



**Agenda**  
**Transportation, Airports and Public Works**

February 15, 2024

1:00 pm

VIRTUAL MEETING

City of Aurora

15151 E Alameda Parkway

Council Member Stephanie Hancock, Chair  
Council Member Francoise Bergan, Vice-Chair  
Council Member Angela Lawson, Member

Goal

Ensure excellent infrastructure that is well maintained and operated.

Dial: 720-650-7664

Event Code: 2487 642 3217

This meeting will be live-streamed on the city's YouTube channel. Watch at [YouTube.com/TheAuroraChannel](https://www.youtube.com/TheAuroraChannel)

**Pages**

1. **Welcome/Introduction**

2. **Consent Items**

3. **General Business**

3.a **Connecting Aurora - Aurora Multimodal Transportation Master Plan Update**

1

Agenda Long Title: Connecting Aurora - Aurora Multimodal Transportation Master Plan Update

Staff source: Huiliang Liu, Principal Transportation Planner; Carlie Campuzano, Traffic Manager; Michelle Gardener, Senior Assistant Attorney

Outside Speaker: Keith Borsheim, Project Manager, HDR

Presentation Time: 10 Minute Presentation/ 5 Minute Discussion

**3.b 2024 Roadway Maintenance Program**

2024 Roadway Maintenance Program

Staff Source: Nicholas Johnson, Engineering Supervisor – Public Works;  
Michelle Gardner, Senior Assistant Attorney

Estimated Time: 10 minutes presentation/10 minutes discussion

**4. Miscellaneous Matters for Consideration**

**5. Anticipated Topics For Next Meeting**

- Fiber Master Plan
- CDOT Fiber IGA
- Neighborhood Traffic Calming
- Speeding/lane reduction/street sections
- 68<sup>th</sup> Maintenance IGA with DEN

**6. Confirm Next Meeting**

March 21, 2024 at 1pm (virtual)



# CITY OF AURORA

## Council Agenda Commentary

<b>Item Title:</b> Connecting Aurora - Aurora Multimodal Transportation Master Plan Update
<b>Item Initiator:</b> Huiliang Liu, Principal Transportation Planner
<b>Staff Source/Legal Source:</b> Huiliang Liu, Principal Transportation Planner; Carlie Campuzano, Traffic Manager/Michelle Gardener, Senior Assistant Attorney
<b>Outside Speaker:</b> Keith Borsheim, Project Manager, HDR
<b>Council Goal:</b> 2012: 3.2--Reduce travel time and reduce congestion and provide expanded multi-modal mobility choices

### COUNCIL MEETING DATES:

**Study Session:** N/A

**Regular Meeting:** N/A

**2<sup>nd</sup> Regular Meeting (if applicable):** N/A

**Item requires a Public Hearing:**  Yes  No

### ITEM DETAILS *(Click in highlighted area below bullet point list to enter applicable information.)*

- Agenda long title
- Waiver of reconsideration requested, and if so, why
- Sponsor name
- Staff source name and title / Legal source name and title
- Outside speaker name and organization
- Estimated Presentation/discussion time for Study Session

Agenda Long Title: Connecting Aurora - Aurora Multimodal Transportation Master Plan Update  
 Staff source: Huiliang Liu, Principal Transportation Planner; Carlie Campuzano, Traffic Manager; Michelle Gardener, Senior Assistant Attorney  
 Outside Speaker: Keith Borsheim, Project Manager, HDR  
 Presentation Time: 10 Minute Presentation/ 5 Minute Discussion

### ACTIONS(S) PROPOSED *(Check all appropriate actions)*

- Approve Item and Move Forward to Study Session       Approve Item as proposed at Study Session
- Approve Item and Move Forward to Regular Meeting       Approve Item as proposed at Regular Meeting
- Information Only
- Approve Item with Waiver of Reconsideration  
Reason for waiver is described in the Item Details field above.

### PREVIOUS ACTIONS OR REVIEWS:

**Policy Committee Name:** Transportation, Airports & Public Works

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**Policy Committee Date:** 3/30/2023

**Action Taken/Follow-up: (Check all that apply)**

- |   |   |
|---|---|
| <input type="checkbox"/> Recommends Approval              | <input type="checkbox"/> Does Not Recommend Approval    |
| <input type="checkbox"/> Forwarded Without Recommendation | <input type="checkbox"/> Recommendation Report Attached |
| <input checked="" type="checkbox"/> Minutes Attached      | <input type="checkbox"/> Minutes Not Available          |

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**HISTORY** (Dates reviewed by City council, Policy Committees, Boards and Commissions, or Staff. Summarize pertinent comments. ATTACH MINUTES OF COUNCIL MEETINGS, POLICY COMMITTEES AND BOARDS AND COMMISSIONS.)

This project will be funded through the Denver Regional Council of Governments (DRCOG) FY 2024-2027 Transportation Improvement Program with \$1,612,000 in state funds, \$968,000 in federal funds and \$645,000 in city match for a total project budget of \$3,225,000. The IGA between the City of Aurora and the Colorado Department of Transportation was presented to the Council Transportation, Airports and Public Works Committee on March 30, 2023. The Committee unanimously approved moving this item to a Council Study Session. The IGA was included as a Consent agenda item on the Council Study Session on April 17, 2023 and was approved by the Council through a Resolution. The IGA was signed by Mayor Coffman on May 19, 2023.

Staff also provided an update to the Committee on June 2, 2022 on a list of projects/applications including the Citywide Multimodal Transportation Master Plan, to be submitted for the DRCOG Transportation Improvement Program Call 2. The Committee supported staff's proposed project application package. Staff further updated the committee on October 27, 2022 with a list of city projects, including the Citywide Multimodal Transportation Master Plan, approved by the DRCOG Board to be included in the DRCOG FY 2022-2025 Transportation Improvement Program. See attached TAPS Meeting notes from the March 30, 2023, June 2, 2022 and October 27, 2022 meetings.

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**ITEM SUMMARY** (Brief description of item, discussion, key points, recommendations, etc.)

The purpose of this project is to develop a city-wide Multimodal Transportation Master Plan (MMTMP) for the City of Aurora. Primary emphasis will be defining a complete multimodal transportation system for all users of all abilities and income levels. The Plan will also identify projects and programs for all modes, including bike, pedestrian, transit and vehicular traffic consistent with and supportive of the City's overall development vision expressed in the City's adopted comprehensive plan - Aurora Places (2018). Aurora's MMTMP will be the unified mechanism to guide the development, design and delivery of future multimodal transportation infrastructure projects and programs, including the city's transportation component of the Capital Improvement Program (CIP), with significant and comprehensive analysis and specificity. Further, the Plan will assess viable and appropriate multimodal transportation improvements and identify potential types of improvement projects and programs along with proposed goals in the near-term, mid-term and longer-range time frame for delivering these improvements for maximum benefit.

This project will be forward based, and innovative in values with a focus on creating a framework for a complete transportation network and accompanying program components. Strategic focus will be directed on Complete Streets concepts, multimodal transportation network completeness and connectivity, freight transport, mobility hubs, new transportation technologies, system performance and monitoring metric elements, implementation strategies and responsibility, and systematic operations and maintenance elements. Transportation planning practice is going through several paradigm shifts as the negative impacts of overreliance on single occupant vehicle travel become clearer. Changing environmental regulations, increased focus on safety, providing a more diverse array of mobility options for all people, especially equity populations, and emphasis on delivering mobility options in a short and mid-range context in addition to a long-range time horizon are factors that will influence this transportation planning initiative. The following trends and paradigm shifts will be considered in the MMTMP development:

- The Complete Streets concepts of designing streets for all users has emerged as a basic foundation in many states, regional and city transportation frameworks and strategic plans.
- Shifts in commuter trip patterns as organizations embrace 'remote work/work from home' for large segments of their employees.
- Recently legislated Colorado Green House Gas (GHG) emission reduction rule requiring regions to substantially reduce greenhouse gas emissions.

- The recognized role and benefits of walkable and bikeable neighborhoods, active transportation systems, and transit-oriented development in placemaking, beneficial property value impacts and economic development.
- New technologies and services such as transportation network companies (TNCs), shared micro-mobility, e-bikes and e-scooters, and online goods delivery services are collectively imposing rapidly changing demands on current transportation networks.
- Emerging technologies such as autonomous and connected vehicles, electrified transportation fleets, e-bikes / e-scooters, and drones pose new questions about how best to define, optimize and modify current transportation networks to effectively serve the full spectrum of evolving travel and mobility options currently and into the future.

A single, encompassing vision and plan for Aurora's transportation system is needed to better respond to the rapidly changing transportation landscape and environmental regulations. Providing clarity and innovation is essential in delivering a safe, reliable, inclusive, and fiscally sustainable transportation system for all city customers. The process of developing this single document will:

- Conduct a comprehensive review of subarea and corridor plans, including NEATS (Northeast Area Transportation Study, 2018) and SEATS (Southeast Area Transportation Study, 2007), incorporate planned large developments, assess existing conditions within each subareas, such as southeast Aurora, E-470 central, E-470 north, northeast Aurora and Aerotropolis area, northwest or Original Aurora, I-225 and R-Line Corridor and central Aurora to develop an updated plan and vision for the overall multimodal transportation network.
- Afford residents, businesses, and other stakeholders the opportunity to participate in the development of an Aurora Vision for Multimodal Transportation.
- Better and more effectively coordinate with adjacent jurisdictions and regional and state agencies on interconnected regional travel networks, connector streets, transit services, trails, bicycle and pedestrian facilities.
- Create performance metrics and tracking systems for realizing changes and monitoring progress in multimodal travel and infrastructure and programs.
- Create the basis for a Capital Improvement Program which lists specific transportation projects, improvement timing and level of priority in the city.
- Define a framework to regularly and proactively respond to change and development of new technologies and transportation services.

