

VI:

TRANSPORTATION

Existing Conditions

Introduction

The ability to move goods and people is essential for a healthy community. The transportation chapter describes how Lewis and Clark County's transportation system provides for this movement in the present and future. The Helena Area Transportation Plan (1993 update) is the principal transportation document for the Helena Planning Area. It includes the City of Helena and most of the Helena Valley. The Transportation Development Plan for 1997-2001 (prepared for the City of Helena, October 1996) describes transit services in the Helena area. (These documents are incorporated into this Growth Policy by reference.) Transportation in the remainder of the County has been addressed as part of State-wide transportation planning; transportation planning in the rural planning areas has not been established. The major transportation system of the County is illustrated by the road map included as part of Appendix A.

Lewis and Clark County population and employment is projected to increase significantly over the next 20 years, as described in Chapter 2. The anticipated growth will result in an increase of traffic to, from, through, and within the County. Transportation strategies must be developed to maintain acceptable levels of service for the County's transportation system. Finding answers to the following key questions is essential for providing effective transportation strategies:

- How can strategically built roads affect growth through the next twenty years?
- How can transportation improvements encourage growth to desired areas?
- What are the existing deficiencies in the transportation system, and how will population growth affect these?
- What transportation projects are priorities in the short and long term?
- How will the proposed transportation projects be funded?
- What different funding sources are available?

- What transportation issues are important for those industries especially dependent upon transportation?
- What transportation issues are important to the general public?
- What are the values and the goals of the community?
- What policies should be formulated to meet these goals?

Transportation Issues

Safety

The citizens of Lewis and Clark County deserve safe transportation systems. Accidents are traumatic on a personal level and costly for society. Maintaining and improving the safety of transportation infrastructure by reducing or preventing accidents is a top priority. To help accomplish this, the County should encourage citizen input in planning traffic safety improvements. Congestion management is important to preserve and improve safety in the face of a growing population and increasing traffic volumes. Adequate road maintenance also falls under this safety issue; poorly maintained roads, particularly during inclement weather, can contribute significantly to the number of accidents.

Maintenance

Maintenance of County roads is a critical issue to County residents. Focusing resources on snow removal in the winter and completing regular maintenance in the summer is a priority. The County has maintained a summary of the cost and type of maintenance performed on all County roads since 1994. The available resources have not kept pace with the maintenance needs of roadways, in part because of funding changes made by the Legislature. The County has not been able to conduct road surface maintenance in accordance with accepted standards for paved and chip seal surface roads. Consequently, many road segments have suffered from deferred maintenance.

Several programs have greatly aided the County in addressing these deficiencies. The Montana Department of Transportation (MDT) "Save Our Secondaries" Program of the late 1990s provided State funding for resurfacing certain State roads under the maintenance responsibility of the County. The State assumed maintenance obligations for some of the paved Secondary Roads in the County in 2000, reducing maintenance obligations and costs to the County. The principal benefit will be a reduction in snow

plowing activities. The County successfully pursued funding for bridge replacement through the Treasure State Endowment Program; six bridges were funded, and applications have been made for five more. Public/private partnerships or resource pooling may be used in the future to offset the high costs associated with maintaining roadways.

Alternative Modes

For at least fifty years, transportation improvements have emphasized the movement of motorized vehicles, especially automobiles. Alternative modes, such as bicycling and walking, have not been stressed. This emphasis has resulted in a transportation system and land use patterns largely centered around the automobile. It is expected that the automobile 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.

Alternative non-motorized modes can play an important role in the transportation system, especially for relatively short trips. Encouraging these modes may lessen congestion, reduce infrastructure maintenance, and decrease air pollution, while providing health benefits to the users. Transportation facilities should consider alternative modes that are safe and efficient for non-motorized users. Land use patterns and development design standards also need to be addressed to encourage alternative modes of transportation.

