
# MoPac South Environmental Study Open House #6

## Today we invite you to:

- Sign in
- Explore the exhibits
- Speak to the project team
- Submit a comment

The virtual open house at voh.mopacsouth.com will remain open through Sun., Dec. 29, 2024 (48 calendar days). Comments must be received or postmarked by then to be included in the official public record.

## Comments can also be submitted:

**ONLINE:** voh.mopacsouth.com
**BY EMAIL:** mopacsouth@ctrma.org
**BY MAIL:** Central Texas Regional Mobility Authority
c/o: MoPac South
3300 N. IH-35, Suite 300, Austin, TX 78705

# Who is the Mobility Authority?

## *Who We Are:*

Independent government agency created in 2002, governed by a seven-member board of directors.

## *What We Do:*

Enhance quality of life and economic vitality by improving the regional transportation system in Travis and Williamson counties.

## *Corridors we Manage:*

183A TOLL · 290 TOLL · 71 TOLL · EXPRESS 1 TOLL · 45 TOLL · 183 TOLL

## *Projects under Construction:*

183 NORTH · 183A PHASE III

**FOUNDING COUNTIES:**

COUNTY OF TRAVIS, STATE OF TEXAS · WILCO TEXAS

# What is the MoPac South Environmental Study?

The MoPac Expressway south of Cesar Chavez Street is a vital artery, providing a critical link from southwest Travis and Hays counties to downtown Austin.

The northern section of the corridor is consistently ranked as one of Texas' 100 most congested roadways.*

The corridor attracts up to 200,000 cars and trucks per day.**

Expanding population and development have led to increased traffic congestion, negatively impacting mobility and quality of life.

If we do nothing to address congestion, travel time along the corridor is expected to increase.

The Environmental Assessment (EA) is being conducted per the National Environmental Policy Act of 1969 (NEPA).


*Texas A&M Transportation Institute, 2023
**2023 STARS 2 - TxDOT Traffic Count Database

# What is the National Environmental Policy Act (NEPA)?

NEPA is a federal law and is required when a project receives any federal funding or approval.

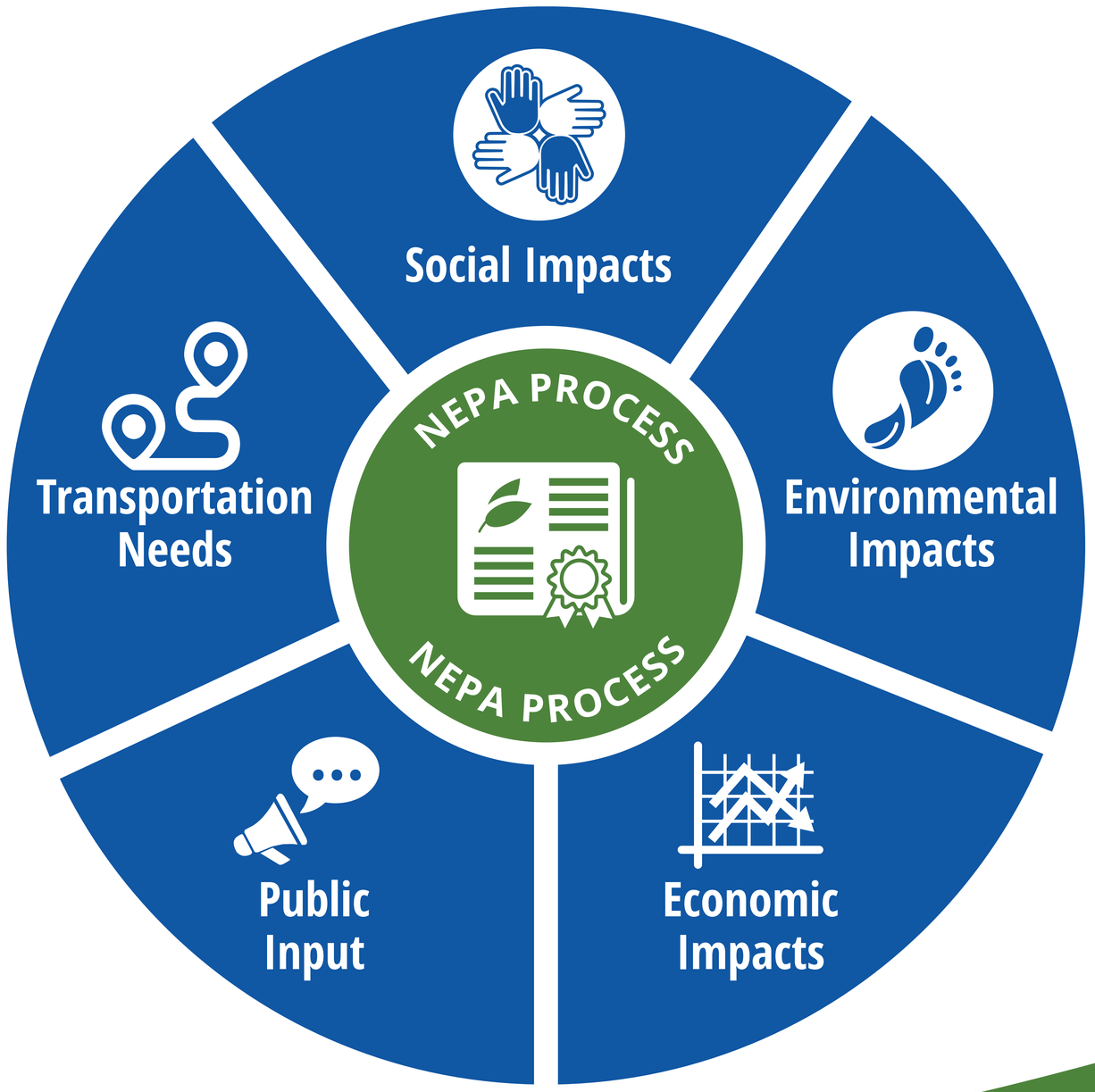
Establishes procedures followed by agencies in making decisions, but does not dictate the outcome.

Considers potential impacts of actions on the social, economic, and physical environment.

Requires public outreach to improve project outcomes.

Ensures informed decisions by forecasting, documenting, and disclosing what happens if a course of action is taken.

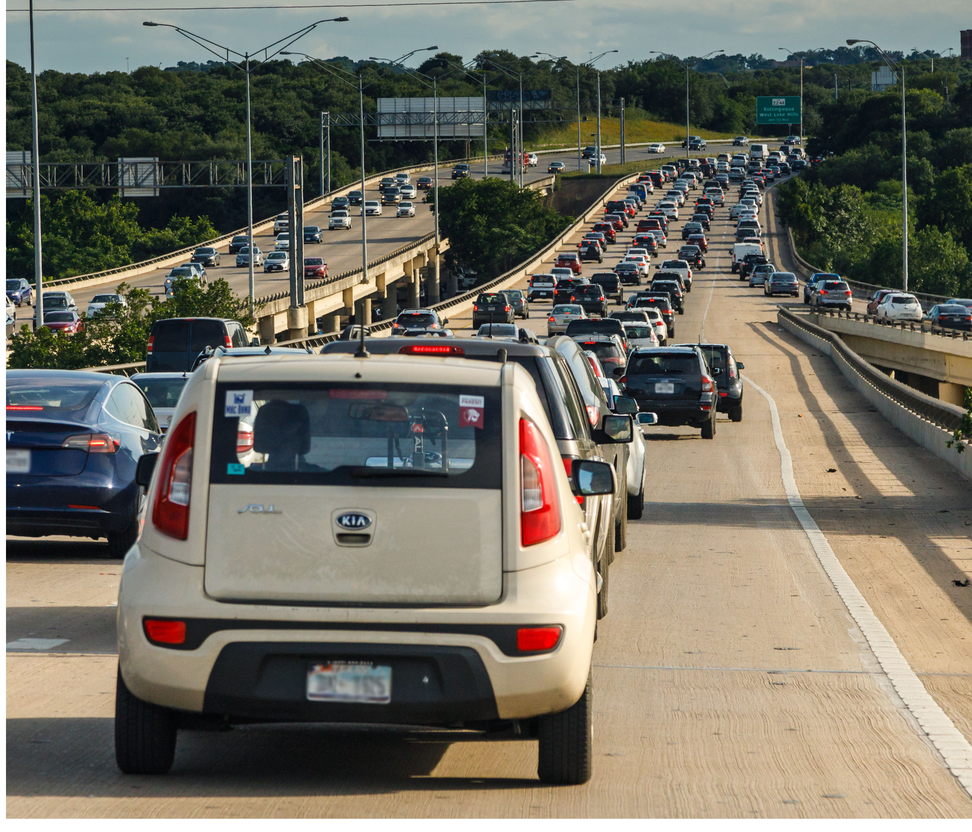
Determines measures to avoid, minimize, and mitigate impacts to the natural and human environment.