**Scope of work:**

<b>Task 1 – Project Initiation and Background Analysis</b>	<ul style="list-style-type: none"> <li>• Project Initiation, Management and Engagement</li> <li>• Community and Public Engagement</li> <li>• Existing Conditions Analysis</li> <li>• Future technologies, Trends and Opportunities</li> <li>• Challenges, Opportunities, Visions, Goals, Objectives, Values, Priorities, and Scenario Development</li> </ul>
<b>Task 2 – Plan Development</b>	<ul style="list-style-type: none"> <li>• Travel Demand Modeling and Forecasting, Scenario Testing and Evaluation</li> <li>• Multimodal Transportation System Analysis and Development</li> </ul>
<b>Task 3 – Plan Implementation and Final Report</b>	<ul style="list-style-type: none"> <li>• Policies and Programs</li> <li>• Implementation Plan, Phasing, Prioritization, Cost Estimate and Funding Sources</li> <li>• Final Report and A Citywide Multimodal Transportation Information System</li> </ul>

A project kickoff meeting was held on September 20, 2023. The consultant team has been working with city staff on existing conditions analysis, public engagement framework development, and project identity, including a project name and logo. The consultant project manager will provide an overview of the project scope, schedule, an update of work in progress and next steps.

**FISCAL IMPACT**

Select all that apply. (If no fiscal impact, click that box and skip to “Questions for Council”)

- Revenue Impact
- Budgeted Expenditure Impact
- Non-Budgeted Expenditure Impact
- Workload Impact
- No Fiscal Impact

**REVENUE IMPACT**

*Provide the revenue impact or N/A if no impact. (What is the estimated impact on revenue? What funds would be impacted? Provide additional detail as necessary.)*

N/A

**BUDGETED EXPENDITURE IMPACT**

*Provide the budgeted expenditure impact or N/A if no impact. (List Org/Account # and fund. What is the amount of budget to be used? Does this shift existing budget away from existing programs/services? Provide additional detail as necessary.)*

N/A

**NON-BUDGETED EXPENDITURE IMPACT**

*Provide the non-budgeted expenditure impact or N/A if no impact. (Provide information on non-budgeted costs. Include Personal Services, Supplies and Services, Interfund Charges, and Capital needs. Provide additional detail as necessary.)*

N/A

**WORKLOAD IMPACT**

*Provide the workload impact or N/A if no impact. (Will more staff be needed or is the change absorbable? If new FTE(s) are needed, provide numbers and types of positions, and a duty summary. Provide additional detail as necessary.)*

This effort will be completed by current staff.

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**QUESTIONS FOR COUNCIL**

Information only.

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**LEGAL COMMENTS**

The City Manager shall be responsible to the Council for the proper administration of all affairs of the City placed in his charge and to make written or verbal reports to Council concerning the affairs of the City under his supervision. (City Charter Section 7-4(e)). Additionally, the City Manager shall keep Council advised of the future needs of the City and make such recommendations to Council for adoption as he may deem necessary or expedient. (City Charter Section 7-4(f)). (M. Gardner)



Connecting People. Connecting Places.

# CONNECTING AURORA

OUR MULTIMODAL TRANSPORTATION MASTER PLAN

# TRANSPORTATION, AIRPORT AND PUBLIC WORKS COMMITTEE

Huiliang Liu, Principal Transportation Planner, Co Project Manager

Carlie Campuzano, Traffic Manager, Co Project Manager

Keith Borsheim, HDR Consulting Team Project Manager

02/15/2024



# SECTION 1

## Project Overview





# PROJECT BUDGET



- **DRCOG TIP (Call 2) funded project – \$3.224 M total project budget**
- **\$1,612,000 State MMOF Funds**
- **\$968,000 Federal Funds**
- **\$644,000 City Match Funds**

# PROJECT STATUS



- **Project Consultant - HDR**
- **Kicked off on September 20, 2023**
- **Project Identity – Connecting Aurora**
- **Project Logo**
- **Existing Conditions Analysis**
- **Engagement Framework Development**

# PROJECT LOGO



Connecting People. Connecting Places.

# CONNECTING AURORA

OUR MULTIMODAL TRANSPORTATION MASTER PLAN



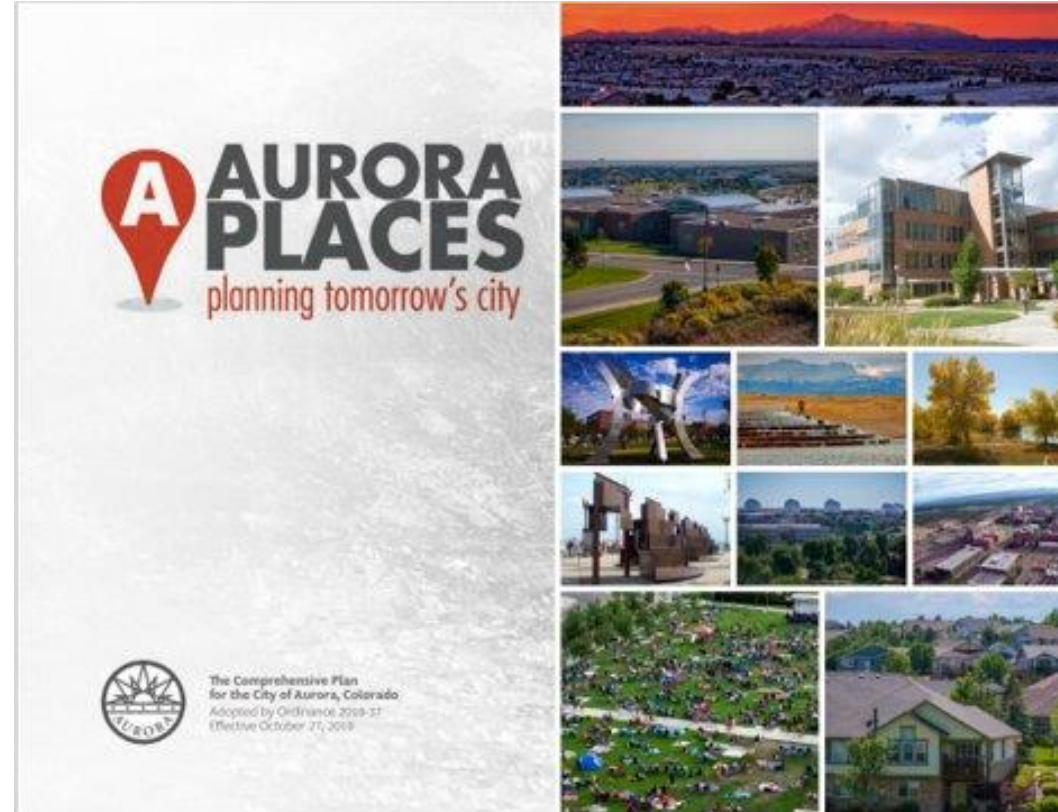
Connecting People. Connecting Places.

# CONNECTING AURORA

OUR MULTIMODAL TRANSPORTATION MASTER PLAN

# PURPOSE AND GOALS

- Citywide vision and goals
- Consistent with & supportive of community values developed during Aurora Places
- Forward-looking and innovative
- Adaptable and responsive
- Integrated Multimodal System and complete streets for all people
- Engage residents, businesses, and key stakeholders





# PURPOSE AND GOALS

- A unified mechanism to guide policies, programs, standards, guidelines and projects for all modes
- Near-term, mid-term and long-term goals, implementation strategies, prioritizations, funding and responsibilities
- System Performance Metrics and Progress-tracking Systems



# SECTION 2

## Project Scope



# PROJECT APPROACH



## Discover

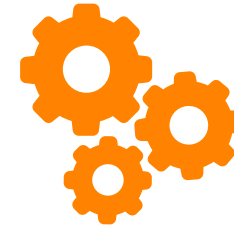
- Existing Conditions Analysis
- Future Trends & Tech Analysis

We are here



## Synthesize

- Vision, Goals, Objectives, Values, Priorities
- SWOC Analysis
- Scenario Development
- Modeling and Testing



## Visualize

- Multimodal System Development and Evaluation



## Realize

- Policies and Programs
- Implementation Plan
- Final Report and Citywide Transportation Information System

# ENGAGEMENT

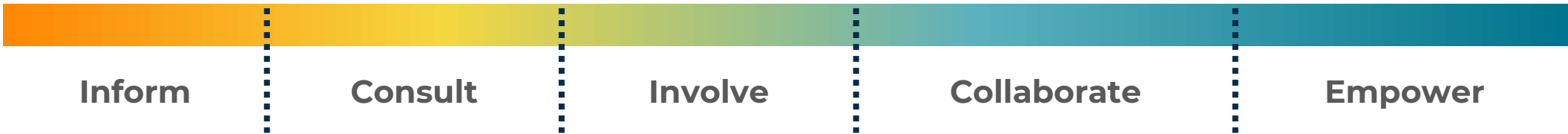


## Discover

- Project Management Team
- City Manager’s Office – City Departments
- City Council
- Technical Advisory Committee
- Stakeholder Advisory Committee
- Advocacy Groups
- Public

