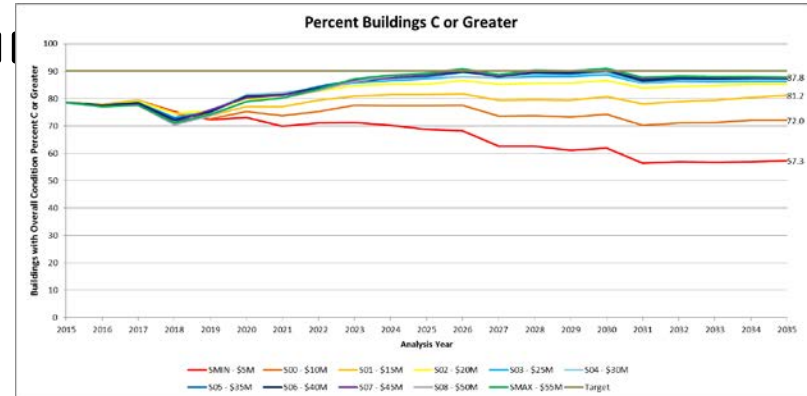
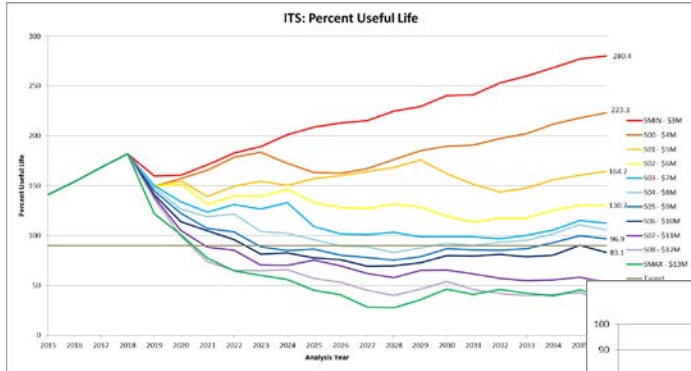
- Director - convenes workshop of CDOT staff to review the projected performance and proposed funding for several assets.
- Other members of senior management
- Regional transportation directors
- Asset managers
- Staff from the Division of Transportation Development
- Staff from the Office of Financial Management and Budget

Result: Group negotiates how much funding each program should receive from the available funds.



