CHAPTER 8
TRANSPORTATION ELEMENT

INTRODUCTION

A safe and efficient transportation system for the movement of people and goods is needed to support existing and future development.

The Growth Management Act has very specific requirements for transportation elements. To meet these requirements, Electric City has prepared this element, which includes a transportation inventory, land use assumptions, travel forecasts, LOS standards, current and future transportation needs, and a transportation financial plan.

The purpose of this plan element is to identify the types, location and extent of existing and proposed transportation facilities and services (air, water and land including transit systems, pedestrian and bicycle uses).

RELATIONSHIP TO OTHER PLANS

Growth Management Act Requirements

This transportation element has been developed in accordance with Section 36.70A.070 of the Growth Management Act (GMA) to address transportation needs in Electric City. It represents the City's policy plan for the next 20 years and specifically considers the location and condition of the existing traffic circulation system, the projected transportation needs, and plans for addressing future transportation needs while maintaining established level of service standards. According to the GMA this element must include:

- Land use assumptions used in estimating travel;
- An overview of facilities and service needs;
- An analysis of funding capability and a multi-year financing plan to fund the needed improvements;
- Intergovernmental coordination efforts; and
- Demand-management strategies.

The following goal of the GMA relates to transportation:

Goal (3) Transportation – **Encourage efficient multi-modal transportation systems that are based on County-wide Planning Policies.**

The adopted Grant County County-Wide Planning Policies call for all county jurisdictions to coordinate planning efforts, including provision of current and future utilities, to address future growth in a coherent manner that leads to more efficient delivery of transportation facilities and services. Generally, the Countywide planning policies state:

- A Countywide transportation plan should be developed pursuant to the GMA that is consistent with the land use element of the comprehensive plan.
- Transportation development and improvements should be concurrent with future commercial, residential and other land use development.
- The Countywide transportation planning effort should produce a methodology to evaluate the impact of development proposals and to identify necessary transportation improvements.
- The County should establish countywide transportation facility standards.
- A County and regional review process should be established to coordinate transportation programming decisions and to ensure consistency with the regional transportation plan. Transportation priority programming methods should be used to establish the six-year transportation plan.
- The finance element of the transportation plan should show the ability of the County to fund existing and proposed transportation improvements in the unincorporated areas of the County.
- The County should strive through transportation system management strategies to optimize the use and maintenance of existing roads in order to minimize the construction costs and impacts associated with roadway facility expansion.
- The County should establish consistent roadway standards, level of service standards and methodologies, and functional classification schemes to ensure consistency throughout the County.
- State, regional, or county facilities that generate substantial travel demand should be sited along or near major transportation and/or public transit corridors regional priorities and coordinated with County and city comprehensive plans.
- The County should seek to foster a transportation system that is planned, balanced and compatible with land use densities so that adequate mobility and movement of goods and people can be maintained.

The City has undertaken the development of this Element of the Electric City Comprehensive Plan consistent with the preceding County-Wide Planning Policies.

Coulee Corridor Scenic Byway[1]

The coulees and canyons throughout the S.R. 155 corridor in which Electric City resides form a landscape like no other on earth. The area has been shaped by many natural forces: mountain building, subsidence to seas, volcanic activity and one of the greatest ice age floods on Earth. During the early stages of the Columbia Basin formation, granite rock was slowly created by heat and pressure deep in the crust of the earth. Then the crust was uplifted, exposing the granite, creating mountains similar to the Okanogan Highlands north of Grand Coulee Dam. Forty to sixty million years ago the formation of the outline of the Columbia Basin was complete. The land had subsided below sea level, and a large inland sea had formed. During the last Ice Age (18,000 to 12,000 years ago), and in multiple previous Ice Ages, cataclysmic floods inundated portions of the Pacific Northwest from Glacial Lake Missoula, pluvial Lake Bonneville, and perhaps from sub glacial outbursts. Eventually, the ice receded northward and the flooding episodes ceased.

Managed by the Coulee Corridor Consortium the organization's major functions are to promote sustainable tourism along with appreciation, interpretation, and stewardship of natural and heritage resources along the byway.

Major goals of the Coulee Corridor Consortium included efforts to;

- Offer an effective way to cultivate a greater appreciation for the region's natural and cultural resources.

Quad County Regional Transportation Plan

In addition to the GMA, comprehensive plans should be consistent with adopted regional policies. In June 2007, the Quad County Regional Transportation Planning Organization (RTPO) Regional Transportation Plan was adopted. The four counties comprising the RTPO include Adams, Grant, Kittitas and Lincoln and the incorporated municipalities therein. Policies in the Quad-County Regional Transportation Plan include the following:

General Transportation Issues

- Support economic growth and vitality;
- Ensure that growth and change in the transportation system within and near local jurisdictions are consistent with the regional and local comprehensive and transportation plans for those jurisdictions.
- Emphasize movement of goods and people rather than movement of vehicles;

[1] *Information from the Coulee Corridor Scenic Byway website at www.couleecorridor.info

- Ensure consistency with all environmental rules and regulations.
- Wherever possible, preserve existing and reserve abandoned rail lines in accordance with the Washington State Rail Transportation Plan;
- Consider the most cost-effective modes of transportation;
- Apply minimum standards for operation conditions, classification schemes, and performance measures; and
- Identify and implement strategies to resolve constraints to intermodal connections.

