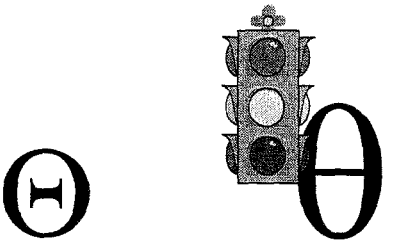

CITY OF HARRISBURG TRANSPORTATION SYSTEM PLAN

TABLE OF CONTENTS

INTRODUCTION

This plan presents the Transportation System Plan (TSP) for the City of Harrisburg, Oregon. The Plan provides an overall strategy for the development of a safe and efficient transportation system that will meet the needs of the community and the requirements of the Oregon Transportation Planning Rule. The purpose of this plan is to ensure the future transportation system develops in an orderly and cost effective manner and includes all modes of transportation to the fullest extent possible. The Plan will serve as a guide to local planning officials when making long term transportation decisions. The City is currently completing it's Periodic Review of the City's Comprehensive Plan. The Transportation System Plan will eventually be adopted as the transportation element of the revised Comprehensive Plan. Appendix A outlines requirements for small cities set forth in TheTransportation Planning Rule, and includes proposed amendments to Harrisburg's existing Ordinances relating to street design standards.

The plan was prepared in part with the help of the Department of Land Conservation and Development's Quick Response Team.

STUDY AREA

Harrisburg's Urban Growth Boundary is the primary boundary for the study area. See Figure 1 on the next page. Harrisburg is located along the East bank of the Willamette River in the Southwest corner of Linn County. The City was incorporated in 1866, and presently has a population of 2535. It is the center of an agricultural area with the principal crop being rye grass seed.

The Community has experienced substantial growth in recent years, almost tripling its population since 1960. Two railroad lines, the Union Pacific and the Burlington Northern serve Harrisburg. In addition, Highway 99E passes through the City and the freeway, Interstate 5, is located six miles to the East. Map 2 shows Harrisburg's location and its relationship to other communities in the mid-Willamette Valley. Figure 2 shows Harrisburg's location relative to other Oregon communities.