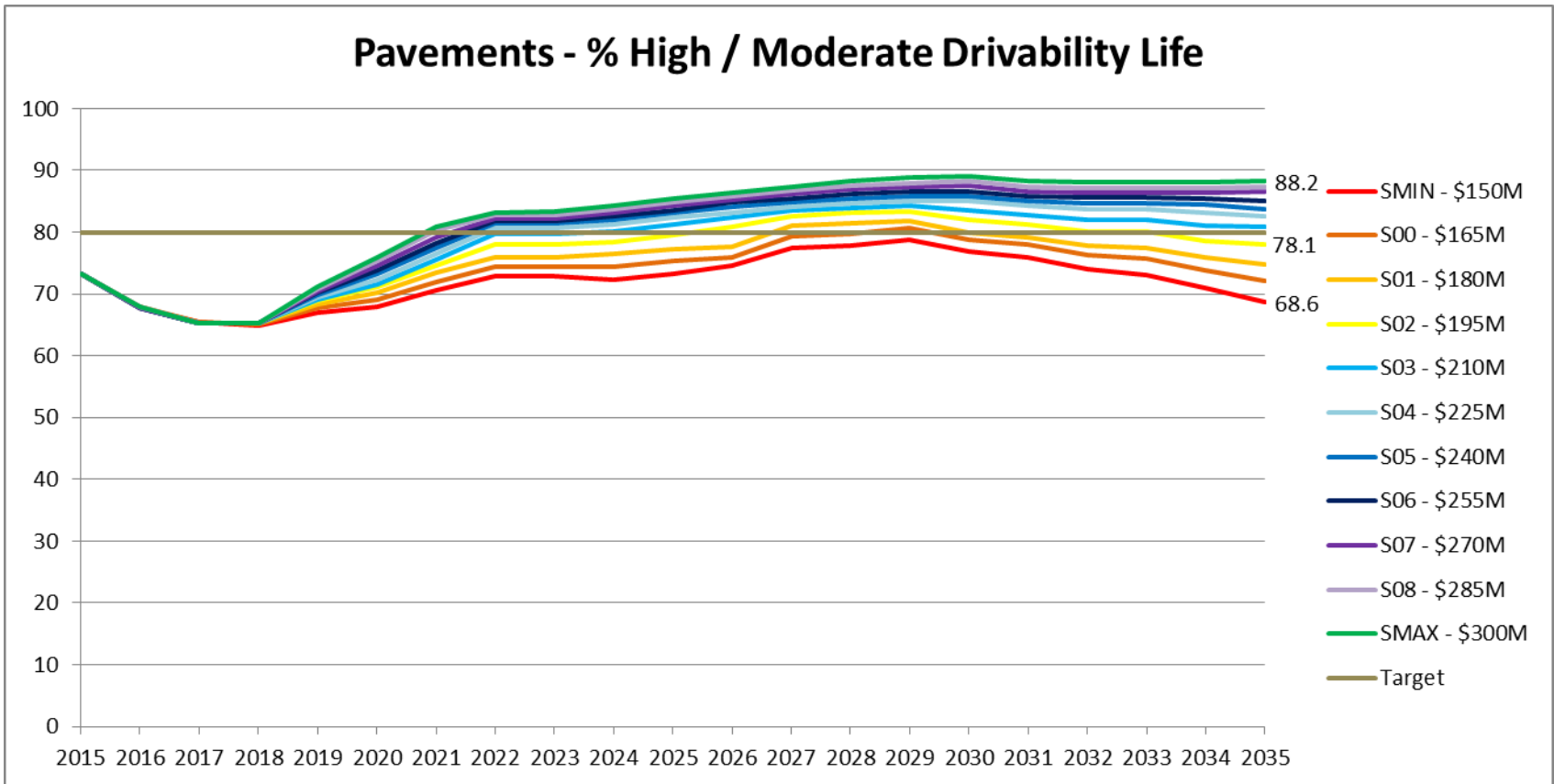
Internal Communication

Cross-Asset Optimization and Trade-off Performance Curves





Target Setting Analysis





Metrics and Targets

Appendix A: CDOT Risk-Based Asset Management Plan Performance Measures and Objectives

Asset	Measure	Current Performance	Objective (Target)	Aspirational Objective (Target)
Bridges	Percentage of state highway total bridge deck area that is not structurally deficient	94%	90% ^a	95% ^a
	Percentage of NHS total bridge deck area that is not structurally deficient	95%	90% ^a	95% ^a
	Percentage of CDOT-owned bridges over waterways that are scour critical	7.1%	5%	1%
	Percentage of bridge crossings over Interstates, U.S. routes and Colorado state highways with a vertical clearance less than the statutory maximum vehicle height of 14 feet-6 inches	0.4%	0.4%	0%
	Percentage of bridge crossings over Interstates, U.S. Routes and Colorado state highways with a vertical clearance less than the minimum design requirement of 16 feet-6 inches	4.8%	4.8%	2%
	Percentage of CDOT-owned bridges posted for load	0.1%	0%	0%
	Percentage of CDOT-owned bridges with a load restriction	2.6%	3%	1%
	Percentage of leaking expansion joint by length on CDOT-owned bridges	18.8%	15%	5%
	Percentage of CDOT-owned bridge deck area that is unsealed or otherwise unprotected	31%	30%	5%
Pavement	Percentage high-moderate drivability life for Interstates based on condition standards and treatments set for traffic volume categories	89%	80% ^a	90% ^a
	Percentage high-moderate drivability life for CDOT-owned NHS, excluding Interstates based on condition standards and treatments set for traffic volume categories	78%	80% ^a	90% ^a
	Percentage high-moderate drivability life for the State highway system based on condition standards and treatments set for traffic volume categories	73%	80% ^a	90%
Maintenance	Statewide Letter Grade	B-	B- ^a	B ^a
Buildings	Statewide Letter Grade	86% C or Better	90% C or Better	100% C or Better
ITS	Average Percent Useful Life	126%	90%	85%
Fleet	Average Percent Useful Life	103%	70%	50%
Culverts ^b	Percentage Critical Culverts	2.9%	5%	2%
Geohazards	Number of Sites with letter grade C or better	47%	60%	90% ^c
Tunnels	Key components of fire/life safety must not exceed 100% of useful life, based on manufacturer's specification, condition inspections and maintenance history.	TBD ^d	100%	100%
Traffic Signals ^e	Percent intersections with at least one component beyond 100% Useful Life	52%	15%	0%
Walls ^f	Percentage of CDOT-owned walls, by square foot, that are in condition state 3 or 4 (poor or severe).	1%	1%	0.5%

^ahighlighted measures and objectives are those that are identified specifically in the Infrastructure Condition section of PD 14.

^bThese measures and objectives are from the Infrastructure Condition section of PD 14.

^cCulverts are minor structures between 4' and 20'.

^dSome sites will always remain in the D category due to traffic volume. And at some sites, to effectively eliminate or significantly reduce the likelihood is beyond the scope of the Geohazards Program.

^eObjective pending data collection.

^fOverall signal infrastructure includes signal assemblies, cabinets and controllers.

The walls inventory and condition are being collected under a 2 year project, so the information in this table is based on estimates.



Budget Results

FY19 Asset Mgmt Budget Setting Recommendation (Millions)	Asset Need	AIMS Results	Staff Workshop Recommendation
Surface Treatment	240	200.5	\$225.40
Bridge	155	137.1	\$142.50
MLOS*	286	271.8	\$272.80
Buildings / Prop. Mgmt.	24	24.7	\$20.20
Culverts	12.1	5.7	\$7.60
Tunnels*	10.3	6.4	\$8.40
ITS	35	28	\$23.50
Road Equipment	33.9	33.9	\$26.80
Geohazards	10	2.5	\$8.40
Walls*	6.2	4.6	\$4.60
Traffic Signals	20	39.8	\$14.80
TOTAL	\$832.5	\$755.0	\$755.0
*Not currently modeled in AIMS, amount based on FY18			



External Communication

What: Impact analysis of potential legislation that would reduce total asset management funds by \$260 M/year for 30 years.

