**Chapter Two
Transportation and ~~Circulation~~ Mobility**

**2.1 Introduction**

Transportation and mobility are essential to Provo's fabric, growth, and character and are crucial factors in the city's lifestyle, health, and well-being. Provo’s transportation and mobility systems balance accessibility and convenience with public safety, economic and environmental considerations. Steps need to be taken to ensure that an adequate transportation and circulation system will be available for the future. Alternative modes of transportation and mobility are needed to increase the effectiveness of the current system and reduce demand on existing resources. Other ways to increase effectiveness and reduce demand for transportation include community design, increasing mixed uses and integrating neighborhood commercial nodes.

**2.2 Background**

The Transportation and Circulation Element of the General Plan will concentrate on both the current status and future proposals for improvements in the transportation system. Those areas include the headings found in Table 2.1.

| **TABLE 2.1 – TRANSPORTATION AND CIRCULATION HEADINGS** |
| --- |
| 2.2.1 Regional Planning | 2.2.7 Air Transportation |
| 2.2.2 Land Use | 2.2.8 Railroads |
| 2.2.3 Street System | 2.2.9 Transportation Demand Management |
| 2.2.4 Bike Paths | 2.2.10 Parking |
| 2.2.5 Pedestrian Paths | 2.2.11 Funding |
| 2.2.6 Public Transportation | 2.2.12 Education |

**2.2.1 Regional Planning**

In addition to Provo City, five other entities - the Utah Department of Transportation, Utah Transit Authority, Utah County, City of Orem, and Springville City–influence transportation within Provo City. Mountainland Association of Governments (MAG) has a responsibility to ensure that each of these entities considers area-wide transportation planning in Utah County. As the metropolitan area continues to grow, there are increased transportation impacts on Juab, Salt Lake, and Wasatch counties. If Provo City is to be successful in controlling its transportation future, cooperation and coordination with other jurisdictions and agencies is essential. See Mountainland Association of Governments’ TransPlan40.

Economic issues may create major impediments to regional land use planning. Every jurisdiction should develop its own commercial and industrial developments to maintain a stable economic base. There is competition among these jurisdictions to lure tax revenue-generating businesses. Without cooperation in the planning of land uses, regional transportation plans fail to adequately address the impacts of land use decisions across jurisdictional boundaries.

Economic development desires can impact decisions relating to the planning and operation of the transportation system. Many of the incentives and disincentives used to influence the transportation choices are ineffective or economically unacceptable if implemented inconsistently or by only one jurisdiction. The vision and direction expressed in the General Plan and Transportation Master Plan must be shared with and understood by other jurisdictions and transportation agencies for these visions to be fully successful. Provo City looks to these agencies and jurisdictions for a cooperative partnership in helping Provo City to achieve the objectives contained in the City’s master plan documents.

**2.2.2 Land Use**

There can be no doubt of the link between land use and transportation. The types of land uses and their locations influence the travel patterns of an area. In the past, the primary solution for congestion was to build newer roads and additional travel lanes. This approach, which is very costly, does little to discourage more sprawl in growth patterns, resulting in further increased levels of congestion.

As the transportation and circulation system in Provo City is modified to be more transit-oriented and allow greater options for other modes of travel, we need to recognize the benefits of matching land use patterns with the total transportation and circulation system. The Transportation Master Plan should consider the Land Use context and future land use recommendations identified in the General Plan, including the area specific neighborhood plans.

Utah Transit Authority’s Bus-Rapid Transit provides opportunities for transit-oriented development along a corridor connecting Provo Towne Centre Mall, the Intermodal Hub, downtown, south BYU campus, shopping areas along University Avenue and University Parkway and into Orem City, terminating past Utah Valley University at the Orem Intermodal Station. Additional, well-planned, density around these major transit stops will contribute to increased transit ridership and may result in decreased vehicular demand on the overall street network.