Urban Growth Boundary

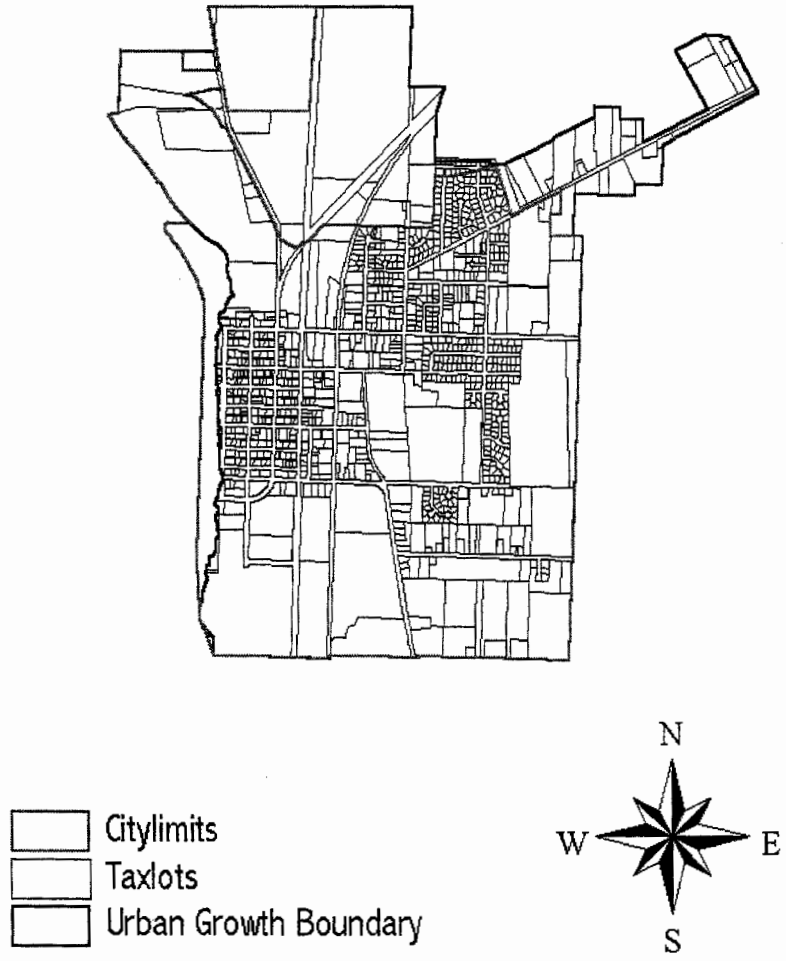

Figure 1. Harrisburg Urban Growth Boundary

Harrisburg Location Map

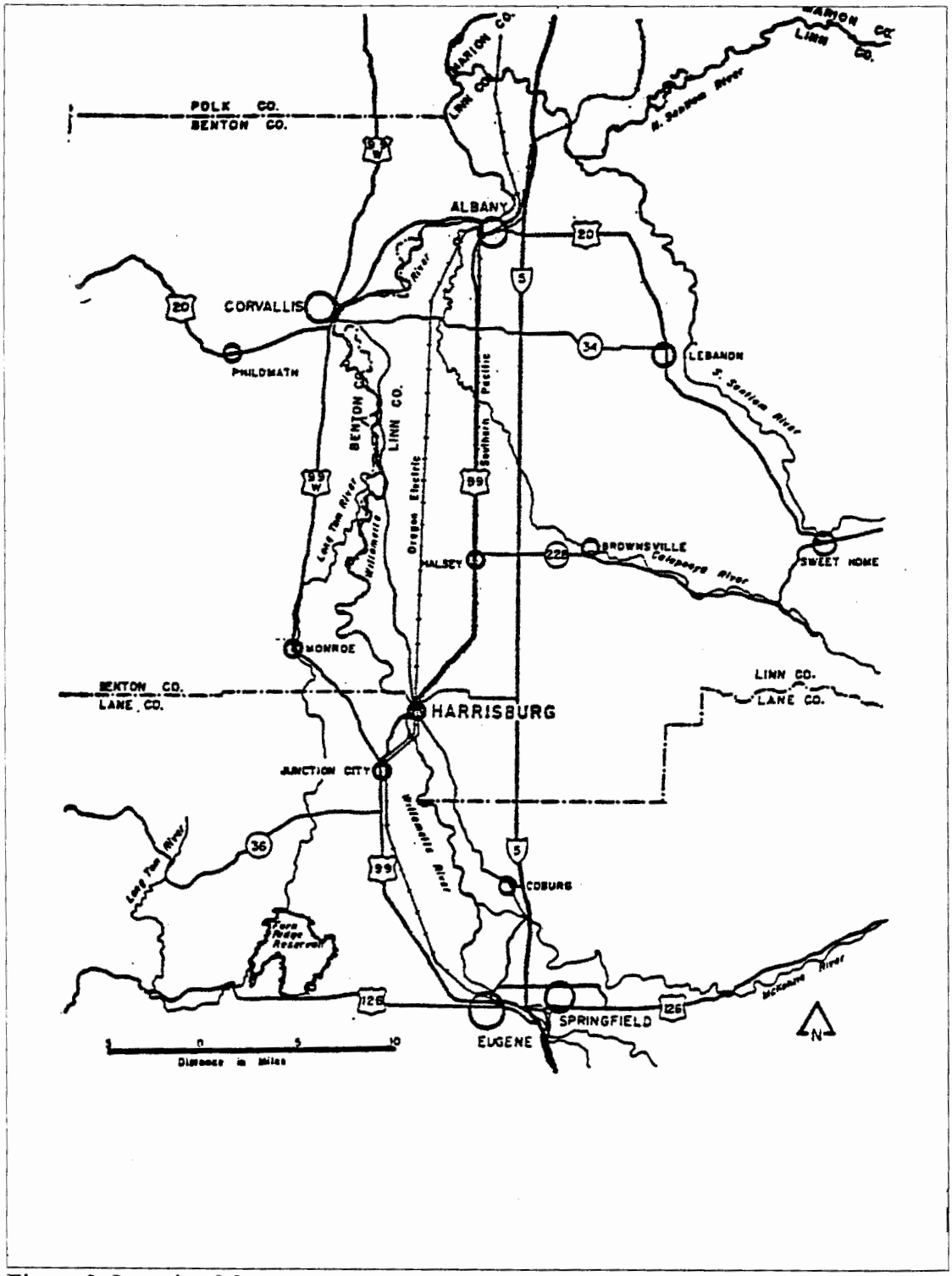

Figure 2. Location Map

TRANSPORTATION SYSTEM PLAN ORGANIZATION

This plan is organized into a summary of existing and future transportation conditions, an evaluation of travel demand forecasts, and future population forecasts. The plan includes project recommendations and funding options for the City of Harrisburg.

Section 2 is an overview of existing transportation conditions within the City's Urban Growth Boundary.

Section 3, Future Conditions, summarizes projected population and land uses within the Urban Growth Boundary during the twenty year planning period. This section presents an analysis of future traffic operations and identifies and addresses any future expected capacity and/or congestion deficiencies.

Section 4, Cost and Financial Analysis, includes existing revenues for transportation improvement projects for Harrisburg, transportation financing and funding overview of Oregon, plus funding options for Harrisburg.

Section 5, Transportation System Plan, includes recommended street classifications, addresses bike and pedestrian plans, and a public transportation plan.

Section 7 introduces the concept of traffic calming, specifically for residential streets, including a description of traffic calming techniques.

TRANSPORTATION SYSTEM PLAN GOALS

The Transportation System Plan goals are based on the goals identified in the Comprehensive Plan, Master Bicycle Plan and in the Transportation Planning Rule (TPR).

GOALS

- To provide and encourage a safe, convenient and economic transportation system.

- To encourage convenient and economic transportation services for seniors and other transporation disadvantaged
- To ensure access to all modes of transportation for the citizens of Harrisburg.
- To provide for alternative travel modes that reduce primary dependence on the automobile.
- To eliminate potentially hazardous situations and facilitate pedestrian access to the downtown commercial districts the City shall encourage the Oregon Department of Transportation to;

1. Approve a four way stop or stop light at the intersection of 3rd Street (Hwy 99E) and Smith Street; and
2. Evaluate all speed zones in the city.

- ❑ Encourage alternative truck routes for industry, agricultural business and commercial traffic.
- ❑ Encourage the development of a system of sidewalks and bike paths linking major areas of the City.
- ❑ Provide an adequate system of arterial and collector streets to provide for the needs of the residential, commercial and industrial areas of the community shall be maintained.
- ❑ Continue to seek funding to implement Harrisburg's Bicycle Master Plan.
- ❑ Encourage the Oregon Department of Transportation (ODOT) to construct a bikeway from Harrisburg to Junction City.

TSP

Section 2

Existing Conditions

EXISTING CONDITIONS

INTRODUCTION

This section provides an overview of existing transportation system conditions within the City's Urban Growth Boundary. The following items were evaluated as part of the review process:

- Existing plans, regulations, and other issues related to transportation
- Physical attributes of the transportation system
- Existing traffic volumes at key locations
- Current traffic operations
- Traffic accident data

REVIEW OF PLANS AND POLICIES

Federal, state, regional, and local plans were reviewed to ensure Harrisburg's Transportation System Plan would complement and integrate with the policies and plans reviewed.

The plans reviewed include the transportation element of Harrisburg's Comprehensive Plan; the City's Zoning and Subdivision Ordinances, Harrisburg's 1989 Strategic Plan, The Harrisburg Downtown Revitalization and Marketing Plan (1996); Harrisburg Design and Community Action Plan (1991) the City of Harrisburg's 1998 Buildable Land and Land Need Analysis; Harrisburg's 1993 Master Bicycle Plan; Linn County's Plan for Bicycling (1995); Linn County's Transportation Plan (1994); the Oregon Transportation Planning Rule; and the Oregon Transportation Plan.

A summary of the Transportation Planning Rule requirements for communities with a population smaller than 25,000 is located in Appendix A, as are the recommended ordinance amendments for the City to consider.