Multi-jurisdictional Coordination

- Ensure that transportation decisions and improvements are coordinated across all affected agencies and jurisdictions; and
- Communicate with the private sector to ensure that transportation decisions that impact private facilities are coordinated with the affected industries.

System Capacity and Improvement

- Focus on minimizing inefficient routing and lowering travel time;
- Whenever possible and practical, improve existing facilities rather than provide new facilities except where those improvements are demonstrated to have a lower cost and a higher benefit;
- Encourage major employers, activity centers, and others to establish programs for ridesharing and other transportation demand management (TDM) systems; and
- Encourage consolidation of freight facilities. Improve safety and capacity of roadways while retaining aesthetic features on tourist roads.

Roadway

- Match available funding with necessary improvements;
- Higher classed facilities receive higher priorities; and
- Ensure consistency of roadway classification system.

Public Transportation

- Improve mobility for population segments dependent on public transit. Provide viable alternative to Single Occupancy Vehicle (SOV) travel.

Land Use

- Support urban growth boundaries, urban nodes, residential centers and employment centers;
- Identify and encourage preservation of transportation corridors; and,
- Implement transportation improvements that enhance improvement of inadequate regional infrastructure.

Environmental Concerns

- Solutions to all identified transportation issues must consider their environmental ramifications.

MAJOR ISSUES

The following are major issues related to the transportation/circulation serving the community.

Safety

All citizens place considerable importance on the safety of the transportation system. Accidents are not only traumatic on a personal level but are also costly for society. These costs are felt in the form of increased medical costs, lost work time and economic productivity, and loss of property and possessions. Maintaining and improving Electric City's transportation system should aid in reducing or preventing accidents.

Mobility

Efficient movement of people, freight and goods is very important because it enhances the economic vitality of the region. Population growth over the next 20 years is hard to predict, but with the kinds of development presently being proposed and the growing interest in the Coulee Corridor Scenic Byway and Ice Age Floods story, traffic will likely increase over the planning period and vehicle miles traveled are projected to increase as well. Economic development can be improved or enhanced by careful selection of transportation improvements. The existing transportation infrastructure represents a significant investment of capital and labor. To protect this investment, the capacity and condition of the system need to be maintained. Maintaining or improving the transportation system will ensure that the quality of life and economic vitality are not

degraded.

Freight and Commodities Movement

Freight and commodities movement is critical to the economy of Electric City and Grant County. Given the changing nature of the region, it is important to consider how movement of freight and commodities are affected.

Alternative Modes

For most of this century, transportation improvements have emphasized the movement of motorized vehicles, especially automobiles and trucks. Alternative modes, such as bicycling and walking, have not been stressed. While it is expected that the motorized modes of travel will continue to account for the majority of transportation trips in the foreseeable future, both in the number of trips and in the distance traveled, there is a growing recognition that alternative non-motorized modes can play an important role in the transportation system, especially for relatively short trips. Encouraging these modes can lessen congestion, reduce maintenance of the built infrastructure, and reduce air pollution while providing health benefits to the users.

The Parks, Recreation and Open Space Element in this Plan and the adopted Parks and Recreation Plan (2017) recognizes the importance of development of paths and trails within the community as well as enhancing connections with nearby communities and facilities.

Sidewalks and walkways within existing rights-of-way are key to pedestrian circulation. Pedestrian facilities in Electric City are limited to the widen should and paved pathway that provides a connection to Grand Coulee.

Neighborhood Needs

The transportation system provides significant benefits to both the general public and to local neighborhoods. Neighborhood transportation projects can be designed to improve pedestrian facilities, traffic flow, stormwater collection and/or neighborhood safety. When transportation improvements are constructed, it is important to address the needs of the general public, individuals, properties, and neighborhoods affected by the project. Using appropriate funding sources, Electric City should work with local residents to identify and implement local transportation improvements.

Transportation Demand Management

Most solutions to increasing transportation system demands involve increasing the system capacity. This method is appropriate in many circumstances. However, in some cases, the capacity of the system can be “increased” by reducing the demand on

the system. Not all transportation demand measures are appropriate to Electric City. However, by selecting effective demand management measures, transportation system demand can be reduced and system capacity can be essentially “increased” at a lower cost. Effective demand management measures can have the added benefit of reducing air pollution. There is a strong connection between land use and its impact on the adjacent transportation system. By effective land use planning, demand placed on the transportation system by the adjacent land uses can be directed to corridors that have excess capacity, or have future improvements planned. The demand on a transportation system can be managed by providing opportunities to reduce the number of vehicles using the roadway system.

