



2016

Looking Ahead - Moving Forward



Ada County Highway District
Strategic Plan 2035

Adopted by the ACHD
Commission on June 15, 2016

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Vision, Mission, and Priorities

ACHD Vision: Leading transportation innovation – Investing in communities

ACHD Mission: We drive quality transportation for all Ada County – Anytime, Anywhere!

ACHD Priorities, which will serve as the criteria for judging every choice we make going forward:

1. Our People – Our competitive edge in the work place is the source of our strength. As such we will:
 - Maximize training
 - Invest in our people
 - Reward innovation, commitment to the mission and excellence across the board

2. Effective and efficient execution, assuring:
 - Excellence in service and performance
 - Teamwork
 - Fiscal responsibility in expending taxpayer dollars
 - Responsiveness to regional and community needs
 - Customer service
 - The promotion of economic development with each community
 - The preservation of our multi-billion dollar infrastructure investment
 - Preparation for future growth

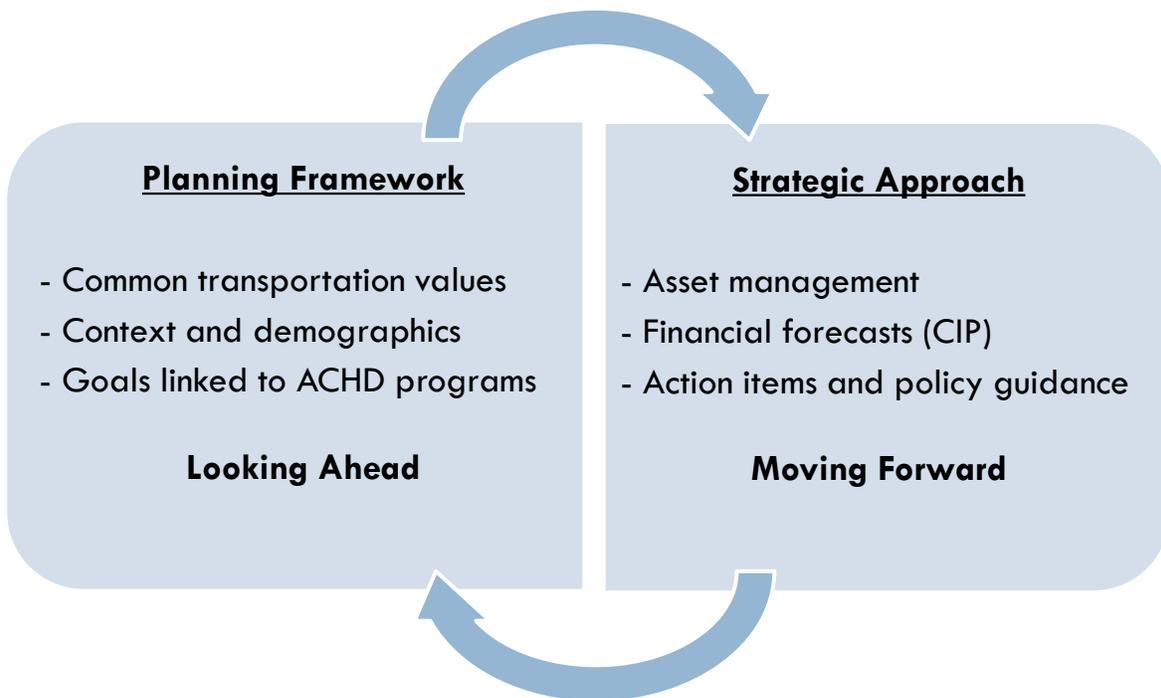
3. Leaders in technology, design, and innovation