# MoPac South Project and the NEPA Process

| NEPA Process | Public Input Opportunity | Outcomes |
|---|---|---|
| INITIATION & SCOPING | | Regional Transportation Plan is adopted by CAMPO, includes MoPac South with CTRMA as sponsor |
| | | CTRMA Board voted to initiate Environmental Study |
| PROJECT PURPOSE & NEED | Mobility needs, constraints, growth | Purpose & Need established |
| IDENTIFY & EVALUATE ALTERNATIVES | **Open House #1:** 5 Build/No-Build Alternatives | Transit Lane(s) Alternative added for evaluation |
| PHASE I SCREENING: BASE CRITERIA | **Open House #2:** 6 Build/No-Build Alternatives | Express Lane(s) Alternative selected as Reasonable Build Alternative |
| PHASE II SCREENING: REASONABLE ALTERNATIVES | **Open House #3:** Express Lane(s) Alternative | 6 Express Lane(s) options developed |
| ENVIRONMENTAL ANALYSIS OF ALTERNATIVE | **Open House #4:** 6 Express Lane(s) Operational Configuration Options | Preliminary Recommended Build Alternative |
| | | PROJECT PUT ON HOLD |
| | **Open House #5:** 6 Express Lane(s) Operational Configuration Options | Updated to 2045 Travel Demand Model Confirmed Preliminary Recommended Build Alternative |
| ★ CURRENT STAGE<br>RECOMMENDED BUILD ALTERNATIVE | **Open House #6:** Recommended Build Alternative | Recommended Build & No-Build Alternatives move forward |
| PUBLIC HEARING | **Public Hearing:** Draft Environmental Assessment (EA) | Recommended Build & No-Build Alternatives move forward |
| FINAL EA PUBLISHED | | TxDOT issues an Environmental Finding |

# Purpose & Need



## PROJECT PURPOSE *(What we are trying to do)*

- Provide an opportunity for reliable travel times
- Improve operational efficiency
- Create a dependable and consistent route for transit
- Facilitate reliable emergency response

## PROJECT NEED *(What problems need to be addressed)*

- Current and forecasted congestion levels are creating unreliable travel times
- Emergency response times are impacted by traffic congestion
- Forecasted population and employment growth in Travis and Hays counties
- Under the No-Build Alternative (Do Nothing), traffic times are expected to increase

## PROJECT GOALS AND OBJECTIVES *(Developed through public comment)*

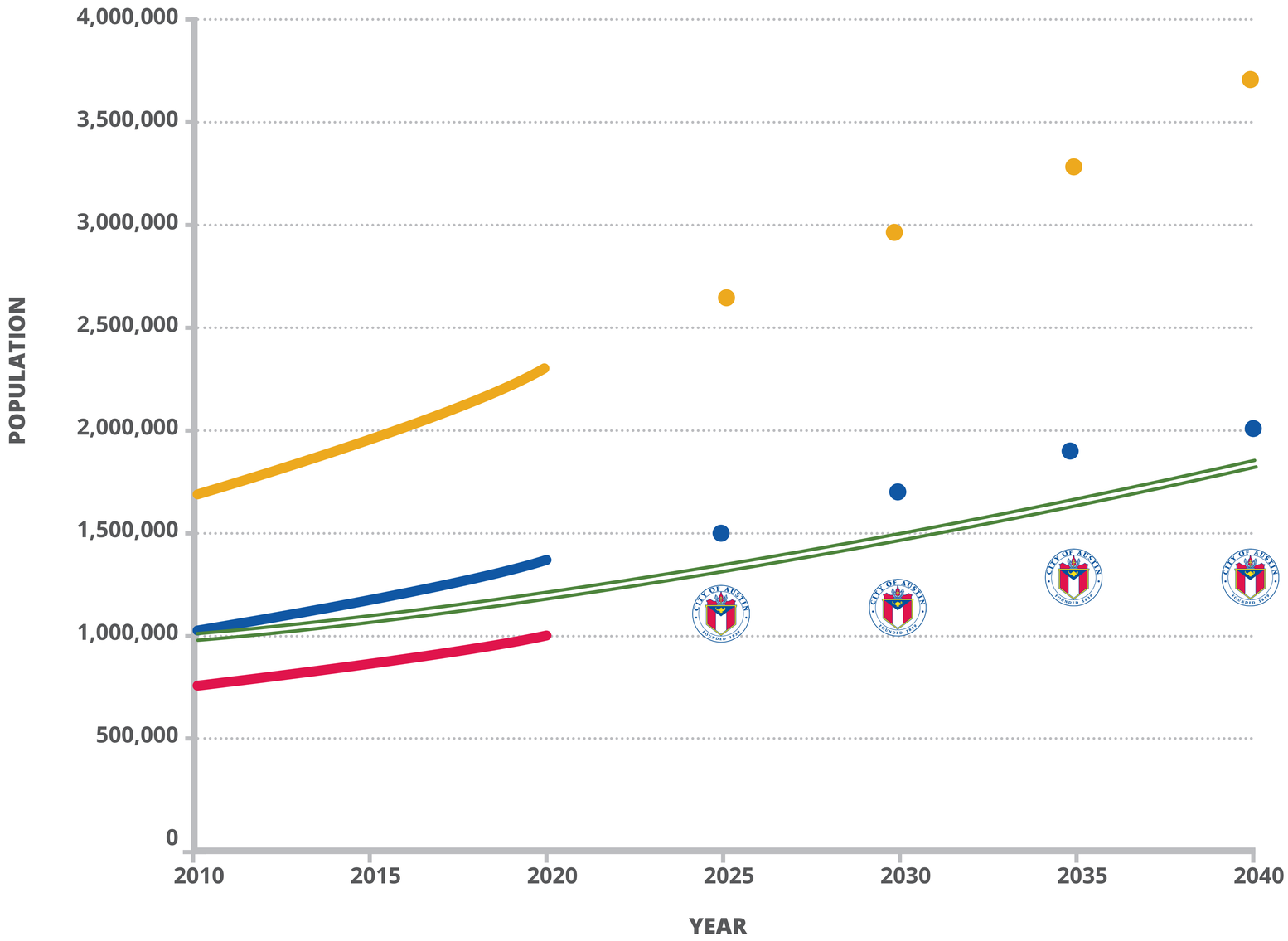
- Provide consistency with local and regional plans
- Reduce congestion delays and provide travel time savings for all roadway users
- Be constructible while minimizing impacts to the natural and human environment
- Support water quality by treating 100% of Total Suspended Solids (TSS) annual loading for all new impervious cover
  - Work to exceed goal during project development
- Deliver relief in a timely manner
- Facilitate congestion management
  - Increase opportunities for transit and ridesharing
  - Increase opportunities for pedestrians and bicyclists

# Population and Jobs Forecast

- Demand for Austin roadways is growing at a rapid pace.
- Projects a population increase of 750,000 people and 350,000 new jobs by 2040.

## LEGEND:

- City of Austin
- City of Austin Forecast*
- Travis County
- Travis County Forecast
- MSA
- MSA Forecast**
- Imagine Austin Study Area Forecast

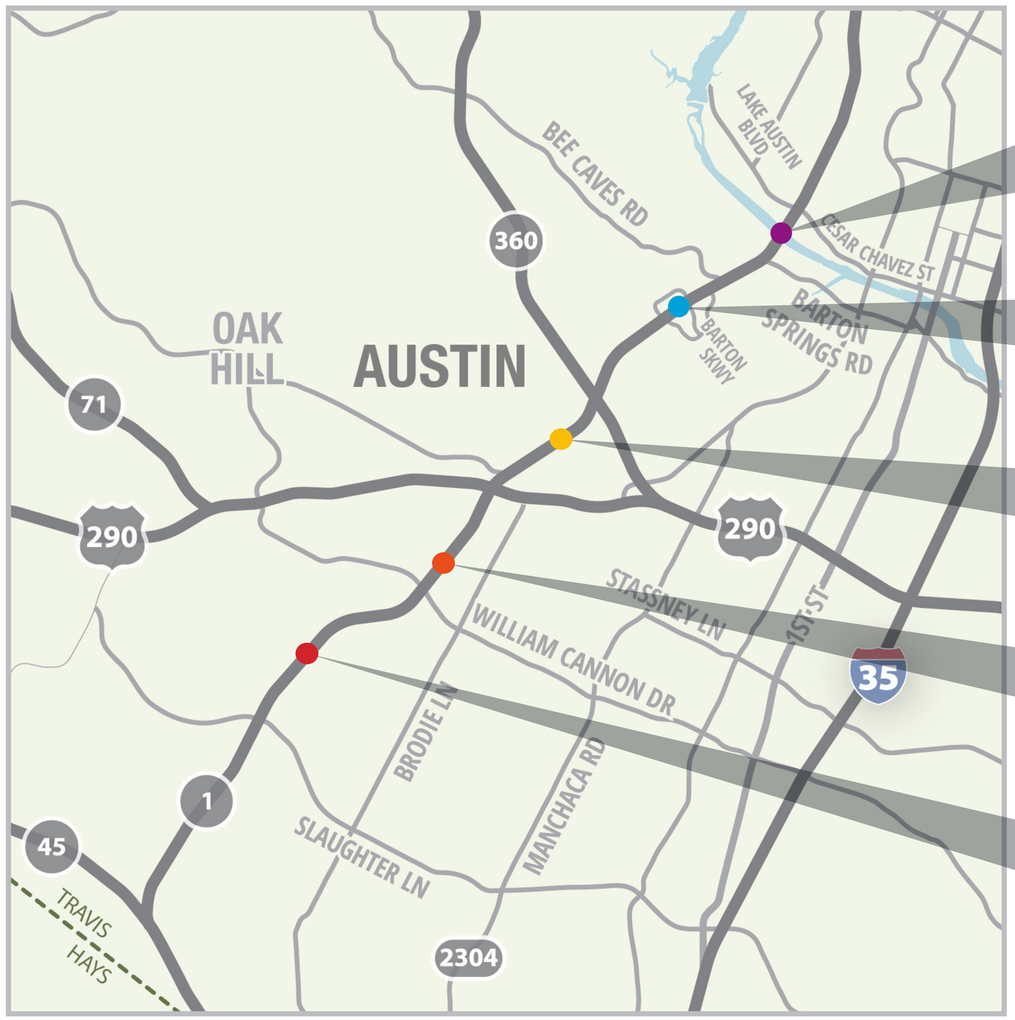



*Data provided by the City of Austin Department of Planning and Imagine Austin, the City's 30-year Comprehensive Plan

**The Metropolitan Statistical Area (MSA) is a six-county metropolitan area including Bastrop, Caldwell, Hays, Travis, Burnet, and Williamson counties. As MoPac is a major artery connecting people at a regional level, the impacts of the project will be realized across the MSA.

# Demand for MoPac South

## AVERAGE DAILY TRAFFIC VOLUMES ARE PROJECTED TO INCREASE BY UP TO 56% BY 2049.*




2018 Counts | 2049 Forecasts | % Percent Growth

**MoPac at Lady Bird Lake**

179,400 → 235,000 **+31%**

**MoPac at Barton Skyway**

174,400 → 233,500 **+34%**

**MoPac South of Loop 360**

125,500 → 195,200 **+56%**

**MoPac North of William Cannon Drive**

117,500 → 141,400 **+20%**

**MoPac North of Davis Lane**

77,300 → 92,900 **+20%**

*Traffic forecast based on the 2045 CAMPO Travel Demand Model for opening year 2029 plus 20 years to 2049. A 20-year look ahead is the regulatory requirement. 2018 traffic counts are used as the base data for the 2045 CAMPO Travel Demand Model.