## IAP2 (The International Association of Public Participation) Spectrum

Increasing Impact on the Decision

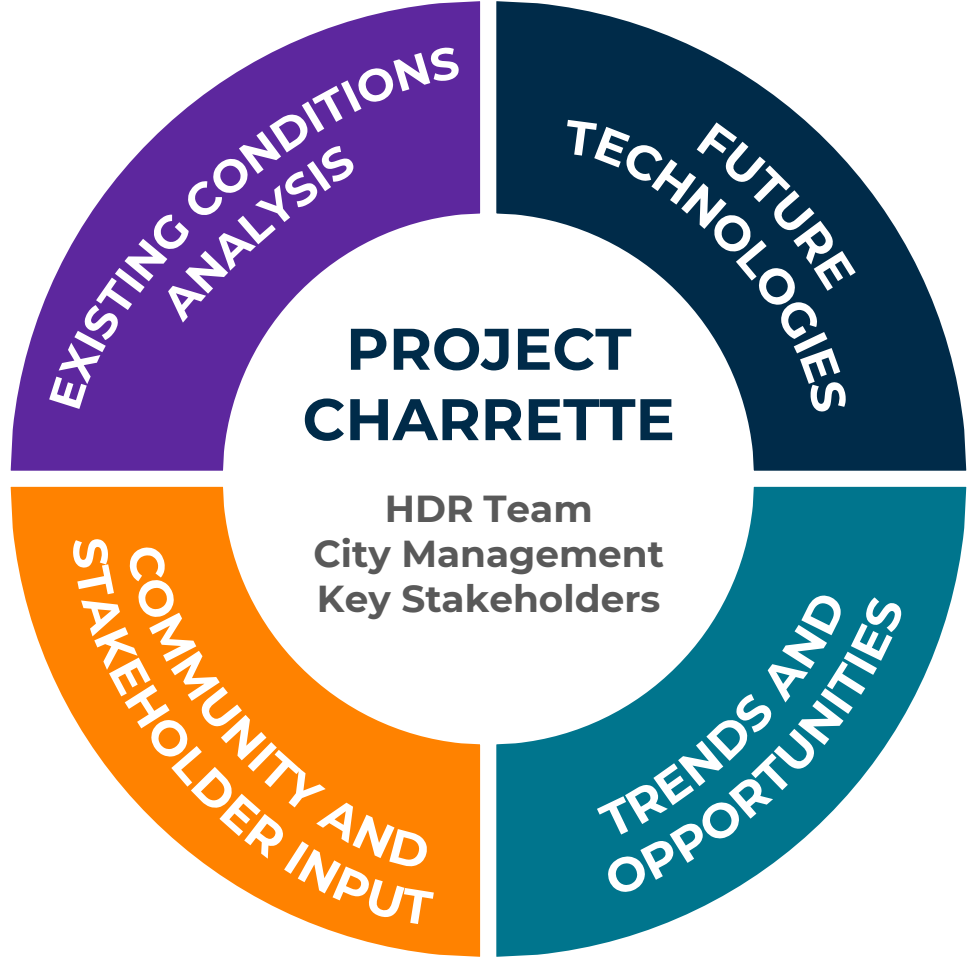




# PROJECT CHARRETTE VISION, GOALS, AND OBJECTIVES



**Discover**



# SCENARIO PLANNING



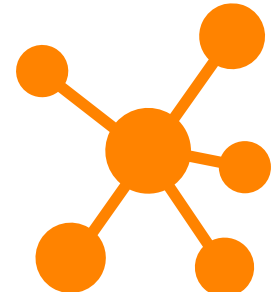
**Values  
& Goals**



**Scenarios**



**Buy-in**



**Modal  
Networks**

# MULTIMODAL NETWORKS

## Modes:



**Pedestrian**



**Bicycle**



**Transit**



**Auto**



**Freight**

- **Network analysis and recommendations**
- **Specific improvements/projects**
- **Safety coordination with Safety Action Plan team**
- **Facility design standards/cross-sections**

# POLICIES AND PROGRAMS



## **Develop policy, program, standards and guideline recommendations:**

- **Focused on providing better conditions for all modes**
- **How can the city greatly improve the way it delivers transportation services for all?**
- **Update current city practices and standards to reflect Connecting Aurora outcomes**

# IMPLEMENTATION PLAN + PROJECT PRIORITIZATION + CIP



- Manageable Number of Evaluation Criteria
- Weighting Can Reflect that Certain Objectives May Have Greater Value to the Community
- Criteria Needs to Target the Desired Outcomes
- Measurable, Sustainable, and Easy to Apply
- Projects May Need Their Own Funding Buckets to Compete Fairly

## Tool for the Future

A list of projects that align with community values, project goals, and meet community expectations and that are specific enough to implement.

# IMPLEMENTATION PLAN + PROJECT PRIORITIZATION + CIP



**Realize**

What, where, when, and  
how it will be funded

**Components:**



**Funding  
Sources**



**Financial  
Strategies**



**Projects, Programs  
and Prioritization**

# SECTION 3

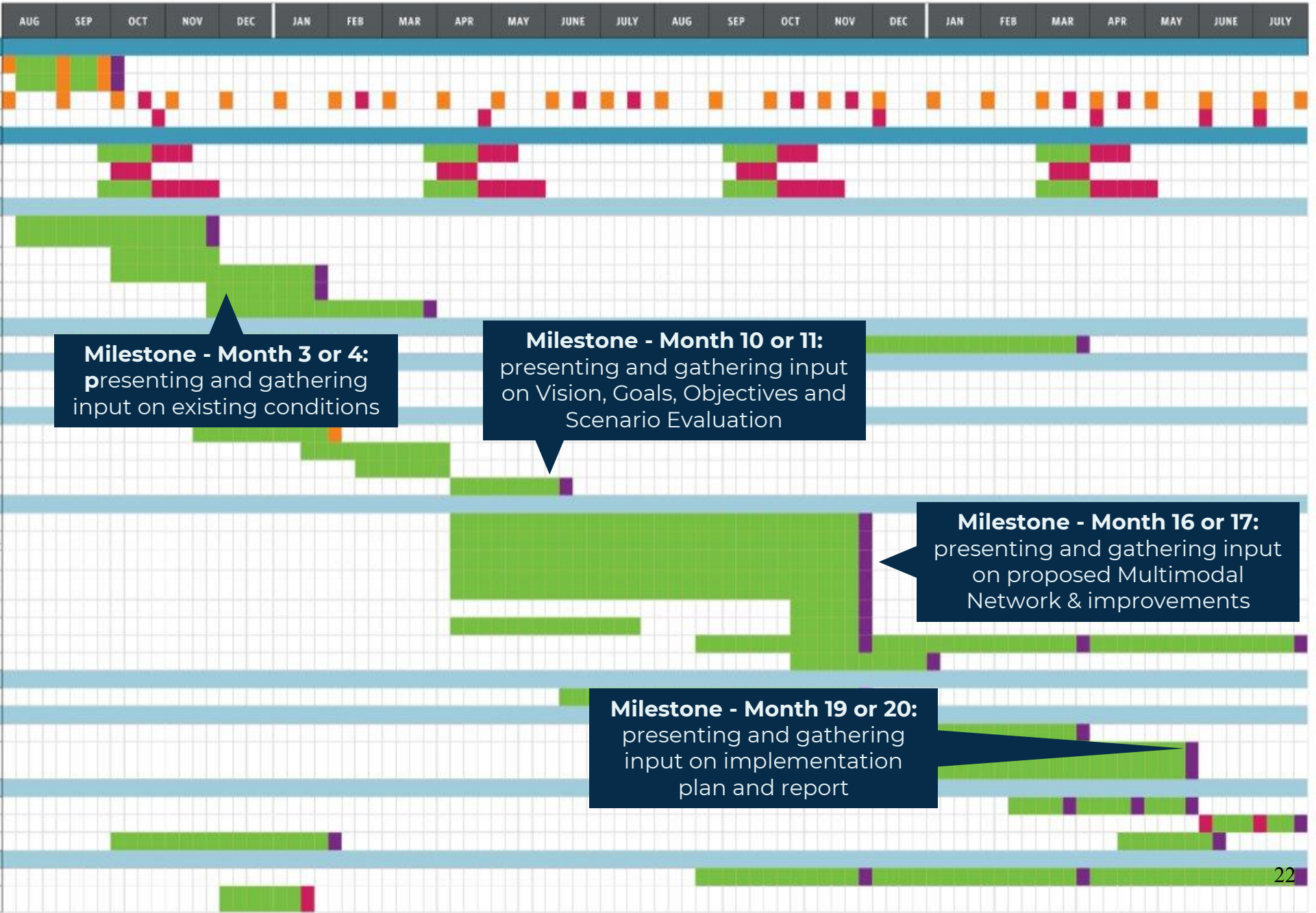
## Project Milestone



2023

2024

2025



**Milestone - Month 3 or 4:**  
presenting and gathering input on existing conditions

**Milestone - Month 10 or 11:**  
presenting and gathering input on Vision, Goals, Objectives and Scenario Evaluation

**Milestone - Month 16 or 17:**  
presenting and gathering input on proposed Multimodal Network & improvements

**Milestone - Month 19 or 20:**  
presenting and gathering input on implementation plan and report



# SECTION 4

## Next Steps



# NEXT STEPS



**State  
of the  
System  
Analysis  
and  
Report**



**Transportation  
Information  
System  
Concept  
Design and  
Framework  
Development**



**Initiate  
Public  
Engagement  
Activities**



**Public  
Engagement  
Framework  
Development**



**Planning  
for Vision,  
Goals,  
Objectives  
Charrette**

# SECTION 5

## Q&A





Connecting People. Connecting Places.

# CONNECTING AURORA

OUR MULTIMODAL TRANSPORTATION MASTER PLAN

# Thank You!



**GIVE US A CALL**

720-984-2109



**SEND US AN EMAIL**

[connectingauroraco@gmail.com](mailto:connectingauroraco@gmail.com)



**LEARN MORE ONLINE**

[EngageAurora.org/ConnectingAurora](https://EngageAurora.org/ConnectingAurora)



**Transportation, Airports and Public Works (TAPS) Policy Committee Meeting**

March 30, 2023

Members Present: Council Member (CM) Juan Marcano, Chair; Council Member (CM) Ruben Medina

Member Absent: Council Member (CM) Angela Lawson, Vice-Chair

Others Present: Rachel Allen, Scott Bauman, Ian Best, Traci Burton, Haley Busch-Johansen, Mac Callison, Brandon Cammarata, Carlie Campuzano, Lynne Center, Cindy Colip, Steve Durian, Michelle Gardner, Steve Gardner, Nicholas Johnson, Matthew Kozakowski, Huiliang Liu, Jim Paral, Mindy Parnes, Julie Patterson, Laura Perry, Brian Rulla, Jeannine Rustad, David Schoonmaker, Gary Vidlock, Terry von Clausburg, Elly Watson, Tom Worker-Braddock

Guest: Council Member (CM) Francoise Bergan

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**1. WELCOME AND INTRODUCTION**

CM Marcano called the TAPS Committee to order at 1:06 pm and confirmed the presence of a quorum. He introduced himself as the Chair and member of Ward IV and introduced CM Medina as a Committee Member. He also mentioned that CM Lawson, the Vice Chair, would not be attending the meeting.