COMMUNITY INVOLVEMENT

This plan was developed with input from City Staff and Public Officials, The Department of Land Conservation and Development's Quick Response Team, a local citizen advisory committee, property owners, business owners, developers and other interested individuals during public workshops.

TRANSPORTATION FACILITIES

Roadway facilities

Roadway facilities constitute the main component of the transportation system in Harrisburg. Roadway facilities include curbs, gutters, sidewalks, bike lanes, and intersection controls.

Figure 3 below shows the primary roadways and planned future street extensions in Harrisburg.

Harrisburg Street Plan

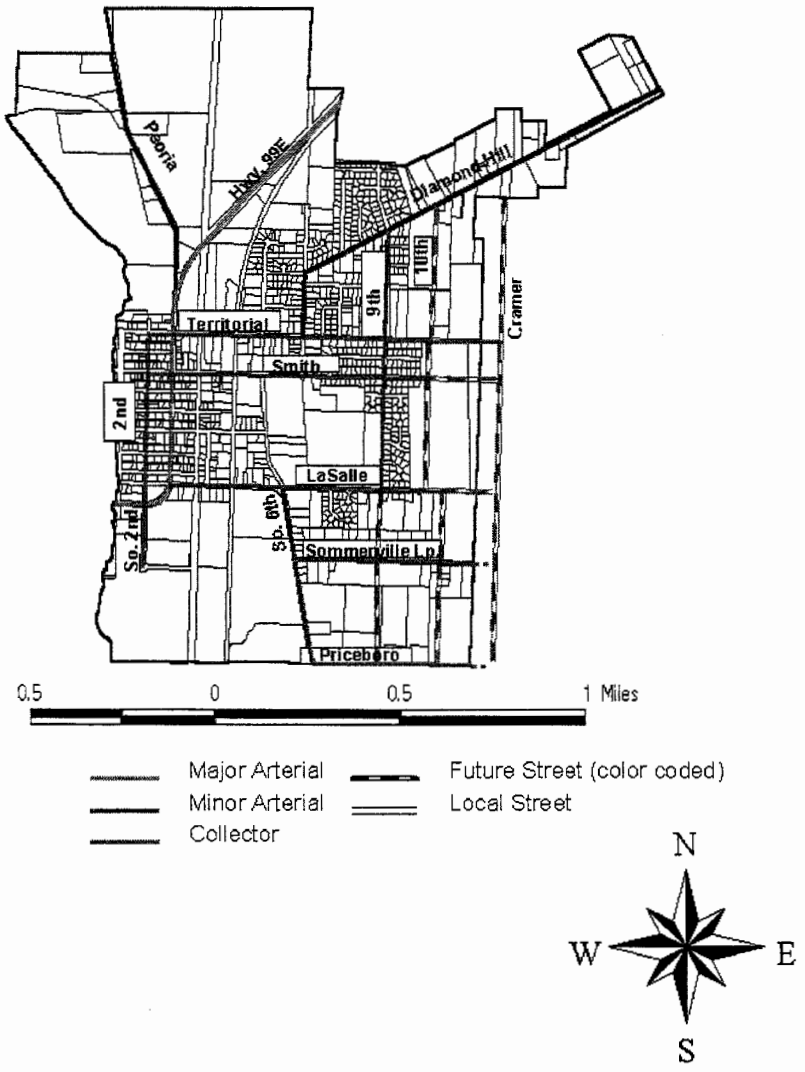

Figure 3. Street Plan

The Oregon Department of Transportation is responsible for maintaining Highway 99E, which bisects Harrisburg from north to south, and the bridge on 99E that crosses the Willamette River at the southwestern city limits. Peoria Rd. and Cramer Avenue (adjacent to the City's eastern Urban Growth Boundary) are maintained by Linn County. The County and the City share maintenance responsibility for Priceboro Road. Private streets are the responsibility of adjacent land owners. The City

maintains all other roadways within the city limits. The City's current functional street classifications include four roadway categories: Major Arterial, Minor Arterial, Collector, and Local.

Appendix B includes a 1999 Public Works inventory of the City's public street network. The inventory shows that all existing arterial and collector streets are paved, as are the majority of the local streets. The few existing gravel roads are in good condition. Residential roads considered in poor condition are: 1st Street from Macy to Moore; 4th Street from Kesling to Macy; 5th Street from LaSalle to Kesling; 6th Street from Quincy to Dempsey; LaSalle from 9th Street to the dead end; Fountain from 2nd Street to the dead end; Kesling from 1st to 2nd Street and from 4th Street to the dead end; and Macy from 4th Street to the dead end. As could be expected most of the streets in poor condition are in the older section of town. Roads listed in fair condition are also clustered in the older part of town and near the Burlington Northern Railroad tracks on 4th Street.

Roadway classifications Table 2-1 below shows the functional classification of existing streets in Harrisburg, and their proposed classifications based on standards and future conditions.

Table 2-1 Inventory of Arterial and Collector Streets by Street Classification

Street	Current Conditions		Year 2020	
	*ADT	Class	ADT	Classification
				(proposed)
Highway 99E/3rd Street	6900-9400	Major Arterial	**13,467-18,346	Major Arterial
Diamond Hill/7th	2460	Major Arterial	3031	Minor Arterial
Peoria Rd.	1899	Major Arterial	***3,149	Minor Arterial
So. 6th /Coburg Rd.	3980	Major Arterial	4863	Minor Arterial
Territorial (West of 9th)	740	Major Arterial	909	Collector
La Salle(2nd. St. to Cramer Ave.)	3510 (W. of So 6th)	M & m Arterial	4,287	Collector
Priceboro (6th St. to Cramer)	310	Major Arterial	689	Collector
Smith St.(2nd St. to Cramer)	1320 (W. of 7th)	Minor Arterial	1,636	Collector
Sommerville Lp.(6th St. to Cramer)	450	Collector	999	Collector
2nd St. (Sommerville Ave. to Territorial)	NA	Collector	NA	Collector
9th St. (Diamond Hill to Priceboro)	700-1000	Minor/ Arterial	848-1,200	Collector
10th St. (Diamond Hill to Priceboro)	NA	Collector	2,000-2,500	Collector
Cramer(Diamond Hill to Priceboro)	NA	NA	NA	Minor Arterial

**Based on a 3.4% AAGR This projections assumes that the additional traffic generated from new growth will be absorbed into these figures. New growth is expected to generate an additional 2,181 trip ends on Hwy 99E by 2020. **AAGR for Peoria Rd. has been 2.13% for the past 11 years.