# Project History and Next Steps

## Open House #1
NOV. 2013

- Five Alternatives presented for evaluation

## Open House #3
FEB. 2015

- Six Alternatives presented with evaluation results
- EL Alternative presented as Reasonable Build Alternative

## Lawsuit Filed Against Project
FEB. 2016

**AUG. 2017**
Austin District Court rules project can move forward

**JULY 2018**
U.S. Court of Appeals for the Fifth Circuit upholds ruling above

## Environmental Finding
2026

## Public Hearing
2025

- Draft EA presented

## 2045 Traffic Update
MAR. 2024

- Presented updated traffic data based on 2045 CAMPO Travel Demand Model

2013 | 2014 | 2015 | 2016–2019 | 2020 | 2021 | 2022-2026

## LEGEND

- **EL** Express Lane(s)
- **EA** Environmental Assessment
- Opportunity for Public Evaluation/ Public Comment
- Past Events
- Future Events

## Open House #2
APRIL 2014

- Six Alternatives presented for evaluation

## Open House #4
NOV. 2015

- Six different EL operational configuration options presented

## Project on Hold
MAR. 2016 – AUG. 2021

- Lawsuit delay
- Time for agencies to determine how to fund state's transportation needs
- COVID-19

## Open House #5

- Project information, including the six different EL operational configuration options re-presented

## Open House #6
2024

- Recommended Build Alternative presented

# Next Steps

## *Draft EA 2025*

- **Publish the Draft Environmental Assessment Document for public review**

## *Public Hearing 2025*

- **Present Draft Environmental Assessment for public input**

## *Finalize Environmental Studies 2025*

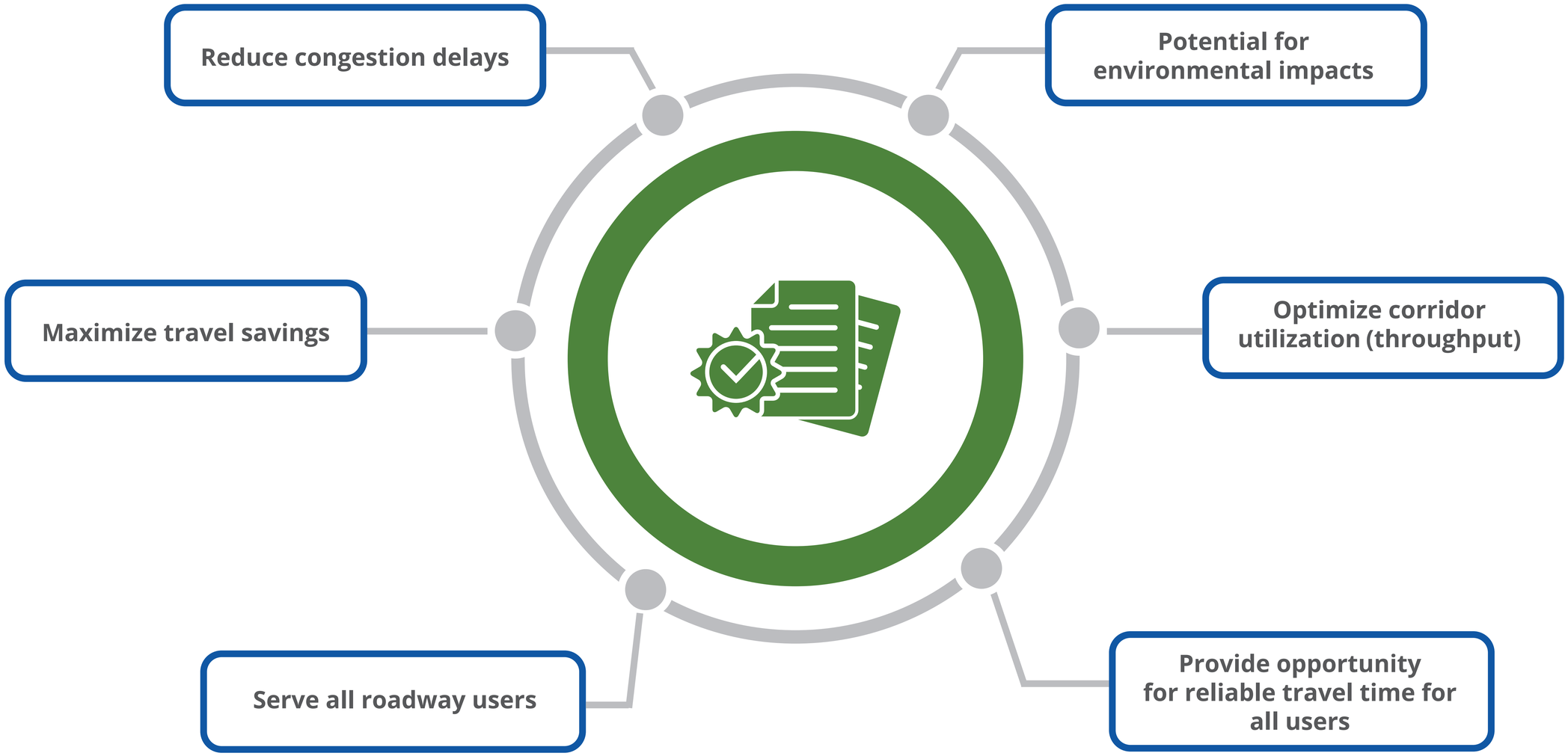
- **Submit Final Environmental Assessment Document**

## *Receive Environmental Finding 2026*

- **Environmental Finding**

# Alternatives Evaluation Criteria

## EACH BUILD ALTERNATIVE WAS MEASURED AGAINST THE FOLLOWING CRITERIA



# Build Alternatives Considered

## PRELIMINARY ALTERNATIVES PROPOSED FOR THE MOPAC SOUTH ENVIRONMENTAL STUDY:

**Build Alternatives**

**No Build** ("Do Nothing") **Alternative**

- Use of Transportation Systems Management/ Transportation Demand Management
- Add general-purpose lane(s) in each direction
- Add high occupancy vehicle (HOV) lane(s) in each direction
- Add transit-only lane(s) in each direction
- Add express lane(s) in each direction

**These alternatives were presented and considered at Open Houses 1 and 2, in 2013 and 2014, respectively, and reevaluated with the 2045 Traffic Forecast Update.**

# Build Alternatives Determined Not Reasonable

**Transportation Systems Management/Transportation Demand Management**

- × Does not meet purpose and need
- × Provides little to no change in optimization of corridor
- × Does not deliver travel time savings or reliability

**General-purpose lane(s)**

- × Does not meet purpose and need
- × Provides only a short-term optimization of corridor, then deteriorates as congestion returns to current levels

**Transit-only lane(s)**

- × Does not serve to benefit all corridor travelers
- × Provides less time savings to general-purpose lane users
- × Last-mile connectivity missing

**High occupancy vehicle (HOV) lane(s)**

- × Does not deliver travel time savings or reliability
- × Does not serve to benefit all corridor travelers
- × Could be underutilized due to lane occupancy restrictions

# Alternatives Evaluation Table

**The General-Purpose Lane(s) Alternative and Transportation Demand Management Alternative do not meet the purpose and need and were not carried forward for further evaluation.**

| Operational Configurations Improvement Effectiveness Index | IMPROVE OPERATIONAL EFFICIENCY | | | | | Provide an opportunity for reliable travel times; Create a dependable and consistent route for transit; Facilitate reliable emergency response | | Potential for Environmental Impacts | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Reduce Congestion Delay | Optimize Corridor Utilization | Maximize Travel Time Savings | | Serve All Roadway Users | Provide Opportunity for Reliable Travel Time for All Users | | Air Quality | Other Resources | ROW acquisitons |
| | Corridor Annual Vehicles Hours of Delay Savings | Corridor Daily increase in Throughput (vehicle miles traveled) versus No-Build | AM Travel Time in minutes (GP, AL) | PM Travel Time in minutes (GP, AL) | Travel Time Savings for General-Purpose Lane Users compared to No-Build (AM, PM) | 95th Percentile AM Travel Time Buffer in minutes (NB GP, AL) | 95th Percentile PM Travel Time Buffer in minutes (SB GP, AL) | Congestion contributes to poor air quality near facility | Resources with regulatory protection (species, Waters of the US, parks, cultural) | Number of impacted property owners |
| **No-Build** | 0 | 0 | 20 | 22 | 0, 0 | 21, n/a | 24, n/a | no change | no change | 0 |
| **Express Lanes** | ★ | ★ | ★ | ★ | ★ | ★ | ★ | ✓ | ✓ | ★ |
| **HOV** | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ★ |
| **Transit-Only** | – | – | – | – | – | – | – | ✓ | ✓ | ★ |

AM: 7 - 9 a.m. PM: 4 - 6:30 p.m.
Northbound (NB), Southbound (SB), General-Purpose (GP), Alternative Lanes (AL)

Little /no change | Better | Best

# Reasonable Build Alternative

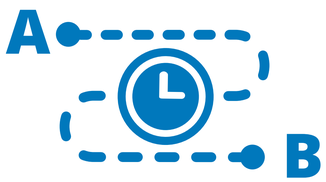
## Why Express Lane(s)?*

**1 RELIABILITY**

OFFERS RELIABLE TRAVEL TIMES

**2 PEAK TRAVEL**

PROVIDES SHORTEST PEAK PERIOD TRAVEL TIME FOR ALL VEHICLES




**3 TIME SAVINGS**

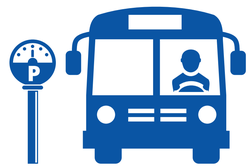
PROVIDES TIME SAVINGS FOR ALL USERS

**4 RELIEF**

DELIVERS RELIEF IN A TIMELY MANNER

**5 BENEFITS**

BENEFITS THE MOST USERS: SINGLE & HIGH OCCUPANCY VEHICLES, TRANSIT, RIDESHARING CAN ALL USE THE LANES




**Express Lane(s) Alternative was identified as the Reasonable Build Alternative at Open House #3 in 2015 and confirmed with the 2045 Traffic Forecast Update.**

***In accordance with the National Environmental Policy Act, the No Build Alternative will continue to move forward as a baseline for comparison to the Recommended Build Alternative.**

# Environmental Evaluations

*Air Quality*

*Biological Resources*

*Karst Zones*


*4(f) Considerations*

*Cultural Resources*

*Land Use & Parkland*

*Hazardous Materials*

*Traffic Noise*

*Water Resources*

*Environmental Justice*

*Indirect and Cumulative Impacts*

*Social and Community Impacts*

# Air Quality

The Clean Air Act (CAA), amended in 1990, requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for certain air pollutants of concern to protect human health and the environment.