4. Safety throughout the District for its employees and citizens

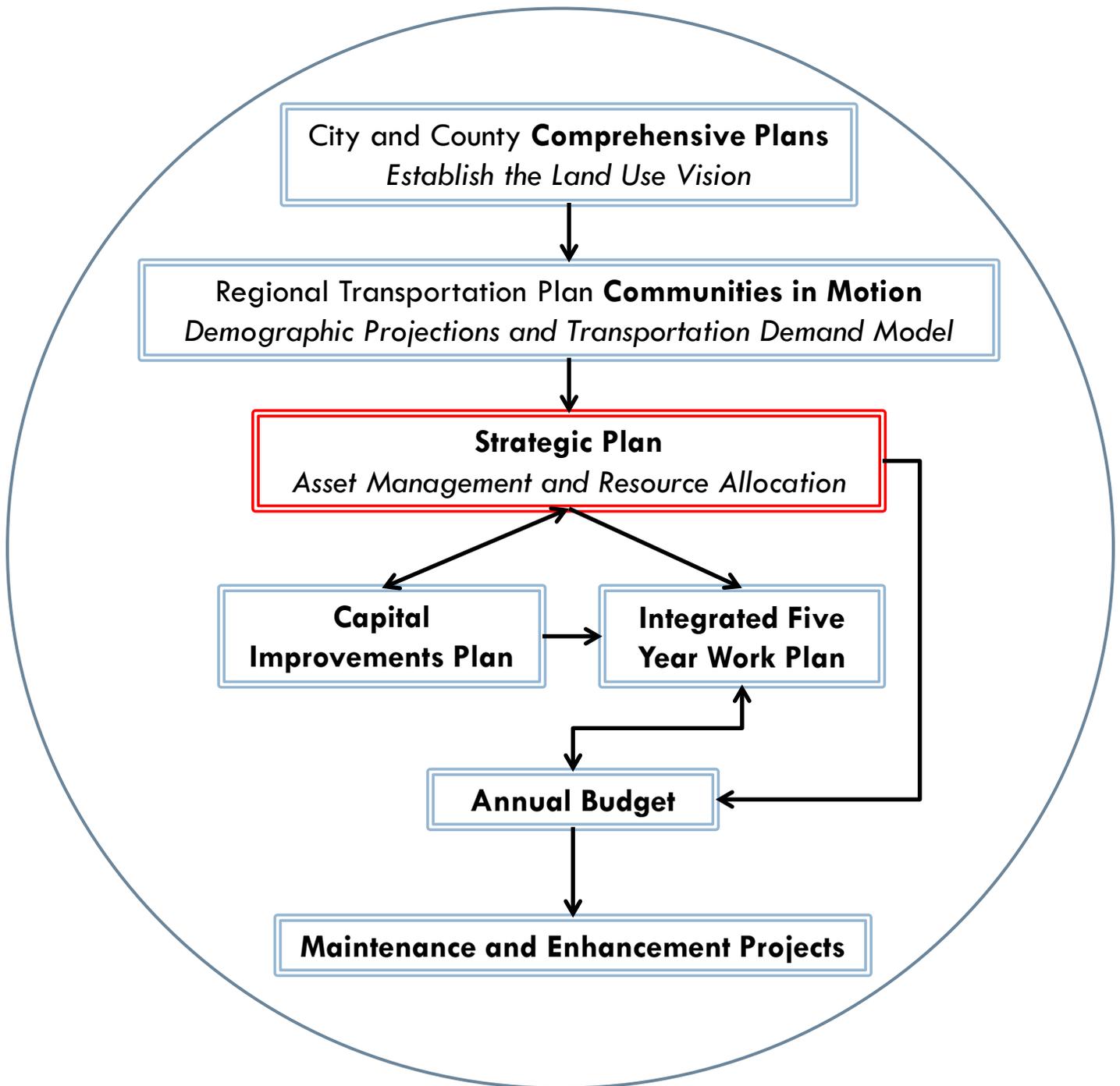
Plan Purpose

Through the establishment of a clear planning framework and strategic approach this Plan:

- Supports ACHD’s Vision, Mission and Priorities and acts as the umbrella under which ACHD operates
- Informs and guides the 20 year Capital Improvement Plan (CIP), the Integrated Five Year Work Plan (IFYWP) and the annual budget
- Memorializes ACHD’s commitment to asset management
- Highlights unique opportunities and areas of concern facing ACHD
- Establishes clear actions to help ACHD determine the best way to allocate its resources over the next 20 years



Where does this plan fit?



ACHD's Foundational Planning Documents: *Bike Master Plan, Pedestrian Bicycle Transition Plan, Transportation Land Use Integration Plan including the Master Street Map, Livable Streets Design Guide and Complete Streets Policy*

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Chapter 1

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- ACHD's Unique Role
- Common Transportation Values
- Unique Transportation Characteristics
- Foundational Goals
- CIM Objectives Connected to ACHD Plans and Programs
- Population Growth
- Impacts of Growth on the ACHD System
- Impacts of Growth on Transportation Demand
- Actions

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ACHD's Unique Role

Established in 1972 as an independent government entity, the Ada County Highway District (ACHD) is responsible for all short-range planning, construction, maintenance, operations, rehabilitation and improvements to Ada County's streets.

- Countywide transportation agency
- Responsible for the public right-of-way in Ada County including within the city limits of Boise, Meridian, Eagle, Kuna, Garden City, and Star
- ACHD right-of-way includes sidewalks, bikeways, roadways, bridges, storm drainage and other infrastructure dedicated to the movement of people goods and services
- **ACHD must balance regional and community needs in view of finite budgets and funding streams**



Common Transportation Values

As part of the strategic planning process ACHD reviewed the Comprehensive Plans of each city and Ada County. ACHD also received direct feedback from the majority of its partners about specific values that they believe are important.

- Each community has a unique vision and philosophy but many of the values identified create common ground that helps ACHD focus its efforts in areas that are broadly supported
- ACHD has the opportunity to provide leadership in some of these areas and act as a critical partner in others

Common Transportation Values	ACHD's Role
SAFETY	Leadership
FISCAL RESPONSIBILITY	Leadership
MOVEMENT AND CONNECTIVITY	Leadership
INNOVATION AND TECHNOLOGY	Leadership
COMMUNITY AND NEIGHBORHOOD INVESTMENT	Partnership
LAND USE AND TRANSPORTATION INTEGRATION	Partnership
ENVIRONMENTAL STEWARDSHIP	Partnership
ECONOMIC OPPORTUNITY	Partnership

Unique Transportation Characteristics

ACHD recognizes that transportation needs and issues vary by location and land use context. Through previous planning efforts (Transportation Land Use Integrations Plan and others) ACHD has made strides in context sensitive planning and design. This Plan reaffirms ACHD’s commitment to context sensitive solutions and recognizes the following:

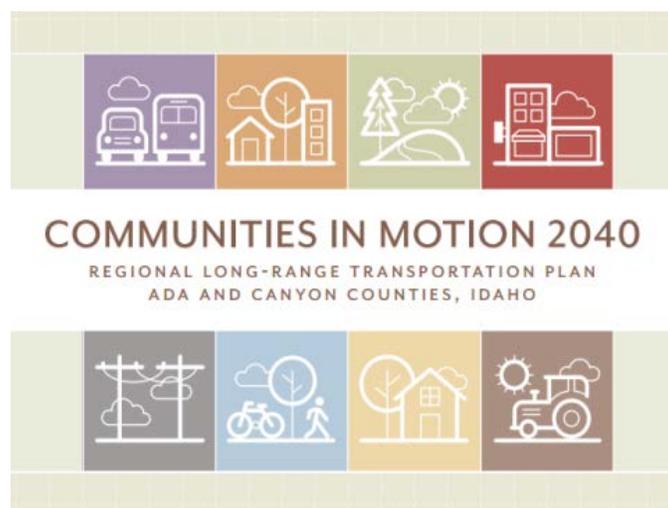
- ACHD is committed to a decision making process that includes opportunities for clear and direct input from the public and its municipal partners
- ACHD recognizes that “one size does not fit all” and is dedicated to exploring transportation solutions that are sensitive to the unique context of each city, corridor and neighborhood
- ACHD is dedicated to supporting motorized and non-motorized transportation options in accordance with its Complete Streets Policy and within its statutory authority



Foundational Goals

ACHD supports the transportation goals and objectives in Communities in Motion 2040 (CIM) the Regional Long-Range Transportation Plan for Ada and Canyon counties. ACHD recognizes that these are regional goals and may not address all issues but they do provide a foundation based on broad public outreach. The transportation specific goals from CIM are listed below:

- “Enhance the transportation system to improve accessibility and connectivity to jobs, schools, and services; allow the efficient movement of people and goods; and ensure the reliability of travel by all modes considering social, economic, and environmental elements.”
- “Improve safety and security for all transportation modes and users.”
- “Protect and preserve existing transportation systems and opportunities.”
- “Develop a transportation system with high connectivity that preserves capacity of the regional system and encourages walk and bike trips.”