Allowing neighborhood commercial uses in residential neighborhoods provides economically viable services within walking distances of the users. New commercial developments can be designed to better interact with non-motorized modes of transportation. For example, bicycle racks and shower/locker room facilities can be provided by employers to encourage bicycling, walking, and jogging.

**2.2.3 Street System**

The street system is the circulatory system of the city, providing routes for the movement of goods, services, and people. The street system provides both access and mobility. Many roads in Provo are laid out in a grid pattern. The grid pattern allows for the greatest accessibility and spreads local traffic over a number of streets. This street pattern generally minimizes travel lengths to get from one point to another. However, recent developments have built streets that contain long block lengths and cul-de-sacs. Long block lengths and Cul-de-sacs often discourage walking in a neighborhood, and make it difficult to travel from one street to another. Further details of the existing street system are found in the Provo City Transportation Master Plan.

**2.2.3.1 Right-of-way Designations**

Within the city, streets serve different purposes; each is classified by its function and purpose. There are several types of rights-of-way, with various purposes and design standards as outlined in the Provo City Transportation Master Plan.

**2.2.3.2 Challenges**

Many arterial streets pass through residential neighborhoods and commercial developments. These streets need to function as designated in order to meet the legitimate travel needs for which they were planned and designed while being sensitive to the safety and quality of life needs of the adjacent land use. Although land use relates directly to travel demand, street classifications (particularly major streets) do not necessarily relate directly to the land use adjoining a street.

The street system doesn’t always function the way it is intended to function. Increased residential and economic growth inside and outside of Provo City and increased enrollment at Brigham Young University and Utah Valley University have put additional pressures on the City’s street system to accommodate travel demand. Currently, travel demand is primarily composed of automobile trips, which have steadily increased in number. As traffic volumes and congestion increase along the arterial streets, drivers look for less-congested alternatives. Hence, traffic spills over onto adjacent collector and local streets.

**2.2.3.3 Traffic Calming Measures**

Physical traffic management techniques the City could use as ’traffic-calming’ devices range from mildly restrictive to very restrictive. Methods for traffic calming are discussed in detail in the Provo City Transportation Master Plan. Area specific neighborhood plans have also identified many of the specific areas where implementation of these measures could be immediately beneficial.

**2.2.3.4 Education and Enforcement**

Traffic control enforcement is a key component of a traffic calming program, although enforcement alone should not be considered an effective means of managing traffic violations. In particular, police enforcement of speed limits and other traffic regulations is important to ensure compliance with these regulations.

A number of programs implemented in other communities may be beneficial for implementation in Provo. Salt Lake City, for example, offers a Neighborhood Speed Watch Program for residents who want to be actively involved in monitoring traffic speeds on their streets. Residents use radar equipment on loan to them from the Salt Lake City Transportation Division to record speeds of vehicles driving on local streets. Drivers found to be driving well over the speed limit are mailed an education pamphlet explaining safety concerns associated with speeding. This is an educational and awareness program; no citations or fines are levied.

**2.2.3.5 Traffic Signal Coordination**

Traffic signal coordination is effective in meeting some street system challenges. In general, traffic signal coordination results in fewer stops for traffic traveling at the speed limit along a major corridor. Decreasing traffic delays by reducing stops decreases vehicle emissions, resulting in better air quality.

**2.2.3.6 Street Conditions**

Street conditions vary greatly throughout the city depending, in part, on the type or classification of road. The Provo City Engineering Division ~~Department~~ inspects city streets on an ongoing basis and assigns each street a Remaining Service Life (RSL) value. The RSL value ranges from 0 to 20, with a value of 20 representing a new ~~condition category. The five categories assigned by the Engineering Department are 0-2, 2-4, 4-6, 6-8, and 8-10, with 0-2 being a dirt or gravel road and 8-10 for a newly paved~~ road in excellent and/or best possible condition. ~~Active~~ The Engineering Division manages annual programs to upgrade and maintain streets and continues to make improvements in the overall condition of Provo’s street network.