These air pollutants, referred to as criteria pollutants, are carbon monoxide (CO), nitrogen dioxide ($NO_2$), particulate matter smaller than 10 micrometers in diameter ($PM_{10}$), particulate matter smaller than 2.5 micrometers in diameter ($PM_{2.5}$), sulfur dioxide ($SO_2$), ozone ($O_3$), and lead (Pb).

***Any project, alone, is a small part of a larger, region-wide analysis. The Mobility Authority is committed to following established processes, regulations, and methods in completing the Environmental Assessment. Should new regulations occur, corresponding studies can be completed at that time.***

**Region's Current NAAQS Status: In Attainment** (below all NAAQS thresholds)

## Federal & State Regulations:

- EPA's Clean Air Act
- National Ambient Air Quality Standards (NAAQS)
- NEPA
- Federal-aid Highways Code

## Analyses in Progress:

- Mobile Source Air Toxics (MSAT)
- Carbon Monoxide Traffic Air Quality Analysis (CO TAQA)
- Greenhouse Gas Analysis (optional per TxDOT guidance)

# Biological Resources

## Threatened and Endangered Species

**SPECIES OF INTEREST INCLUDE, BUT ARE NOT LIMITED TO:**

### *Golden-Cheeked Warbler*

*Setophaga chrysoparia*[1]

### *Barton Springs Salamander*

*Eurycea sosorum*[2]

### *Bee Creek Cave Harvestman*

*Texella redelli*[3]

## Environmental Efforts

- Surveys for species of rare and endangered karst invertebrates and their habitat
- Golden-Cheeked Warbler Surveys
- Avoidance, minimization and mitigation measures to reduce the potential negative effects of a project on the environment
- Preparing a Biological Assessment for U.S. Fish and Wildlife Service (USFWS) consultation
- Consulting with resource agencies; USFWS, Texas Parks and Wildlife Department (TPWD)

## Karst Zones

**SOME THREATENED AND ENDANGERED SPECIES ARE FOUND IN KARST ZONES**

There are four endangered species habitat and management zones in the Austin region. Zone boundaries have been updated by USFWS in 2024 to reflect more recent studies of cave and karst development and the most current biological information available.

[1] Audubon.org [2] U.S. Fish & Wildlife [3] Balcones Canyonlands Conservation Plan (2020)

MoPac South

# Karst Zones

DEEP EDDY

Bee Caves Road

360

BARTON CREEK SQUARE MALL

BARTON CREEK GREENBELT

360

290

W. Oltorf Street

S. Lamar Blvd

Southwest Parkway

290

W. William Cannon Drive

Brodie Lane

W. Slaughter Lane

## LEGEND

N

**Project Corridor**

**Karst Zones**

| | |
|---|---|
| 1 | areas known to contain endangered cave secies |
| 2 | areas having a high probability of endangered or other endemic invertebrate cave fauna |
| 3a | areas suitable for troglobite species but which have a low probability of containing endangered karst species because the habitat is occupied by other troglobite species |
| 3b | areas with a low probability of containing endangered karst species because they are poorly suited for troglobite species |
| 4a | areas suitable for troglobite species but which do not contain endangered karst species because the habitat is occupied by other troglobite species |
| 4b | areas which do not contain troglobite species |

*Please note this illustrated map is for communication purposes only.*

# 4F Consultation

Section 4(f) of the USDOT Act of 1966 dictates that agencies cannot approve the use of land from publicly owned parks, recreation areas, wildlife refuges, or historic sites unless there is no feasible and prudent alternative to the use and the action includes all possible planning to minimize harm to the property.

***Consultation is required when a project uses a Section 4(f) resource. A use is defined as one of the following:***

- **Permanent incorporation/permanent easement**

  Permanent incorporation into the transportation system through fee simple acquisition or permanent easement

- **Temporary occupancy**

  Land for construction purposes is adverse in terms of the statute's preservationist purposes

- **Constructive Use**

  Proximity impacts of the transportation project are so great that the purposes for which the Section 4(f) property exists are substantially impaired

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# Land Use & Parkland

Bee Caves Road

360

BARTON CREEK SQUARE MALL

BARTON CREEK GREENBELT

360

S. Lamar Blvd

290

W. Oltorf Street

Southwest Parkway

290

W. William Cannon Drive

Brodie Lane

W. Slaughter Lane

## LEGEND

N

- Project Corridor

**ZONING**

- Commercial
- Residential
- Gov't/Utility/Institution
- Industrial
- Parkland
- Other

- Hospitals
- Schools
- Places of Worship
- CapMetro Bus Routes
- Trails

*Please note this illustrated map is for communication purposes only.*

# Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA) requires agencies to consider the effects on Historic Properties. Historic Properties are Historic Resources (45+ Years) and Archeological Resources that are listed or eligible for the National Register of Historic Places (NRHP).

## Studies require:

- Identification of Historic Properties
- Determine Effect on Historic Properties
- Minimize Impact to Historic Properties

## Studies will address these types of effects within the APE:

- Direct (Disturbance)
- Indirect (Viewshed, Noise, Vibration)

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# Cultural and Historical Resources

DEEP EDDY

Bee Caves Road

360

BARTON CREEK SQUARE MALL

BARTON CREEK GREENBELT

360

290

S. Lamar Blvd

W. Oltorf Street

290

Southwest Parkway

W. William Cannon Drive

Brodie Lane

W. Slaughter Lane

## LEGEND

- Project Corridor
- National Register of Historic Places (NHRP) District
- NHRP Properties
- City Landmarks
- Historical Markers
- Museums
- Cemeteries

*Please note this illustrated map is for communication purposes only.*

MoPac South

# Cultural and Historical Resources

BUASS HOUSE

CHARLES JOHNSON HOUSE

DEEP EDDY

TRAVIS CO
HISTORICAL MARKER

ASHFORD MCGILL HOUSE
HISTORICAL MARKER

ZILKER
BOTANICAL
GARDEN

ZILKER BOTANICAL
GARDEN PIONEER VILLAGE

ZILKER PARK

ZILKER LODGE

## LEGEND

- Project Corridor
- National Register of Historic Places (NHRP) District
- NHRP Properties
- City Landmarks
- Historical Markers
- Museums
- Cemeteries

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# Hazardous Materials

All-inclusive term for materials that are regulated as a solid waste, hazardous waste, and other materials contaminated with hazardous substances, radioactive materials, petroleum products, toxic substances, and pollutants.

*TxDOT Environmental Handbook: Hazardous Materials Assessment focuses on the identification, management, coordination and documentation of hazardous materials during the National Environmental Policy Act process.*

## Federal & State Requirements:

- Identify potential for encountering contamination during construciton
- Determine whether materials management or worker health and safety may be impacted
- Assess liability as part of acquisition

## Sites of Concern: Butler Landfill

- Investigation is under way to determine risks to human health during and after construction, and materials management plan for use during construction to manage the risks

# Traffic Noise Evaluation

## NOISE AND BARRIER ANALYSIS BEGINS BEFORE THE PUBLIC HEARING AND MITIGATION MEASURES ARE FINALIZED AFTER COMMUNITY NOISE WORKSHOPS FOLLOWING AN ENVIRONMENTAL DECISION.

**IDENTIFY RECEIVERS**

**CALCULATE NOISE LEVELS**

The FHWA and TxDOT have established noise levels that determine when there is a noise impact, and abatement must be considered.

**EVALUATE**

**DETERMINE NOISE ABATEMENT**

**NOT REQUIRED**

**REQUIRED**

- Conduct noise workshop with adjacent land owners
- Address comments and notify public of changes to design
- Occurs after environmental finding

### WHAT ARE “RECEIVERS”?

**Impacted by traffic noise:** residences, schools, hospitals, recreational areas, places of worship, offices, hotels, restaurants, etc.

**Receivers are defined per the FHWA Noise Activity Category**

### BARRIERS CONSIDERED BEST NOISE REDUCTION

**Reasonable** and **Feasible**

- **Cost effectiveness ?**
- **Noise reduction?**
- **Acoustic feasibility?**
- **Constructability?**