CIM Objectives Connected to ACHD Plans and Programs

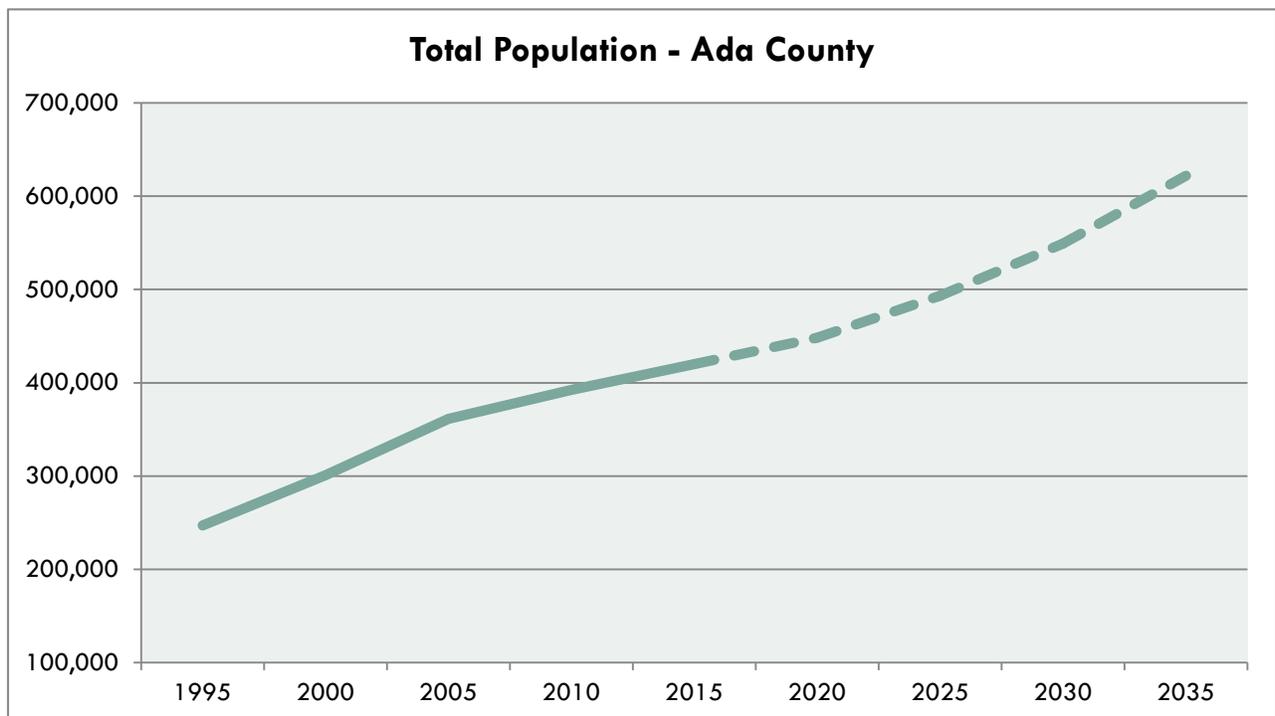
Each CIM transportation goal is supported by several objectives that can be connected directly to an ACHD plan/program. The CIM objectives and associated ACHD plan/program are shown in the table below. ACHD is committed to plans and programs that respond to local and regional transportation needs.

CIM Objectives	ACHD Plans/Programs
Develop local transportation plans and corridor plans that link the transportation system and local land use.	CIP, Neighborhood Plans, State Street Transit and Traffic Operations Plan
Manage congestion and delay.	CIP, IFYWP, Intelligent Transportation Systems, Commuteride
Implement effective access management strategies on major regional corridors.	IFYWP, Development Policies
Reduce number and severity of incidents.	IFYWP, Traffic Safety
Maximize the useful life of the existing transportation system.	IFYWP, Pavement Management, Maintenance (Operational/Capital), Bridge Program
Maintain and complete the network and fill in the gaps in the existing transportation system.	CIP, IFYWP, Community Programs, Bridge Program
Expand existing programs that encourage people to try other modes.	Commuteride, Community Programs, Bike Master Plan, CIP, IFYWP
Increase number of schools with Safe Routes to Schools (SRTS) programs.	Community Programs, Development Policies
Improve connectivity between transit and bike/walk network.	Community Programs, CIP, IFYWP

Population Growth

One of the basic assumptions in CIM 2040 is that the population in the Treasure Valley will continue to grow at a rapid pace. Accommodating the growth planned by ACHD’s land use partners represents one of the biggest challenges facing ACHD.

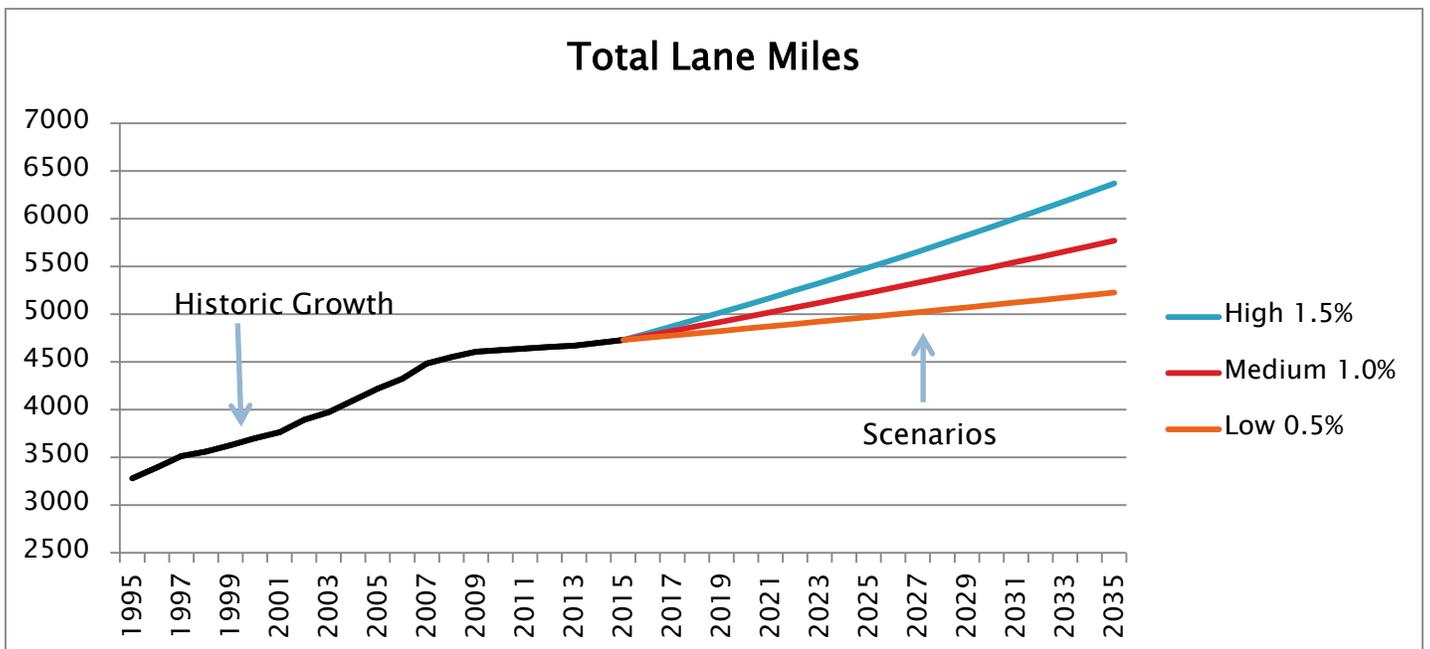
- By 2035 Ada County is expected to have a population of 621,990
- This represents an increase of over 200,000 people from the 2015 population estimate (419,911)
- With Canyon County growth included, the region is estimated to reach a population over 900,000 by 2035
- The projected growth has an obvious impact on the transportation system managed by ACHD and is consistent with the growth that Ada County has seen over the last 20 years (1995 – 2015)