Transportation Demand Management

Many solutions to transportation issues include increasing the system capacity. This method is appropriate in many circumstances. However, in some cases, the capacity of the system can be "increased" by seeking to reduce demands on the system (i.e., the number of trips taken) through a variety of transportation demand management (TDM) programs. Many larger communities have been required to implement TDM programs at significant cost after conditions (congestion, air quality, etc.) became substandard. Taking an early, proactive approach with carefully selected, cost-effective TDM measures can sometimes reduce the need for large and costly infrastructure expansion projects. The opportunities are enhanced when transportation and land use planning efforts have been closely coordinated.

The City of Helena conducted a study of TDM issues. The purpose was to review efforts that have been undertaken to date, conduct a series of focus groups, evaluate potential TDM strategies, and provide recommendations for actions. A similar effort may be appropriate for some or all of the unincorporated areas surrounding Helena.

Possible actions include:

- * Park and Ride lots
- * Telecommuting
- * Alternate work hours
- * Pedestrian and bicycle facilities
- * Transit-oriented design and development
- * Revision of design standards
- * Ridesharing

Traffic Counts

The Montana State Department of Transportation (MDT), the City of Helena, and Lewis and Clark County conduct annual traffic counts at sites within the County. The three jurisdictions coordinate the collection of data to avoid duplication and share results. The counts are useful in determining which transportation corridors are experiencing higher usage and may need increased maintenance or modifications. The statistics are also used for calibrating transportation models and evaluating the effects of specific development proposals.

MDT has conducted traffic counts annually since 1984. The number of sites monitored in the unincorporated portion of the Helena Valley increased from 20 in 1985 to 52 in 1995. In other areas of the County, the number of sites surveyed increased from 6 in 1985 to 42 in 1995.

Funding

Transportation improvements, maintenance, and operations are funded from a variety of Federal, State, local, and private sources. Federal funding sources include the Federal-Aid Highway Program (gas tax, tire tax, and vehicle sales tax) and the Transportation Efficiency Act (TEA-21) authorized by Congress. These funds are generally administered by the Montana Department of Transportation.

State funding sources include the Reconstruction Trust Fund (gas tax, coal severance tax) and road maintenance funds (gas tax, vehicle sales tax, and trailer tax). Local funding sources for the County include the Road Fund (State gas tax, motor vehicle tax, and local property tax), the Bridge Fund (local property tax, vehicle license fees), and Rural Improvement Districts (specific tax/fee assessments on benefiting property).

Private funding sources include right-of-way donations, road construction within new development, cash contributions, and road maintenance districts. Due to the inter-relationship of private and public benefits associated with transportation facilities, public-

private cooperation in the design, construction, maintenance, and funding of such facilities is a common practice.

Additional funding alternatives are available to local governments in Montana, including: local option gas tax (County-wide), transportation utility user fees, general obligation bonds, impact fees, tax increment finance districts, multi-jurisdictional service districts, local improvement districts, and local option taxes (resort communities only).

The Board of County Commissioners proposed an increase in the property tax levy for the County Road Fund in 1998. The purpose of the proposal was to address deficiencies in the road network due to deferred maintenance, thereby increasing the safety and level of service provided to the traveling public. The proposal was defeated by the voters in the general election.

Existing Transportation System

Roadway Classifications

The road network consists of several types of roadways that provide an integrated system of vehicle movement within and between communities. Roads are generally classified by function, or their role within the system. County roads are differentiated from other types of public roads in part because they are owned in fee title by the County.

Designation of a functional roadway classification system is an integral part of managing street use and land development. Inconsistent or incorrect designation of functional class (usually in the form of under-classification) can lead to poor relations with residents and the traveling public. As traffic volumes begin to exceed certain levels on residential streets, complaints from local residents tend to increase.

Incorrect designation of a street segment to a lower classification when anticipated traffic warrants a higher class can result in under-designed facilities, producing long-term safety or capacity problems. Table 6.1 summarizes the typical characteristics of each functional classification.