**2.2.3.7 Major and Local Streets Plan**

Provo City has adopted and maintains a major and local streets plan as a part of the General Plan (see Map # [8.1](http://www.codepublishing.com/UT/Provo/html/pdfs/map_8-1.pdf) Major and Local Streets Plan Map), which should be updated in conjunction with each General Plan update. The major streets designations identify the current and proposed location of all arterial and collector streets. The local street plan, which provides long-range planning for local neighborhoods, specifies locations of local streets that should be constructed to ensure that property within a given area can be adequately developed and serviced. To amend the major streets, a General Plan amendment is required. However, to amend the local streets, a General Plan amendment is not necessary.

**2.3.4 Bike Paths**

The popularity of cycling both for recreation and commuting to work is rising in Utah County. In 2014, Provo City adopted a Bicycle Master Plan that largely identifies the future vision for bicycle facilities in Provo. Conscious efforts should be made to continue construction of safer on-street bikeways and separated path and trail systems. Future bicycle and trail planning should be coordinated between the Provo City Transportation Master Plan and the Provo City Parks and Recreation Master Plan.

Provo has been recognized as a silver-level bicycle friendly community and will work towards becoming a gold-level bicycle friendly community as designated by the League of American Bicyclists. It is believed that many more people would commute to work and school by bicycle if safe and efficient bikeways were available. Bicycle commuting should be encouraged through an increased number of bike paths and on-street bike lanes, as it would reduce both automobile traffic and air pollution within the city. Provo City plans to significantly increase bike facilities within the city. Additional bike facilities would contribute to a network of safe and efficient transportation routes between residential areas, employment areas, recreational areas, and shopping areas. Employers can promote greater use of bicycles for commuting by providing showers, lockers, and secure and convenient bicycle parking for employees and customers.

As land and easement acquisitions and road construction projects occur, bike paths and bikeways will continue to be implemented and improved in Provo. Further network expansions are outlined in the Provo City Transportation Master Plan.

**2.2.5 Pedestrian Paths**

The City’s network of sidewalks provides a safe means for pedestrians to travel within their neighborhoods, to schools and other community amenities, and to connect to the Provo River Trail system. Walking has changed in popularity from the first, and often only, choice of transportation for nearly all people a century ago, to an activity now enjoyed by only a small percentage of our population. As urban growth spreads farther out into the suburbs, walking is increasing for recreational purposes, but is declining for all other trip purposes.

The City should make efforts to maintain a network of well-designed sidewalks and pathways to create the sense of comfort and safety necessary to encourage walking. Important design features include, but are not limited to, traffic calming techniques to reduce conflicts between automobiles and pedestrians, adequate lighting designed for pedestrians, and generous sidewalk widths. From a funding standpoint, it is impractical to propose building sidewalks in all areas where they do not exist; however, the City should make efforts to fill critical gaps and make improvements to the walkway areas as funding or development opportunities present themselves.

**2.2.6 Public Transportation**

The use of public transportation reduces the number of vehicles on the road and reduces the demand for parking. Transit increases the people-carrying capacity of our transportation system by increasing the number of people per vehicle. Bicycle and pedestrian connections for transit are important to the success of bus transit, as noted under the discussions of Bike Paths and Pedestrian Paths in this chapter.

Transit use is also impacted by land use. Higher densities of residential and commercial developments encourage more efficient use of transit. Additional transit centers should be considered to improve transit service anywhere with a concentration of shopping and employment. Large employers should be encouraged to locate in areas already served by transit or in areas easily served by an extension of the transit system. Transit stops should be conveniently located and comfortable. Information needs to be provided to inform people how the system works with routes, times, and dates of transit service.

**2.2.6.1 Provo Amtrak Train Station**

~~A new passenger rail station was completed and dedicated on May 15, 2002. The facility is located at 300 West 600 South. Amtrak passengers now have an enclosed waiting area, and the facility offers heat, lights, pay telephone service, paved parking, and a new platform. With the completion of this support facility, it is expected that Amtrak ridership will increase to and from Provo.~~

The existing passenger rail station located at 300 West 600 South was completed in 2002. According to the Rail Passengers Association, approximately 5000 to 6000 passengers arrive at or depart from this station each year, beginning or completing trips that average 686 miles.