Impacts of Growth on the ACHD System

ACHD is tasked with finding the right balance between maintaining its existing transportation infrastructure and enhancing the infrastructure to accommodate growth.

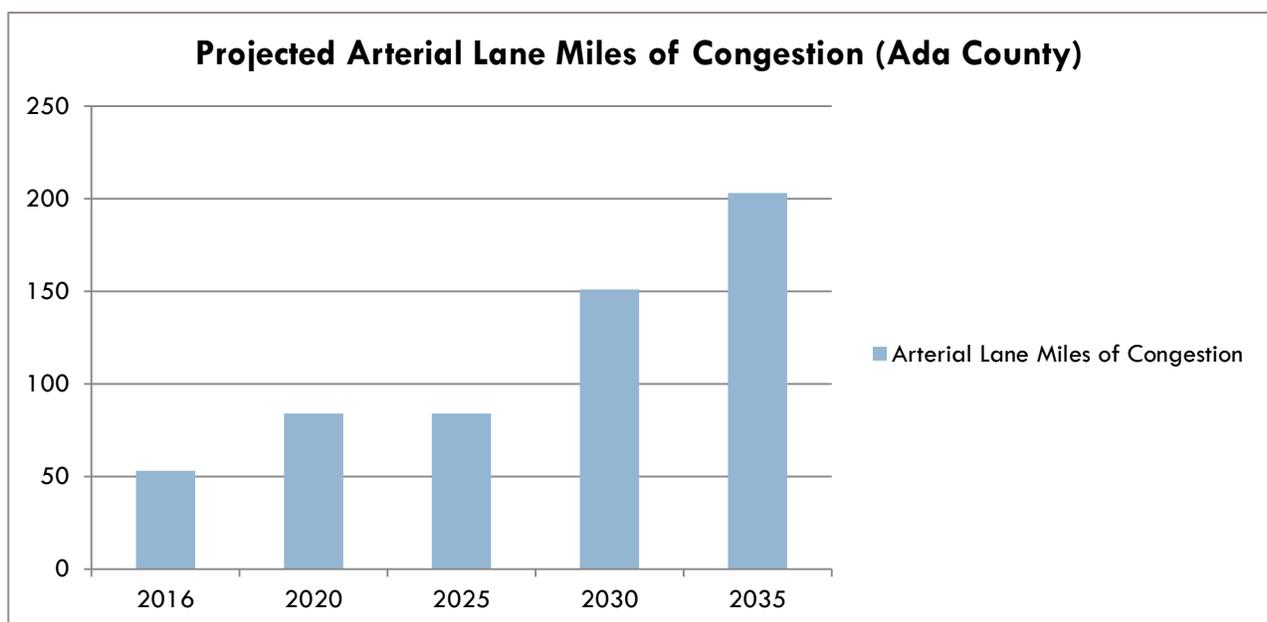
- To accomplish this task ACHD recognizes the need to forecast system growth and understand how that growth impacts ACHD’s maintenance liabilities
- ACHD has chosen a 1% annual system growth scenario for forecasting purposes (shown in red in the chart below)
- This scenario attempts to capture changes in urban densities and land use patterns that help to decrease the total lanes miles required to serve the projected growth
- ACHD will actively monitor system growth and make adjustments in future iterations of this Plan to ensure that the assumptions do not significantly under/over forecast system expansion
- This Plan sets a benchmark and establishes a forum for ACHD to transparently discuss the impacts of system growth



Impacts of Growth on Transportation Demand

In order to anticipate and plan for increased demand on the transportation system ACHD uses the travel demand model developed by COMPASS. The model is the region’s primary tool to project transportation demand and is a key factor in how ACHD plans for and builds transportation projects.

- As changes to demographics, transportation choices, and growth rates occur ACHD relies on COMPASS and the travel demand model to project how these changes impact the ACHD system
- Transportation demand management is critical to the success of an urban transportation system
- As the Treasure Valley grows and becomes more urban, ACHD recognizes that congestion and delay will increase
- Reduced air quality and negative economic impacts can occur if the transportation system is not maintained and enhanced



❖ Actions

This planning process is intended to focus ACHD's efforts and provide a forum for the ACHD Commission to transparently provide guidance on how ACHD will balance competing needs. To that end ACHD is committed to the following actions:

- ❖ Work in partnership with all general and special purpose governments in Ada County at both the policy-maker and staff levels
 - ❖ Coordinate regular joint meetings with our partners
 - ❖ Continue to seek regular input on priorities through the IFYWP process

- ❖ Help the people and businesses of Ada County understand what the forecast level of growth means in terms of future demands and the challenges it presents to travel to and through Ada County
 - ❖ Continue to seek public input through best practices such as public opinion polls and surveys
 - ❖ Work with COMPASS in the development of public outreach tools and methods that highlight transportation issues
 - ❖ Employ outreach tools and methods that are appropriate for the project context and that reach all users

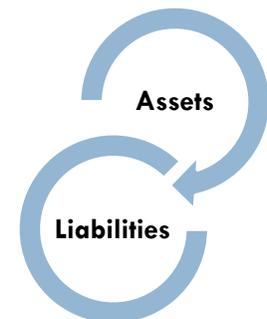


❖ Actions

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- ❖ Evaluate emerging models and measurement tools and consider new methods for measuring, responding to and managing transportation demand
 - ❖ Evaluate ACHD's prioritization methodology and determine where improvements can be made
 - ❖ Continue to use appropriate measurement tools at the project and network level
 - ❖ Develop standard measurement tools that help to project and evaluate project success