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**2. APPROVAL OF MINUTES**

The minutes for the February 23, 2023 TAPS meeting were approved as written.

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**3. CONSENT ITEMS (None)**

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**4. GENERAL BUSINESS**

**4.a. Aurora Multimodal Transportation Master Plan –IGA with CDOT**

**Summary of Issue and Discussion:**

Huiliang Liu, Principal Transportation Planner, presented an item on an IGA between the city and CDOT for the development of a Citywide Multimodal Transportation Master Plan. This project will be funded through the Denver Regional Council of Governments (DRCOG) Transportation Improvement Program with \$1,612,000 in state funds, \$968,000 in federal funds and \$644,000 in city match for a total project budget of \$3,224,000.

The purpose of this project is to develop a city-wide Multimodal Transportation Master Plan (MMTMP) for the City of Aurora. Primary emphasis will be defining a complete multimodal transportation system for all users of all abilities and income levels. The Plan will also identify projects and programs for all modes, including bike, pedestrian, transit, and vehicular traffic consistent with and supportive of the City's overall development vision expressed in the City's adopted comprehensive plan - Aurora Places (2018). Aurora's MMTMP will be the unified mechanism to guide the development, design and delivery of future multimodal transportation infrastructure projects and programs, including the city's transportation component of the Capital Improvement Program (CIP), with significant and comprehensive analysis and specificity. Further, the Plan will assess viable and appropriate multimodal transportation improvements and identify potential types of improvement projects and programs along with proposed goals in the near-term, mid-term and longer-range time frame for delivering these improvements for maximum benefit.

This project will be forward based, and innovative in values with a focus on creating a framework for a complete transportation network and accompanying program components. Strategic focus will be directed on Complete Streets concepts, multimodal transportation network completeness and connectivity, freight transport, mobility hubs, new transportation technologies, system performance and monitoring metric elements, implementation strategies and responsibility, and systematic operations and maintenance elements. Transportation Planning practice is going through several paradigm shifts as the negative impacts of overreliance on single occupant vehicle travel become clearer. Changing environmental regulations, increased focus on safety, providing a more diverse array of mobility options for all people, especially equity populations, and emphasis on delivering mobility options in a short and mid-range context in addition to a long-range time horizon are factors that will influence this transportation planning initiative. The following trends and paradigm shifts will be considered in the MMTMP development:

- The Complete Streets concepts of designing streets for all users has emerged as a basic foundation in many states, regional and city transportation frameworks, and strategic plans.
- Shifts in commuter trip patterns as organizations embrace 'remote work/work from home' for large segments of their employees.
- Recently legislated Colorado Green House Gas (GHG) emission reduction rule requiring regions to substantially reduce greenhouse gas emissions.
- The recognized role and benefits of walkable and bikeable neighborhoods, active transportation systems, and transit-oriented development in placemaking, beneficial property value impacts and economic development.
- New technologies and services such as transportation network companies (TNCs), shared micro-mobility, e-bikes and e-scooters, and online goods delivery services are collectively imposing rapidly changing demands on current transportation networks.
- Emerging technologies such as autonomous and connected vehicles, electrified transportation fleets, e-bikes / e-scooters, and drones pose new questions about how best to define, optimize and modify current transportation networks to effectively serve the full spectrum of evolving travel and mobility options currently and into the future.

The committee was asked if they supported moving the IGA forward to the next available City Council Study Session for approval consideration.

**Committee Discussion:**

CM Marcano expressed excitement about the master plan and how it presents a forward-thinking approach. He asked about the possibility of more frequent updates and how the plan would interface with the Land Use Reforms. H. Liu confirmed that frequent updates will be provided to the Transportation Committee and there will be a land use element incorporated into the plan. H. Liu thanked CM Marcano for his support in moving the plan forward to the full Council.

**Outcome:** The Committee unanimously approved moving this item to Study Session.

**Follow-up Action:** This item will move forward to Study Session.

**4.b. Consideration to Approve a Resolution for the IGA with CDOT for Sidewalk Multimodal Access Improvements**

**Summary of Issue and Discussion:** Steve Gardner from the Transportation Project Delivery Group in Public Works presented the Multimodal Access Improvements Project.

The project is grant funded and will require an IGA with CDOT. The project aims to improve pedestrian access in Aurora, particularly in the Adams and Arapahoe County portions of the city. The grant award was \$5,312,000 from Denver Regional Council of Governments (DRCOG), with a City of Aurora match of \$864,000 and an additional overmatch of \$464,000. The total project budget is \$6,640,000. The project will widen existing sidewalks and construct new ones, connecting to existing bus stops and improving sidewalk continuity. The scope of the project includes final design, public outreach, and construction. The timeline for the project involves getting a Design Consultant on board in the next few months, doing design and public outreach starting in the fall, and starting construction in the summer of 2025. S. Gardner asked the Committee if they supported moving the project forward to the next available Study Session and asked if there were any questions.

**Committee Discussion:**

CM Medina wanted to confirm with S. Gardner about the location of the Havana corner where there are electrical boxes, and S. Gardner showed a picture and acknowledged that it would be a challenge to work with the utility infrastructure there. CM Medina expressed appreciation for the project and its focus on a contentious area for community members.

CM Bergan expressed support for the project and questioned why it would take until summer 2025 to complete. CM Marcano also asked about the timeline and S. Gardner explained that there are several steps involved in getting federal funding for the project, including obtaining utility, environmental, and right-of-way clearances, which can take a long time.

CM Marcano questioned the timeline and asked for an overview of the project process, expressing a desire to streamline the process if possible. S. Gardner agreed to work with Cindy Colip to provide an overview of the project process and acknowledged that the process can be challenging due to the involvement of multiple stakeholders.

## Transportation, Airports and Public Works (TAPS) Policy Committee Meeting

June 2, 2022

Members Present: Council Member (CM) Juan Marcano, Chair; Council Member (CM) Alison Coombs, Vice-Chair; Council Member (CM) Crystal Murillo (absent)

Others Present: Jack Bajorek, Daniel Brotzman, Traci Burton, Mac Callison, Carlie Campuzano, Lynne Center, Cindy Colip, Michelle Gardner, Karen Hancock, Huiliang Liu, Matthew Kozakowski, Daniel Krzyzanowski, Julie Patterson, Mindy Parnes, Victor Rachael, Jeannine Rustad, Elly Watson, Tom Worker-Braddock

### 1. WELCOME AND INTRODUCTION

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### 2. APPROVAL OF MINUTES

The minutes for the April 28, 2022 TAPS meeting were approved as written.

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### 3. CONSENT ITEMS (None)

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### 4. GENERAL BUSINESS

#### **4.a. DRCOG 2022-2027 Transportation Improvement Program (TIP) Project Application Update and Infrastructure Investment & Jobs Act Overview**

##### **Summary of Issue and Discussion:**

Mac Callison, Matt Kozakowski, Cindy Colip, and Huiliang Liu presented an update on the Denver Regional Council of Governments (DRCOG) 2022 to 2027 TIP Project application and an overview of the Infrastructure Investment and Jobs Act (IIJA). For Call 2, the TIP is providing \$451 million from varying sources from both state and federal funding for transportation projects in the Metroplex. It provides regional funding for regionally and sub-regionally significant projects. Aurora is within the Adams County and Arapahoe County Subregions.

The Infrastructure Investment and Jobs Act (IIJA) created 25% additional funding from the prior authorization act. This bill is a five-year authorization bill with annual appropriation bills attached to it. There are additional discretionary grant opportunities available at two regional agencies, the State Department of Transportation (DOT), and local jurisdictions. Adams County represents 15.5% of the total regional shares with \$23.9 million available and Arapahoe County covers 18.5% with \$28.9 million in available funding. The funding amounts will ebb and flow slightly as additional formula finalization of numbers from the US DOT come through to the Colorado Department of Transportation (CDOT) and CDOT disseminates those to the Metropolitan Planning Organizations (MPOs) such as DRCOG. Call 2 projects need to be submitted because the Congestion Mitigation and Air Quality Improvement Program (CMAQ) and Senate Bill 21-260 multimodal transportation and mitigation options fund (MTMOF) have a completion date of 2026.



Call 2 consists of four selection criteria: sub regional impact for 30%, Metro Vision Regional Transportation Plan (RTP) priorities for 50%, leveraging for 10%, and project readiness for 10%. Sub regional impact addresses environmental justice, marginalized populations, jurisdictions, beneficiaries, and shared outcomes. The Metro Vision RTP priorities include multimodal options, air quality outcomes, transit system support, safety, freight systems, goods movements, and active transportation infrastructure and programs. There is a higher criterion point award for projects matched above the minimum 10% for the Multimodal Options Fund and 20% for the Surface Transportation Block Grant (STBG) Funding. Project readiness accounts for design and construction projects with National Environmental Policy Act (NEPA) clearance, railroad, waters, wetland involvement, etc. Applications for Call 2 are due on June 24, 2022. Once they are submitted, DRCOG will review them in terms of project eligibility and provide a scoring. The DRCOG scoring is advisory. Then, it will be placed within the Arapahoe and Adams County Forums. The forums will then render a recommendation to the DRCOG Committees and present the projects to the Transportation Advisory Committee, the Regional Transportation Committee, and the DRCOG Board.