* Average Daily Traffic

The future traffic estimates are assumptions based on the number of future vehicle trips expected to be generated by the projected additional 548 new housing units in 2017-2020. The new housing units are expected to generate an additional 5,192 vehicle trips. The additional traffic counts have been allocated to the streets according to past distribution percentages. For example, Highway 99E at the bridge typically handles 42% of the traffic in Harrisburg; and 30% north of Territorial; Diamond Hill 11%; and So. 6th , 7%. Traffic numbers were added to other streets in Table 2-1 based on current percentages, and it is assumed that the percentages will remain relatively consistent in the planning period. This is an assumption only, as it

is not possible to project with any certainty what the traffic patterns will be. The local street allocations were made using the following assumptions:

- Territorial: 30% of Diamond Hill traffic
- LaSalle: 88% of So. 6th
- Smith: 54% of Diamond Hill
- 9th N. of Territorial: 28% of Diamond Hill
- 9th N. of LaSalle: 28% of LaSalle
- Sommerville Lp.: 11.3% of So. 6th
- Priceboro: 7.8% of So. 6th.

These are estimates based on current traffic patterns which may change depending on whether 9th and 10th streets are completed as planned. The estimates can provide the City with some idea of how traffic may be distributed within the planning area during the planning period. The City will need to periodically reevaluate the actual traffic patterns to determine if the assumptions need to be revised.

Major Arterials

Arterials are typically divided into major and minor classifications. Major arterials are generally reserved for major highways or freeways and therefore serve through traffic movement between areas and across regions. They are generally wider than lower classification streets, have limited on-street parking, and provide for greater traffic capacities at higher speeds. Direct access from adjacent property may need to be restricted or limited in order to move traffic more efficiently. The length of a typical trip on the arterial system normally exceeds one mile. Arterial streets usually have a considerable amount of commercial and industrial development facing them.

Minor Arterials

Minor arterials provide through traffic movement between smaller areas, and typically involve shorter trips than primary arterials. They are generally wider than lower classification streets, have limited on-street parking, and provide for greater traffic capacities at higher speeds. Access to abutting property and parking may be restricted or limited.

Collectors

Designed to gather and disperse traffic between local neighborhoods, businesses, industries, and arterial streets. They provide a higher degree of access to abutting property and are designed to move traffic at lower volumes than arterials. Collectors are usually wider than local streets.

Local Streets

Designed to provide direct access to adjacent properties while discouraging through traffic movements. They are designed to carry lower traffic volumes at lower speeds than collectors or arterials.

Tables 2-2 and 2-3 list common design and functional classification guidelines for streets. These guidelines helped us to determine appropriate street classifications within Harrisburg's Urban Growth Boundary.

Table 2-2 Design Classification Guidelines

Characteristic	Arterial	Collector	Local Street
Street Spacing	1 mile	1/4 mile	300 ft.
Length	Continuous	1/2 mile	500 ft.
Lanes	4-6	2	2
Minimum Pavement	64 ft.	36 ft.	36 ft.
Access Spacing	1,300 ft.	300 ft.	60 ft.
Vehicle Volume/Day	6,000-30,000	1,000-5,000	Less than 1,000
Striping	Center and Lanes	Center	None
Driveway Design	Curb return	Curb return	Dustpan
Parking	Prohibited	Allowed	Allowed
Median	Yes	No	No

Source: Kimley-Horn and Associates, Inc.

Table 2-3 Design Functional Classification

Classification	Arterial	Collector	Local Street
Turn Lane	Yes	Sometimes	No
Traffic Signals	Yes	No	No
Residential Access	Limited	Indirect	Direct
Pedestrian Crossing	Signalized		
	Intersection	Intersection	Unrestricted
Pedestrians	Fewer	many	Frequent
Bikeways (Striped)	Yes	Sometimes	No
Speed	40 mph	30 mph	20 mph
Building Setback	Considerable	Moderate	Minimum

Source: Kimley-Horn and Associates, Inc.

PEDESTRIAN AND BICYCLE FACILITIES

Most travel inside Harrisburg, whether by automobile, bike, or foot, takes place on the city street system. Most roads were initially constructed without bike lanes, and bicyclists must share the roadway with automobiles. Although traffic speeds are low

on local streets, and bicyclists are relatively safe on these roads, traffic is heavy around schools, on Highway 99E, South 6th, and Diamond Hill. Many residents have expressed an interest in having designated bikeways to increase the level of safety for bike riders, especially for school aged children. Currently only Diamond Hill and South 6th Street provide designated bike lanes within the City of Harrisburg. Table 2-4 shows the location of existing bike lanes within the City. Only two minor arterial streets currently have designated bicycle lanes. Additional information concerning the City's Bicycle Plans and Policies are documented in the Master Bicycle Plan adopted by the City in June of 1993.

Table2-4 Bicycle Facilities

Street	Segment Location	Type	Width	Condition	Jurisdiction
Diamond Hill	7th -10th	Bike Lane	5'	Excellent	City
So. 6th St.	Kesling to Priceboro Priceboro	Bike Lane	5'	Excellent	City

-

The results of a 1999 Transportation survey mailed to residents in Harrisburg are shown in Table 2-5. Fifty-six percent (56%) of respondents thought bike lanes were fairly to very important. Additional comments about bicycle facilities focused primarily on safety issues (designated bike lanes and crossings, safety classes), and additional facilities such as new paths and bike racks.

Pedestrian facilities are a major concern with residents. Survey respondents ranked sidewalks as one of the highest priorities for City improvements. Ninety-two percent (92%) said sidewalks were fairly to very important. Street lights were the number one priority with 96% of the respondents stating they were fairly to very important. Along with sidewalks, 88% of respondents thought curbs and gutters were fairly to very important.