TABLE 6.1		CHARACTERISTICS OF FUNCTIONAL CLASSIFICATION OF STREETS		
Road Classification	Number of Lanes	RIGHT OF WAY WIDTH (in feet)		National Daily Traffic Average
		Existing Code (if applicable)	Recommen- ded	
Interstates/Freeway	4+	Varies	Varies	30,000+
U.S. Hwys/State	4-7	80	100 -140	20,000+
Arterials (major/minor)	2-5	80	60 - 100	8,000-20,000
Collector (major/minor)	2-4	60 - 80	60 - 100	1,200-8,000
Local Acc. Streets	2	60	50 - 60	up to 1,500

Interstate Highways

Interstate highways are of great importance in the regional transportation system because they accommodate large numbers of vehicles and provide linkages to other communities, states, and countries. They are multi-lane, high-speed, high-capacity roadways intended exclusively for motorized traffic with all access controlled by interchanges and road crossings separated by bridges. Interstate 15 connects Lewis and Clark County to Butte and Great Falls, serving Craig, Wolf Creek, and the Helena Valley.

U.S. Highways/State Routes

U.S. Highways/State Routes are second in the roadway hierarchy after Interstates. Several rural areas of the County are served by this level of roadway. U.S. Highway 287 splits with Interstate 15 just northeast of Wolf Creek to serve the Augusta area and continues north to Choteau (Teton County). State Route 200 is an east-west highway that bisects the County, serving Lincoln and connecting Missoula and Great Falls. U.S. Highway 12--another east-west route--crosses the southern part of the Helena Valley planning area, providing connections to Townsend (Broadwater County) and Interstate 90.

Major Arterials

The greatest portion of through travel occurs on major arterials. Major arterials are high-volume travel corridors that connect major generators of traffic (e.g., community and employment centers), and are usually constructed with partial limitations on direct access to abutting land uses. The County's major arterials generally carry from 2,000 vehicles per day to as many as 25,000 vehicles per day. Montana Avenue, a major arterial in the West Valley, averages from 5,000 vehicles at Sierra Road to 10,000 vehicles per day at Custer Avenue.

Minor Arterials

Minor arterials are streets that connect both major arterials and collectors that extend into the urban area, while providing greater access to abutting properties. Direct access is limited to maintain efficient traffic flow. Minor arterials serve less concentrated traffic-generating areas, such as neighborhood shopping centers and schools. Minor arterials often serve as boundaries to neighborhoods and provide linkage to collector roads. Although the predominant function of minor arterials is the movement of through traffic, they also provide for considerable local traffic that originates from, or is destined to, points along the corridor.

Collectors (major and minor)

Collectors provide direct services to residential or commercial areas, local parks, and schools while also providing a high degree of property access within a localized area. In densely populated areas, they are usually spaced at half-mile intervals to collect traffic from local-access streets, and convey it to the major and minor arterials and highways. Urban collectors are typically one to two-miles in length, while rural collectors may be longer (either could be a major or minor). Access may be limited to roadway approaches and major facilities, but some direct access to abutting land may be permitted.

McHugh and Wylie Drives are examples of rural collectors. Traffic volumes on collectors vary from 1,000 to about 4,000 vehicles per day. McHugh Drive averages about 1,500 vehicles per day (at Custer Avenue) and Wylie Drive averages from 1,000 vehicles per day (at York Road) to 4,000 vehicles per day (at East Helena).

Local Access Streets

Streets not selected for inclusion in the arterial or collector classes are categorized as local or residential streets. They allow access to individual homes, businesses, and similar traffic destinations. Direct access to abutting land is essential, for all traffic originates from, or is destined, to abutting land. Major through traffic should be discouraged.

Other Elements of the Transportation System

Bridge Facilities

There are 181 bridges in Lewis and Clark County. The majority are generally in fair to good condition, but more than a dozen are in need of immediate repair. Overall, 27 bridges need some type of work (2002 County Bridge Inventory). MDT and the County maintain detailed bridge condition records, including maintenance recommendations.