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# Noise Receptors

DEEP EDDY

Bee Caves Road

360

BARTON CREEK SQUARE MALL

BARTON CREEK GREENBELT

W. Oltorf Street

S. Lamar Blvd

360

290

Southwest Parkway

290

W. William Cannon Drive

Bode Lane

W. Slaughter Lane

## LEGEND

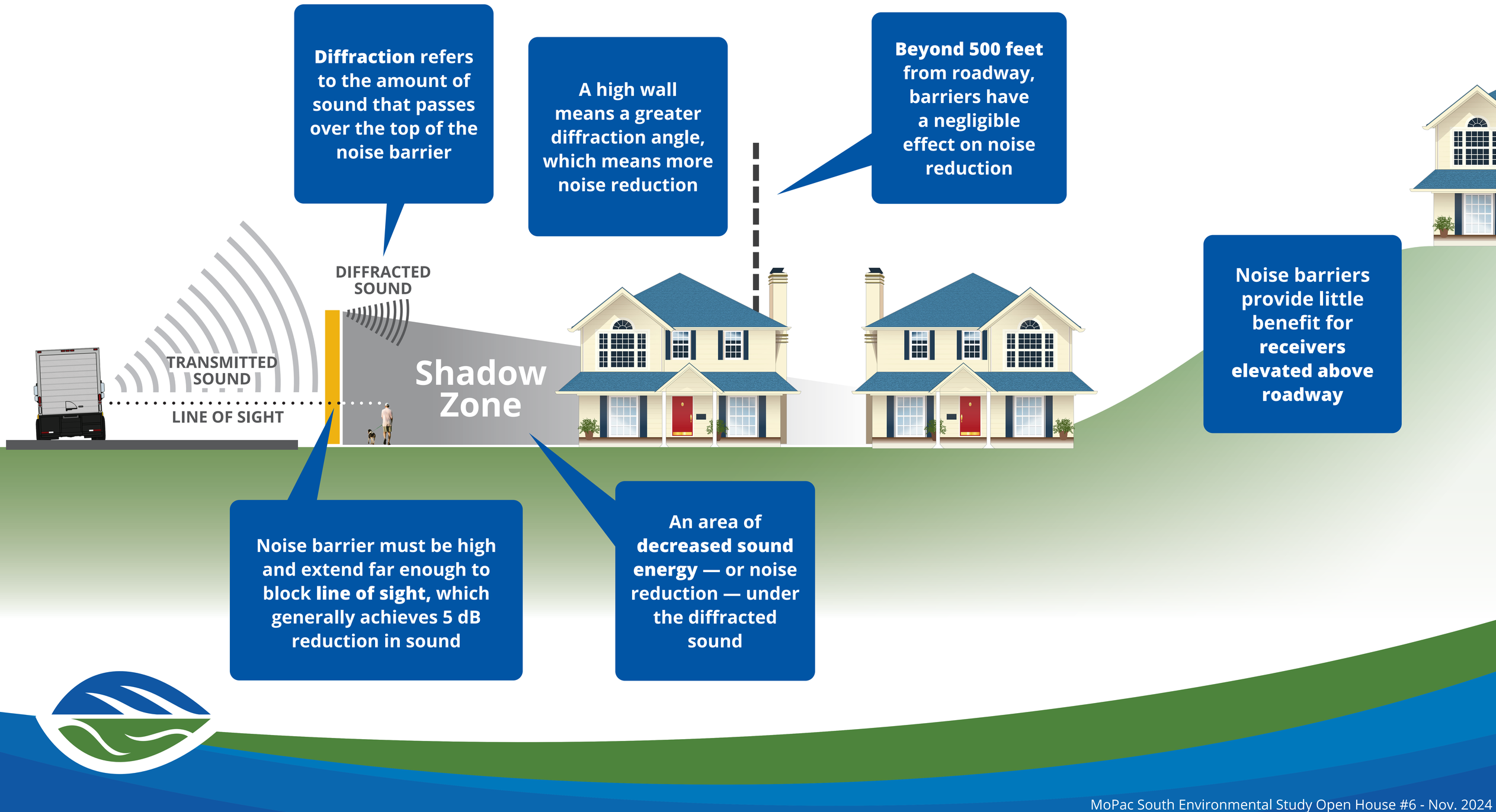
**Project Corridor**

**Noise Receptors**
Locations based on FHWA land use categories and include all residential, schools, places of worship, medical facilities within 500 feet of the facility.

*Please note this illustrated map is for communication purposes only and is subject to change.*

# Traffic Noise & Abatement

- Sound is generated from tires, engines, and heavy truck exhaust stack
- The majority of sound comes from friction of tires with road and increase with vehicle speed
- Heavy truck traffic is louder than standard automobile traffic noise



# Water Resources

## THE PROJECT WILL COMPLY WITH THE CLEAN WATER ACT AND EXCEED REQUIREMENTS OF THE EDWARDS AQUIFER PROTECTION PROGRAM.

**Delineate Wetlands and Waters of the United States**

**Identify impaired waters**

**Identify Groundwater Resources and Edwards Aquifer protection measures**

**Regulatory compliance and permitting with TCEQ* and USFWS** including potential mitigation**

**Clean Water Act (Section 404 and 401) regulatory compliance and permitting with USACE*** including potential mitigation**

**Through the Clean Water Act, the USACE requires certification of compliance with other regulations and conditions including but not limited to:**

- Cultural Resources
- Endangered Species Act
- Regulatory Floodplains

*Texas Commission on Environmental Quality
**United States Fish and Wildlife Service
***United States Army Corps of Engineers

MoPac South

# Water Resources

DEEP EDDY

TOWN LAKE

Bee Caves Road

360

EANES CREEK

BARTON CREEK

BARTON CREEK SQUARE MALL

BARTON CREEK GREENBELT

360

290

W. Oltorf Street

S. Lamar Blvd

GAINES RANCH SINK

Southwest Parkway

WILLIAMSON CREEK

290

SUNSET VALLEY TRIBUTARY

W. William Cannon Drive

WHIRLPOOL CAVE

KINCHEON BRANCH

Brodie Lane

W. Slaughter Lane

## LEGEND

- Project Corridor
- Open Water Features
- Wetlands
- Karst Features

*Please note this illustrated map is for communication purposes only.*

# MoPac South

# Water Quantity

JOHNSON CREEK

DEEP EDDY

TOWN LAKE

Bee Caves Road

360

EANES CREEK

BARTON CREEK

BARTON CREEK SQUARE MALL

BARTON CREEK GREENBELT

360

290

W. Oltorf Street

S. Lamar Blvd

Southwest Parkway

WILLIAMSON CREEK

290

SUNSET VALLEY TRIBUTARY

W. William Cannon Drive

KINCHEON BRANCH

Brodie Lane

W. Slaughter Lane

## LEGEND

**Project Corridor**

**FEMA 100-YR Floodplain**

**Watersheds**

- Town Lake
- Barton Creek
- Eanes Creek
- Johnson Creek
- Slaughter Creek
- Williamson Creek

**Points of Interest**

*Please note this illustrated map is for communication purposes only.*

# Water Quality Protections

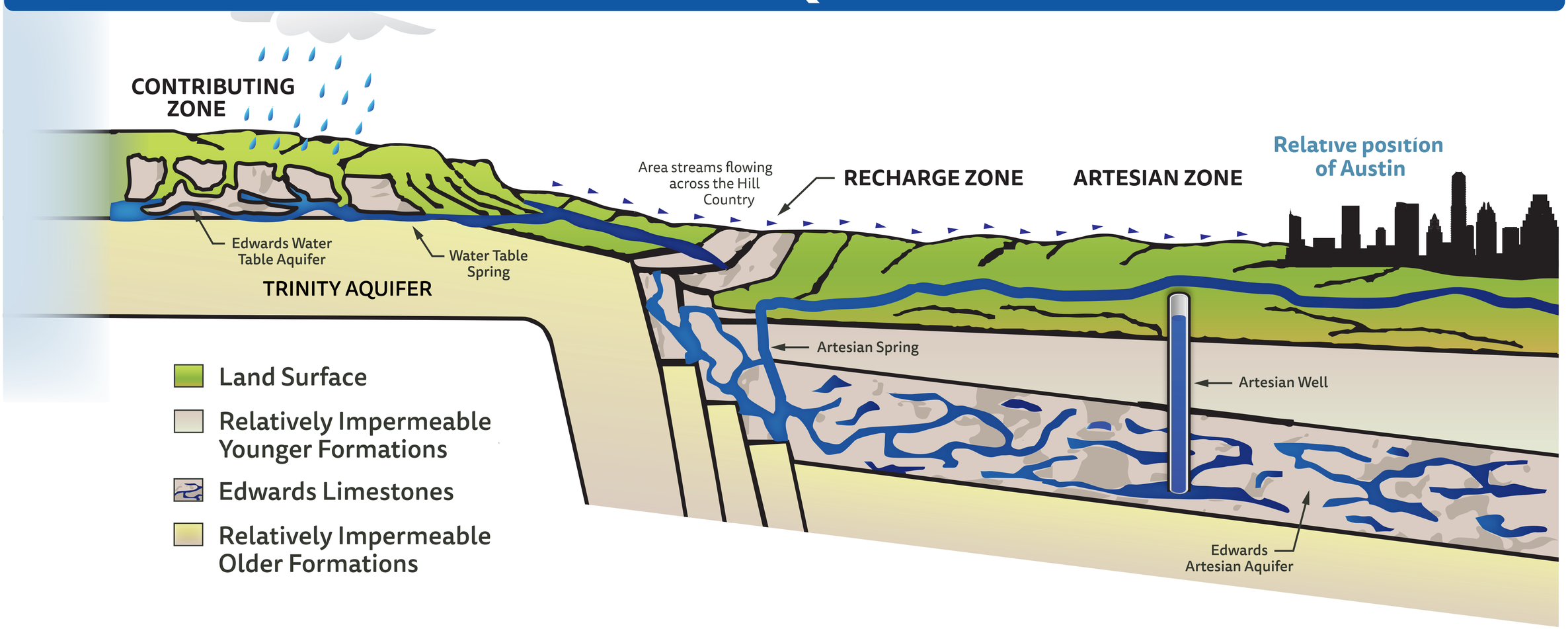
- Edwards Aquifer is a drinking water source for South Central Texas.
- Fractures, caves, sinking streams, and sinkholes act as conduits to the aquifer.
- Karst is a type of landscape formed by the dissolution of rocks.
- A diverse community of fauna rely upon the Aquifer.

- Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program Requirements:
  - Minimize erosion and sedimentation
  - Develop an Edwards Aquifer Protection Plan that removes 80% of the increase in Total Suspended Solids (TSS) annual loading for all new impervious cover

**The Mobility Authority is committed to a minimum water quality standard of treating 100% of TSS annual loading for all new impervious cover: exceeding TCEQ requirements.**

The Mobility Authority is currently evaluating treatment level for the City of Austin Save Our Springs Ordinance additional constituents. These constituents include Chemical Oxygen Demand, E. coli, Total Lead, Total Nitrogen, Total Phosphorous, and Total Zinc.

## WHAT IS THE EDWARDS AQUIFER RECHARGE ZONE?



MoPac South

# Aquifer Zones

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W. William Cannon Drive

Brodie Lane

W. Slaughter Lane

## LEGEND

N

**Project Corridor**

**Edwards Aquifer Zones**

- Contributing Zone
- Recharge Zone
- Transition Zone
- Contributing Zone within the Transition Zone

*Please note this illustrated map is for communication purposes only.*

# Stormwater Best Management Options


## PERMEABLE FRICTION COURSE PAVEMENT

Porous asphalt that allows water to drain into pavement, filtering highway runoff before it releases off-road.

## WATER QUALITY POND

Ponds like sedimentation filtration or batch detention hold stormwater to allow pollutants to be removed from the stormwater before discharge. Different pond types have different treatment capabilities.

## PROPRIETARY TREATMENT UNITS

There are several companies that manufacture compact underground treatment units which remove pollutants from stormwater. Some are only visible as an inlet or tree well box above ground.