Who:

- Asset Management Branch performed analysis

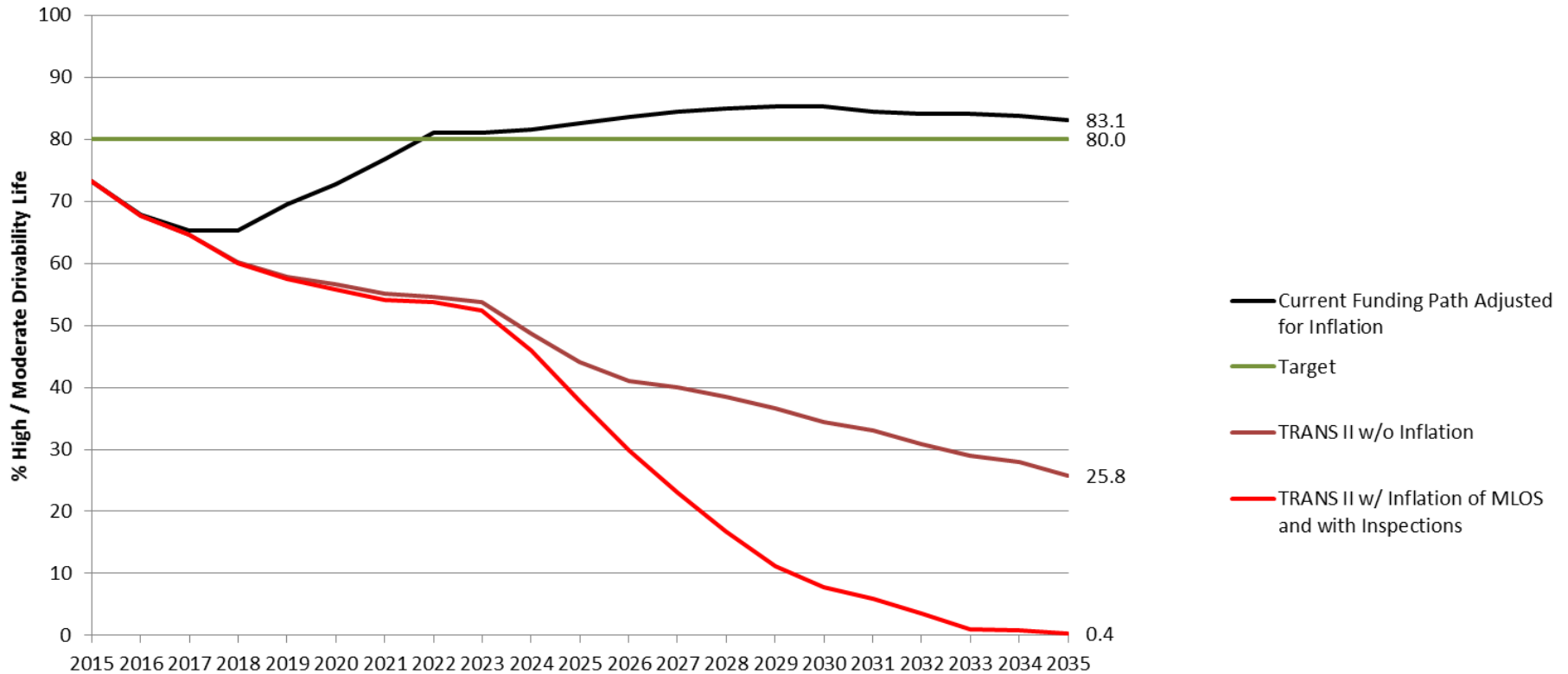
Result:

- Forecasted performance of assets with diminished funding.