The County successfully pursued funding for bridge replacement through the Treasure State Endowment Program; six bridges have been funded and applications have been made for four more. The Missouri River Bridge at Craig is the County's priority for replacement under an MDOT program for bridges not on the State system.

Heavy Vehicles

All Interstates, U.S. Highways and State Routes are designated as truck routes to facilitate inter and intra-state commerce. There are no specifically designated truck routes on local roads in Lewis and Clark County; however, all roads are subject to weight limits. Limits are based on the structural condition of the roadway and bridges and may vary according to seasonal conditions.

There are many camping facilities along rivers and lakes within the County. These facilities are located in the vicinity of Hauser, Canyon Ferry, Holter, and Helena Lakes, and along the Missouri and Blackfoot Rivers. There are also camping facilities along the Rocky Mountain Front, as well as other locations. Recreational vehicle travel on County roads tends to be seasonal with heavy peaks in the summer and smaller "shoulder seasons" in the fall and spring.

Transit

There are a few transit providers operating in the County, principally in the Helena Valley planning area. There are several private charter or taxi services, in addition to non-profit providers serving specific clientele. The Helena Area Transit Council is a non-profit corporation that strives to coordinate all service providers to most efficiently serve the community. The Transportation Development Plan for 1997-2001 (October 1996) describes transit services and community needs in the Helena area, and includes an implementation strategy.

Bus Service

The City of Helena Bus, also known as Dial-A-Ride, is an agency within the Helena Public Works Department. The City of Helena Bus service is available to persons within the Helena City Limits on weekdays between 6:30 a.m. and 5:00 p.m. Rides are arranged by calling in advance and scheduling pick-up times. In 1999, a checkpoint route was established which serves major business and shopping areas, the hospital, and other sites. It is served by one bus that completes the circuit on an hourly basis.

G&L Transit is a charter bus company that services the continental United States. Its major clients are the U.S. Government (military personnel in particular) and the State of Montana. Other than a fixed schedule service for local government adult special needs clients, its service is available 24 hours per day, 7 days per week.

Treasure State Transit is a charter bus company that offers services to the continental United States, Canada, and Mexico. Treasure State provides contracted school bus services to Helena School District #1 and Trinity School District #4. A limousine service (advance reservation) will be available in the near future.

Rimrock Trailways is an intercity and interstate bus transportation provider headquartered in Billings. Six buses per day pass through Helena: There are two northbound, two southbound, one eastbound, and one westbound arrivals/departures per day. The bus station is located on the east side of Helena, just east of the Capitol Interchange (I-15/Hwy 12).

Taxi

The only taxi company operating in the County is Capitol Taxi, which provides door-to-door service 24 hours per day, 365 days per year. Its service area for passenger transport is defined as the area within a 50-mile road radius from downtown Helena. Special services include hotel/airport shuttle and wheelchair accessibility.

Community Service Agency Transit

Fort Harrison Veterans' Administration Hospital provides transportation for veterans both within and outside of the City of Helena. Service is available within Helena Monday through Friday; hours are 8:00 a.m. to 4:30 p.m., but may vary with demand. The Disabled American Veterans organization provides service to the VA for clients outside Helena.

The Rocky Mountain Development Council provides transportation services to senior citizens who participate in the organization's programs. The service is available from 7:00 a.m. to 4:30 p.m., Monday through Friday. Service is available in both Helena and East Helena.

The East Valley route is cosponsored by the Rocky Mountain Development Council and Helena Area Transit Service (HATS). This service provides limited transportation for citizens in the East Valley and the City of East Helena to specific destinations in Helena, where customers are able to access other HATS services. The East Valley bus operates six hours each day, Monday through Friday.

There are several transit services operated by private non-profit corporations associated with developmental disabilities (Westmont, Spring Meadow Resources), mental illness (Golden Triangle), and recreation (YMCA).

Bicycle/Pedestrian

There are three separated bicycle/pedestrian facilities in the unincorporated section of Lewis and Clark County:

- Between Helena and East Helena, along the north side of U.S. Highway 12 (~ 5 miles).
- North of East Helena, along the west side of Valley Drive (~1 mile).
- Jim Darcy School area, along North Montana Avenue and Lincoln Road (~3 miles).