## VEGETATIVE TREATMENT

Small areas runoff over grassy swales and vegetative filter strips allowing the grasses and vegetation to remove some pollutants from the stormwater.

MoPac South

# Water Quality

DEEP EDDY

Bee Caves Road

360

BARTON CREEK SQUARE MALL

BARTON CREEK GREENBELT

360

S. Lamar Blvd

W. Oltorf Street

290

290

Southwest Parkway

W. William Cannon Drive

Brodie Lane

W. Slaughter Lane

## LEGEND

- Project Corridor
- Existing Treatment Locations
- Potential Treatment Locations

*Please note this illustrated map is for communication purposes only. Potential water quality features are to be informed through technical experts and stakeholders and exact locations and methods are subject to change.*

# Community Impact Assessment

## *Environmental Justice*

Principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on tribal governments, minority, and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.
- Federal and state regulations drive TxDOT policy and procedures related to Community Impact Assessments, designed to ensure compliance with Title VI of the Civil Rights Act of 1964, the Executive Order on Environmental Justice policy, the Executive Order on Limited English Proficiency policy, NEPA, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act).

## *Social and Community Impacts*

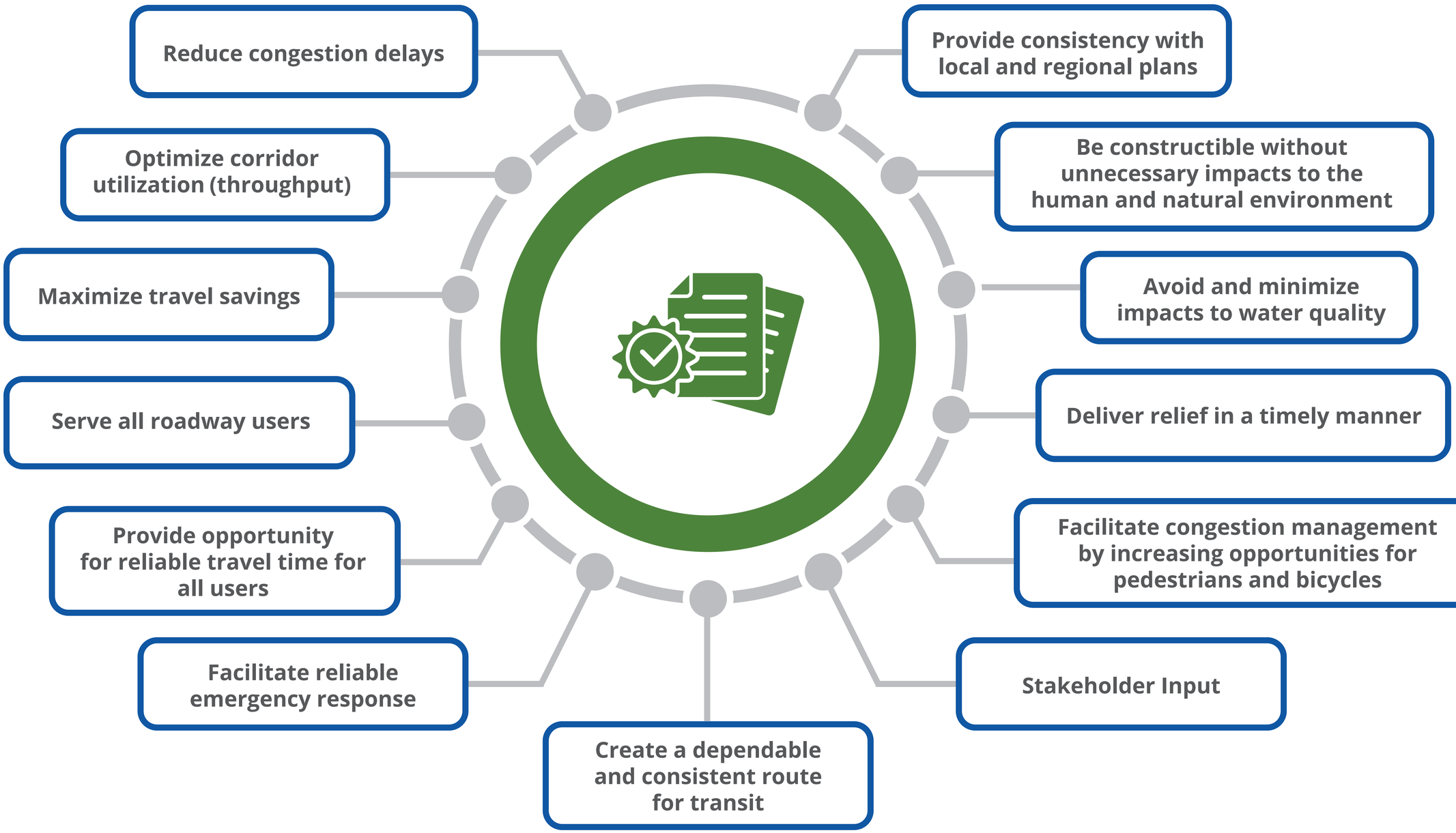
- Involves understanding the needs of communities and documenting the existing and anticipated social environment of a community with and without the proposed action.
- Involves communities that will be affected by transportation projects (whether positively or negatively).
- Issues assessed include safety, access to public services and facilities, community cohesion, mobility, business impacts during construction, employment, changes in housing or property ownership.

## *Indirect and Cumulative Impacts*

- Cumulative impacts are those that affect the environment resulting from the incremental impact of the action or project when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.
- Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
- Indirect effects are those that caused by the action and occur later in time and farther removed in distance but are still reasonably foreseeable.
- Indirect effects typically include changes in social and economic conditions, natural resources, cultural or historical resources, accessibility, induced traffic, noise levels, and air quality.

# Configuration Evaluation Criteria

## EACH EXPRESS LANE(S) OPERATIONAL CONFIGURATION OPTION WAS MEASURED AGAINST THE FOLLOWING CRITERIA



# Express Lane(s) Operational Configuration Options

## SIX VARIATIONS OF THE EXPRESS LANE(S) ALTERNATIVE WERE EVALUATED. THE KEY DIFFERENCES WERE HOW THE RAMPS ARE CONFIGURED NEAR LADY BIRD LAKE FOR DOWNTOWN CONNECTIVITY.

**1A.** One Express Lane with Downtown Direct Connection

**2A.** Two Express Lanes with Downtown Direct Connection

These options included elevated sections over Lady Bird Lake and ramps directly connecting the express lane(s) to E. Cesar Chavez Street close to the Austin High School entrance. While this has safety and congestion benefits due to eliminating merging and lane changes, public comments received at Open Houses (OH) 3, 4, and 5 did not support elevated lanes over Lady Bird lake and raised safety concerns about connectivity so close to Austin High School.

**1B.** One Express Lane without Downtown Direct Connection

**2B.** Two Express Lanes without Downtown Direct Connection

These options removed the elevated direct connection, which then requires lane changes and reduces operational efficiency and safety due to lane merges, but does allow the Cesar Chavez Street connection to be further west, away from Austin High School.

**3.** City of Austin Proposal

Developed from input from the City of Austin, the option moved the elevated ramps south near Barton Skyway and includes bypass lanes to maintain direct connection at grade across Lady Bird Lake. These added bypass lanes require wider bridges and additional right-of-way through Zilker Park. Public comments received at OH 3, 4, and 5 did not support additional right-of-way through Zilker Park.

**2C.** Two Express Lanes with Elevated Ramps near Barton Skyway

Includes elevated ramps near Barton Skyway to improve access to downtown and safety by reducing merging and lane changes while placing the elevated structures south of Zilker Park.

# Operational Configuration Evaluation Table

| Operational Configurations Improvement Effectiveness Index | IMPROVE OPERATIONAL EFFICIENCY | | | | | | Provide an opportunity for reliable travel times; Create a dependable and consistent route for transit; Facilitate reliable emergency response | |
|---|---|---|---|---|---|---|---|---|
| | Reduce Congestion Delay | | Optimize Corridor Utilization | Maximize Travel Time Savings | | Serve All Roadway Users | Provide Opportunity for Reliable Travel Time for All Users | |
| | Corridor Annual Vehicles Hours of Delay Savings | Systemwide (area) Annual Vehicle Hours of Delay Savings | Corridor Daily increase in Throughput (vehicle miles traveled) versus No-Build | AM Travel Time (GP, EL) | PM Travel Time (GP, EL) | Travel Time Savings for General Purpose Lane Users compared to No-Build (AM, PM) | 95th Percentile AM Travel Time Buffer (NB GP, EL) | 95th Percentile PM Travel Time Buffer (SB GP, EL) |
| No-Build (1) | 0 | 0 | 0 | 20 min | 22 min | 0, 0 | 21 min, n/a | 24 min, n/a |
| 1A (1.38) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1B (1.36) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2A (1.54) | ✓ | ✓ | ★ | ★ | ★ | ✓ | ★ | ✓ |
| 2B (1.52) | ✓ | ✓ | ✓ | ★ | ✓ | ✓ | ★ | ✓ |
| 2C (1.61) | ✓ | ✓ | ✓ | ★ | ✓ | ✓ | ★ | ✓ |
| 3 (1.35) | ★ | ★ | ✓ | ✓ | ★ | ★ | ★ | ★ |

AM: 7 - 9 a.m.  PM: 4 - 6:30 p.m.
Northbound (NB), Southbound (SB), General-Purpose (GP), Express Lanes (EL)

