Regional Context

How we develop our communities directly affects how we travel.

Topography and natural features have accommodated development patterns in which east-west travel is predominant, and north-south travel is difficult. Our neighborhoods are low density and separate from our employment centers. This creates a dependence on the automobile, separates our communities, limits our transportation choices, results in regional congestion problems, and localized circulation conflicts for all modes of travel.

- The existing development density of our region does not support transit/alternate modes; mixed use and development diversity is necessary to provide integrated, sustainable communities.
- Abundant parking reinforces auto-centric behavior. Parking pricing and supply policies can dramatically change auto use and influence transportation choice.
- Safe connections for all modes of travel are needed within and between existing neighborhoods, communities, and economic activity centers.
- Facilities for non-motorized travel (pedestrian, bicycle, buggy) to serve/access neighboring communities, schools, downtown shopping, basic services and commercial corridors are not available.
- Greenway corridors can provide an alternative transportation mode, with concentrated effort on filling in gaps and connecting corridors.
- Large vehicles (trucks and busses) experience difficulty reaching their destination due to physical barriers for north-south travel, maneuvering (turning radii, clearances, utility poles, parking), as well as traffic delays/congestion.
- At-grade railroad crossings create delays and divert traffic onto residential streets.
- Traffic from residential developments has difficulty turning onto collector/arterial streets to access regional destinations.
- Improvements to current fixed route transit service are needed to improve the speed and efficiency of bus movement to be competitive with automobile travel. Expansions of the transit system are necessary to address the non-traditional city to suburb and suburb to suburb commutes which have evolved from our regional development patterns and past investment priorities.
- Long term transit improvement activities should include both bus and rail investment, coordination among local providers and park and rides, transfer facilities including Amtrak and HIA continuity, and other "amenities" to support frequent and convenient ridership.

Maintaining existing infrastructure in good operating condition is a perpetual challenge and increasingly expensive.

More than half of the highway miles in the region are considered in "good" condition, with the federal aid system accommodating over 85% of the daily vehicle miles traveled (DVMT). Roadways not on the federal aid system are twice as likely to be in "poor" condition.
Bridges throughout the region have a similar condition. About 20% are structurally deficient and functionally obsolete, with half less than 50 years old; nearly one-third far exceed their 50-year design life, topping 70 years or more. Again, more severe conditions occur on the local system:

three times more locally-owned bridges are posted or closed than state-owned bridges; 22% of the local bridges need to be replaced, 11% of the state-owned bridges.

The current road and bridge conditions noted reflect an investment strategy which targets improvements on the larger highways and bridge system, where the most miles are traveled. With scarce funds and increasing costs in the long term, the condition of local roadway and bridge network will continue to worsen if alternate funding sources are not pursued. Local facilities will be unable to compete for the diminishing available funds needed to maintain the region's more heavily used highways and bridges in "good", structurally sound condition.

The region's worst levels of service (LOS D, E, F) are on the largest highways with the greatest traffic volumes (AADT). Locally, congestion is generated by difficult turning movements, intersection/offset alignments, varying road widths/bottlenecks, signal timing/phasing, incidents and special events. CAT fixed bus routes currently operate at a level of service "A".

Incident/traffic management is an important component of improved safety and reduced congestion, which can be further improved with continued investment in advanced technologies (ITS), traveler information as well as alternate routes.

- Once built, facilities must be maintained forever; costs will not decrease over time.
- Increasing the operating efficiency of existing infrastructure by accommodating multiple functions (walking, biking, driving, bus, rail, buggy) and promoting transportation choice can ease maintenance demands on highways and bridges, reduce VMT/congestion, speeds and increase safety.
- Locally, congestion is generated by difficult turning movements, intersection/offset alignments, varying road widths/bottlenecks, signal timing/phasing, incidents and special events.
- Safety is affected by how the transportation system is designed, constructed, operated and maintained and often jeopardized by speed. Physical conditions such as sight distance, pavement rutting, curves, drainage, and alignments also impact safety.
- Properly maintained and operating transportation infrastructure is necessary to access emergency services and provide functioning evacuation routes.
- Transit capital investments must also be maintained to provide continuous, adequate service.

The improvement and operation of our transportation system needs to maintain a commitment to the environment and quality of life.

The region's transportation infrastructure affects, and is affected by, the natural and human environment. Drainage, stormwater runoff, flood control and natural contours impact water quality, safety, and mobility. Air pollutants generated from vehicle emissions create health and visibility concerns. Wildlife and habitat are impacted through land consumption and habitat fragmentation.

Deterioration of the environment can eventually lead to a decline in the quality of life, changes to the unique sense of place associated with our region, and potential losses to our leading economic industries (agriculture, tourism -- hunting and fishing). Greater consideration of our

environmental resources and systems during transportation project development may introduce alternatives to traditional development and engineering which, in turn, can reduce overall improvement costs and offer greater transportation choice in the long term.

- Health and livability can be improved through air quality initiatives, including reduced vehicle emissions and greenhouse gases (GHG) efforts by reducing VMT and providing transportation choice.
- Reducing energy and oil consumption can provide for a more sustainable transportation system.
- Transportation infrastructure can lessen its impact on drainage/runoff, erosion, sedimentation and its attendant flooding by investing in alternate modes.
- Interest continues to grow in the regional community for 'smart growth' policies: Keystone Principles, Smart Transportation initiative, and natural resources stewardship.
- Affordable access to jobs/housing/services is essential to create a livable region.

Economic competitiveness and quality of life can be improved through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers. This is complemented by expanded location-efficient and energy-efficient housing choices to increase mobility and lower the combined cost of housing and transportation.

The HATS region is a critical location for truck and rail-based movement of goods, due to the area's excellent interconnectivity with and proximity to major population centers. The region's strategic location and strong interconnectivity passes approximately 8-10% of the US Gross Domestic Product (GDP), or $1 trillion, through our region.

Addressing the factors that negatively impact system performance, through physical or operational roadway improvements and improved incident management, will enhance goods movement, trucks will be able to operate more effectively, and the overall transportation network will be improved.

- Bottlenecks, both due to physical roadway design and traffic incidents, are a major delay for trucks. Other potential delays are:
    - Low clearances – truck and rail
    - Narrow widths, turning radii
    - Truck parking – to accommodate interstate and local deliveries
- Intermodal connections are essential to support competitiveness.
- Grade separations are needed.
- Public-private partnerships are essential to future funding opportunities.

Scarce funding requires efficient and targeted use of available resources.

The complexity of issues surrounding transportation (consumer demand, jobs, housing, and community development) can only be addressed through an integrated planning and investment approach to create a sustainable transportation system.

- Federal, state and local sources are uncertain; competition for whatever funding is available will be intense.

- Bringing additional transportation funds to the HATS region beyond traditional sources is a necessity. Utilize the collective abilities of our region's transportation 'stakeholders' (including economic development, housing, planning, environmental, and social agencies) as necessary to create a transportation network that meets our mutual, long-term needs.
- Take advantage of new funding and grant programs based on revised transportation policies at the federal level, such as the HUD-EPA-DOT partnership: Sustainable Community Planning Grant and Sustainable Communities Challenge Grant programs