Newly constructed secondary roads include paved shoulders (8 feet) that also function as bicycle/pedestrian facilities. These are all in the Helena Valley and include:

- Green Meadow Drive, from Custer Avenue to Sierra Road (~3 miles).
- York Road, from Birkland Drive to Tizer Drive (~1 mile).

- Canyon Ferry Road (to be constructed in 2000/2001), from Walter Drive to York Road (~1.5 miles).

Areas with large numbers of pedestrians, bicyclists, and automobiles should consider constructing separate paths to improve safety. Paved shoulders (of at least 5 feet) provide a margin of safety for bicyclists and pedestrians, as well as slow-moving agricultural equipment and emergency stops. The County has pursued additional bicycle and/or pedestrian facilities through the Community Transportation Enhancement Program (established by the federal ISTEA and TEA-21 transportation legislation), but several projects have been constrained by right-of-way and/or cost estimates.

The Helena Area Transportation Plan includes a component on bicycle and pedestrian issues and provides a recommended bike route system and urban trail network. Any reconstruction or new construction of roadways should address facilities and/or design considerations for bicycle and pedestrian movement.

Snowmobiles

Snowmobiles are used as a form of recreation for the County's tourists and residents. Their use for transportation purposes is generally limited to farming and ranching activities. By resolution, the Board of County Commissioners permits the use of snowmobiles in certain areas of the County, including Lincoln. The resolution limits the operation of snowmobiles in Lincoln to those operating in the process of leaving or returning from a trip on the approximately 200 miles of groomed snowmobile recreation trails surrounding Lincoln.

Railroads

Montana Rail Link (MRL) operates a rail line extending across the southern part of the Helena Valley, extending from southeast corner of the County to the Continental Divide at the Mullan Tunnel. This is a portion of the line extending from Logan to Missoula. MRL also operates a couple small industrial spurs in the vicinity. A rail yard and switching facility operated by MRL is located within the City of Helena and extends eastward into the County jurisdiction.

The Burlington Northern-Santa Fe Railroad (BNSF) operates a rail line extending from the northwest corner of the City of Helena northward, passing Silver City, Wolf Creek and Craig, and extending to Great Falls. This rail line also serves only freight movements through the County.

Passenger rail service is not available in Lewis and Clark County; the nearest passenger service is the Amtrak station in Shelby, 167 miles to the north of Helena.

Air

The only commercial aviation airport located within the County is Helena Regional Airport (HRA) located on the northeast side of the City of Helena. The HRA is currently served by four airlines. Delta Air Lines, the primary carrier, operates jet flights to their Salt Lake City hub. Skywest Airlines, a Delta connection, supplements the Salt Lake City service using regional jets. Horizon Airlines offers daily round trip flights to their Seattle hub using regional jets. Northwest Airlines began service in 2002 with one flight a day between the Twin Cities and Helena, with a stop in Billings. Big Sky Airlines serves Helena, providing service to Billings, Kalispell, and Missoula. These air carriers have experienced a 57 percent growth in local passenger boardings over the past ten years, and are anticipating a 5 percent growth per year for the next several years.

The HRA also has aviation charter companies providing single and twin-prop engine service, as well as jets. These companies operate 365 day per year. There are a number of air cargo operators that serve Helena including UPS, Fed Ex, and several other regional freight and check flights.

The Montana National Guard recently completed the largest National Guard helicopter facility in the United States on the north side of the Airport. In addition, the Helena Regional Airport Authority and the Helena College of Technology operate a state-of-the-art live fire training facility for aviation fire fighters. This facility, the Rocky Mountain Emergency Service Training Center, is being expanded to include a structural training building, a two mile driving course, a hazardous materials cleanup site, and several other training activities.

