

Transportation Element



Narrative

The City's past and projected future growth will require significant ongoing transportation investments. The type of future we desire for the City will in large part be determined by the transportation investments we plan today. It is anticipated that automobile travel will continue to dominate the transportation system, but a higher portion of the population using alternative means of transportation will make the overall system more efficient and effective, mitigate the impacts of automobile use, increase overall mobility and absorb increased growth. Alternative transportation methods have been rising in South Jordan and through the objectives of this plan, the City intends to establish an environment for the continued establishment of a land use pattern that will compliment and enhance a complete transportation system. The basic principles that will form future transportation decisions are safety (CPTED principles), accessibility, mobility and balance. The transportation system should support the City's vision for the future.

Multimodal Options

Due to the dominance of the automobile, roadways and parking could continue to dominate the built environment. However, it is not economically, environmentally, or socially sustainable to provide enough roadways to continue avoiding significant levels of congestion

indefinitely into the future. The City desires a future that provides options for alternative modes of transportation. It is important that the City support services and facilities for various types of travel. Alternatives will not only provide for a more effective transportation system through reduced congestion, but also through increased mobility and accessibility to a greater portion of the population (special needs, seniors, low-income).



Walkability

The ability to reach a destination by walking is often limited by development patterns. Other constraints include distance to destination, automobile convenience, time constraints, weather, and inaccessibility. Certain elements make pedestrian activity more appealing and more likely; larger sidewalks, separation from automobiles, lighting, trees, shade, and a general sense of safety. Many roadway elements (lighting, street widths, etc.) typically designed for motorists are inadequate for

pedestrians. Improvements in these areas will increase the likelihood that walking will be used as a means of transportation. People are encouraged to walk when they consider the place safe, convenient, and comfortable. These same improvements contribute to the quality, vitality, accessibility, public health, and sense of community in the area. There is a great opportunity within South Jordan to improve walkability.



Pedestrian toolkit:

- pedestrian traffic signal and countdown
- connected pedestrian pathways
- curb radius reductions
- curb ramps
- education/awareness
- enforcement
- crosswalk treatment (stripping, materials, lights, raised, median refuge)
- buffers (on-street parking, trees, parkstrip)
- human scaled lighting
- bridge/grade separation
- reduced widths at cross-walks
- walkways (sidewalk, plazas, courts)
- street furnishings (benches)
- shade (trees, overhangs)
- traffic controls (traffic signs)

- turn restrictions (no turn on red)
- interconnected streets

Bicycles

Given adequate conditions, many trips could be taken by bicycle. Recent development patterns have largely not accounted for conditions that encourage bicycle use. As with walkability, biking is encouraged by separate, safe, convenient and comfortable bikeways. Biking also increases with access to activity centers, transit, and secure storage.

Bicycle use classification:

- Class I - bike paths (separate, more recreational, access to nonroad areas)
- Class II - bike lanes (Striped lanes along traffic, visible encouragement)
- Class III - shared roadway (bicycles legal vehicles and common on low-volume roads)

Transit

Transit ridership is often a small percentage of the population. It is expected that transit use will long be a small portion of the City’s transportation system. The use of transit, even by a small minority of the population, contributes to the overall well-being of the entire population. The small decrease in auto use by those riders has a significant impact on. Many studies have found that increasing freeway capacity leads to an almost identical increase in use with in a short period of time, leading to no net benefit in terms of congestion. Transit users reduce demand and congestion of roadways. Transit may also be the best option for everyone occasionally. When special events (sporting event, conventions, concerts, etc.) are accessible by transit,

greater portions of the population will benefit from transit use. Transit can move more people using less land. “A rail transit line can carry more people in a 100-foot right-of-way than can a six-lane freeway, which requires a 300-foot right-of-way.” (Weyrich & Lund, How Transit Benefits People Who Do Not Ride It) Greater transit use also decreases the amount of land needed for parking. Within the Salt Lake Valley, transit is generally understood to be UTA bus service, light-rail, and commuter rail. South Jordan City, however, recognizes the potential benefits of a city wide shuttle service connecting the major retail, commercial, and employment areas within the City. Research is currently underway and further research will be needed to determine when this would be a viable enhancement to the City’s transportation system.



Automobiles

Vehicle miles traveled (VMT) is a measurement of the amount of car miles traveled over an amount of time by a given population. It is a factor in air quality and congestion. Transportation investments have a significant impact on VMT for a region. While VMT per capita is decreasing along the Wasatch Front, population growth may account for a near doubling of total VMT over the next thirty years. (Utah Governor’s Office

of Planning and Budget, 2008 Baseline) As the automobile will continue to dominate transportation, it is crucial that automobile mobility and accessibility not be overlooked as other modes are promoted. However, future roadway investments should consider ‘complete street’ principles, considering the needs of all types of uses. ‘Complete Streets’ will need to incorporate traffic calming elements. Traditional (Pre-World War II) street patterns are also growing in popularity. Traditional Neighborhood Design (TND) principles are based on a system of interconnected streets laid out on a grid pattern. A TND system provides optional routes for auto users and decreases trip distances for bicycles and pedestrians.