Call 1 was a regional project call for \$40.3 million from the CMAQ and MTMOF. Through this call, the Denver East Colfax Bus Rapid Transit (BRT) was awarded \$12 million to support continued NEPA clearance and design. Call 3 will allocate \$47.5 million for regional projects. For Call 4, Adams County will have \$29.5 million, and Arapahoe County will allocate \$35.4 million. Calls 3 and 4 have multiple funding sources compared to Calls 1 and 2 which are sourced from CMAQ and MTMOF. For Calls 3 and 4, the 40% from CMAQ and MTMOF requires a 10% match while the 60% will be from STBG with a 20% match.

Call 3 is expected to open in August or September 2022 while Call 4 will open in December 2022

Call 2 focuses on multimodal transit and supportive projects, transportation demand management, transportation management associations and organizations (TMA/TMO), and greenhouse gas mitigation projects. CDOT Policy Directive 1610.0 talks about the greenhouse gas mitigation action plans. A presentation will be coming to the board for consideration of possible actions focused on local agencies relative to zoning density regarding parking considerations and policies.

Aurora has three projects that are qualified for Call 2 which are the City-wide Multimodal Transportation Master Plan, the Sidewalk Multimodal Access Improvements, and Smith Road Bicycle/Pedestrian Multi-use Path.

The City-wide Multimodal Transportation Master Plan will define the city's goals in terms of transportation, mobility networks, policies, and programs with prioritized projects and phasing levels. This will be an interdepartmental effort with the support of the city council and city management. There will be an emphasis on a multimodal transit, bike/ped, and vehicular transportation system which will provide an array of choices for mobility and provide safe environments for constituents. A citywide safety study is also recommended. Freight transport systems and the vision zero safety element will also be addressed in addition to mobility hubs and TMA/TMOs. New technology autonomous vehicles will be studied for safety aspects as well as future trends. There will be a focus on implementation strategies, funding opportunities, partnerships with adjacent jurisdictions and federal and state partners, and identifying priorities in terms of phasing. Systemic performance metrics and monitoring systems will be put in place. Staff is looking into providing mobility annual or biannual reports that will present the trends, benefits, and return of investments. The master plan will link

mobility modes and provide residents with community clarity and consistency. Community engagement programs will be done through surveys, focus groups, and other outreach platforms. The plan will continue to be updated to be relevant in terms of investment and meeting goals and objectives.

The Sidewalk Multimodal Access Improvements project will be a continuation of efforts to enhance pedestrian and bicycle access. This is in conjunction with the current Sidewalk Gap Closure TIP project which emphasized missing or substandard sidewalks. In the Havana Corridor Transportation Study, multiple areas were identified that needed improvements for transit. Havana Street, Yale Avenue, Chambers Road, and Colfax Avenue were identified as areas in need of transit stop connectivity. This project will serve vulnerable populations, provide safer access to all users, and implement ADA compliance. On the east side of Havana, there are no sidewalks that people who need wheelchairs can navigate safely. In the area, there are obstructions, unpaved sidewalks, and high-speed and high-volume traffic. North of Colfax Ave, locations were identified to improve access to transit stops at 13<sup>th</sup> Avenue, 17<sup>th</sup> Avenue, and Montview. In the southern part of Yale Avenue, there is no sidewalk. Bus access will also be a focus on the segment east of Peoria. Bus stops are standing in the middle of grassy areas which causes difficulty to access. On Chambers Road, there is also an area with bus stops serviced by Bus 153 in the middle of grassy areas which causes safety and accessibility concerns. In the area serviced by Bus 15, the segment of the corridor is unpaved. The city staff is in the process of developing cost estimates for the upcoming grant application.

The Smith Road Corridor is approximately eight miles long and is an important corridor for transit and jobs. There is a large presence of logistics-driven businesses that have lower-wage jobs that rely on transit. The project will produce a safe multimodal facility to allow for connections along the corridor. It proposes to install regional protected and separated bike and pedestrian facilities. Staff is looking into a varied approach for different segments of the 9-mile corridor due to the heavy rail & commuter rail presence as well as high volume of traffic and turning movements associated with the logistics uses. The installation of drainage infrastructure is also being considered. This varied approach with context-sensitivity throughout the corridor will drive construction costs. The proposed application in Call 2 is to utilize the federal funding and the 10% MMOF funding match to develop a 60% design effort for the entire corridor to address different factors that will affect the design and cost. This will allow the city to better prepare and move forward with future projects and applications with accurate costs. The 60% design allows the city to untether the bike and pedestrian facilities from the road. From this, different areas will be prioritized according to what needs to be improved first.

Staff is also proposing potential projects for Calls 3 and 4. The 13<sup>th</sup> Avenue Study will be used to identify constraints and opportunities and conduct NEPA preparations to have the 13<sup>th</sup> Avenue Multimodal Improvements queued for construction. Arapahoe County is fostering an initiative to look at Highline Canal Underpass crossing opportunities with one at Sable and another location on Colfax Avenue west of Airport Boulevard. The Alameda Bridge over I-225 is also proposed for an enhanced bridge replacement to advance the concept design and conduct NEPA preparations to be competitive for federal funding in the future. Concept design and NEPA preparations are also needed for the Chambers Road Grade Separation over Smith Road and Union Pacific Railroad where tanker trucks and semis frequently cross. The Peoria Bridge over Sand Creek is functionally and structurally at its limits and lacks sufficient bike/ped facilities. This bridge is urgently needed to be replaced and enhanced. Assessments will be done relative to discretionary grant opportunities as well as Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants. The Montview Boulevard on the Anschutz Medical Campus's final design is close to being completed. The next step is advancing it with partners on the campus for implementation. This project is a multimodal corridor improvement to serve the entire campus.



# CITY OF AURORA

## Council Agenda Commentary

<b>Item Title:</b> 2024 Roadway Maintenance Program
<b>Item Initiator:</b> Nicholas Johnson, Engineering Supervisor – Public Works
<b>Staff Source/Legal Source:</b> Nicholas Johnson, Engineering Supervisor – Public Works; Michelle Gardner, Senior Assistant Attorney
<b>Outside Speaker:</b> None
<b>Council Goal:</b> 2012: 3.0--Ensure excellent infrastructure that is well maintained and operated.

### COUNCIL MEETING DATES:

**Study Session:** N/A

**Regular Meeting:** N/A

**2<sup>nd</sup> Regular Meeting (if applicable):** N/A

**Item requires a Public Hearing:**  Yes  No

### ITEM DETAILS *(Click in highlighted area below bullet point list to enter applicable information.)*

- Agenda long title
- Waiver of reconsideration requested, and if so, why
- Sponsor name
- Staff source name, title, department / Legal source name and title
- Outside speaker name and organization
- Estimated time (For Study Session items only, indicate combined time needed for presentation and discussion)

2024 Roadway Maintenance Program

Staff Source: Nicholas Johnson, Engineering Supervisor – Public Works; Michelle Gardner, Senior Assistant Attorney

Estimated Time: 10 minutes presentation/10 minutes questions

### ACTIONS(S) PROPOSED *(Check all appropriate actions)*

- Approve Item and Move Forward to Study Session       Approve Item as Proposed at Study Session
- Approve Item and Move Forward to Regular Meeting       Approve Item as Proposed at Regular Meeting
- Information Only
- Approve Item with Waiver of Reconsideration  
*Reason for waiver is described in the Item Details field above.*

### PREVIOUS ACTIONS OR REVIEWS:

**Policy Committee Name:** N/A

**Policy Committee Date:** N/A

**Action Taken/Follow-up: (Check all that apply)**

- Recommends Approval  Does Not Recommend Approval  
 Forwarded Without Recommendation  Minutes Not Available  
 Minutes Attached

**HISTORY** (Dates reviewed by City council, Policy Committees, Boards and Commissions, or Staff. Summarize pertinent comments. ATTACH MINUTES OF COUNCIL MEETINGS, POLICY COMMITTEES AND BOARDS AND COMMISSIONS.)

In the spring of each year Public Works staff presents the plan for the coming construction season for maintaining the roadway infrastructure in Aurora.

**ITEM SUMMARY** (Brief description of item, discussion, key points, recommendations, etc.)

Staff will present a list of projects that will be used to maintain Aurora’s public streets in 2024. The locations are not final until they have been cross checked against planned utility work. Maps of the planned work will be distributed at the time of contract award.

The Street Rehabilitation and Preservation Program includes

- Street Overlay work by both contract and in-house crews
- Crack Sealing by contract
- Surface Treatment by contract
- Concrete Repairs as necessary

**FISCAL IMPACT**

Select all that apply. (If no fiscal impact, click that box and skip to “Questions for Council”)

- Revenue Impact  Budgeted Expenditure Impact  Non-Budgeted Expenditure Impact  
 Workload Impact  No Fiscal Impact

**REVENUE IMPACT**

Provide the revenue impact or N/A if no impact. (What is the estimated impact on revenue? What funds would be impacted? Provide additional detail as necessary.)

N/A

**BUDGETED EXPENDITURE IMPACT**

Provide the budgeted expenditure impact or N/A if no impact. (List Org/Account # and fund. What is the amount of budget to be used? Does this shift existing budget away from existing programs/services? Provide additional detail as necessary.)

This item is informational only. Several separate contracts will be issued utilizing the following orgs and budgets:  
48001, \$ 3,973,000;  
48002, \$ 31,222,000;  
48004, \$ 2,886,000; and  
49661, \$ 800,000;  
  
Utilizing acct 68410

**NON-BUDGETED EXPENDITURE IMPACT**

Provide the non-budgeted expenditure impact or N/A if no impact. (Provide information on non-budgeted costs. Include Personal Services, Supplies and Services, Interfund Charges, and Capital needs. Provide additional detail as necessary.)