Funding

Financial resources constrain the number of transportation projects the City is able to implement. In order to maximize transportation improvements, it is important to pursue available funding opportunities. It is also important to utilize the funds available to Electric City in as efficient a manner as possible exercising fiscal prudence and innovative funding methods. Prioritization of projects permits the most important projects to be constructed first to better utilize limited available funds. Using a combination of these methods will increase the number of transportation projects the City can provide for its citizens.

LEVEL OF SERVICE AND CONCURRENCY

Concurrency

The GMA requires concurrency for transportation facilities. Concurrency management procedures will be developed to ensure that sufficient transportation system capacity is available for all proposed development. The City has adopted the Link (A-F) Level of Service standards for the arterials that handle the most significant volume of local traffic in the city. The Level of Service standards for any future transit facilities have been linked to the Level of Service standards for the arterials. These standards provide a measurable criterion to judge the adequacy of roadway service provision.

The process of establishing level of service standards requires the City to make quality of service decisions explicit. As specified in the Growth Management Act new developments will be prohibited unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development. Such improvements and strategies will be in place or financially planned for within six years of development.

Level of Service

This element contains Electric City's plan to provide specified levels of transportation service in a timely manner. Through the use of level of service (LOS) ratings, the City intends to create a comprehensive measure of the quality of service provided by roadways. LOS ratings describe how well each of the City's roadways performs as a part of the regional and local transportation system. The LOS standards that are adopted in this Plan will be maintained through upkeep of the existing circulation system and expansion of transportation services where needed.

The GMA requires that level of service (LOS) standards be adopted for all major routes to serve as a gauge for judging performance of the transportation system. Level of service is an estimate of the quality and efficiency of the facilities and services provided. It is a measure that describes the operational conditions on roadways and transit systems.

Traditionally, LOS ratings for roadways have been based on quantitative measures of roadway capacity, as defined in the Highway Capacity Manual. Given the characteristics of Electric City's traffic patterns, the traditional capacity analysis may not fully identify deficiencies. While all City streets demonstrate adequate capacity, some may be considered deficient by the public based on their physical condition. A capacity-based analysis supplemented with a condition-based analysis may yield a more accurate assessment of roadway system deficiencies. Such a condition-based analysis could consider factors such as:

- Lane width;
- Roadway width;
- Pavement width;
- Accident severity;
- Surface rating;
- Vertical and horizontal alignment adequacy;
- Pedestrian/bicycle facilities;
- Freight and goods mobility;
- Transit routes; and
- Destination routes for airport and rail freight.

For planning purposes, the City will use only a capacity-based system of establishing level of service. As part of an annual Plan amendment process, the City may elect to devise a condition-based level of service and analysis model. The analysis model could include some or all of the factors listed above, depending upon the data

available and routinely maintained by the Department of Public Works.

For a capacity-based level of service, the City adopts an A through F level of service standard as a minimum criterium for the quality of service provided at peak hours and average daily conditions for roadway segments on all arterials and collectors. The standard is based on the ratio of volume (V) to capacity (C) as follows:

LOS A: V/C<0.60

Primarily free-flow traffic operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delays at intersections are minimal.

LOS B: 0.60<V/C<0.70

Reasonably unimpeded stable traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tensions.

LOS C: 0.70<V/C<0.80

Stable traffic flow operations. However, ability to maneuver and change lanes may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds. Motorists will experience appreciable tension while driving.

LOS D: 0.80<V/C<0.90

Small increases in traffic flow may cause substantial increases in approach delays and, hence, decreases in speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. High density traffic restricts maneuverability.

LOS E: 0.90<V/C<1.0

Unstable traffic flow. Significant delays in traffic flow operations and lower operating speeds. Conditions are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing. Considerable delay, volume at or near capacity. Freedom to maneuver is extremely difficult.

LOS F: V/C>1.0

Traffic flow operations at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse signal

progression is frequently a contributor to this condition. Very low speeds, volumes exceed capacity, long delays.

To comply with GMA the City must decide what Level of Service will be considered the minimum acceptable standard of vehicle operation for the area. Commonly, LOS C or D is used as the minimum acceptable LOS for unincorporated rural areas and small towns, with LOS D or E being the minimum for most larger communities within the corporate limits, or UGA of a community. In determining potential capacity deficiencies within the City, for this Plan, we used the following LOS standards:

LOS B	**Roads in rural areas.**
LOS C	**Rural State Highways.**
LOS D	**City streets.**

Design Level of Service Standards

All other collector and arterials have been assigned level of service standards based on the following design features:

- All local streets are required to have right of ways of 40 to 60 feet and paved local streets are required to have pavement for 26 to 48 feet.
- All collector roads are required to have right of ways of 60 to 80 feet and paved collector roads are required to have pavement for 40 to 80 feet.