Traffic Calming toolkit:

- angled street parking
- angled slow point
- chicane
- choker
- curb radius reduction
- curve treatment (medians)
- enforcement
- entrance/gateway treatment
- intersection treatment (raised, bulb-outs)
- speed indicator
- crosswalk treatment (raised, ped median refuge)
- realigned T-intersection
- stripping
- roundabout
- signage
- speed bump
- median
- partial street closure
- right-in/right-out
- turn restrictions

Integrate Land Use and Transportation

Multimodal options become more viable and vehicle miles traveled decreases when transportation is successfully integrated with land use. The city desires a transportation system that supports the other elements of the plan, specifically land use, and in turn a land use pattern that increases mobility and accessibility with an efficient and safe balance of travel modes. It is important that both land use and transportation decisions and investments support the future we want to create and the history we want to preserve.

In many places through out this plan, the integration of land use and transportation is dealt with from the need to increase land use intensity at appropriate transportation facilities and corridors. It is also important to consider those areas where intensity should be kept at a minimum, specifically as we seek to preserve our existing rural and semi-rural neighborhoods. Higher intensity uses are only appropriate along major corridors, specifically at intersections with other major corridors, and within designated villages, centers, and the TOD. South Jordan's semi-rural and rural neighborhoods do not typically lend themselves to a walkable environment. However, by increasing the range of uses and accessibility to transit along major corridors, combined with a focus on increasing interconnected streets, it is intended that residents within the City's existing residential blocks will have destination options available to them within a walkable distance (1/4 mile). While the main objective of transportation is the movement of goods

and people, another fundamental objective of the transportation system is bringing people together. This is done by the appropriate integration of land use and transportation.

The village/center/corridor strategy should increase uses within a walkable area, provide access to multiple modes of transportation, and minimize transportation impacts on the surrounding environment. The strategy is as much a transportation strategy as it is a land use strategy

New development and redevelopment should support the goals of multi-modal options, land-use integration, and safety for all users by considering:

- Interconnected Streets
- Higher density in appropriate locations
- Mixed-use where appropriate
- Complete streets

Parking Management

The comprehensive approach taken by this plan allows for the opportunity to reconsider parking requirements. Historically, parking has been oversupplied to ensure access for automobile users. The cost of parking is rarely considered by the user as it is typically provided at no direct charge within the City. The cost of parking is not paid for directly by the user, but the cost of providing and maintaining that parking is paid for indirectly through the cost of goods and services. Parking is also a considerable consumer of valuable land. A true multi-modal system with appropriate integration of land use and transportation creates a

new perspective to parking management. Methods for decreasing parking needs are encouraged.

Parking Management Toolbox:

- public/shared parking
- in-lieu fees
- angle parking
- min/max parking

- tandem parking
- pricing
- time limits
- valet
- parking permits
- parking districts
- code enforcement

GOALS & POLICIES

Goal T-1 **Design transportation facilities to assure efficient traffic flow through the City with appropriate connections to the regional transportation system.**

- Policy T-1.1 Design and plan South Jordan City's transportation system to assist in meeting the General Plan's Land Use Goals.
- Policy T-1.2 Preserve the tranquility of residential neighborhood areas through circulation design that slows traffic flows and encourages safe driving practices.
- Policy T-1.3 Implement appropriate 'traffic calming' techniques to protect neighborhoods and discourage 'cut through' traffic.

Goal T-2 **Improve traffic flow and circulation to major activity centers, within and without the City.**

- Policy T-2.1 Provide a street system that operates at a minimal level-of-service standard for high peak traffic volumes and where passing through an intersection can be accomplished in a reasonable amount of time.

Goal T-3 **Re-assess appropriate street standards, cross-sections, and connectivity throughout the City.**

- Policy T-3.1 Design highways, arterials, and collector streets to discourage the splitting or isolation of neighborhoods, communities, and open space.