N/A

**WORKLOAD IMPACT**

*Provide the workload impact or N/A if no impact. (Will more staff be needed or is the change absorbable? If new FTE(s) are needed, provide numbers and types of positions, and a duty summary. Provide additional detail as necessary.)*

N/A

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**QUESTIONS FOR COUNCIL**

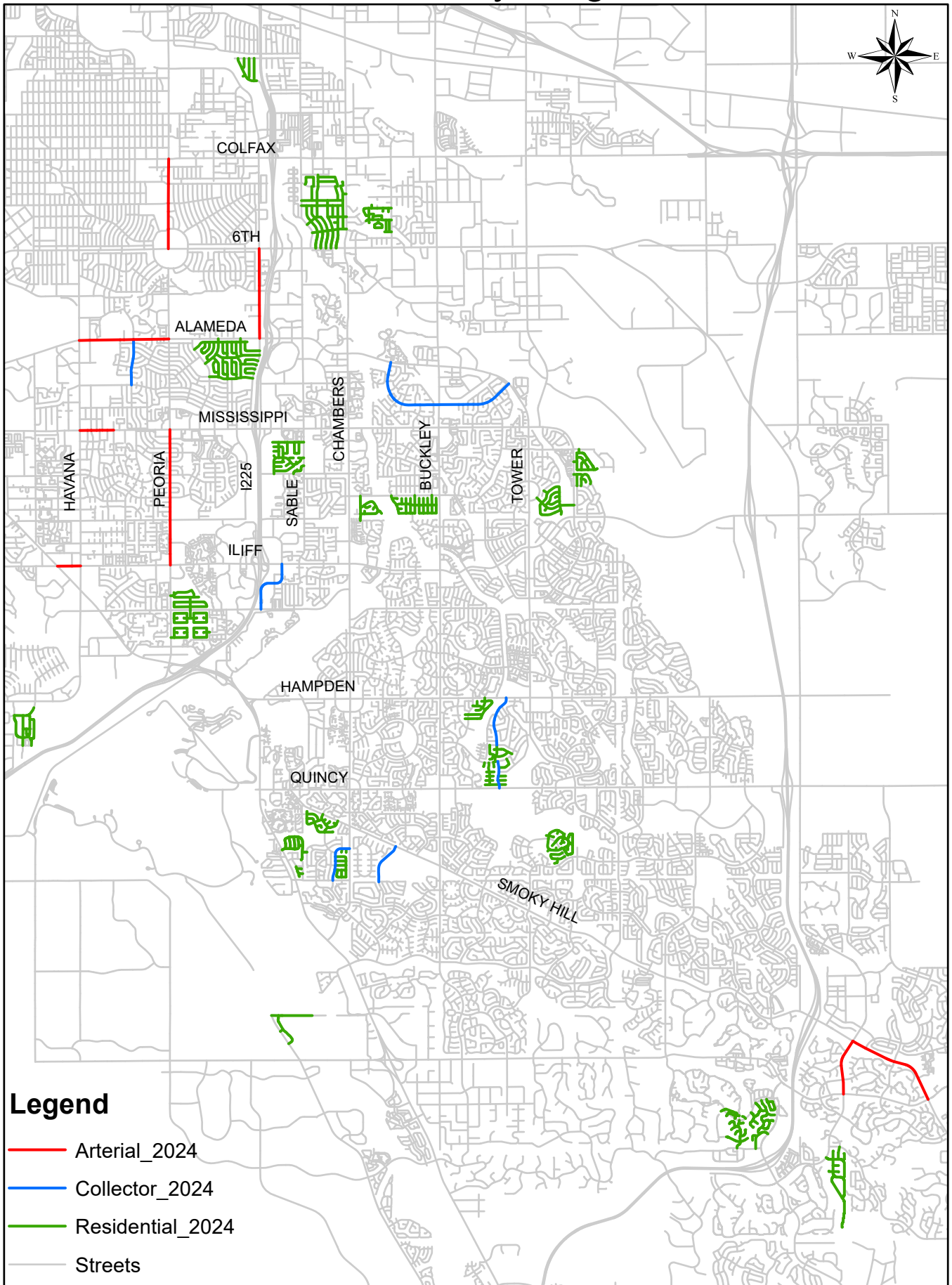
Does the Committee support proceeding with the Street Rehabilitation and Preservation Program as presented?

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**LEGAL COMMENTS**

The City Manager shall be responsible to the Council for the proper administration of all affairs of the City placed in his charge and to make written or verbal reports to the Council concerning the affairs of the City under his supervision. (City Charter Section 7-4(e)). Additionally, the City Manager shall keep the Council advised of the future needs of the City and make such recommendations to the Council for adoption as he may deem necessary or expedient. (City Charter Section 7-4(f)). (M. Gardner)