- ❖ Ensure that ACHD can manage and track its maintenance liabilities by asset category
 - ❖ Continue to incorporate asset management into the mid-range and long-range planning process
 - ❖ Enhance the coordination between the Maintenance and Capital programs through the Integrated Five Year Work Plan
 - ❖ As new technologies emerge, continue to enhance resource allocation decisions using data and metrics



Chapter 2

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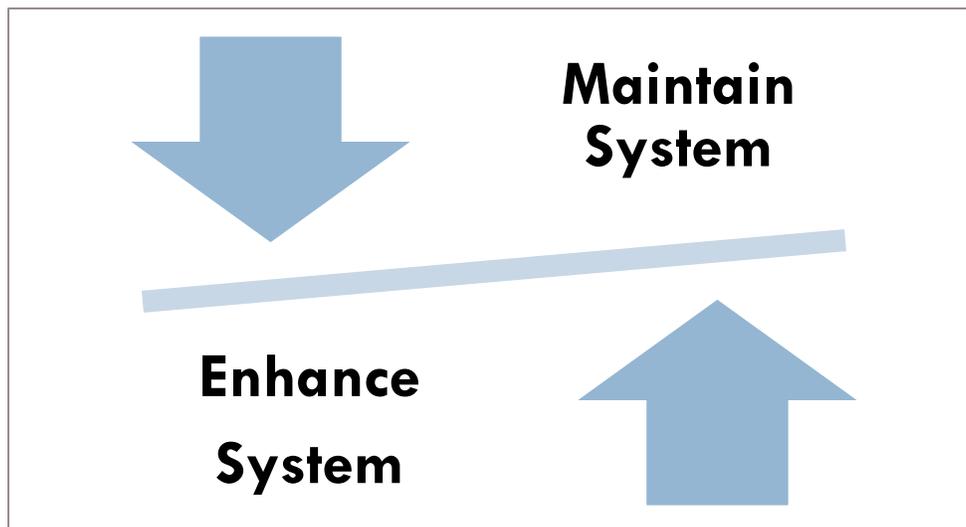
- Finding the Right Balance
- Asset Management
- Primary Infrastructure Assets
 - Pavement
 - Bridges
 - Sidewalks
 - Traffic Signals and Materials
 - Stormwater Facilities

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Finding the Right Balance

In this high growth environment ACHD is committed to finding the right balance between maintaining existing assets and enhancing assets in response to increased demand.

- Preventative maintenance of ACHD’s assets is the most cost effective way to maintain a safe and functional transportation system
- As the ACHD system grows the costs to maintain its assets will grow
- This Plan helps ACHD establish its asset management needs in order to ensure a robust understanding of what is required to maintain the system
- The CIP is ACHD’s primary tool to quantify needs related to system enhancement
- Finding the right balance between maintenance and enhancement of the transportation system is critical to ACHD’s success



Asset Management

As an organization ACHD has a history of commitment to maintain its assets in top condition. As Ada County continues to grow and become more urban the challenges associated with asset management increase. ACHD is committed to understanding its asset management needs.

- Confirm existing strategies and identify actions needed to improve ACHD's asset management approach
- Ensure that ACHD can track its maintenance liabilities by asset category
- Use data to enhance resource allocation decisions

Basic Asset Management Approach

Inventory and assess

Establish performance measures

Identify areas of high risk in the short and long term

Consider life cycle cost

Allocate resources to achieve performance measures

Monitor progress and adjust

Primary Infrastructure Assets

As part of this Plan ACHD has chosen to evaluate and monitor five infrastructure assets.

- ACHD has various other assets including: facilities and vehicular fleet. Although critical to ACHD operations these other assets are not the focus of this Plan
- The table below describes each infrastructure asset and how it is tracked
- Not unlike most transportation agencies ACHD has varying level of data quality and condition among its assets

Asset Type	Inventory	Condition Assessment		Current Condition	
		Measure	Value		
Pavement	Street Saver	PCI	Score/Range		Very Good
Bridges	InspectTech	Sufficiency Rating	Score		Good/Better
Sidewalks	GIS Inventory	Condition Index	Range		Needs Better Tracking
Traffic Signals and Materials	Signal Database	Visual Inspection	In Service Rate		99.9 % In Service Rate
Stormwater Facilities	GIS Inventory	Reactive	Loss of Function		Data Needs

Pavement

Pavement (and the other structural components of the roadway) is ACHD’s single largest asset.

- The Pavement Management group in the Planning and Programming Department is primarily responsible for the inventory and analysis of ACHD’s paved roadway network
- ACHD uses StreetSaver, a database and predictive modeling tool, to inventory and assess pavement condition
- StreetSaver uses a pavement condition index (PCI) to measure pavement quality
- The most recent independent evaluations rate ACHD’s pavement as the best in the northwest and in the top tier nationwide

Function	Lane Miles	Current Condition (PCI)	Current Performance Goal
Arterials	1,060	Very Good (84)	Very Good (70-100)
Collector	510	Very Good (83)	Very Good (70-100)
Local	3,177	Very Good (83)	Very Good (70-100)



Performance Goal: **Maintain ACHD’s network PCI in the “Very Good” PCI category.**

Pavement - Actions

To meet growing needs and mitigate risk ACHD should:

- ❖ Continue to perform regular pavement evaluations and maintain robust data on pavement condition
 - ❖ Perform pavement evaluations on a three year cycle
 - ❖ Maximize the use of the data within StreetSaver to inform decisions
- ❖ Monitor the established performance goal and make adjustments as needed
 - ❖ Consider different performance goals for different roadway classifications
- ❖ Expand ACHD’s operational capabilities
 - ❖ Evaluate the benefits of purchasing new equipment that expands ACHD’s ability to perform preventive maintenance treatments using in-house resources
- ❖ Explore new technologies and treatments that maximize pavement life

Resource Needs		Known Risks
Short Term	Long Term	
=	↑	<ul style="list-style-type: none"> • Steady decline of pavement quality • Increasing cost to rebuild or replace deteriorated roadways • System growth and age

Bridges

Bridges are a critical aspect of the transportation network that require significant resources to maintain and rebuild.