The HRA completed runway improvements in 2000, and has nearly completed an update of its long-range facility plan. The HRA has acquired all lands necessary for runway clear zones, and has recently acquired adjacent lands for development/expansion of airport-related activities. The City of Helena administers the Airport Noise Influence District through its zoning ordinance; the extent of this district is shown on a map included as part of Appendix E.

General aviation airport locations include Augusta and Lincoln. Several small airstrips for private purposes are located in the County.

Level of Service Standards

Introduction

Level of service (LOS) is a designation that describes a range of operating conditions on a particular type of facility. The 1994 Transportation Research Board's Highway Capacity Manual (HCM) defines the level of service concept as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. The critical point in this definition is the need to define service quality in terms that are perceived by drivers and passengers. Several key measures are used in the 1994 HCM to describe service quality including speed, travel time, density, and delay.

Level of service standards are quantifiable measures of the public services a jurisdiction provides to its residents. These standards are used to determine deficiencies that need to be corrected in existing infrastructure and to identify future infrastructure needs. By establishing an acceptable level of service, individual elements of systems, such as roadways, can be rated. This rating allows the jurisdiction to determine what it should do to provide a target level of service to its residents.

National LOS Standards

Level of service (LOS) for transportation facilities is generally defined by capacity. The primary measure of service quality is time delay, with speed and capacity utilization employed as secondary measures. LOS for two-lane highways is determined by both mobility and accessibility. The Transportation Research Board's Highway Capacity Manual (HCM) contains a method for estimating the LOS for two-lane highways where time delay data is not available. In addition, HCM defines LOS ratings of "A" through "F" for highway segments, intersections, and arterial street segments, based on the volume of traffic and the available capacity of the facility. Table 6.2 shows the expected average travel speeds for each LOS classification.

TABLE 6.2- ARTERIAL LEVELS OF SERVICE

	Principal Arterial	Minor Arterial	Collector Arterial
Range of free-flow speeds	45-35	35-30	35-25
Typical free-flow speeds	40	33	27
LEVEL OF SERVICE	AVERAGE NATIONAL TRAVEL SPEED (MPH)		
A	> 35	> 30	> 25
B	> 28	> 24	> 19
C	> 22	> 18	> 13
D	> 17	> 14	> 9
E	> 13	> 10	> 7
F	< 13	< 10	< 7

Source: Transportation Research Board's *Highway Capacity Manual*, special report 209 (1994).

Rural And County-Wide LOS Issue

The roadway system in much of Lewis and Clark County is generally classified as two lane rural roadway. Two lane rural roadway systems operate under uninterrupted flow between points of fixed interruption. They are, however, significantly different in basic operating characteristics from multi-lane facilities. Passing maneuvers must take place in the opposing lane of traffic. Thus, flow in one direction limits and interacts with flow in the other direction. Passing is severely restricted under higher density conditions, and gaps forming in front of slow moving vehicles cannot be as efficiently filled as on a multi-lane facility. Consequently the volume capacity ratio ($v/c = \text{rate of volume/capacity}$) can be low. The capacity of a two-lane roadway is described in terms of the total flow in both directions. The capacity of two-lane rural roadways is 2,800 passenger car per hour (pcph) under ideal conditions. Ideal conditions for two-lane rural roadways include: design speed 60 mph, twelve-foot minimum lane widths, six-foot minimum shoulder widths, the lack of NO PASSING zones, 50/50 directional distribution, and level terrain. Terrain influences capacity on rural two-lane roadways because of the increased difficulty in passing as terrain affects visibility.

LOS standards for two-lane rural roadways are also significantly different from the LOS standards for two-lane urban roadways. Traditionally, LOS is measured based upon the delay experienced when traveling a roadway segment or when going through an intersection. This system is appropriate in densely-populated areas, such as Helena, where transportation facilities are at or approaching capacity, as described in table 6.1. However, in rural areas, the traditional system is ineffective because of the relatively low traffic volumes. Because of the rural nature of Lewis and Clark County, the County's rural roadway system is made up of low-volume roads that do not exhibit capacity problems. Because of this difference an alternative LOS system for two-lane rural roadways is necessary. LOS standards for two-lane rural roadway systems rate its operation and its condition. Operation LOS rates a roadway in terms of how its

characteristics compare with those necessary for it to function as intended. Condition LOS rates a roadway in terms of how its physical characteristics compare to those of an ideal facility.