**2.2.6.2 Utah Transit Authority**

The Utah Transit Authority (UTA) provides a variety of services in Provo City and the surrounding areas. The newest of these services is a Bus Rapid Transit (BRT) system that connects the Provo Towne Centre Mall, the Provo Intermodal Station, Historic Downtown Provo, Brigham Young University (BYU), The University Place Mall in Orem, and Utah Valley University (UVU), ending at the Intermodal Station in Orem. Additional services include FrontRunner Commuter Rail, Rideshare programs, and traditional bus service.

**2.2.6.3 Intermodal Station Planning: Bus Rapid Transit, Express Bus, Commuter Rail, Private Carriers, and Other Transportation Connections**

The Provo Intermodal Station site is generally located at 650 South Freedom Blvd and encompasses an area approximately 17 acres between Freedom Blvd, University Avenue, the south rail right-of-way and 750 South with a portion extending southward to 920 South.

The station accommodates FrontRunner Commuter Rail, bus-rapid transit and local bus service. Other transit options, such as taxi, rental car and greyhound bus service may be incorporated at a future date.

An Interim Transit-Oriented Development zone has been adopted for the site and the immediate area. The purpose of the interim zone is to prohibit incompatible uses for TOD and to establish acceptable development minimums should a development be proposed prior to the adoption of a comprehensive plan and zoning strategy.

**2.2.7 Air Transportation**

Provo City’s Municipal Airport has been in operation at its present location since 1943. It provides complete General Aviation (GA) service for the Utah Valley area and the southern portion of the Wasatch Front. While there is no question that the Salt Lake City International Airport will remain the predominant airport in Utah, Provo’s airport has limited commercial service and Provo is interested in expanding routes. It has also undertaken a major expansion by Duncan Aviation of its corporate aviation maintenance facility. ~~However,~~ As growth continues in Utah Valley, ~~the viability of~~ the Provo Airport will need to ~~continue to~~ grow as well. Plans for expansion and detailed information are outlined in the Provo City Airport Master Plan, which as of 2018 is in the process of being updated.

**2.2.8 Railroads**

Freight rail service in Provo City is provided by the Union Pacific Railroad, the Utah Railway, and the Burlington Northern Santa Fe Railroad. The mainline tracks pass through Provo, paralleling South State Street, 600 South, and I-15. Approximately 25 trains pass through Provo on a daily basis. Many of these trains are interstate trains that do not stop or switch in Provo. Some trains cause minor delays and inconvenience for motorists and pedestrians at designated crossings. Future plans for addressing these conflicts are discussed in the Provo City Transportation Master Plan.

**2.2.9 Transportation Demand Management**

Transportation Demand Management (TDM) is a system of actions intended to alleviate traffic problems through improved management of vehicle trip demand. The purpose of TDM is to maximize the movement of people, not vehicles, within the transportation system. Provo City recognizes TDM as a powerful tool in reducing congestion, improving air quality and community livability. TDM strategies should be included in periodic reviews of the City’s Transportation Master Plan.

**2.2.10 Parking**

Parking can be a significant contributor to advancing the community’s economic development goals as well as helping to improve the overall experience of accessing Provo’s pioneer neighborhoods and downtown business district. The Provo City Parking Master Plan identifies both short and long-term goals for the development of a forward-thinking and holistically-managed public parking system. See the Provo City Parking Master Plan for information about objectives and organization related to parking.

**2.2.11 Funding**

Funding for transportation is divided into two categories: capital budget for the construction of new facilities and an operating budget to fund the day-to-day staffing and maintenance work of the City. A capital improvements program is developed as part of the City’s budget each year. Current funding sources for capital improvements in the City include: (1) General funds, (2) Community Development Block Grants, (3) Class “B” and “C” State of Utah gas tax, (4) Utah Department of Transportation funds, (5) Utility Transportation Fund, and (6) other grants.