- The Engineering Division is primarily responsible for the inventory, inspection and analysis of ACHD’s bridges
- ACHD uses InspectTech to inventory and monitor bridges within the ACHD network
- ACHD bridge inspectors regularly inspect all bridges under the District’s jurisdiction for safety, condition and compliance with national bridge standards
- Bridge condition is measured using a sufficiency rating

Length	Number	Sufficiency Rating	Structurally Deficient	Current Performance Goal
Over 20'	215	Good/Better (213)	2	100% Good/Better
5' – 20'	549	Good/Better (545)	4	100% Good/Better

Structurally Deficient: Indicates some bridge load-carrying components have deteriorated to a condition that requires repair or replacement of the components. **It does not imply that the bridge is unsafe to the traveling public.**



Performance Goal: Keep 100% of ACHD’s bridges with a sufficiency rating of Good/Better.

Bridges - Actions

To meet growing needs and mitigate risk ACHD should:

- ❖ Continue to perform regular bridge inspections and maintain robust data on bridge condition
 - ❖ Maximize the use of technology to ensure accurate and safe bridge inspections
- ❖ Develop a 10 year bridge replacement strategy
 - ❖ Identify larger bridges that will require special programming to replace
 - ❖ Document a process for bridges to be included in the IFYWP
- ❖ Continue to consider life cycle cost when designing new bridges
 - ❖ Maximize bridge life using the most current technologies
- ❖ Continue to consider Accelerated Bridge Construction (ABC) methods when replacing structures

Resource Needs		Known Risks
Short Term	Long Term	
		<ul style="list-style-type: none"> • System age • System growth • Corrugated metal pipe and premature failure • Large bridges that require special programming to replace

Sidewalks

Sidewalks and pedestrian ramps are essential elements of the transportation network.

- The Planning and Programming department is primarily responsible for the inventory and analysis of ACHD’s pedestrian network
- In 2004 the existing and missing sidewalks and street corners were inventoried and assessed as part of ACHD’s Pedestrian-Bicycle Transition Plan (PBTP)
- Since the adoption of the PBTP, ACHD has worked diligently to construct improvements to the pedestrian system that bring sidewalks into compliance with the Americans with Disabilities Act

Facility Type	Miles/Count	Condition (2005)		Current Performance Goal
Sidewalks	2,425	Good	90 %	ADA Compliance
		Bad	<10%	
Pedestrian Ramps	24,340	Compliant	↑	ADA Compliance
		Non-Compliant	↓	

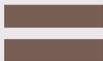


Performance Goal: **Bring 100% of ACHD’s sidewalks and pedestrians ramps into compliance with the American with Disabilities Act.**

Sidewalks - Actions

To meet growing needs and mitigate risk ACHD should:

- ❖ Revisit the 2004 sidewalk inventory
 - ❖ Update the sidewalk inventory data and perform a new condition analysis based on lessons learned and national best practices
- ❖ Develop a new methodology for tracking improvements to the sidewalk network that is linked to an asset management system
 - ❖ Coordinate sidewalk condition assessments with pavement condition assessments
- ❖ Create a strategy that more closely coordinates safe sidewalk improvements with chipseal and other maintenance efforts
- ❖ Continue tracking compliance with ADA through the ADA Annual Report

Resource Needs		Known Risks
Short Term	Long Term	
		<ul style="list-style-type: none"> • Large backlog • Changing ADA requirements • Coordination with other maintenance activities • Data issues that require resolution

Traffic Signals and Materials

Traffic signals and materials help to keep people safe and are critical to the operations of the transportation network.

- The Traffic department is primarily responsible for the inventory and analysis of ACHD’s traffic signals and materials
- ACHD uses a web based Signal Database to inventory and track poles, mast arms, control boxes and other traffic materials
- Signals undergo a yearly assessment and are primarily upgraded or installed as part of capital projects
- Signal materials are durable and have a long useful life

Function	Total	Current Performance
Traffic Signals	427	99.9% In Service Rate
Pedestrian Signals	72	
Rectangular Rapid Flashing Beacons (RRFB)	19	
School Speed Zone Flashing Beacons	224	
Other Beacons	17	
Fire Station Signals	20	



Performance Goal: Maintain traffic signal in service rate at 99% or better.

Traffic Signals and Materials - Actions

To meet growing needs and mitigate risk ACHD should:

- ❖ Evaluate existing traffic materials as part of the scoping process and ensure that obsolete signals and other materials are being replaced as part of larger projects
- ❖ Continue to implement a technology strategy that maximizes safety and congestion relief benefits
- ❖ Replace outdated traffic signal LED inserts on a rotating ten year cycle to ensure maximum visibility and help prevent failures
- ❖ Traffic signs should be replaced before the retro-reflectivity levels reach the minimum levels as determined by control samples

Resource Needs		Known Risks
Short Term	Long Term	
		<ul style="list-style-type: none"> • System upgrades • New technology needs • Generally a low risk category

Stormwater Facilities

ACHD operates the largest stormwater system in the state of Idaho.

- The Maintenance and Stormwater departments are primarily responsible for the inventory and analysis of ACHD’s stormwater infrastructure
- ACHD uses GIS to store and display stormwater facilities
- Upgrades and maintenance of the stormwater system are performed regularly by maintenance personnel and as part of capital projects
- Stormwater facilities are closely tied to water quality and ACHD’s permit requirements

Facility Type	Quantity	Condition	Performance Goal
Ponds	1,197	Need to improve Data	Compliance with permit
Outfalls	1,717		
Structures	37,697		
Pipes	3,377,202 LF		



Performance Goal: Full compliance with NPDES permit.

Stormwater Facilities - Actions

To ensure permit compliance and mitigate risk ACHD should:

- ❖ Develop a more accurate inventory of stormwater infrastructure
 - ❖ Document current practices related to updating the GIS stormwater facilities inventory
 - ❖ Analyze staffing needs related to stormwater facility inventory and tracking to determine if additional resources are needed
 - ❖ Develop a streamlined process that links inspection, repair, and construction of stormwater facilities to an asset management system
- ❖ Gain a better understanding of the financial risks associated with deterioration of stormwater facilities
- ❖ Create a stormwater facility workgroup to make recommendations related to technology, staffing, and funding of a stormwater facility asset management system
- ❖ Actively monitor permit requirements to ensure full compliance

Resource Needs		Known Risks
Short Term	Long Term	
=	↑	<ul style="list-style-type: none"> • Compliance with permit • Federal regulations • Increase in stormwater specific projects • System failures • Poor draining areas are now being developed

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Chapter 3

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- Resource allocation methodology
- Connection to the CIP
- Revenue growth
- The whole pie
- Capital resource allocation
- Conclusion