Operation Level Of Service Standards

The Operation LOS rates a roadway in terms of how its characteristics compare with those necessary for it to function as intended (see table 6-3). The roadway is rated on how it compares to its rated tonnage classification and how often it is open for use. A high operation rating indicates a roadway that is always available to be used and exceeds the rated strength for its tonnage classification; a low rating indicates a roadway that is rarely available for use and has a strength well below what is required for its tonnage classification.

TABLE 6.3: OPERATION LEVEL OF SERVICE STANDARDS

LOS Description

- O1** Weight restrictions imposed 5 days or less per year.
Closed only in extreme circumstances.
Lane capacity never reaches its maximum.
Presence of trucks and recreational vehicles cause no delay.
Presence of non-motorized vehicles cause no delay or safety concern.

- O2** Weight restrictions imposed 5 to 15 days per year.
Rarely closed.
Presence of trucks and recreational vehicles cause no delay.
Presence of non-motorized vehicles (bikes and pedestrians) is limited.

- O3** Weight restrictions imposed 15 to 30 days per year.
Sometimes closed.
Presence of trucks and recreational vehicles causing noticeable delay.

- O4** Weight restrictions imposed 30 to 60 days per year.
Sometimes closed.
Presence of trucks and recreational vehicles causing delay.

- O5** Weight restrictions imposed more than 60 days per year.
Often closed.
Presence of trucks/recreational vehicles cause delay and forms long queue.
Presence of non-motorized vehicles (bikes and pedestrians) cause delay.

It is important for major County roads to remain open during winter and spring months. Due to their surfacing, condition, and location, some roads may be closed or have their load limits restricted on a short-term basis.

Some of these closures are regularly scheduled each year, usually based on weather conditions, such as snow or spring thaws. The operation LOS will use a scale from O1 to O5, with O1 representing the highest LOS and O5 representing the lowest LOS.

Condition Level Of Service Standards

The Condition LOS rates a roadway in terms of how its physical characteristics compare to those of an ideal facility (see table 6-4). An ideal facility standard includes width, surface type and thickness, and vertical and horizontal geometry. A high Condition LOS rating is given to roadways constructed to a high standard and providing a high level of driver comfort and safety; a low rating is given to roadways that are physically deficient, providing little driver comfort or safety. LOS for condition rating is from C1 to C5; C1 represents the highest LOS and C5 represents the lowest LOS.

TABLE 6-4: CONDITION LEVEL OF SERVICE STANDARDS

LOS Description

- | | |
|-----------|---|
| C1 | Meets all appropriate County standards.
Meets all appropriate MDOT standards.
Surface material in excellent condition.
Driving is comfortable and safe.
Number of accidents due to roadway condition is zero. |
| C2 | Meets most appropriate standards.
Meets minimum lane width for classification.
Meets minimum shoulder width for classification.
Vertical and Horizontal curves on existing roadway reasonably conform to design standards.
Short sections on roadway may exceed standard grade.
Surface material appropriate for classification and in good condition.
Number of accidents due to roadway condition is limited. |
| C3 | Meets many of the appropriate standards.
May not meet minimum lane width and shoulder width.
One or more substandard curves 10 mph below design standards. |

Up to 10 percent of roadway exceeds standard grade.
Surface material may not be appropriate for classification, and in fair condition.
Number of accidents due to roadway condition is low.

- C4** Deficient in meeting appropriate standards.
Does not meet minimum lane and shoulder width.
One or more substandard curves 15 mph below design standards.
Over 10 percent of roadway exceeds standard grade.
Surface material not appropriate for classification, and is in poor condition.
Number of accidents due to roadway condition is noticeable.
- C5** Deficient in meeting standards.
Creating hazardous condition.
Needs immediate attention.
Number of accidents due to roadway condition is high.
No sidewalk, no shoulders.