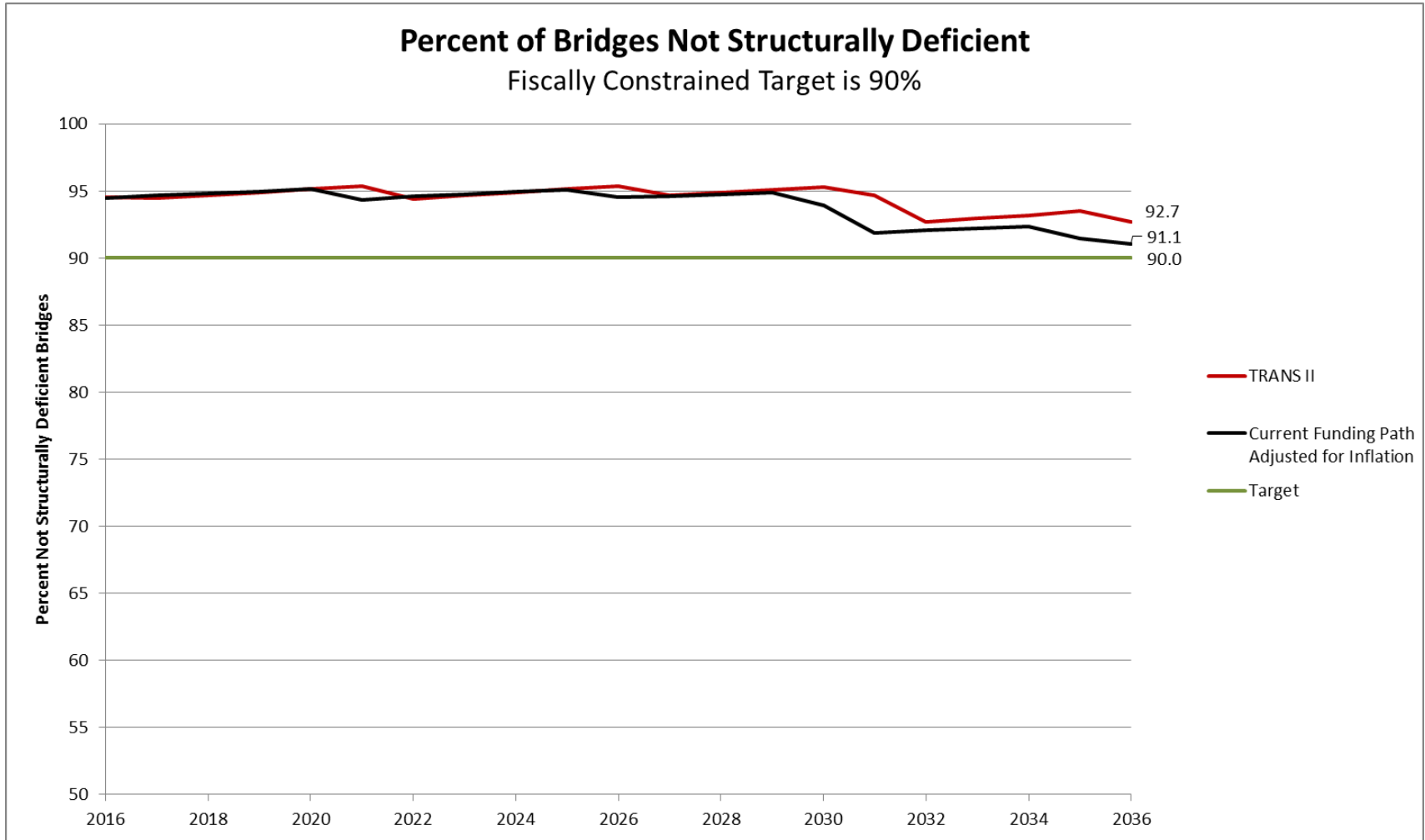
Surface Treatment

Percent of Pavements with % High / Moderate Drivability Life





Bridge

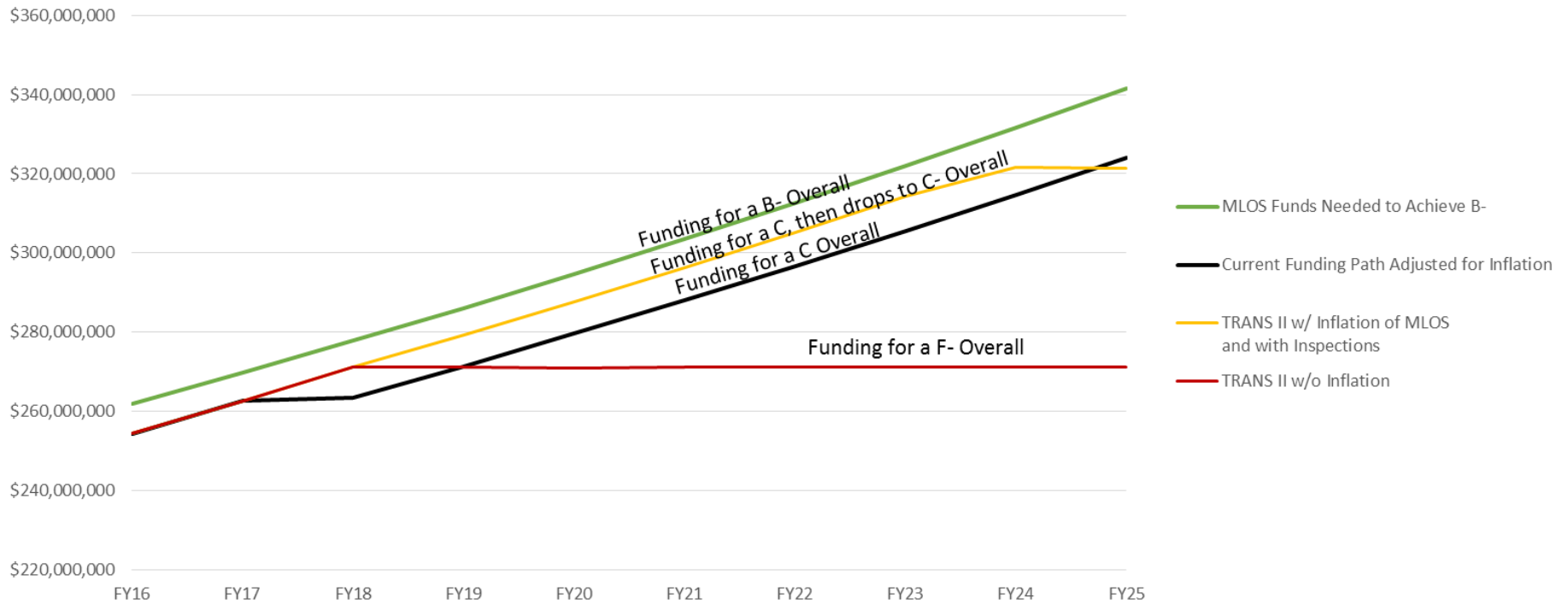


Note: TRANS II analysis is based on new Bridge Enterprise Revenue numbers from OFMB