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Resource Allocation Methodology

Due to the fiscal realities of transportation funding and recognition that preventative maintenance is the most cost effective way to maintain a safe and functional transportation system, the ACHD Commission has established the following resource allocation methodology:

- **ACHD's primary focus**
 - Determine and fund maintenance and safety needs by asset category
 - Pavement
 - Sidewalks (including Community Programs)
 - Bridges
 - Traffic Signals and Materials
 - Stormwater Facilities

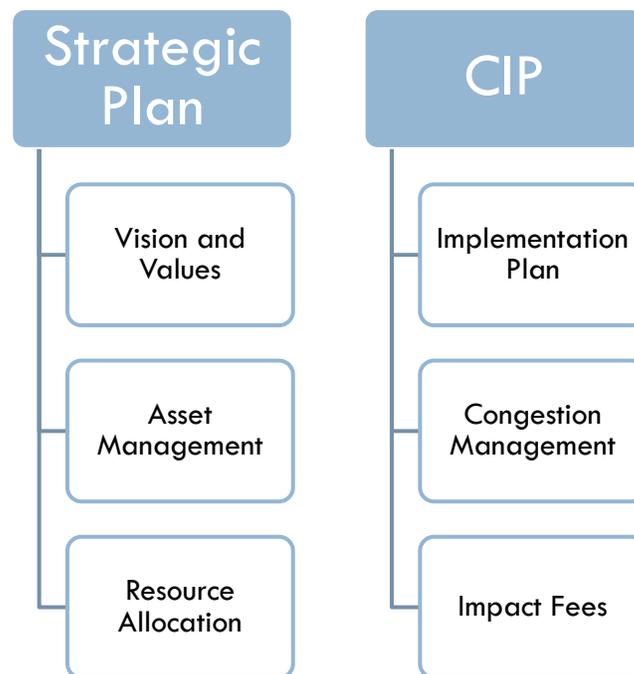
- **ACHD's secondary focus**
 - Determine and fund enhancement needs for congestion management and relief
 - Roadways and Intersections

This methodology ensures that ACHD does not fall behind on its maintenance liabilities and supports the ACHD Capital Improvements Plan

Connection to the Capital Improvements Plan

The ACHD Capital Improvements Plan (CIP) defines roadway and intersections needs for the next 20 years. These needs are defined based on demographics (from CIM) and traffic projections from the travel demand model. The CIP is a key element of ACHD’s Impact Fee Program.

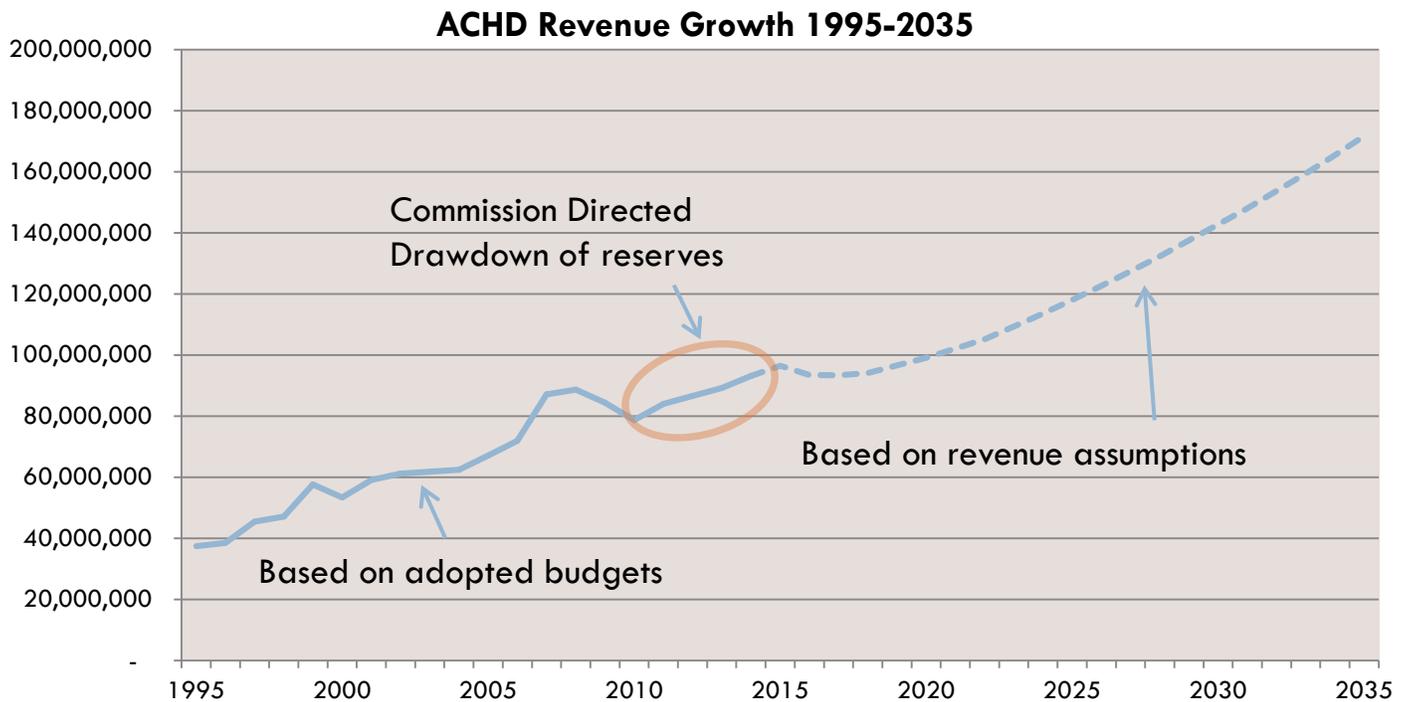
- The Strategic Plan and CIP work together to identify and define long term needs related growth and asset management
- Both are 20 year plans that use data and analysis from CIM the regions long range transportation plan
- Assumptions from Strategic Plan inform the CIP
- Analysis from CIP informs Strategic Plan



Revenue Growth

ACHD has been able to increase revenues over the last 20 years. In recent years some of the growth in ACHD's budget has come from the draw down of reserves. The draw down of reserves is complete and will not be available as a resource moving forward.