Transit level of Service Standards

The transit level of service standards must be carefully designed to ensure that they do not work at cross purposes with the arterial level of service standard. It is also important to ensure that the transit level of service standards would be achievable since the city itself does not directly provide transit service. Therefore, the City has not adopted a level of service standard for transit.

Capacity of the Circulation System

To ensure that level of service standards are realistic and achievable, the existing level of service for roadways was calculated. The results of the capacity analysis for all segments of local arterials and minor arterial roadways are illustrated below.

Table 8-1
Minor Collectors and Local Arterials

Name	Distance in Feet
Western Avenue	1,500
Electric Boulevard	2,480
Grand Avenue	3,300
Sunny Drive	1,408
Hillcrest Avenue	1,614
Total Footage	**10,302**
Total Mileage	**1.95**

*figures provided from Washington State DOT 6 year transportation plan

Table 8-2
Existing Capacity Analysis of Roadway System

Street Segment	Class	Lane	Type	V/C Ratio	Exist. Los	Adopt. Los
Western Avenue from SR 155 to Sunset Drive	Local Arterial	2	Undivided	A	A	A
Electric Boulevard from SR 155 to Sunset Drive	Local Arterial	2	Undivided	A	A	A
Grand Avenue from SR 155 to dead end I WSDNR Gate	Local Arterial	2	Undivided	A	A	A
Sunny Drive from Western Avenue to Fifth Street	Local Arterial	2	Undivided	A	A	A
Hillcrest Avenue from SR 155 to Electric Place	Local Arterial	2	Undivided	A	A	A

Application of the Concurrency Test

Before the city can project future transportation needs it must determine where in the development process it will test for concurrency. Because the City receives relatively few development permit applications and a single development may have a significant impact on the community as a whole, the City has decided to review each permit for concurrency at the time of permit application. This does not mean the applicant must be concurrent at the time of permitting; this is simply when the City will assess transportation capacity. The City will apply the concurrency test to any permit for more than a single dwelling unit or more than 1,500 square feet of commercial space. The City will determine existing levels of service on an annual basis as part of the comprehensive plan update. The plan outlined in this element addresses the City's concurrency management system.

FUTURE NEEDS AND ALTERNATIVES

This section of the Transportation Element explains expected increases in traffic volumes and identifies potential traffic problems. The Transportation Plan for improvements and expansion will be based on the following analyses:

- Analysis of roadway capacity improvements
- Analysis of roadway safety improvements
- Analysis of projected transportation needs

Analysis of Needed Capacity Improvements

After completing the inventory of existing capacity, the City of Electric City has decided that LOS C at peak hour is a reasonable and achievable standard to maintain for arterial roadways. Design standards as described above will be used to evaluate all other roadways in the City's planning area. Almost all of the roadways currently provide this level of service or better, even at peak hours.

The following analysis addresses those improvements that meet the definition of a "capital improvement" as used in the Capital Facilities Element. Such improvements are relatively large in scale, relatively high in cost (greater than $10,000), are generally non-recurring, and may require multi-year financing.

Future Roadway Needs

Improvements to the City’s street system are a part of the "Six-Year Street Program (STIP)" adopted each year by the City and are seen as important to meet future needs. The improvements are listed in the STIP in priority order. The streets and their improvements are listed in detail in the Capital Facilities Plan.

SYSTEM INVENTORY

The inventory presented in this element provides information useful to the planning process. This Transportation Element addresses all roads located within the city and UGA including those that are the responsibility of the Washington State Department of Transportation (state highway system), Grant County, or the city itself (all roads not privately owned or included in the above). Information on existing roadway functional classifications, the most recently available traffic volume counts, and accident frequency data was collected from the Washington State Department of Transportation, the county, and the city. The inventory includes:

- Location and Integration of Existing Transportation
- Method for Assessing Capacity of the Transportation System

- Capacity of the Existing Transportation System

Location and Integration of Existing Transportation

Traffic Circulation Within the City

The City examined the general traffic flow along the roadways to gain an understanding of the traffic circulation system as a whole. This description is not comprehensive but highlights major east-west roadways and north-south roadways. In addition, this inventory includes unique roadway links, such as roadways crossing natural barriers, links to commercial or industrial centers, important trucking routes, or links to highways.

There are approximately 68.4 acres of developed streets in Electric City. The City is bisected by State Route (SR) 155. WSDOT reports that the 2016 Average Annual Daily Traffic (AADT) was 3300 AADT at the intersection with Western Avenue (SR 155 milepost 24.24) and 1400 AADT at the intersection with Airport Road south of the causeway (SR 155 milepost 22.79) with 1600 AADT on SR 155 through Electric City.