**2.2.12 Education**

Public education can ~~has been demonstrated to~~ have a measurable impact on commuter choices and travel behavior. The Provo City Engineering Division and Community Development Department participate each year with the Utah Department of Transportation (UDOT), MAG/UVMPO, and other Utah County municipalities in an “open house” dedicated to local and regional transportation issues. These annual open houses provide an opportunity for Provo City residents to learn about transportation plans and construction projects and to provide input to the various public agencies. In addition to this open house, Provo City has formed a Transportation and Mobility Advisory Committee, which holds public meetings once a month to discuss ~~where~~ various transportation related issues ~~are discussed~~.

**2-3 Vision**

Vision 2030 states: Transportation and mobility are essential to Provo’s fabric, growth, and character. Population growth, transportation, and mobility have become crucial factors in the city’s lifestyle, health, and well-being. Due to its transportation system, Provo is able to:

* Move large volumes of traffic on arterial and collector roads to lessen traffic in residential neighborhoods;
* Provide alternative modes of transportation such as bus rapid transit and light rail, and provide sufficient bus routes, route alternatives, and incentives to encourage ridership;
* Use a state-of the art inter-modal hub to connect local entities such as BYU, downtown, Provo Towne Centre mall, the airport, venues, attractions, and entertainment; encourage ridership; and reduce traffic congestion; and
* Expand bike lanes and paths to increase the use of clean transportation. Trail and sidewalk systems provide safe, well-maintained and lighted areas that encourage walkability.

Transportation in Provo City balances travel demand with the need to provide for a healthy and vibrant community. Residents and employees within the City should have extensive opportunities to bike and walk throughout the City. Road building needs should be balanced with transit projects, trails, and bike lanes. With the City approaching buildout, emphasis should be placed on enhancement of our existing system over the addition of new streets. The vision of the future transportation system for Provo is influenced by the goals and objectives derived through various public outreach efforts. Further detailed analysis and implementation strategies for these goals and objectives are defined in the Provo City Transportation Master Plan. Consideration should be given to opportunities for expanded services for alternative fuel vehicles.

**2-4 Goals and Implementation**

**Goal 2.4.1 Promote connectivity for all modes of transportation to key locations throughout the City.**

2.4.1.1 Evaluate existing traffic and the current transportation system;

2.4.1.2 Provide direct routes from key locations in the City by promoting the use of alternative methods of transportation;

2.4.1.3 Use state-of-the-art technology to promote and enable use of automobile and non-automobile transportation options;

2.4.1.4 Provide bicycle and pedestrian-friendly streets and paths throughout the City with emphasis on areas of high pedestrian activity;

2.4.1.5 Ensure effective transportation and mobility systems are incorporated into the west-side development;

2.4.1.6 Focus mass transit options on commercial, business, health service, higher-education and government destinations;

2.4.1.7 Cooperate with UTA, UDOT, MAG and surrounding communities to implement regional transit connections;

2.4.1.8 Establish connection to key business centers;

2.4.1.9 Revisit City access control policies and procedures and evaluate how effective they have been in preserving traffic capacity on arterial and collector streets. Amend access control policies and procedures as needed to improve future traffic flow on major streets;

2.4.1.10 Study and take action to improve traffic signal coordination where feasible; and

2.4.1.11 Upgrade facilities and market the Provo Airport for commuter airline service.

**Goal 2.4.2 Augment and ensure proper maintenance of the current and future transportation opportunities in Provo.**

2.4.2.1 Reduce reliance on automobiles by encouraging alternative modes of transportation when cost effective and appropriate; Maintain and increase the allocation of resources toward the development of a Transportation Demand Management (TDM) program in Provo that encourages employees to utilize alternative modes of transportation (other than the single-occupant vehicle). Encourage incentives for major employers to participate in rideshare, car pool or other employee trip reduction programs.