# 2024 Overlay Program



# Public Works, Street Operations

## 2024 Roadway Infrastructure Maintenance Program

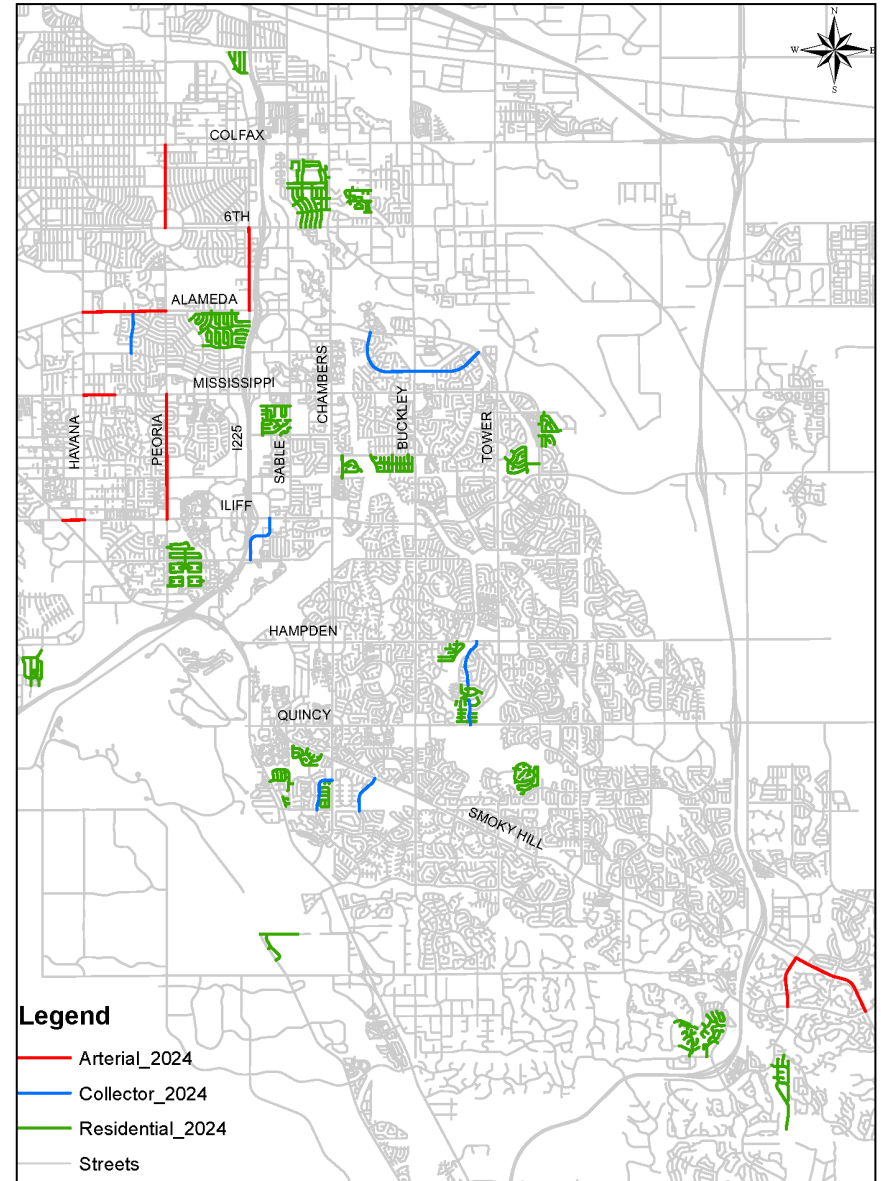


Nicholas Johnson, PE – Public Works, Streets

# Quick Facts

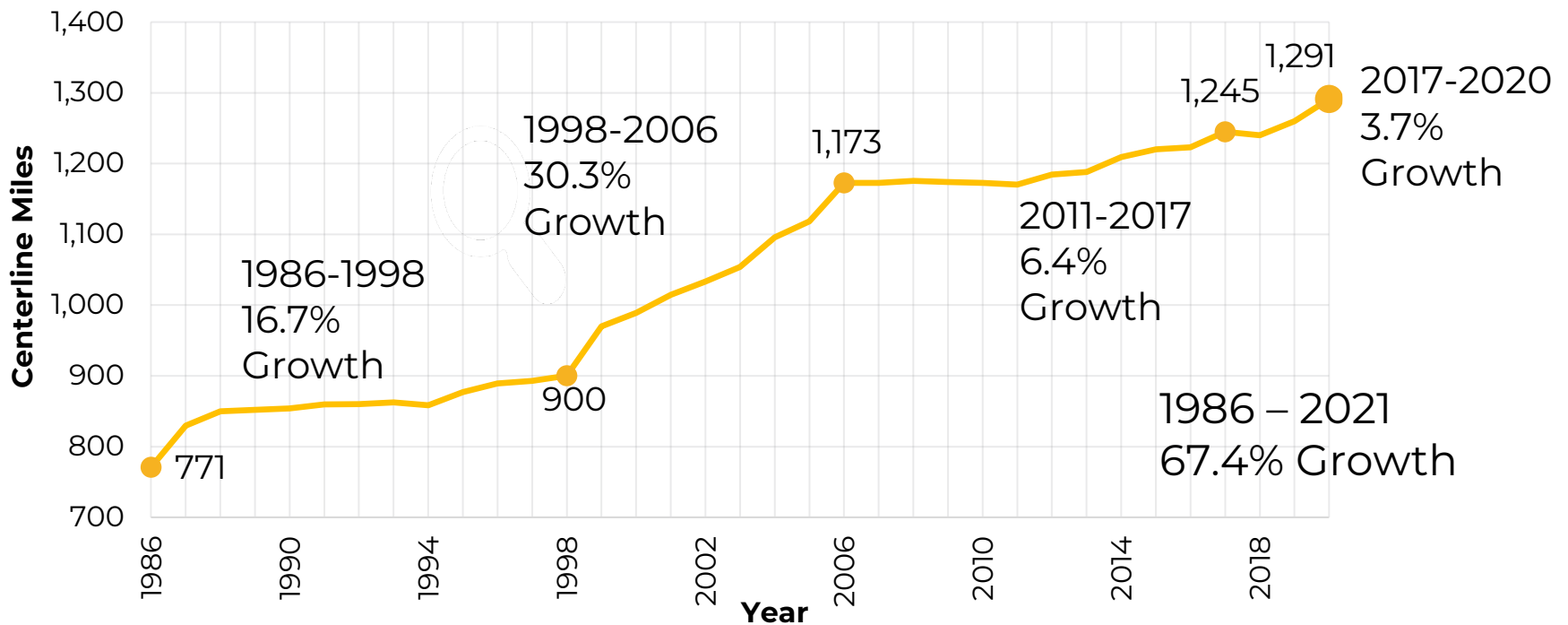
## CITY OF AURORA

- **POPULATION 399,913**  
(2023 ESTIMATE FROM PLANNING DEPT.)
- **164 SQ. MILES**  
(2024 DATA FROM INFORMATION TECH DEPT.)
- **1365 MILES OF ROAD RESPONSIBILITY**  
(2023 DATA FROM INFORMATION TECH DEPT.)



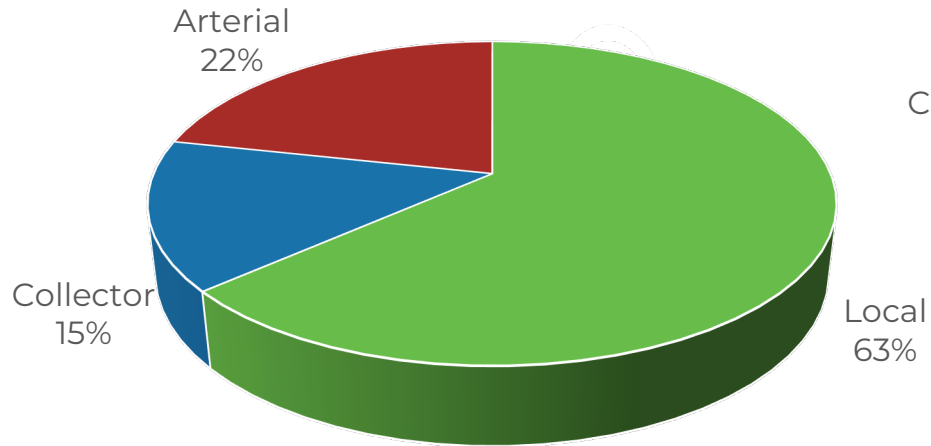


# Network Growth



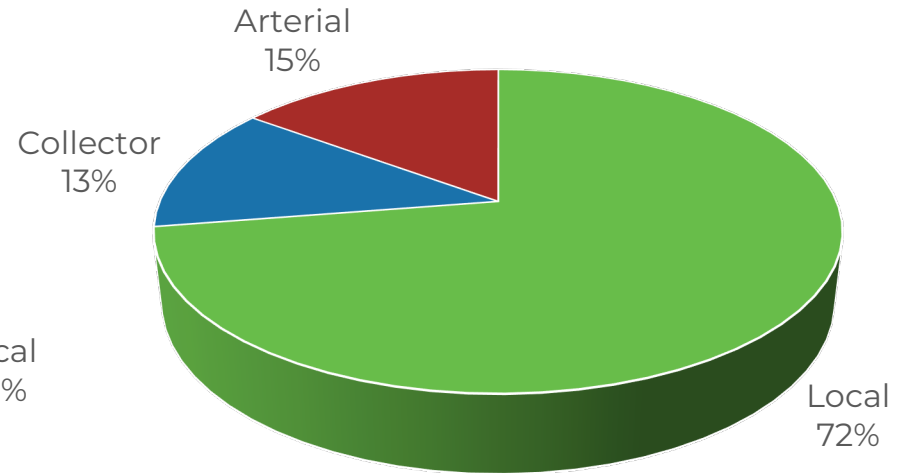
# Classifications

By Area



■ Local ■ Collector ■ Arterial

By Length



■ Local ■ Collector ■ Arterial

# Pavement Maintenance Management

## Pavement Management

- Process
- Computerized system
- Predictive model
  - Objective and Repeatable
- Condition data collected using laser technology to measure surface distresses and ride quality

## Maintenance Program

- Apply appropriate strategy at appropriate time
- Modify computer recommendations for budget, utility conflicts, development and other factors



ALL BASED ON PAVEMENT CONDITION INDEX (PCI)

# Pavement Condition Index

Typical Pavement Section



Pavement Condition Index (PCI) =  
Surface Condition + Structural  
Condition

0-100 point scale

- **Excellent 85-100**
- **Good 70-85**
- **Fair 60-70**
- **< 60 Poor**

Calculated from Field Data

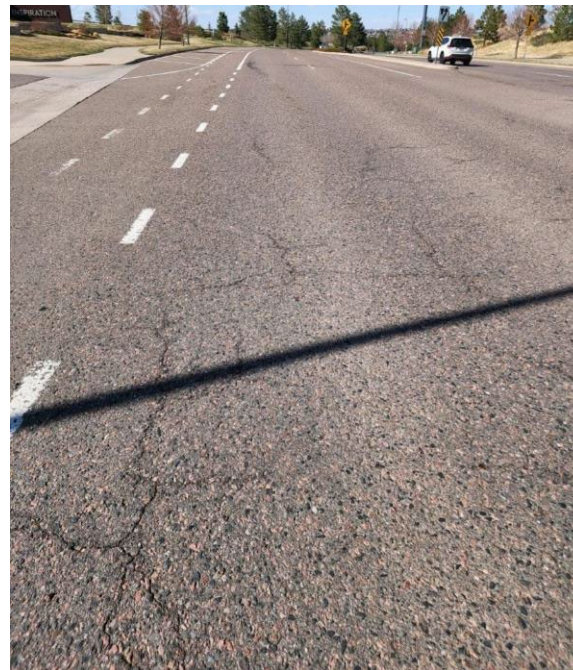
# Pavement Condition Index - Examples

PCI 75



E Glasgow Dr –  
S Powhatan Rd to E Indore Av

PCI 70



S Gartrell Rd –  
E Phillips Pl to E Inspiration Ln

# Pavement Condition Index - Examples

PCI 60



E Inspiration Ln –  
S Gartrell Rd to S Versailles St

PCI 50



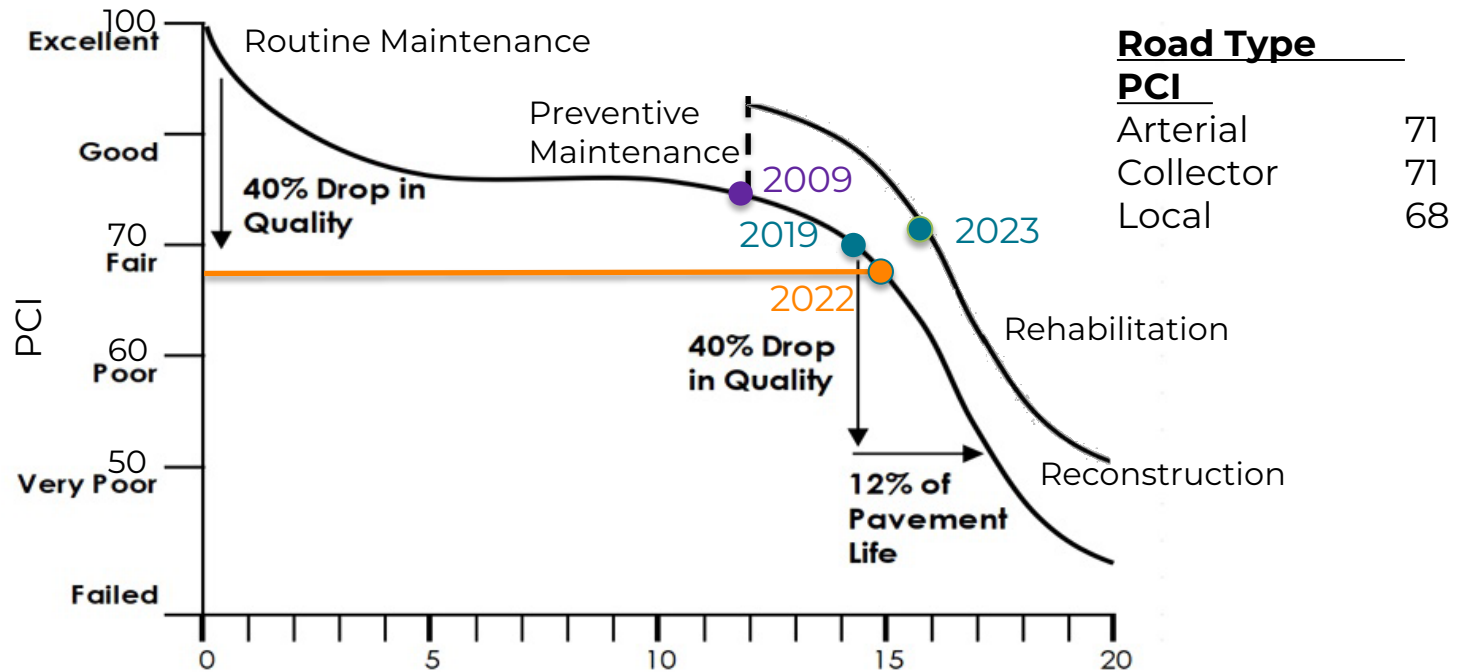
S Riviera Wy –  
S Quemoy Wy to E Hoover Dr