- Revenue assumptions include:
 - House Bill 312 (increase in gas tax)
 - 3% + Growth (property taxes)
 - Federal Aid dollars dedicated to maintenance
 - Drawdown of reserves complete
 - Inflationary factors

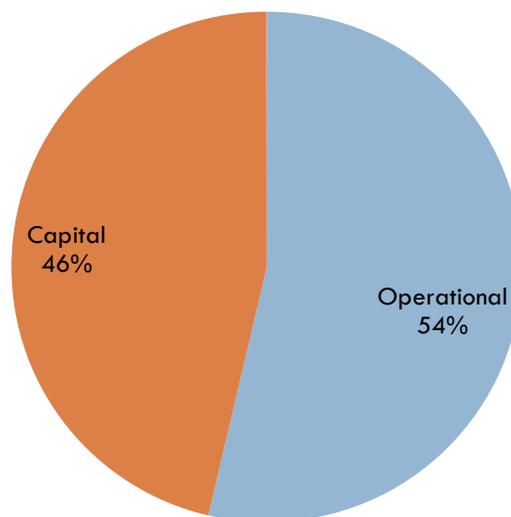


The Whole Pie

Based on the assumptions ACHD revenue is expected to grow to \$170+ million per year by 2035. Over the next 20 year period ACHD is expected to receive over \$2.6 billion dollars.

- Assuming steady revenue increase:
 - Approximately \$1.4 billion will be needed for **Operations** (labor, materials, contracts, equipment, etc.) over the next 20 years
 - Approximately \$1.2 billion will be available for **Capital** (roadways/intersections, capital maintenance, community programs, bridges, traffic materials, stormwater facilities) over the next 20 years
- Allocation of the Capital portion is a key topic of the Strategic Plan

Operational/Capital Split \$2.6 Billion Total

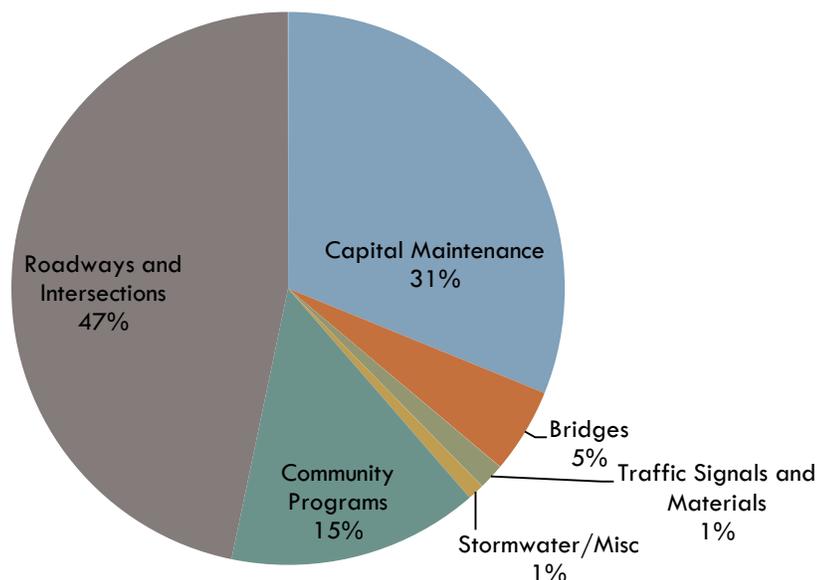


Capital Resource Allocation

The resource allocation methodology and performance goals by asset category previously discussed in this plan guide ACHD’s capital resource allocation. This plan establishes benchmarks that will be monitored through the Integrated Five Year work Plan and Annual Budget process.

- Key assumptions include:
 - Significant increase in Capital Maintenance over the next 20 years
 - 2.4% inflationary factor to account for cost increases
 - 1% growth factor to account for system growth
 - Revenue assumptions and allocations used for the 2016-2035 Capital Improvement Plan

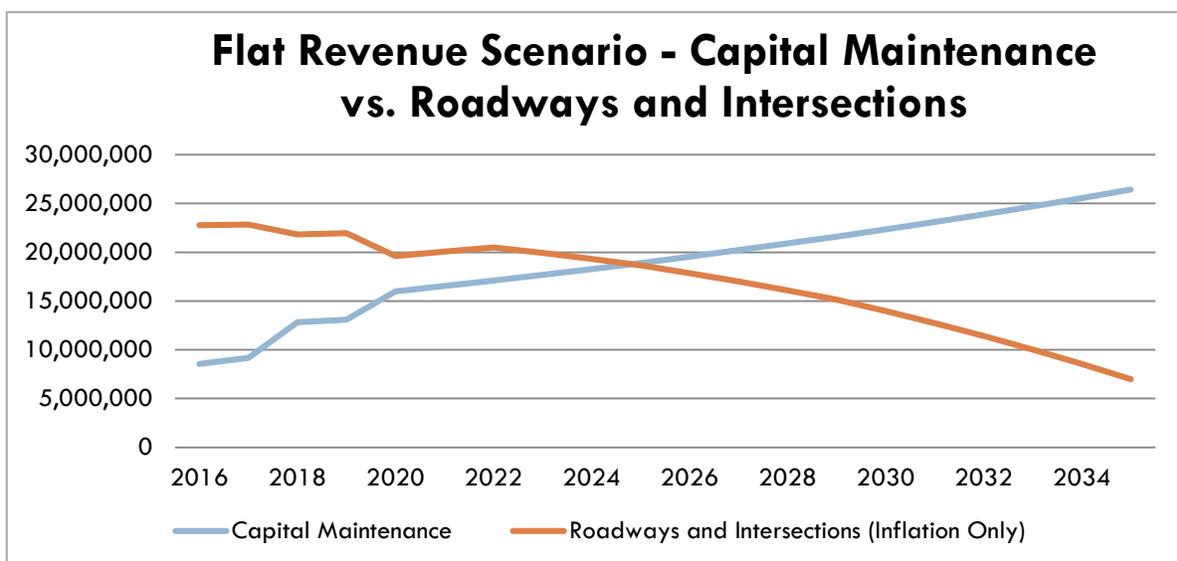
Revenue Allocations for Capital Projects



Conclusion

Moving forward ACHD is uniquely positioned to meet the transportation challenges facing Ada County. As ACHD considers revenue increases, challenges of rapid growth, and increasing demand on the network the following items should be carefully considered:

- Funding for assets needs to be monitored and adjusted based on performance measures
- Based on the revenue allocation methodology in this plan, dollars available for roadway and intersection enhancement become scarce if revenues remain stagnant
- The ACHD CIP requires a commitment to fund congestion relief projects and match impact fee revenues
- Finding the right balance can be elusive and is likely to evolve over time – coordinating updates of this plan with the Communities in Motion and the CIP will help to daylight issues as they arise



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