Influence of Regional Traffic

Regional traffic has a considerable influence on traffic volumes within the city, therefore the inventory of the transportation system will need to include a review of the transportation plans for nearby cities and the Quadco Regional Transportation Planning Organization. No immediate changes in regional traffic flow through the city are expected.

Natural Traffic Barriers

Surface water, geological hazards, or other critical areas create natural barriers to-the traffic circulation system requiring special consideration when determining traffic volumes and an important tool for planning for the City's transportation needs. These are located in the Land Use Element.

Adequacy of Parking Facilities

Parking facilities include on and off-street parking, their adequacy, location, have an influence on the transportation system. In addition, because private entities are often involved in provision of parking facilities, the ownership and construction of parking facilities is also relevant to comprehensive transportation planning.

Mass Transit

Transit is an important alternative to automobile travel for either regional or local

trips. Transit is not only useful in reducing traffic volumes and pollution but is often the only means of transportation available to certain members of the community. In Electric City most individuals use automobiles to travel to work. Therefore, mass transit is most important for the elderly, low-income individuals, or youth, which are groups that often do not have an alternative means of transportation. In the City the greatest need is for mobility between communities and to other urban areas. Private taxi service is provided by Coulee Cab. Currently the City does not provide any transit within the community, but the nursing homes run private shuttle services for their residents. However, the City is connected to most of the other communities in Grant County with service by the Grant County Transit Authority.

Airport Facilities

Airports are classified by the Washington State Department of Transportation, Aeronautics Division, in accordance with FAA Order 5090.313, Field Formulation of the National Plan of Integrated Airport Systems (NPAIS) as:

- Primary Service (PR);
- Commercial Service (CM);
- Reliever (RL); and
- General Aviation (GA).

Non-NPAIS airports are classified by WSDOT, Aeronautics Division, as:

- State Owned/Operated Airports (S);
- Municipally Owned Airports (M); and
- Private Ownership Public Use Airports (PP).

The Grand Coulee Dam Area is served by a general aviation airport approximately two miles south of Electric City. The runway measures 75' X 4200'. Runway lighting is provided, but the airfield is uncontrolled. United Parcel Service uses the airport for pick-up and delivery. A repair station and hangar are available. The airport is on land owned by the Bureau of Reclamation is managed by Grant County Port District #7 with the hangers leased by the Grand Coulee Dam Flyers. If necessary, pilots arriving at the airport have a telephone available to call for pick-up.

Bicycle Trails

Bicycle ways are not available in the city with the exception of the trail along the shoulder of SR 155 to Grand Coulee. Bicycle racks are not available at most locations, but some are located around city. Most residential areas are not connected by trails to recreational areas, schools, and shopping areas.

Pedestrian Walkways

Sidewalks and walkways within right of way are key to pedestrian circulation. Much of the roadway within Electric City is unaccompanied by these pathways, which discourages pedestrian travel. To better encourage pedestrian travel, the City should provide and encourage the construction of sidewalks, with an emphasis on the Central Business District. Sidewalks are typically constructed of concrete and are raised and located adjacent to curbs or separated from curbs by a linear planting strip. Walkways are usually constructed level with the street or road, with separation by a planting buffer or ditch. The Pedestrian Facilities Guidebook provides a useful resource in the design and siting of pedestrian routes.

Rail

There is no rail service in the Electric City Area.

Past Transportation Problems

Many transportation improvements are designed to alleviate problems identified through traffic accident reports, street maintenance staff reports of poor conditions on roadways, identified areas with heavy traffic congestion, and citizen complaints regarding safety or roadway conditions. Most of these conditions are noted and scheduled for improvement in the City's annual Six-Year Transportation Plan.

Functional Classifications

Electric City’s roadway system is divided into classes according to the function of each roadway segment. A classification defines the major role of a road within the complete existing and future roadway network. The City’s functional classification system is consistent with federal, state and Grant County standards for roadway systems, but includes some local designations to differentiate among the Local Access Streets which make up the majority of the road miles within the City.