# Pavement Life-Cycle

- PCI Goal – 73

Cost effective strategies increase pavement condition and elongate the curve

- Most cost-effective strategies occur in the wear surface

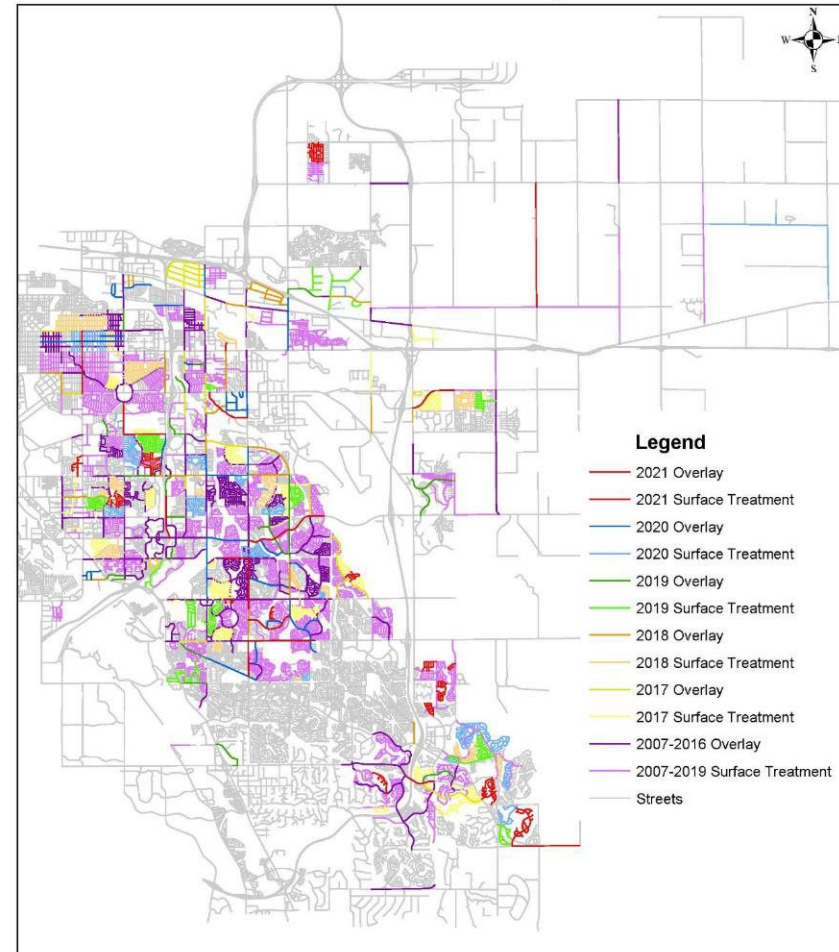




# Street Maintenance History

- 77 Network PCI in 2009
- 69 Network PCI in 2022
- 71 Network PCI in 2024

Street Maintenance History 2007-2021





# Pavement Maintenance Strategies

## Routine Maintenance

- Crack Fill

## Preventive Maintenance

- Surface Treatment

## Rehabilitation

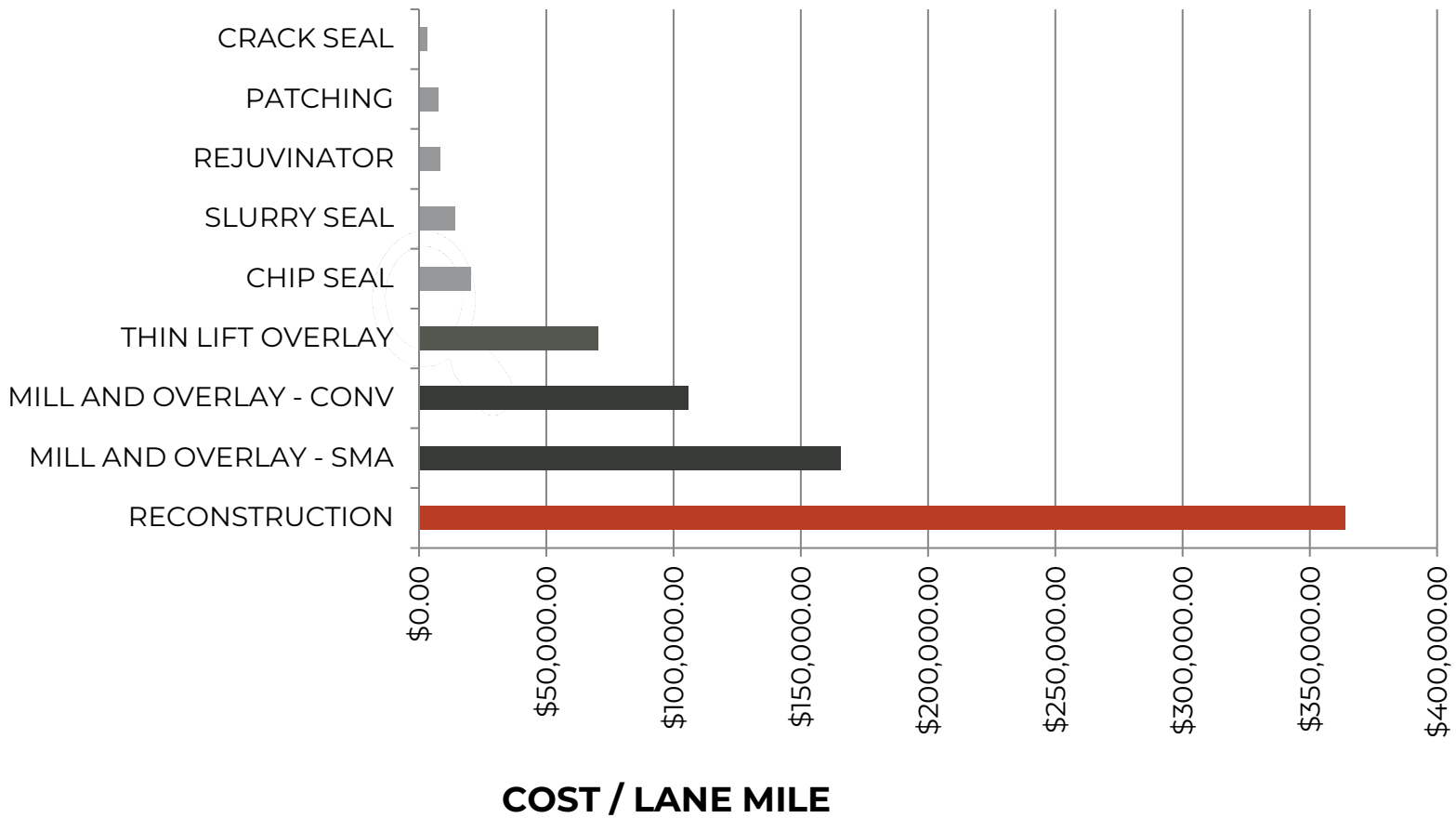
- Overlay

## Reconstruction

- Remove & Replace



# Pavement Maintenance - Strategies vs Relative Cost



# Rehabilitation Program

Roadways are prioritized starting with the worst pavement condition index (PCI)

Program recommendations are reviewed to develop a list of street segments to receive treatment

Apply appropriate strategy at the appropriate time

List is modified considering available budget, utility conflicts, development issues and other factors

# Program History

## Prior to 2015 -

- Maintenance funding was split between the major street and neighborhood street networks
- New data regarding roadway PCI received in 2015
- Program changes based on new data

## Starting in 2016 -

- Maintain arterial and collector streets with mill and overlay to hold current pavement condition index (70)
- Keep good residential streets good with surface treatments
- Keep poor residential streets safe with patching

# Current Program

**Certificates of Participation (COP)  
authorized generating \$35M for  
roadway maintenance**

- Funds available in September 2022
- Funds will be used to address deferred maintenance for residential streets
- Partially funded early concrete repair contracts

**Transportation Maintenance Fund  
(TMF)**



- Moved transportation maintenance funding out of General Projects Fund
- Consolidates 5 programs into 3: Concrete Repair, Street Maintenance and Reconstruction, and Street Maintenance – Asphalt Overlay In House.

**Network Condition  
Target of 73 approved**

- Select streets within budgets to achieve & maintain target **overall network** (PCI) over the next 5 years
- Re-establish annual paving program for residential streets

# Program Comparison: 2023 and 2024

## Build Up Aurora (2023)

- One of the largest pavement maintenance program in Colorado
  - Over 246,000 tons of asphalt placed
  - CDOT Region 1 placed 64,000 tons in 2023
- Best in State - Project Delivery Award from CAPA

Road Type	Lane Miles	
	2023	2024
Arterial	31	34
Collector	11	18
Residential	229	118
<b>Total</b>	<b>271</b>	<b>170</b>

# 2024 Program Budget

Pavement Maintenance Strategies Within The Rehabilitation Program

<b>PROGRAM</b>	<b>ESTIMATE</b>
STREET OVERLAY	\$29,000,000
CONCRETE REPAIR (CURBS AND SIDEWALKS)	\$ 5,500,000
STREET MAINTENANCE - IN-HOUSE	\$ 4,000,000
SURFACE TREATMENT (CHIP / SLURRY / CRACK SEAL)	\$ 3,500,000
CONTRACTED PROGRAM INSPECTION SERVICES	\$ 2,500,000
<b>TOTAL WORKING BUDGET</b>	<b>\$44,500,000</b>

# Questions or Concerns???

Does the Committee support proceeding with the Street Rehabilitation and Preservation Program as presented?