MLOS

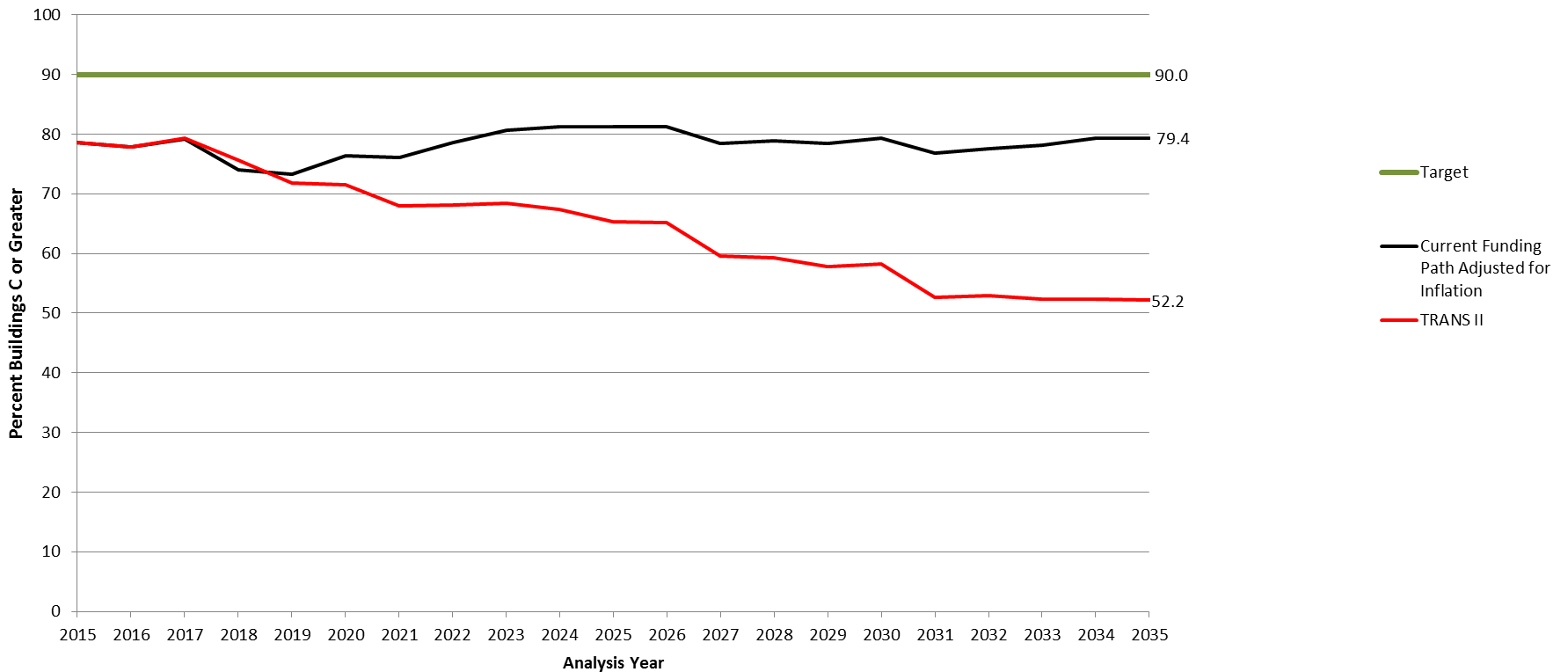
MLOS Budget Comparisons





Buildings

Percent of Buildings with a Condition of C or Greater
Fiscally Constrained Target is 90%