Roadways within the City are designated according to the guidelines of the Federal Highway Administration (FHWA) and Washington State Department of Transportation (WSDOT) as mandated by RCW 47.05.021. *See Map 8.1 in the Map Appendix) for Functional Classification Map.*

According to WSDOT, a roadway's functional classification is based on an evaluation of a number of criteria, including the type and magnitude of travel generators, route feasibility and directness of travel, traffic characteristics and trip length, and spacing between and continuity of functional classes. Electric City has streets that fall under three different federal functional classifications and one local classification, as follows:

- Other Principal Arterials - Rural:
  - Serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel
  - Connect all or nearly all Urbanized Areas and a large majority of Urban Clusters with 25,000 and over population
  - Provide an integrated network of continuous routes without stub connections (dead ends)

- Minor Arterials – Rural (SR 155):
  - Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service
  - Be spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an Arterial roadway
  - Provide service to corridors with trip lengths and travel density greater than those served by Rural Collectors and Local Roads and with relatively high travel speeds and minimum interference to through movement
- Minor Collectors – Rural (Ludolph, Grand, Sunset, Williams):
  - Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service
  - Be spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an Arterial roadway
  - Provide service to corridors with trip lengths and travel density greater than those served by Rural Collectors and Local Roads and with relatively high travel speeds and minimum interference to through movement
- Local Access - Rural:
  - Serve primarily to provide access to adjacent land
  - Provide service to travel over short distances as compared to higher

classification categories

- Constitute the mileage not classified as part of the Arterial and Collector systems

- Local Arterials (City defined): local access streets identified by the City as providing primary access from residential neighborhoods to SR 155.

Minor arterials, major collectors, minor collectors and local arterials make up what is referred to as the “primary” roadway system. Local access roads are collectively referred to as “access” roads in this Element.

Non-City Public Transportation Systems

Description

Other service providers within the area, including WSDOT, Grant County, Grand Coulee, Coulee Dam, and the Grant Transit Authority, also maintain and operate public transportation systems. WSDOT is responsible for a system of Interstates, US Highways and State Routes; and the County and other cities and towns are responsible for their own roadway systems within their respective jurisdictions.

State Highways

There is one US Highway and two state highways in or near Electric City. These routes and their functional classification include:

- US 2 – Other Principal Arterial - Rural, traverses east west through the northern portion of the county (approximately 30 miles south of Electric City). It is included on the National Highway System;
- SR 174 – Minor Arterial - Rural runs through the City of Grand Coulee and provides access to Douglas County to the north and west and Lincoln County to the east;
- SR 155 – Minor Arterial - Rural connects Electric City and the Grand Coulee area to the rest of the County to the south and Colville Indian Reservation and Okanogan County to the north.

Public Transportation Providers

Grant Transit Authority (GTA) provides fixed route service to and within Moses Lake, Quincy, Ephrata and services to Ellensburg as well.

GTA operates 31 deviated fixed routes Monday through Saturday. Non-route Para transit accessible services are available at the same times as the fixed route service.

GTA provides service connections to:

- Amtrak Depot, Ephrata;
- Grant County International Airport;
- Greyhound Bus Lines stops in Moses Lake and Ephrata;
- Ellensburg; and
- Appleline (Northwestern Trailways Bus Lines), Moses Lake and Ephrata.

GTA also provides services to several private schools and Big Bend Community College. GTA operates service to Sun Lakes, Steamboat Rock State Parks, and Spring Canyon Federal Campground between Memorial Day and Labor Day, and to O'Sullivan Dam State Park year-round.

Other public transportation providers in Grant County include two private inter-city bus services: Greyhound Bus Lines, and Northwestern Trailways Bus Lines. These services provide connections with the urban public transportation systems available outside the county. Greyhound has stops in Quincy, Ephrata, George, and Moses Lake. Greyhound runs 4 routes east and west daily. Northwestern Trailways Bus Lines operating as the Appleline, provides daily service to points east and west, with stops in Moses Lake and Ephrata.

Other public transportation is primarily human services related and is coordinated by the "People for People" organization.

TDM Facilities

Transportation Demand Management (TDM) facilities manage demand for transportation services by providing opportunities to reduce the number of vehicles using the roadway system. TDM facilities can include park-and-ride or park-and-pool lots, carpool or vanpool programs, subsidized transit, or high-occupancy vehicle lanes. In Grant County, WSDOT currently operates several park-and-ride or park-and-pool lots.

CAPACITY AND NEEDS ASSESSMENT

In Electric City, transportation concerns are related more to accommodating vehicular traffic in residential areas, providing for non-motorized transportation, maintaining the existing level of service on "main street" (SR 155) and the condition of roadways than to roadway congestion problems.

This section of the Transportation Element explains expected increases in traffic volumes and identifies potential traffic problems. The Transportation Plan for

improvements and expansion will be based on the following analyses:

- Analysis of roadway capacity improvements;
- Analysis of roadway safety improvements;
- Analysis of projected transportation needs.

Analysis of Needed Capacity Improvements

After completing the inventory of existing capacity, the City of Electric City has decided that LOS C at peak hour is a reasonable and achievable standard to maintain for arterial roadways. Design standards as described above will be used to evaluate all other roadways in the city's planning area. All of the roadways currently provide this level of service or better, even at peak hours.

The following analysis addresses those improvements which meet the definition of a "capital improvement" as used in the Capital Facilities Element. Such improvements are relatively large in scale, relatively high in cost (greater than $10,000), are generally non-recurring, and may require multi-year financing.