Appendix C contains an inventory of existing sidewalks. As in the street inventory, most sidewalks are in good to excellent condition. Sidewalks in poor condition include 2nd Street from Macy to Moore; 4th Street from Kesling to Macy; and Kesling from 1st to 5th. All of these sidewalks are in the older section of the City. All new subdivisions are required to have sidewalks. Most of the City's streets have sidewalks, but some of the older sections still have none.

Table 2-5
Transportation Survey Results

Streets:	Not very important	Fairly important	Very important
Sidewalks	4 (8%)	13 (26%)	33 (66%)
Curb & Gutter	6 (12%)	14 (29%)	29 (59%)
Bike Lanes	22 (44%)	16 (32%)	12 (24%)
Planting Strip	29 (58%)	16 (32%)	5 (10%)
On-Street Parking	19 (40%)	18 (38%)	10 (21%)
Street Lights	2 (4%)	13 (26%)	35 (70%)
Other:			
Public Transportation	19 (38%)	18 (36%)	13 (26%)
Park & Rides	23 (49%)	19 (40%)	5 (11%)
Public Parking Lots	15 (33%)	19 (41%)	12 (26%)

1999 Harrisburg Mail Survey

PUBLIC TRANSPORTATION FACILITIES

There are currently no public transportation services readily available to the residents of Harrisburg. They can call Junction City for special service, or if they can get to Junction City four miles South of Harrisburg they can catch a LTD Bus. Linn County does not currently offer shuttle service to Harrisburg. However, most residents of Harrisburg are more interested in bus service to Eugene, rather than Albany. Many have expressed interest in having at least a LTD bus stop at the Bridge, and at best a bus stop near the downtown on Highway 99E with service once a day each way. Funding is the major obstacle for negotiating bus service, and no solutions have been identified at this time. The City will continue to explore public transportation opportunities with both Linn and Lane County.

AIR TRANSPORTATION FACILITIES

There are no air transportation or services available in Harrisburg. Commercial passenger services are available at Mahlon Sweet in Eugene, (10 miles), and Portland International Airport (95 miles). Other airports less than an hour away include Albany Municipal (runway length: 3,000 ft.), Corvallis Municipal (runway length: 5,060 ft.), and Lebanon State Airport (runway length: 2,500 ft.).

There are a couple of regional issues that may affect the future of air transportation in Linn County. The Albany facility is currently being studied and may close; and the Lebanon facility my be maintained at the current B1 level, which means it cannot accommodate planes that have more than 10 seating capacity. If Albany closes and Lebanon stays at the current level there may be economic potential for the

construction of another airport in Linn County. The airport would not accommodate commercial carriers but would serve other important recreational, business and resource related planes.

RAIL FACILITIES

Burlington Northern and Union Pacific rail lines bisect the City, running north and south. Amtrak is available in Eugene (20 miles). The future of high speed rail in Linn County is still undecided, but may become a reality in the future. The original plan was for the rail to use the Union Pacific line and come through Harrisburg. This may disrupt transportation patterns in Harrisburg as a high speed rail system would necessitate additional crossing in town. In addition having a high speed train go through town raises safety issues yet to be resolved. One alternative that has been discussed is to by pass Halsey and Harrisburg. This would eliminate safety concerns and traffic disruptions. The City shall continue to participate in any future discussions of high speed rail through Harrisburg.

WATER FACILITIES

There are no navigable waterways within Harrisburg. The Willamette River, which serves as the western city limit, provides scenic and recreational amenities as well as significant wildlife habitat.

PIPELINE FACILITIES

Northwest Natural Gas provides Harrisburg with a high quality pressure main. Pipelines serve the south industrial area and are also located along Highway 99E, Peoria Rd., and along So. 6th Street. Several pipelines branch off to serve the city.

EXISTING TRANSPORTATION OPERATIONS ANALYSIS

The scope of this analysis is limited to the streets and intersections selected by the Citizen Advisory Committee and the Planning Commission. The Public Works Department set out traffic counters at designated intersections. Traffic volumes were compiled for a week at each location of the following locations: Diamond Hill (East of 9th Street); 9th St. (North of Territorial); 9th Street (north of LaSalle); Territorial (west of 9th Street by high school); Smith Street (west of 7th by middle school); LaSalle Street (west of 6th Street); Sommerville (east of So. 6th); So 6th Street (south of LaSalle); and Priceboro Rd. (east of So. 6th Street). In addition to these traffic counts we reviewed historic traffic data from ODOT's permanent traffic recorders. (refer to Table 2-1 and the map in Appendix F).

The Department of Land Conservation and Development's Quick Response Team program provided funding for consultant work related to the eastern north south alignment of the future 10th street. Table 2-6 shows the Level of Service criteria in seconds per vehicle used to help determine the estimated level of service (LOS) at major intersections. The table is followed by a brief description of traffic movement

characteristics associated with each level. Level of Service is measured in actual travel time (seconds) through the intersection and the travel time if the vehicle had not been stopped or slowed. A Level of Service of "A" is optimal while a Level of Service of "F" is unacceptable.

Table 2-6
Level of Service Criteria

Level of Service	Average Total Daily (Sec/veh)
A	≤ 5
B	>5 and ≤ 10
C	> 10 and ≤20
D	> 20 and ≤ 30
E	> 30 and ≤45
F	>45

- A: Relatively free flow of traffic with some stops at signalized or stop sign controlled intersection. Average speeds would be at least 30 miles per hour.
- B: Stable traffic flow with slight delays at signalized or stop sign controlled intersections. Average speed would vary between 25 and 30 miles per hour.
- C: Stable traffic flow but with delays at signalized or stop sign controlled intersections. Delays are greater than at level B but still acceptable to the motorist. The average speeds would vary between 20 and 25 miles per hour.
- D: Traffic flow would approach unstable operating conditions. Delays at signalized or stop sign controlled intersections would be tolerable and could include waiting through several signal cycles for some motorists. The average speed would vary between 15 and 20 miles per hour.
- E: Traffic flow would be unstable with congestion and intolerable delays to motorists. The average speed would be approximately 10 to 15 miles per hour.
- F: Traffic flow would be forced and jammed with stop and go operating conditions and intolerable delays. The average speed would be less than 10 miles per hour.