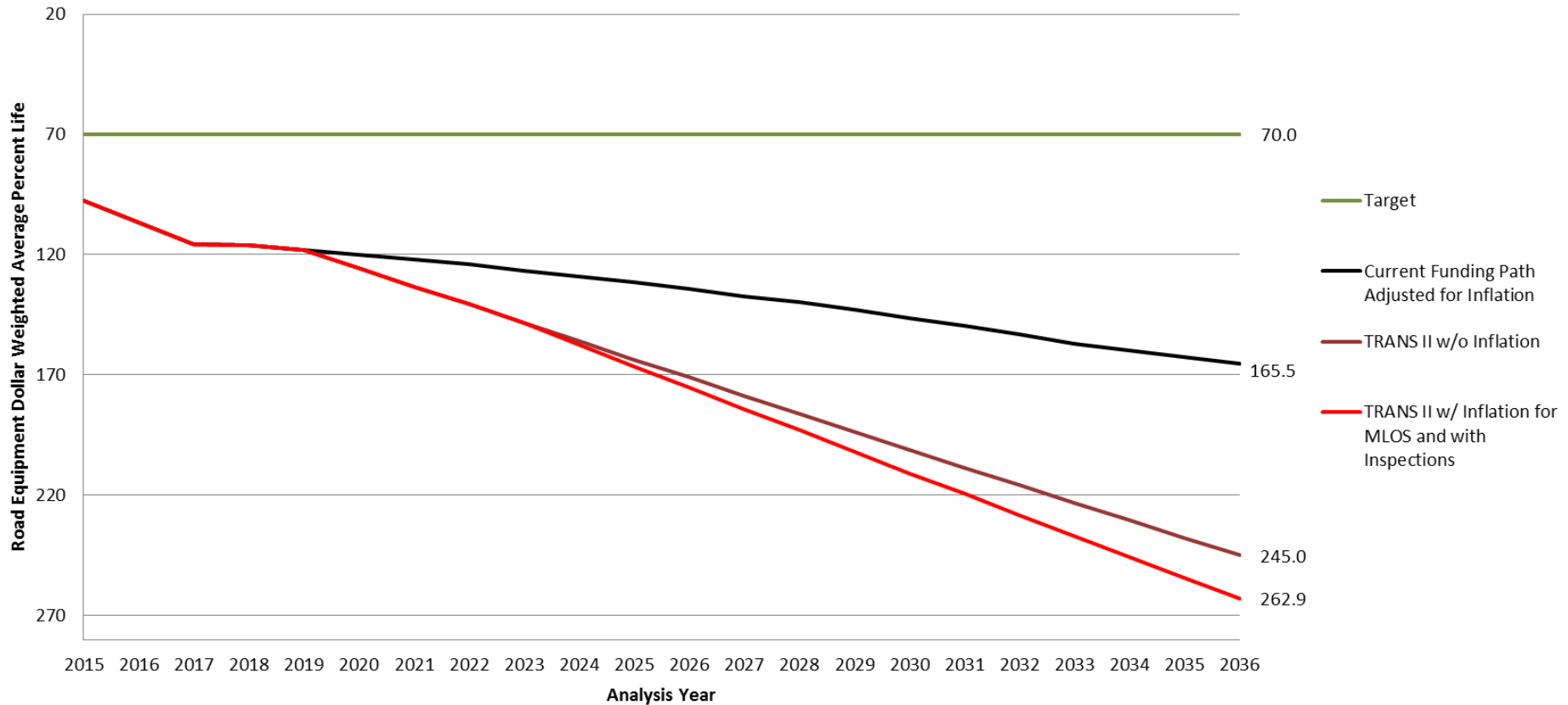




Road Equipment

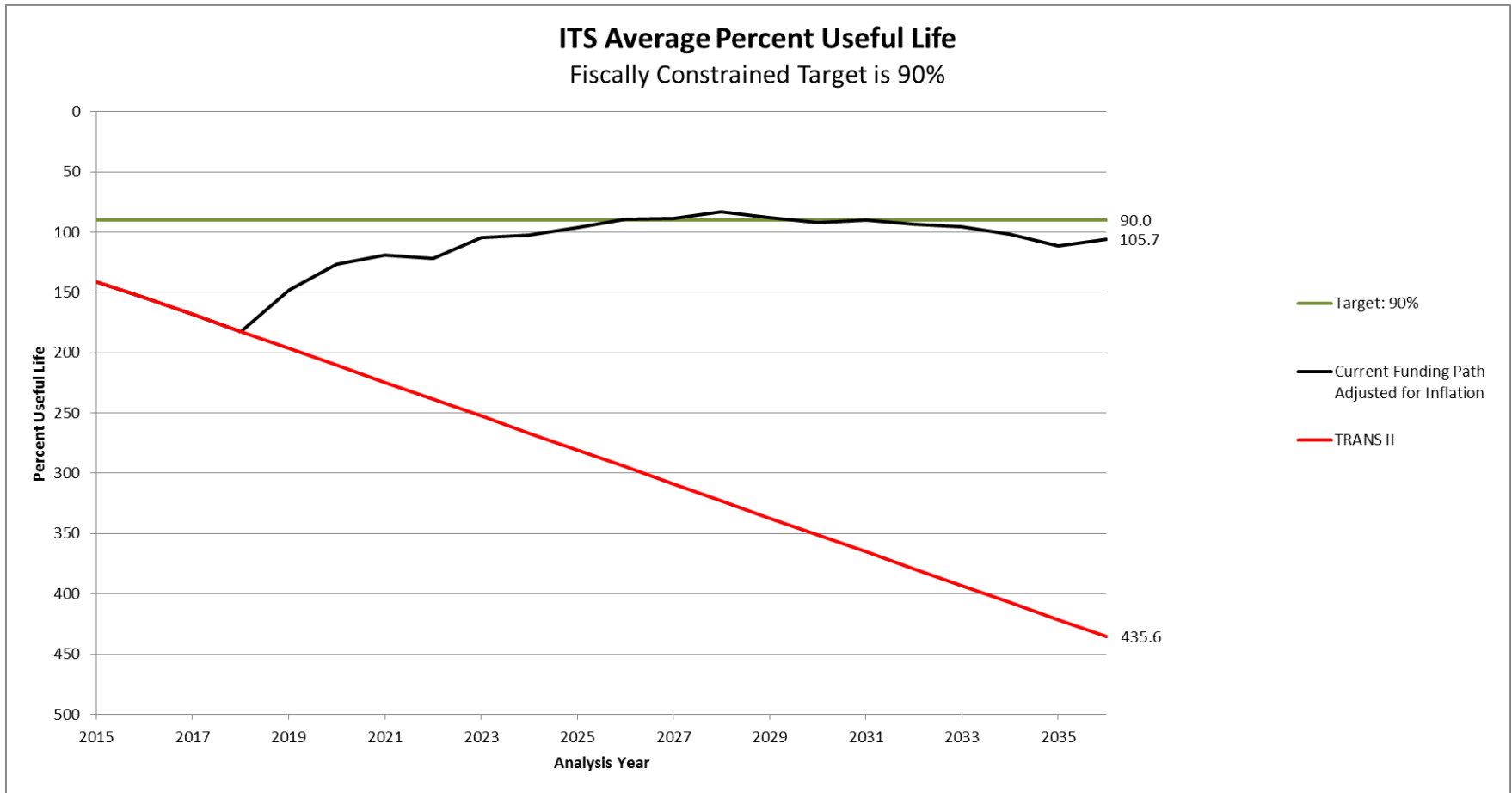


Road Equipment
 Dollar Weighted Average Percent Life
 Fiscally Constrained Target is 70%