Capacity

The present roadway system operates reasonably well. Congestion and delay measured at primary roadway and intersections indicate levels of service are acceptable throughout the system.

Forecast of Traffic

Changes in traffic volume are primarily dependent on changes in population and employment, which in turn are dependent upon growth in the housing market and in regional industries, particularly tourism. As detailed in Chapter 3 – Electric City Profile - of this Plan, while Grant County is expected to continue fairly rapid growth through the planning year 2040, Electric City will not experience any significant growth.

Traffic growth from recreational trips is anticipated to grow considerably in the Electric City Area. Steamboat Rock State Park has well-developed recreational opportunities. Grand Coulee Dam and Bureau of Reclamation lands around Banks Lake have both day use and overnight camping sites. Sunbanks Resort offers a wide range of recreation activities with two annual blues festivals. The designation of SR 155 as the Coulee Corridor National Scenic Byway and the recent designation of the Ice Age Floods National Historic Trail are expected to increase the number of type of visitors using the area’s transportation system. Improvements to recreational amenities of the area will lead to an overall increase in tourist traffic.

Volume

In the preparation of the Quad County Transportation Plan, a transportation model was created to forecast the traffic levels expected by the year 2015 horizon. In the Quad County transportation model, the area was divided into 79 Transportation Analysis Zones (TAZ's). The model includes a distribution element to predict internal and external traffic patterns within the Quad County area, and traffic passing through the area. The 2015 traffic volume projections shown in the Quad County Plan are based on population and employment estimates prepared for that effort. As noted previously, the current 20-year employment and population growth projections for Grant County greatly exceed the 20-year growth projected in the 2007 Quad County Plan.

The population and employment growth estimated for the Quad County Plan showed Grant County growing at approximately 1% per year. The growth was assumed to be consistent across the entire county (20-year growth ranging from 19% to 23%). The current growth projections prepared for Grant County predict not only higher growth but also different growth rates for different areas of the County.

The urban areas of the north part of the County are expected to increase in population by approximately 22% to 35% over the next 20 years. Over the same time frame, the community of Mattawa is predicted to increase by 165% to more than 2.5 times its present population.

Forecast Level of Service – 2040

As described in previous sections, the population of Electric City is predicted to increase slowly over the next 20 years. Most of this growth is expected to occur within the incorporated areas of the community.

With these factors in mind, the existing roadway network of state, county and City facilities is expected to accommodate future traffic vehicular traffic levels with few improvements required.

Transportation System Analysis

As previously discussed, the overall system in Electric City operates well. There is no obvious demand that cannot be met nor is there any existing facility or group of facilities, with the exception of pedestrian/non-motorized, that is wholly inadequate. The highest demand on the transportation system will be increased traffic associated with potential new recreation-based resorts and second home communities. As such development occurs, potential system improvements will need to be evaluated on local, county and state roads serving these land areas. Improvements may include the following:

- channelization of intersections,
- widen travel lanes and shoulders,
- walkways/sidewalks for pedestrian/non-motorized use,
- pavement and base upgrades to accommodate the projected usage.

The magnitude of potential impact and the level of system improvements required for these would be assessed during the environmental review process enacted under the SEPA guidelines.

FINANCE PLAN

Electric City is required under the GMA to prepare a plan for financing the transportation improvements included in this Transportation Element. The finance plan must include an analysis of the City's anticipated revenue over a six-year period. A detailed finance plan for transportation improvements is containing in the Capital Facilities Plan. In addition, the City must annually update and file a Six-Year Transportation Improvement Program (STIP) with the QuadCo RTPO and Department of Transportation. The STIP includes a basic finance plan.

No improvements are needed in order to continue providing the adopted level of service. Even so, the City remains committed to providing its citizens the best transportation system possible within funding capabilities. While no capacity projects are proposed, safety, structural and preservation projects are necessary. Preservation and improvement projects are based on the following strategies:

- Improve Transportation System Safety - Safety improvements include increasing sight distance and improving curve radii.
- Implement Projects with High Investment Value – Projects must be economically viable and funding must be readily available during the life of the plan. The project must offer a viable solution to a recognized problem.
- System Continuity – Any project that facilitates linkage between adjacent jurisdictions provides value to the region.
- System Efficiency – Projects that increase capacity or the ability to move goods and people.
- Multimodal Solutions – Projects that utilize more than one mode.

Budget Forecast

The City will need to update its budget forecast related to implementation of its Transportation Improvement Plan on an annual basis.

Funding Sources

A variety of funding sources will be used by the City to fund the STIP. The majority of funding is provided through state, local and federal funding programs. Grants, loans, levies, and taxes provide the majority of revenue for transportation improvements. Many revenue sources have requirements and restrictions regarding the type of project that can be funded.