Transportation Issues, Goals, and Policies

People and goods are connected to one another via a community's transportation system, which consists of facilities that accommodate many modes of transport including cars, trucks, buses, bicycles, pedestrians, railcars, and airplanes. Lewis and Clark County must work to establish an efficient and safe road system that supports desired development patterns, in order to accommodate an increasing population and be economically competitive.

ISSUE A **Sufficient funds are not available to maintain all public and County roads in Lewis and Clark County.**

Goal 1 Maintain and improve the condition and operational level of service of the existing road system.

Policy 1.1 Road system maintenance should remain a high priority.

Policy 1.2 The construction of passing lanes and left and right-hand turn lanes, appropriate to accommodate traffic growth or where needed for safe operation, should be a priority on the major arterial street/road system.

Policy 1.3 Prioritize and program subsurface improvements to minimize seasonal road restriction or closures due to frost heave.

Policy 1.4 Support the restriction/elimination of access points as opportunities arise to maintain capacity of existing arterials.

Policy 1.5 Development should pay its proportional share of the cost of improvements to the existing roadway system necessitated to address the impacts of development.

Policy 1.6 Prioritize road maintenance needs on the County road system.

ISSUE B: Future development may limit access to public and private lands and needed right of ways.

Goal 2 Identify and protect future road corridors to serve future developments and public lands.

Policy 2.1 Require dedication of roadway rights-of-way in both the planning and platting process. Dedications should be according to the appropriate functional classification, subdivision regulations, design standards, and County policy.

Policy 2.2 Identify, protect, maintain, and—when appropriate—purchase rights-of-way providing access to key public and recreational lands, along with potential parking areas.

Policy 2.3 Efficiently connect roads in new developments to the existing road network.

ISSUE C A well-designed and adequate road network is essential for developing areas.

Goal 3 Facilitate road construction to serve developing areas, and encourage development in identified urban areas.

Policy 3.1 A process should be established to assure that planned transportation projects are coordinated among Lewis and Clark County, cities in the County, the Helena Area Transportation Coordinating Committee, adjoining counties, and the Montana Department of Transportation.

Policy 3.2 Require traffic impact studies to determine the need for additional or improved roads, or for traffic signals at major intersections.

Policy 3.3 Promote the equitable distribution of transportation construction costs between Federal, State, and County government; cities in the County; and the private sector. Commitments for future transportation improvements should be pursued.

Policy 3.4 An east-west transportation by-pass corridor should be established.

Policy 3.5 As resources allow, identify and provide access for non-auto travel between communities or neighborhoods that does not parallel auto access.

Goal 4 Guidelines to provide adequate emergency service access to County residents should be established.

Policy 4.1 Review proposed developments to accommodate emergency vehicles.

Policy 4.2 Proposed transportation projects and their impacts on emergency service access should be evaluated.

Policy 4.3 Where appropriate, identify an integrated road network. Plan to ensure that adequate rights-of-way and access easements are preserved and acquired for future road extensions, widening, and proper drainage.

ISSUE D: There is a benefit to providing non-motorized travel in the County, including developed areas, and recreational and tourist areas.

Goal 5 Establish safe pedestrian and bicycle access in designated areas of the County as part of the non-motorized circulation system, as resources allow.

Policy 5.1 Establish provisions for non-motorized and pedestrian features in the design of roadway and bridge projects.

Policy 5.2 Provide for improvement and dedication of bikeways and pedestrian paths through developing areas.

Policy 5.3 Provide widened shoulders where possible to accommodate pedestrians/bicycles on existing roadways as appropriate, ideally with physical separation between motorized and non-motorized traffic.

Policy 5.4 Establish design standards for widened shoulders for pedestrians and bicyclists.

Policy 5.5 Explore opportunities for separated non-motorized paths to natural and scenic areas, including available rights-of-way.