— Little/No Change  ✓ Better  ★ Best

# Operational Configuration Evaluation Table

| Operational Configurations Improvement Effectiveness Index | Provide consistency with local and regional plans | Be constructible without unecessary impacts to the natural and human environment | | | | | | | Avoid and Minimize Impacts to Water Quality | Deliver relief in a timely manner | Facilitate congestion management by increasing opportunities for pedestrian and bicycles |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Consistent with the CAMPO 2045 Regional Transportation Plan | Amount of additional bridge over Lady Bird Lake (SF) | Amount of additional bridge over Lady Bird Lake (width) | Waters of the US: Additional number and Area of Bridge Columns in Lady Bird Lake | Park Impacts | New Visual Element | Maximum Height of New Visual Element over existing mainlanes | Noise Impacts | Additional impervious cover | Estimated construction schedule | Length of Shared Use Path and sidewalks |
| **No-Build (1.0)** | **No** | 0 | 0 | 0 | 0 | n/a | n/a | Yes | 0 | n/a | n/a |
| **1A (1.38)** | ★ | ✓ | ★ | – | ✓ | ✓ | ✓ | – | ✓ | – | ★ |
| **1B (1.36)** | ★ | ★ | ★ | ✓ | ★ | ★ | ★ | – | ★ | | |
| **2A (1.54)** | ★ | ✓ | ★ | – | ✓ | ✓ | ✓ | – | – | | |
| **2B (1.52)** | ★ | ★ | ★ | ✓ | ★ | ★ | ★ | – | ✓ | | |
| **2C (1.61)** | ★ | ✓ | ✓ | ✓ | ★ | ✓ | ✓ | – | – | | |
| **3 (1.35)** | ★ | – | – | – | – | ✓ | ✓ | – | – | | |

– Undesired ✓ Better ★ Best

# Operational Configurations Not Recommended

**1A.** One Express Lane with Downtown Direct Connection

**2A.** Two Express Lanes with Downtown Direct Connection

- × Public preference for no elevated lanes over Lady Bird Lake
- × Public concerns about connectivity so close to Austin High School

**1B.** One Express Lane without Downtown Direct Connection

**2B.** Two Express Lanes without Downtown Direct Connection

- × Operational efficiency and safety reduced due to merging

**3.** City of Austin Proposal

- × Collector distributors require wider bridges and additional right-of-way through Zilker Park.
- × Public preference for less right-of-way

# Recommended Build Alternative

## Why 2C: Two Express Lanes with Elevated Ramps near Barton Skyway*

**1 PUBLIC SUPPORT**

ABSENCE OF ELEVATION OVER LADY BIRD LAKE, NO ADDITIONAL RIGHT-OF-WAY

**2 SAFETY**

WISHBONE RAMPS ELIMINATES WEAVING AND ALLOWS FOR MULTIPLE DOWNTOWN EXIT OPTIONS

**3 OPTIMIZATION**

DELIVERS THE MOST IMPROVEMENT IN OPERATIONAL EFFICIENCY AND HOURS OF DELAY SAVED

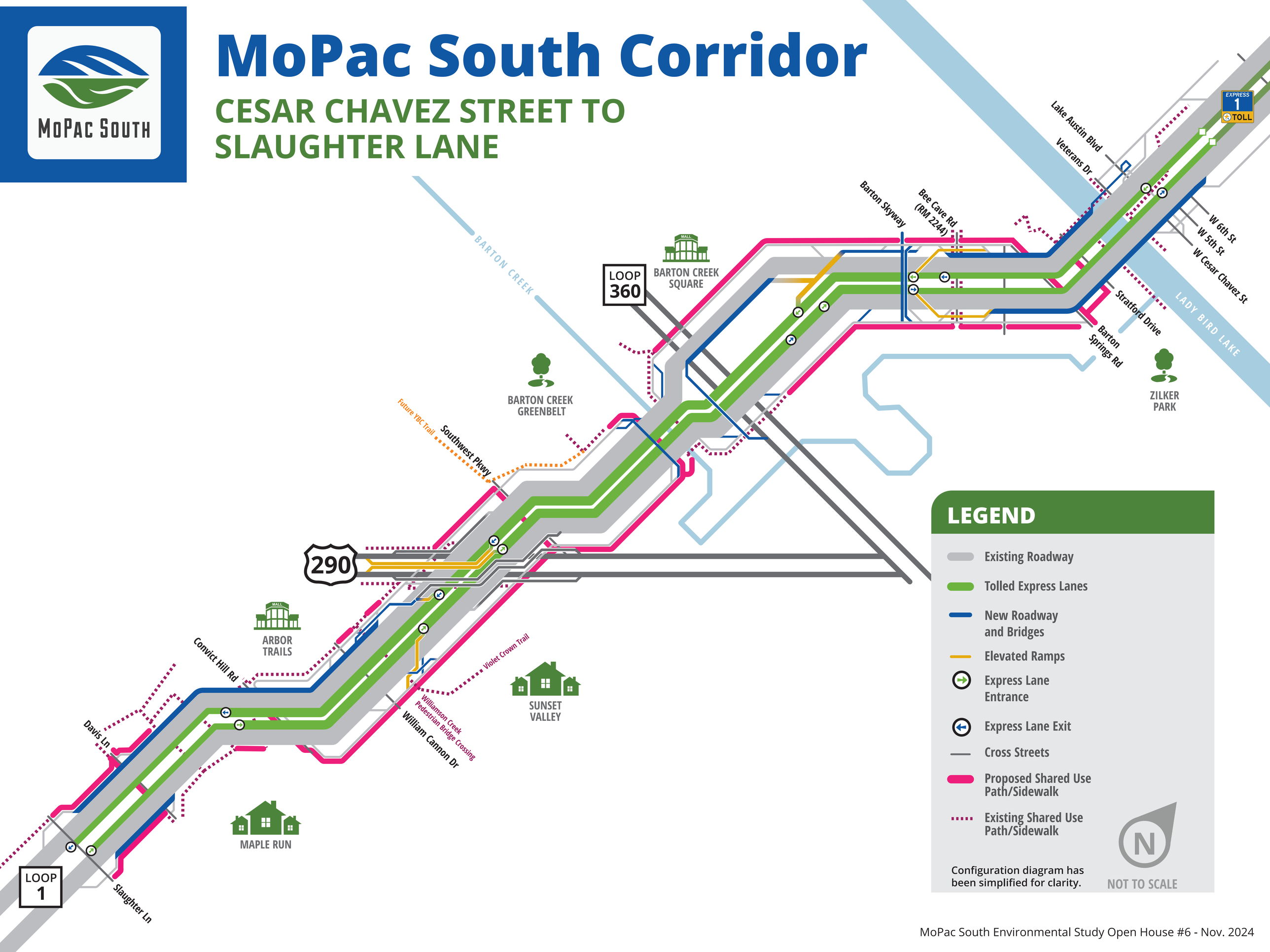
**4 FEWER IMPACTS**

FEWER IMPACTS THAN OPTIONS 1A, 2A, AND 3

*In accordance with the National Environmental Policy Act, the No Build Alternative will continue to move forward as a baseline for comparison.

# MoPac South Corridor

## CESAR CHAVEZ STREET TO SLAUGHTER LANE




## LEGEND

- Existing Roadway
- Tolled Express Lanes
- New Roadway and Bridges
- Elevated Ramps
- Express Lane Entrance
- Express Lane Exit
- Cross Streets
- Proposed Shared Use Path/Sidewalk
- Existing Shared Use Path/Sidewalk

Configuration diagram has been simplified for clarity.

N

NOT TO SCALE

# 2C: Two Express Lanes with Elevated Ramps Near Barton Skyway

## ACCESS TO AND FROM DOWNTOWN VIA DEDICATED RAMPS OVER THE MAINLANES

**LEGEND**

Configuration diagram has been simplified for clarity.

- Proposed Express Lanes
- Existing Tolled Express Lanes
- Proposed Elevated Ramps
- New Roadway and Bridges
- Cross Streets
- Express Lane Entrance
- Express Lane Exit
- Connection with Existing Express Lane

**EXISTING BRIDGE WIDENED TO ADD ONE EXPRESS LANE AND ONE GENERAL PURPOSE LANE IN EACH DIRECTION**

**SECOND EXPRESS LANE IN EACH DIRECTION BEGINS SOUTH OF BARTON SKYWAY AND CONTINUES TO CONVICT HILL, WHERE IT TRANSITIONS TO ONE LANE TO SLAUGHTER LANE**

Barton Skyway
Bee Cave Rd (RM 2244)
Rollingwood Dr
Stratford Dr
Frontage Rd
Lake Austin Blvd
Atlanta St
Veterans Dr
W 6th St
W 5th St
W Cesar Chavez St
Stephen F Austin Dr
LADY BIRD LAKE
Stratford Dr
Frontage Rd
Barton Springs Rd
Andrew Zilker Rd.
Spyglass Dr

DOWNTOWN AUSTIN

N

NOT TO SCALE

# 2C: Travel Times

## BASED ON CAMPO 2045 TRAVEL DEMAND MODEL

## TRAVEL TIME: between Cesar Chavez Street and Slaughter Lane

| | | NORTHBOUND | SOUTHBOUND |
|---|---|---|---|
| | 2018 BASELINE | 14 minutes | 13 minutes |
| | 2045 NO BUILD | 20 minutes | 22 minutes |
| 2C | 2045 EXPRESS LANES | 8 minutes<br>12 min., 60% savings | 8 minutes<br>14 min., 64% savings |
| 2C | 2045 GENERAL-PURPOSE LANES | 16 minutes<br>4 min., 25% savings | 17 minutes<br>5 min., 23% savings |

Morning Peak Period NB (7-9 a.m.)

Evening Peak Period SB (4-6:30 p.m.)

# Public Input is Shaping MoPac South

## Community input has been a valuable part of the development process for Mopac South, with adjustments made based on public input, including:

- Added new direct connection at US 290
- Added new bypass lanes from Barton Skyway to Loop 360
- Added south to north Texas Turnaround at Barton Skyway
- Lengthen turn lane leading to Texas Turnaround at Loop 360
- Reconfigured Bee Cave Road/RM 2244 southbound exit ramp
- Ramp improvements at William Cannon Drive
- Added third southbound general-purpose lane south of William Cannon Drive
- Additional ADA bike/ped crossings
- Widened Shared Use Path
- Additional bike/ped access on each side of the corridor
- Relocated the Barton Springs Road Shared Use Path crossing to improve safety

## Shared values:

- Downtown connectivity options
- No increased elevations over Lady Bird Lake
- No direct connector ramps near Austin High School
- Maximize pedestrian/cyclist routes

Each express lane(s) operational configuration option have been analyzed against a set of criteria developed based on this feedback, and the CAMPO 2045 Travel Demand Model. These operational performance scores, combined with public input, have determined the Recommend Build Alternative.