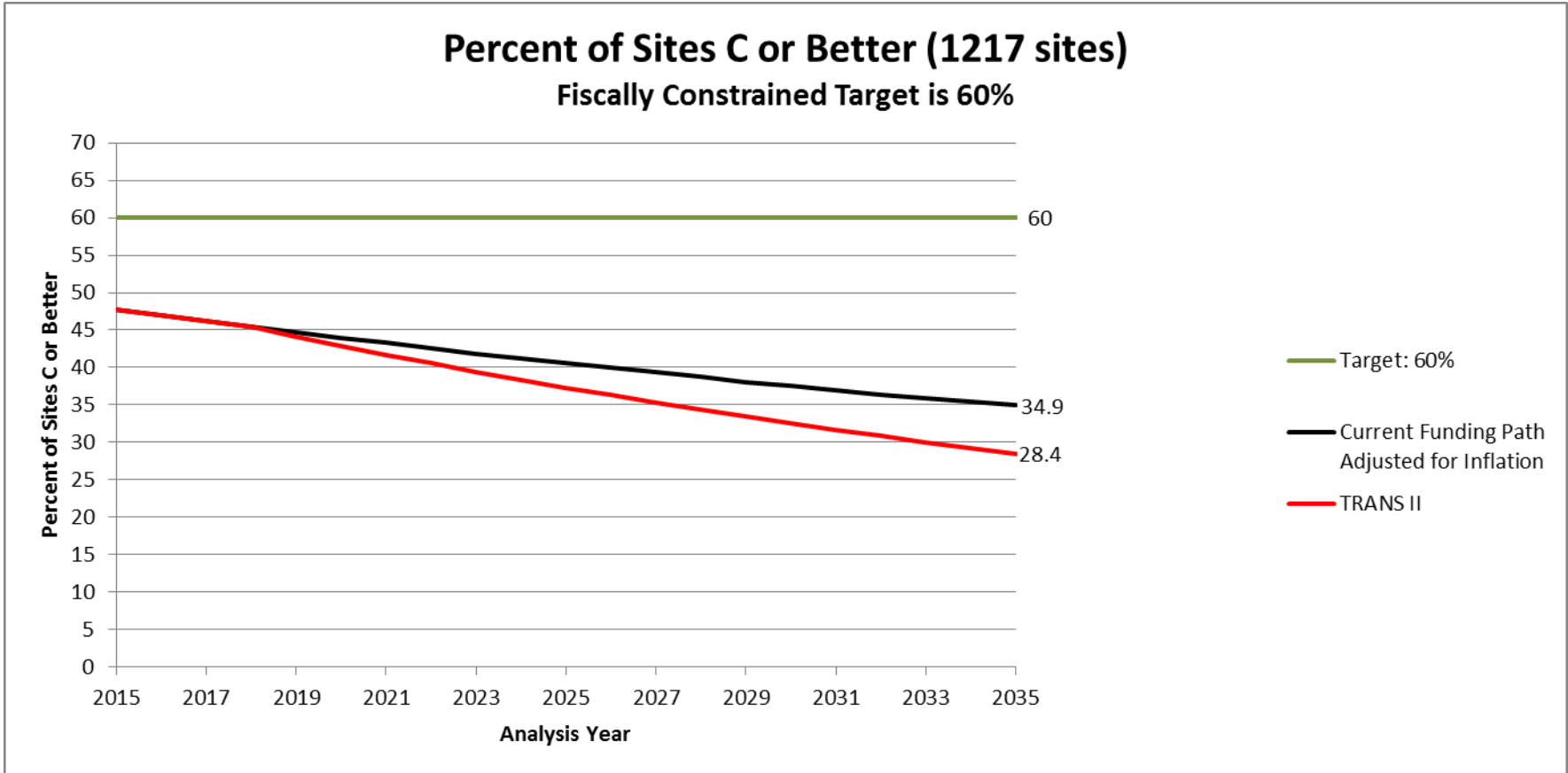


ITS





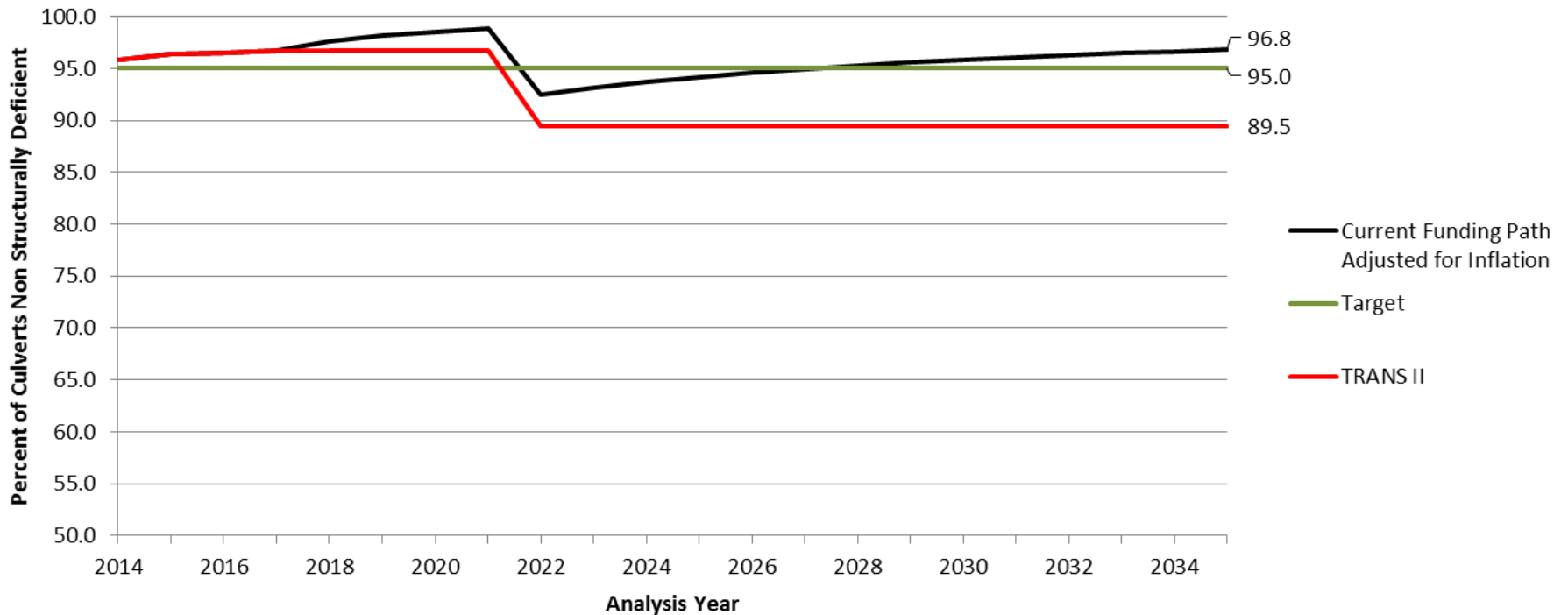
Geohazards





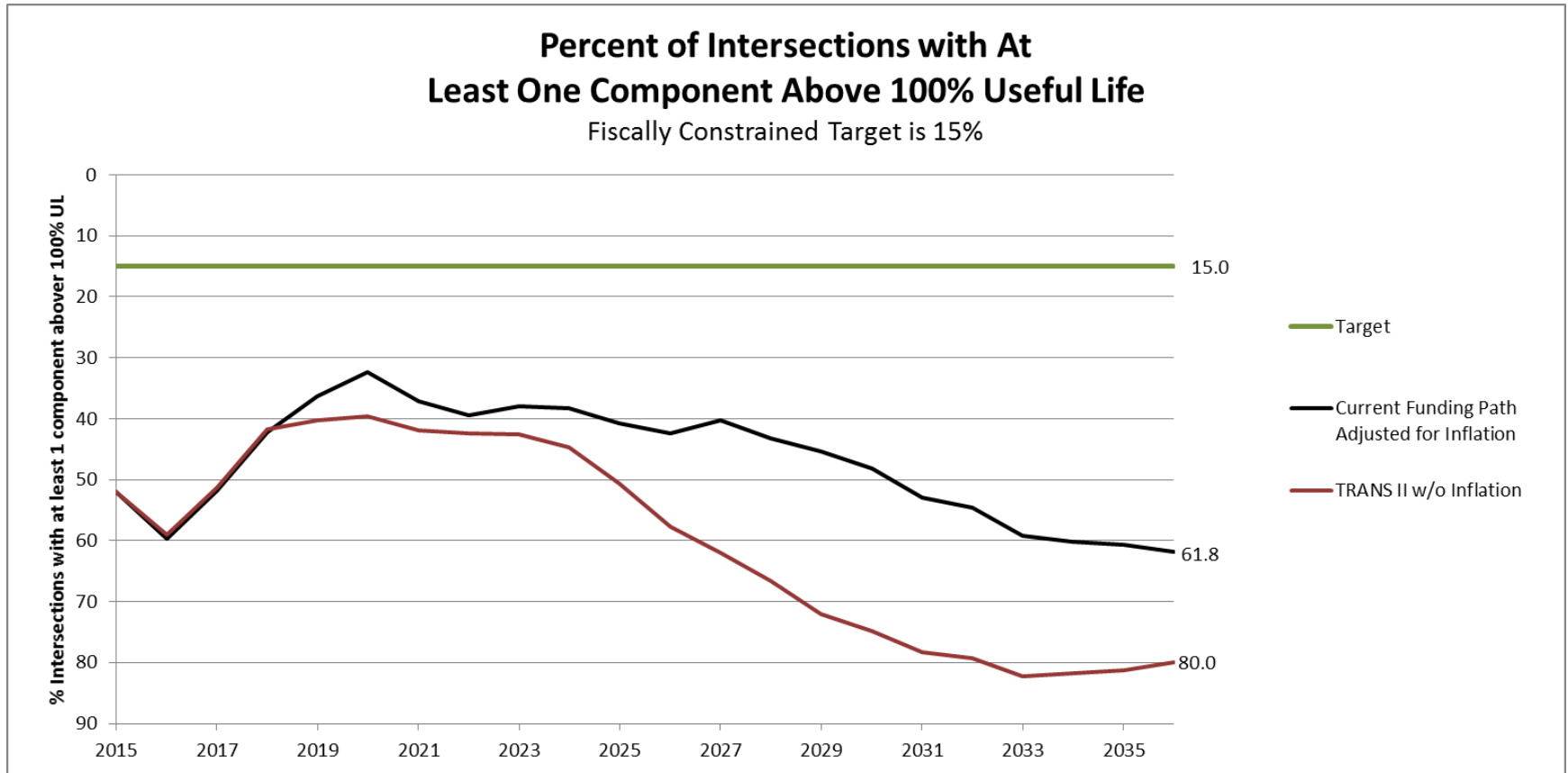
Culverts

Percent of Culverts Which Are Not Structurally Deficient
Fiscally Constrained Target is 95%





Traffic Signals





Contact Information



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Colorado Department of Transportation**

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