2.4.2.2 Prioritize and preserve the existing multi-modal transportation system;

2.4.2.3 Identify adequate and sustainable funding to maintain existing transportation facilities;

2.4.2.4 Identify new funding sources for expansion and enhancement of the city-wide transportation network;

2.4.2.5 Reduce delays and blockages due to trains and train crossings, possibly by providing additional pedestrian and vehicle overpasses to the Union Pacific railroad tracks;

2.4.2.6 Design streets to favor mass-transit options;

2.4.2.7 Secure future rights-of-way for all types of transportation systems;

2.4.2.8 Improve pedestrian safety by evaluating pedestrian crossings, sidewalks, trails and overpasses;

2.4.2.9 Develop a congestion management plan that will encourage flex-time, rideshare programs, alternative methods of parking, and discourage driving to work and school;

2.4.2.10 Work toward becoming a gold-level bicycle-friendly city;

 2.4.2.11 Provide educational opportunities for how to safely use alternative transportation;

2.4.2.12 Amend zoning regulations to make new development and redevelopment more “user friendly” to bicyclists and pedestrians. Encourage businesses to provide appropriately designed and secure bicycle parking facilities;

2.4.2.13 Monitor street conditions and plan for the systematic resurfacing of streets, with emphasis on high-volume collector and arterial streets; and

2.4.2.14 Continue to work with neighborhoods desiring to implement options provided by City ordinance for parking permit programs.

2.4.2.15 Identify and support opportunities for the expansion of services and infrastructure supporting alternative fuel vehicles.

**Goal 2.4.3 Modify current street standards and encourage utilization of design tools to promote complete street design in appropriate areas of the City.**

2.4.3.1 Utilize design elements in the street rights-of-way in residential areas to reduce driving speeds and to make neighborhoods safe~~r~~ and ~~more~~ livable;

2.4.3.2 Encourage well-designed street plans, including complete street design parameters in conjunction with new developments;

2.4.3.3 ~~Adopt~~ Consider street design options from the Urban Street Design Guide by the National Association of City Transportation Officials and other national publications which support the vision of the City related to a safe, efficient and livable experience for all transportation modes;

2.4.3.4 Incorporate Complete Streets policy into the Transportation Master Plan to demonstrate Provo City’s commitment to providing a safe, comfortable, and convenient transportation network for all users and all modes.

2.4.3.5 Create walkable areas through the City. Walkable areas should be attractive, providing adequate lighting, a sense of safety, appropriate crossings, and social nodes;

2.4.3.6 Make design standards for public and private roads similar;

2.4.3.7 Design collector and arterial roads to support neighborhood residential streets;

2.4.3.8 Prohibit on-street parking on arterial and collector streets;

2.4.3.9 Define, identify and beautify the major entrances to the community;

2.4.3.10 Develop uniform street landscaping standards;

2.4.3.11 Continue to enhance the street tree planting program;

 2.4.3.12 Complete a collector and arterial road system (major streets plan) throughout the City;

 2.4.3.13 Establish acceptable service levels for roads and intersections and manage via TDM ~~limit~~ growth to maintain those levels;

2.4.3.14 Reduce the number of fatalities and injuries from traffic-related accidents;

2.4.3.15 Create a comprehensive safety management system for traffic.

**Goal 2.4.4 Promote easier navigation with appropriate signage and education throughout the city.**

2.4.4.1 Target key points of interest, such as public parking lots, restaurants, entertainment, lodging, medical, government, and other points of interest;

2.4.4.2 Continue to implement the wayfinding signage plan to enhance Provo City;

2.4.4.3 Inform the public of the benefits of public transportation; and

2.4.4.4 Continue the removal of billboards.

**Goal 2.4.5 Enhance Provo City Downtown as a destination.**

2.4.5.1 Identify and promote alternative routes which would help the need for vehicular through-traffic to use Downtown streets as a means of passing-though Provo; and

2.4.5.2 Balance current parking needs with a desire to eventually reduce excessive amounts of parking.