# Project Benefits

**NON-TOLLED IMPROVEMENTS**

**OPERATIONAL IMPROVEMENTS/ EFFICIENCY**

**IMPROVED EMERGENCY RESPONSE TIMES**

**INCREASED WATER QUALITY MEASURES**

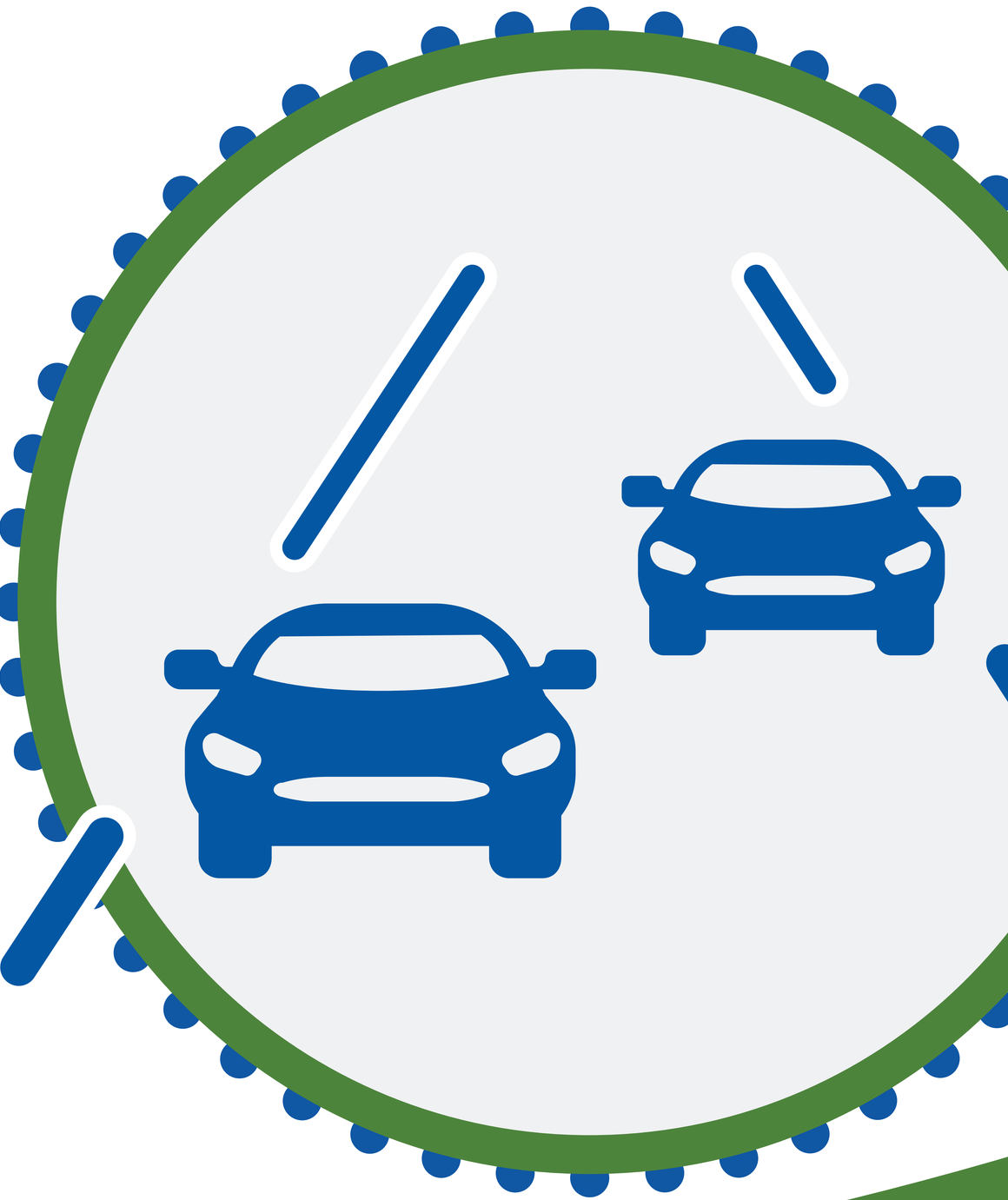
**TRAVEL TIME & RELIABILITY BENEFITS**

**DEPENDABLE ROUTE FOR TRANSIT**

**ADA-COMPLIANT BICYCLE AND PEDESTRIAN FACILITIES**

# Non-Tolled Improvements

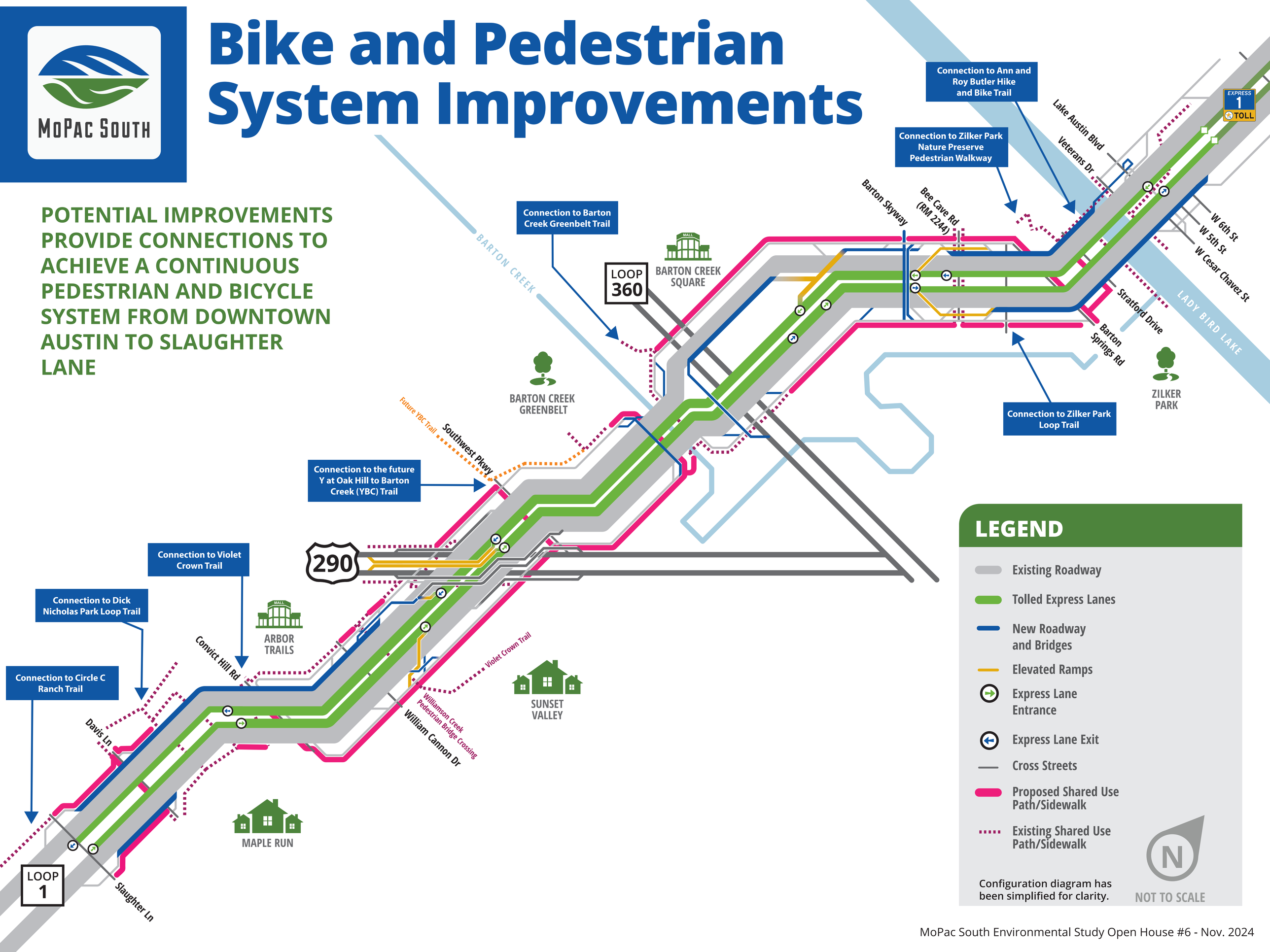
- Sixth Street and Cesar Chavez Street entrance ramps to southbound MoPac
- Widens existing bridge over Lady Bird Lake to five non-tolled general-purpose lanes in both directions
- South-to-north non-signalized U-turn at Barton Skyway
- Southbound non-tolled bypass lanes for Bee Cave Road and Barton Skyway entrance to southbound MoPac to bypass signals
- Repaved general-purpose lanes throughout corridor
- Shift the southbound Bee Cave Road exit ramp further north to allow for safer weaving for westbound Bee Cave Road traffic
- Ramp operational improvements on the northbound frontage road north of William Cannon
- Increased pedestrian and cyclist opportunities



MoPac South

# Bike and Pedestrian System Improvements

## POTENTIAL IMPROVEMENTS PROVIDE CONNECTIONS TO ACHIEVE A CONTINUOUS PEDESTRIAN AND BICYCLE SYSTEM FROM DOWNTOWN AUSTIN TO SLAUGHTER LANE




## LEGEND

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- Express Lane Exit
- Cross Streets
- Proposed Shared Use Path/Sidewalk
- Existing Shared Use Path/Sidewalk

Configuration diagram has been simplified for clarity.

N

NOT TO SCALE

# Stay Involved

*Submit a Comment*


*Sign Up for Our Newsletter*

*Follow Us*

*Contact Us Online*

*Contact Us By Phone*

# Official Comments Submittal

## TO BE INCLUDED IN THE OFFICIAL RECORD FOR THE OPEN HOUSE, YOUR COMMENTS ON THE RECOMMENDED BUILD ALTERNATIVE AND ENVIRONMENTAL STUDY ELEMENTS MUST BE RECEIVED BY SUNDAY, DECEMBER 29, 2024.

**You may submit in many ways:**

### *In Person Today*

**Tues., Nov. 12, 2024**

### *Email*

**MoPacSouth@ctrma.org**

### *Online*

**voh.MoPacSouth.com**


### *Mail*

**Central Texas Regional Mobility Authority**
c/o MoPac South
3300 N. IH-35, Suite 300
Austin, Texas 78705

**Comments submitted outside the official comment period or via other channels than those listed above will not be considered part of the record for this open house.**