Grants and loans are available through state and federal programs using a variety of application processes and specific selection criteria depending on the funding program. The programs typically fund projects to a specific percentage of the total cost of the project; local funds are generally required to "match" the state or federal funds to provide the remainder of project cost. Grants are awarded directly and do not have to be repaid; however, loans made through state programs usually have reasonable repayment terms, including a below market interest rates.

Levies and taxes provide local funding for transportation improvements. Such revenues are not based on specific projects. Funding options that the City expects to be available to finance transportation improvements are described below.

Local Revenues

Local revenues are those revenues that are either collected locally by the City or collected by others, such as the county or state, and distributed locally. The sources of local funding used by the County to maintain City streets and finance improvements identified in the STIP are the Motor Vehicle Fuel Tax, a portion of local sales or property tax revenues, federal payments, and miscellaneous revenue.

Motor Vehicle Fuel Tax: The Motor Vehicle Fuel Tax (MVFT) is assessed throughout the state to fund transportation projects. It is collected and distributed by state government. The revenues must be used for transportation purposes such as construction, maintenance, and operation of City streets (RCW 82.36). Revenue from the MVFT is expected to grow about 1 percent a year on the basis of recent trends in fuel tax receipts.

Miscellaneous Local Revenue: The City receives local revenues from miscellaneous sources. These include: permits, transfers of funds from other jurisdictions for reimbursable road maintenance work, and contributions or donations from private sources.

Federal Revenues

Federal funds are collected and distributed nationwide to fund transportation improvements. Federal funds allocated to Washington State pass through the Washington State Department of Transportation to cities and counties within the state. The City receives funds from various federal transportation programs including the Surface Transportation Block Grant Program (STBG) grant funding programs known as STBG Regional, STBG Statewide Competitive, STBG Safety, and STBG Enhancement.

STBG Regional: STP Regional grant funds are allocated to finance projects within the region that are determined to best meet the program criteria established by the region. Grant County has (with agreement of all cities and towns) redistributed a portion of the County's MVFT in lieu of their competition for the STP regional funds. The City receives an estimated $36,000 (2018) per year, known as City/County Assistance, from the County Road Fund in lieu of competing for STBG funds.

STP enhancement: The STP enhancement program is a competitive source for grant funding that is designated for non-traditional transportation projects, such as trails or paths, historic preservation of routes, or experimental programs. Currently the quad county RTPO is involved in the project selection process.

Revenue from federal programs is competitive, must be applied for annually, and is difficult to predict.

State Revenues

State funds are collected and distributed statewide to finance transportation improvement projects. These are administered through the Transportation Improvement Board (TIB) for incorporated communities. State sources include Urban Arterial Trust Account (UATA) and, Transportation Improvement Account (TIA),

Urban Arterial Trust Account (UATA) and Transportation Improvement Account (TIA): The UATA and TIA programs managed by the TIB provide grant funds that can be used to alleviate and prevent traffic congestion caused by economic development or growth. Eligible projects should be multi-agency, multi-modal, congestion-related, and support economic development activity. Matching requirements vary and will range from 20 to 60 percent for Electric City over the planning period. The City is anticipating only one project to be funded from the UATA program during the six-year planning period to fund transportation improvements identified in the TIP.

Other Funding Sources

The City will rely on other funding sources to generate a portion of the funding needed for projects over the life of the STIP. These sources include additional grants from WSDOT, Public Works Trust Fund, Road Improvement Districts (RIDs), and miscellaneous revenue.

Funding Shortfall Provisions

If the City is faced with transportation funding shortfalls, any combination of the following strategies should be used to balance revenues and public facility needs:

- Increase revenues through use of bonds, new or increased user fees or rates, new or increased taxes, regional cost sharing, or voluntary developer funds.
- Decrease level of service standards if consistent with Growth Management Act Goals.
- Reprioritize projects to focus on those related to concurrency.
- Decrease the cost of the facility by changing project scope or finding less expensive alternatives.
- Decrease the demand for the public service. This could involve instituting measures to slow or direct population growth or development, for example, developing only in areas served by facilities with available capacity until funding is available for other areas, or by changing project timing and phasing.
- Revise the comprehensive plan's land use and rural areas element to change types or intensities of land use as needed to match the amount of transportation facilities that can be provided.

GOALS AND POLICIES

Goals and policies follow the shared vision for the future of Electric City for sustaining and improving our quality of life. Goals and policies are also consistent with the Planning Goals of the Growth Management Act. Goals are broad statements of a community’s aspirations. Policies express a commitment to a course of action. Policies provide overall direction for implementation of a strategy. Policies provide clear guidance for decision-making subject to this Plan and form the basis for development regulations.

The goals and policies of the Comprehensive Plan related to Transportation are included in Chapter 4 Policy Plan.