- Policy T-3.2 Provide alternative ways of increasing roadway capacity, including demand management and system management strategies prior to advancing roadway widening projects.
- Policy T-3.3 Create a more open feel to the community and help tie neighborhoods together by allowing back facing development and walls only in limited areas of the City.
- Policy T-3.4 Implement 'Complete Street' principles when planning or improving City streets by doing the following:
 * Emphasizing 'people first' infrastructure: non-auto design, including biking, pedestrian comforts, crosswalks, streetscape, and street furniture.
 * Promoting neighborhood connectivity by discouraging or prohibiting cul-de-sacs, except where no other street layout is practical.
 * Prohibit private streets/driveways except where it can be shown that a public street system is not practical or desirable.
- Policy T-3.5 Require appropriate automobile and pedestrian connectivity between subdivisions and neighborhoods.
- Policy T-3.6 Design subdivision streets and connections to 'spread' traffic, rather than concentrating it.
- Policy T-3.7 Require secondary access for new developments based upon the number of proposed lots and/or length of street.
- Policy T-3.8 Look for innovative ways to provide access or at least emergency access to existing 'landlocked' developments.
- Policy T-3.9 Re-assess need in regards to current street width requirements, including asphalt, sidewalk, and parkstrip cross-sections.
- Policy T-3.10 Consider modified or alternate street cross sections for potential ROCD (Rural Open Space Conservation Development) areas of the City.
- Policy T-3.11 Provide design standards for the review and approval of a limited number of 'flag lots' with rear driveway access where appropriate.
- Policy T-3.12 Promote safe integrated residential neighborhoods and social equity by prohibiting gated communities and by encouraging CPTED (Crime Prevention Through Environmental Design) standards.

Goal T-4 **Set safety of the transportation system as a high priority and work diligently to meet applicable safety standards.**

Goal T-5 **Enhance City image through appropriate streetscape design, recognizing aesthetic considerations as an important element of street cross-sections, i.e. trees, hardscape, softscape and limited turf.**

Goal T-6 **Implement a balanced multi-modal approach to transportation and mobility that considers mass transit, bicycles, pedestrians, and other alternative transportation modes to the automobile.**

Policy T-6.1 Encourage and take advantage of all modes of transportation, including mass transit options.

Policy T-6.2 Encourage regional transit systems and City connections thereto by supporting a Trax line extension from the Civic Center Trax Station to the South Jordan Front Runner Station, the new Mid-Jordan Trax line extension to Daybreak, and transit expansion in the West Daybreak area in conjunction with the West Salt Lake County Transit Study.

Policy T-6.3 Develop a reliable 'low fare' or 'no fare' intra-city shuttle/trolley that will connect business/commercial areas, schools, recreation centers, employment centers, regional mass transit stops, and other community activity centers with a system design that promotes ridership and allows the general public to conveniently shop, recreate, and access needed services within the City.

Policy T-6.4 Work with UTA for additional bus routes and a higher level of bus service in the City, addressing in particular the mobility needs of seniors, children, and the handicapped.

Policy T-6.5 Integrate bus routes with other transportation modes and coordinate proper location and spacing of bus stops and shelters.

Policy T-6.6 Require and design, as appropriate, bus turnout lanes to minimize traffic flow obstruction in major commercial areas and higher density residential areas of the City.

Policy T-6.7 Improve east-west mobility on 9800 South, South Jordan Parkway, and 11400 South, as well as on Redwood Road, through bus rapid transit (BRT) lines or other mass transit.

Goal T-7 **Implement useable networks for bicycle use and pedestrian pathways, trails, sidewalks, and walkways as viable options to the automobile.**

- Policy T-7.1 Conduct public information programs and publish promotional materials to increase public awareness of bicycle and pedestrian facilities and safety issues.
- Policy T-7.2 Update the City's bicycle plan to identify key bicycle connections to link activity centers, and to connect to the regional bike/trail system.
- Policy T-7.3 Implement design standards for Class I, II, and III bicycle trails and integrate them into other modes of transportation.
- Policy T-7.4 Encourage bicycling by requiring bike racks at shopping centers, public buildings, schools, and parks, and by providing bike rentals near the Jordan River Parkway and bicycle storage facilities at key transportation nodes within the City.
- Policy T-7.5 Implement policies for the creation of a walkable City by identifying key pedestrian connections, requiring tree lined streets and pedestrian access between neighborhoods and activity centers, i.e. shopping centers, schools, parks, community facilities, and mass transit.
- Policy T-7.6 Improve pedestrian safety and walkability by identifying key walking desire routes and potential pedestrian conflicts when connecting activity centers, and then provide appropriate crosswalks, crosswalk systems, and other pedestrian connections.
- Policy T-7.7 Update the City's trails plan to connect with the regional trail system and to identify key trail connections to link activity centers.
- Policy T-7.8 Set as a goal the provision of a safe and conveniently accessible walking/biking/mass transit/activity center experience with ¼ mile of all City residents.
- Policy T-7.9 Require sidewalks with tree-lined parkstrips on both sides of all streets, particularly on arterial and collector streets, unless separated pedestrian pathways are provided.

Goal T-8 **Implement innovative methods of reducing vehicle trips and improving air-quality.**

Policy T-8.1 Encourage efficient mass transit services to help with the community goals of energy efficiency, air quality, and congestion mitigation.

Policy T-8.2 Implement living healthy programs that encourage active lifestyles wherein residents will be more apt to use modes of transportation besides the automobile for their day to day needs.

The complete Master Transportation Plan for South Jordan will be referenced under a separate cover in an appendix of the South Jordan General Plan.