In general, level of service in Harrisburg under existing conditions is good. Congestion is a problem during normal commuting hours at the following locations:
Highway 99E at the intersection of: Territorial Road
Smith Street
LaSalle Street
Territorial at 7th

There are no stop signs or stop lights along Highway 99E to help regulate traffic flow, so during peak travel times, vehicles at the above intersections often wait several minutes to enter or exit off the Highway, and traffic backs up to the Rail Road tracks.

The intersection of Territorial and 7th is problematic for two reasons. First, it is a designated truck route through a neighborhood, and secondly, it is the road that Safari Motor Coach manufacturing uses to transport bus chassies to the Diamond Hill plant.

As traffic volumes increase along Highway 99E and new homes are built in the eastern section of the City, the level of service at these intersections may fall to unacceptable levels.

The Quick Response Team evaluated major intersections to determine existing and future Level of Service by specific volume to capacity ratios. A volume to capacity ratio (v/c) is the peak hour traffic volume (vehicles/hour) on a highway section divided by the maximum volume that the highway section can handle. For example, when v/c equals 0.85, peak hour traffic uses 85 percent of a highway's capacity. The results are displayed in Table 2-7.

Table 2-7 Traffic Operations at Major Intersections

Intersection	Traffic Control Assumed	Overall V/C	Maximum V/C
Highway 99E and La Salle	Future Signal	0.84	0.80
Highway 99E and Smith	Future Signal	0.74	0.80
Highway 99E and Territorial	Future Signal	0.72	0.80
Highway 99E and Peoria	Future Signal	< 0.80 (estimated*)	0.80
Intersection	**Traffic Control Assumed**	**Overall LOS**	**LOS Standard**
La Salle and S. 6th	4-Way Stop	D or better	D or Better
Territorial and N. 7th	4-Way Stop	D or better	D or Better
All other intersections	4-Way Stop	D or Better	D or Better
Intersection	**Traffic Control Assumed**	**Minor Street LOS**	**LOS Standard**
Highway 99E and Monroe	2-Way Stop	E to F (estimated*)	D or Better
Highway 99E and Moore	2-Way Stop	E to F (estimated*)	D or Better
Highway 99E and Macy	2-Way Stop	E to F (estimated*)	D or Better
Highway 99E and Kesling	2-Way Stop	E to F (estimated*)	D or Better
Highway 99E and Schooling	2-Way Stop	E to F (estimated*)	D or Better
Highway 99E and Fountain	2-Way Stop	E to F (estimated*)	D or Better
All other intersections	2-Way Stop	D or Better	D or Better

* No daily traffic counts were available for one of more of the intersection approaches. Operations were based on estimated volumes, and compared with capacity thresholds for unsignalized intersections as shown in Figure 10-3 of the 1994 Highway Capacity Manual.

The Quick Response Team's Level of Service analysis found that traffic signals will be necessary on Highway 99E to ensure adequate operation of minor street connections to the highway. The Team's recommendations were:

- Install traffic signals where Highway 99E intersects with LaSalle, Smith, and Territorial Streets, and Peoria Road when signal warrants are satisfied and traffic operations demonstrate the need for the improvements.
- Add a northbound right turn lane at Highway 99E and LaSalle Street with the traffic signal.
- Reconfigure the westbound minor street approaches at the proposed traffic signals to provide left turn bays. Bays should provide roughly 100 feet of storage and may require removal of some on-street parking.
- Monitor traffic operations at the remaining 2-way stop control intersections. If poor operations occur with increased traffic, convert them to 4-way stop control.

TRANSPORTATION SAFETY

Accidents in Harrisburg reported to the Linn County Sheriff's Department from January 1997 to June 25, 1999 are summarized in Table 2-8. Oregon Department of Transportation accident data for that portion of Highway 99E within Harrisburg's City Limits is summarized in Table 2-8.

Table 2-8 Local Accident Data: 1/1/97 to 6/25/99

Street	Intersection	1997	1998	1999	Totals
1st	Smith		Injury(1)		1
2nd	Kesling	Hit & Run(2)			
	Territorial		Non-Injury(1)		3
99E	Territorial	Hit & Run(1)	Non-Injury(4)		
	Monroe	Non-Injury(1)			
	LaSalle		Non-Injury(1)		
	Fountain	Non-Injury(2)		Non-Injury(1)	
	No Cross st.	Non-Injury(1)	Non-Injury(2)	Non-Injury(1)	14
S. 6th	Kesling	Hit & Run(2)			
	LaSalle	Non-Injury (1)	Non-Injury(1)	Injury(1)	
		Injury (1)			6
	Priceboro		Non-Injury(2)		
			Injury(1)		
	No Cross st.		Non-Injury(1)		4
7th	Quincy	Non-Injury(1)			
	Territorial	Non-Injury (1)	Injury(1)		
	Smith	Non-Injury(1)			
	Gaileen Way	Hit & Run (1)			5
7th Place	Territorial	Non-Injury(1)			1
9th	Diamond Hill		Injury(1)		
			Non-Injury(1)		2
Cherry	9th		Hit & Run(1)		
			Non-Injury(1)		2
Dempsey	6th	Injury (2)			2
			Non-Injury(1)		1
	Park	Hit & Run(1)			1
Diamond Hill		Non-Injury(1)			1
Greenway	2nd		Hit & Run (2)		2
LaSalle	5th	Non-Injury(1)			2
Macy	2nd		Hit & Run (2)		2
Monroe	9th	Hit & Run (1)			1
Moore	7th		Non-injury (2)		2
Priceboro	Coburg	Injury(3)	Non-Injury(2)		2
Smith	99E	Non-Injury(1)			
		Hit & Run(1)			
	2nd	Non-Injury(1)			
		Hit & Run (1)			
	3rd & 4th	Non-Injury(1)			
	6th	Injury(1)			
	7th	Hit & Run(1)			7

Sommerville	6th	Non-Injury(1)	Hit & Run(1)		2
Stanley	6th	Injury (2)			2
Territorial	4th		Non-Injury(1)		
	5th	Hit & Run (1)			
	7th		Non-Injury(2)		
	9th	Hit & Run (1)			5

Table 2-9

SUMMARY OF TRAFFIC ACCIDENT DATA: 1/1/95-6/30/98
Highway 58 milepost 28.16 - 29.09
Harrisburg

Year	Collision Type	Fatal Accidents	Non-fatal Accidents	Property Damage Only	Total Accidents
1995	Rear-End			2	2
	Turning Movements		1	1	2
	Fixed/other Object	1			1
1995 Year Totals		1	1	3	5
1996	Angle		1	2	3
1996	Fixed/other Object		1		1
	Miscellaneous			1	1
1996 Year Totals					5
1997	Rear-End		1	1	2
1997	Turning Movements			2	1
1997	Pedestrian		1		1
1997 Year Totals					4
1998					
1998					
1998					
1998 Year Totals	none reported at this time				0
Final Totals					14

Source Oregon Department of Transportation: Transportation Development Branch

Both tables suggest that more accidents are associated with Highway 99E than other areas of the City. Better traffic controls at major intersections along Highway 99E may reduce future accidents.

The most common type of accident reported by the Police Department involved non-injuries (38) followed by hit and runs (20) and lastly accidents resulting in injury (14).

ODOT data reported only two fatalities during the approximate three-year time frame. The majority of accidents involved property damage only.

T
S
P

Section 3

Future Conditions

FUTURE CONDITIONS

INTRODUCTION

This section characterizes the existing and projected population and employment forecasts based on the City's 1998 Buildable Land and Land Need Analysis. Detailed information about Harrisburg's future population and employment forecasts is documented in that report.

Table 3-1 below shows the Average Annual Growth Rates (AAGR) for the State of Oregon, Linn County and Harrisburg from 1990 to 1998. Population is Harrisburg increased at an annual rate of 3.5%, which is significantly higher than either the state's 1.8% rate, or the County's 2.3% rate during the same time period.

Table 3. Recent population trends for Oregon Linn County and Harrisburg: 1990-1998.

Year	Oregon	Linn County	Harrisburg
1990	2,842,321	91,227	1939
1991	2,930,000	93,200	1945
1992	2,979,000	95,000	1965
1993	3,038,000	96,100	1990
1994	3,082,000	96,300	2,030
1995	3,132,000	98,100	2,130
1996	3,181,000	100,000	2,205
1997	3,217,000	100,700	2,310
1998	3,281,974	102,200	2,535
AAGR	1.8%	2.3%	3.4%

Source: Center for Population Research & Census, PSU
AAGR=Average Annual Growth Rate (compound)

Demand for residential land is driven primarily by growth in household population. The City's 1998 Buildable Land and Land Need Analysis contains the detailed population and employment outlook for Harrisburg for the next 20 year planning period. It concludes that:

- The population of Harrisburg in 1990 was 1939 (US Census data)
- The population of Harrisburg in 1998 was 2535. CPRC (Center for Population and Research and Census)
- Harrisburg's population forecast for the year 2017 is 3640 within the City limits, and 3799 within the Urban Growth Boundary. The City will need to accommodate 548 additional housing units within its urban growth boundary during the 20 year planning period.

Table 3.2. Harrisburg's Historic Age Group Distributions

	1980	% of pop	1990	% of pop.	% Change 1980-90
<5	171	9	178	9.1	+.1
5-14	*356*	*19*	*340*	*17.5*	*-1.5*
15-24	*340*	*18*	*239*	*12.3*	*-5.7*
25-34	331	17.5	363	18.7	+1.2
35-44	**216**	**11.4**	**277**	**14.3**	**+2.9**
45-54	157	8.4	170	8.8	+.4
55-64	131	7	138	7.1	+,1
65+	**173**	**9.1**	**234**	**12**	**+2.9**
Totals	**1875**		**1939**		

Source: 1980 and 1990 US Census

EMPLOYMENT FORECASTS

The demand for non-residential land in the Harrisburg UGB is a function of future employment, the density of employment, and the specific type of employment on any given parcel. We prepared an employment forecast by reviewing and analyzing employment projections by region, county and City. We forecast sector level employment in Harrisburg for the year 2017 first using Region 4 employment projection growth rates and second we projected Harrisburg 2017 employment as a percentage of Linn County employment by sector. We used Linn Council of Government's employee per acre (EPA-see table below) ratios developed for the 1993 Metro Industrial Lands Inventory.

Table 3.3. Harrisburg Projected Commercial & Industrial Land Needs Using Region 4 Employment Projections

Plan Designation		1990	Projected % Growth Rate	: 2017	New emp. 1990-2017	EPA	Projected Acres
M-2	Durables	196	1.49	292	96	15	6.4
M-2	Non-durables	71	0.79	88	17	15	1.1
	Construction & Mining	44	2.4	83	(39)	20	2
M-2	Mining 11%	5		9	4	10	.
M-1	Construction 89%	39		74	35	20	
M-1	TC&U	45	1.22	62	17	10	1.7
	Trade	170	1.94	(286)	(116)		
M-1	Wholesale =15% or 43			43	15	10	1.5
C-1	Retail = 85% or 243			243	101	25	4
C-Office	FIRE	34	1.94	57	23	25	.9
C-Office	Services	187	3.18	(344)435	(196)248	20	(9.8)12.4
Pub. Land	Government	11	1.01	14	3	20	1.5

Source: Oregon Employment Dept. 1998 Regional Economic Profile

Table 3-4. Projected Land Needs Based on Linn County Employment Projections

		2017 Linn Co.	2017 Harrisburg	Harrisburg as % of Linn	New emp. 1990-2017	Projected Land
Total non-farm employment		54,326	1218	2.2	460	
Manufacturing:	EPA					
Durables	15	11,951	287	2.4	91	6.1
Non-durables	15	4,183	105	2.5	30	2
Constructi on	20	3,531	64	1.8	25	1.3
Mining	10	272	7	2.7	2	.2
Trans.,Comm & Util.	10	3,205	67	2.1	22	2.2
Trade	10	1,901	42	2.2	14	1.4
Wholesale						
Retail	25	9,235	305	3.3	163	6.5
FIRE	25	2,010	50	2.5	16	.6
Services	20	15,211	(217)274	1.8	(68.7)87	(3.4)4.4*
Government (Pub. Admin.)	20	2,064	17	0.8	6	.3

Source: Office of Economic Analysis January 1997

Tables 3-3 and 3-4 show that by the year 2017 employment in Harrisburg can expect an increase of 460 to 642 employees.

Table 3.5. Comparison of land need to supply

	Land Need Acres	Land Supply Net Acres	Surplus/Deficit
Single family	68	136.29	+68
Multi-family	7	37.75	+30
Commercial	10.5-14.7	9.1	-1.4 to -5.6
Industrial	12.6-13.2	85.8	+72.6 to +73.2
Parks/open space	26	*	*

*** R-1 acres were reduced by 26 acres to accommodate future parks**

Table 3-5 above shows the estimated number acres within the city's Urban Growth Boundary needed to meet demand by the year 2017. The population projections addressed in the Buildable Land and Land Need Analysis suggest that by 2017 the City will have to accommodate 408 additional single family units and 140 multi-family units. Most of the growth will likely be accommodated in the eastern residential areas. Each additional dwelling unit will generate from 8 to 10 additional vehicle trip ends.

Table 3-6 projects the additional vehicle trips that will be generated by the new residential development. We have allocated the additional vehicle trips among the

major adjacent roadways based on past traffic distribution patterns. Traffic along Highway 99E has been growing at an annual rate of 3.4% and we assume this will continue during the planning period. We have allocated some additional vehicle trips to the 3.4% projection to account for the impact of the projected new dwelling units.

Table 3-6 Additional Vehicle Trip Ends: 2017

	7-9 a.m.		4-6 p.m.		Weekday	
No. of DU by Type	Entering	Exiting	Entering	Exiting	Entering	Exiting
Single Family: 408	74	221	244	137	1890	1890
Multi-family: 140	27	80	93	52	706	706
Totals	101	301	337	189	2596	2596

Table 5-2 in Section 5 shows how vehicle miles might be distributed among major streets in the year 2020. Clearly Highway 99E will have the most dramatic increase in vehicle trips per day.

DEVELOPMENT OF TRANSPORTATION ALTERNATIVES

The simple capacity analysis suggests that as Harrisburg grows, so will the need for timely cross town traffic. Congestion at Highway 99E will likely increase as well, and the level of service at critical intersections may become unacceptable. A no build alternative will also result in more congestion on Highway 99E.

The City of Harrisburg should continue to develop a network of local and arterial streets that will facilitate connectivity between the residential areas, the commercial downtown and access to Diamond Hill onto Interstate 5, Highway 99E, Peoria Rd. and So. 6th (Coburg Rd.). These roadways are the major and minor arterial streets serving Harrisburg.

TRAFFIC CONTOL

To facilitate access on and off Highway 99E and to the commercial downtown and riverfront amenities, the City should continue to seek approval from ODOT for a stop sign or light the intersection of Territorial and/or Smith Street. This would alleviate congestion at these intersections and provide safer pedestrian access to the downtown and riverfront recreational areas. In addition it would encourage commercial activity in the downtown business district.

FUTURE STREETS

The future extension of 9th Street between LaSalle and Sommerville Lp. will provide residents a north south access to Interstate 5 via Diamond Hill Road, and to 99E via LaSalle.

Implement the future plan to extend 10th Street from Territorial to Priceboro and to accommodate a future neighborhood commercial center/park at the intersection of Smith and 10th Street. Smith Street can in essence, become the City's main Boulevard that connects the eastern residential areas to the western commercial and recreational core.

The City should continue to work with the Department of Land Conservation and Development to extend the City's eastern Urban Growth Boundary to include Cramer Avenue. The City has long planned to incorporate Cramer Avenue into the Urban Growth Boundary to serve as a minor arterial and possible truck by pass for the City. The street network plan focuses on providing better vehicular and pedestrian access and connectivity to all areas of the City. The extension of 9th Street and the planned future extension of 10 Street and Cramer Avenue will insure that good alternatives are provided concurrent with development. Providing alternate north south connections will reduce the traffic load on Highway 99E.

OTHER LOCAL STREETS

While the Street Plan identifies future streets, it is important for the City to require local streets to connect with existing and planned streets whenever possible. Multiple access points achieved through a well connected street network are important to ensure that emergency services are not cut off or unduly hindered. In addition, a well connected street network reduces the load on any one street and therefore provides for a more pedestrian and bicycle friendly environment.

The detailed future recommendations of the Quick Response Team (QRT) are included in Appendix F. In general, the Quick Response Team recommended that the City consider making the future 10th street extension a 32' wide street as opposed to the current 36'standard required by the City. However, the Planning Commission wishes to retain the current 36' standard. In addition the newly constructed street should include curb extensions to encourage slower traffic speeds through the residential district, and to provide for a 22 foot wide pedestrian friendly crossing distance at intersections. The Quick Response Team evaluated the feasibility and possible location of a neighborhood commercial overlay zone that would accommodate mixed uses.

The Quick Response Team presented several neighborhood commercial location alternatives to local stakeholders. The most popular location alternative was to establish a park/neighborhood commercial center at the end of Smith Street, between Territorial and Smith. This would connect the Commercial downtown and riverfront park with the eastern residential areas. Smith Street would in essence become the main boulevard in town. Appendix E includes the detailed analysis of the preferred neighborhood commercial center location and Smith Street Boulevard connection.

TSP

Section 4

Cost and Financial Analysis

COST AND FINANCIAL ANALYSIS

INTRODUCTION

This section is designed to address the requirements of the Transportation Planning Rule for a financing program. The financing program must include a list of planned transportation facilities and improvements, and an estimate of the timing and costs of the projects. They must include an analysis of the ability of the existing and potential funding sources to fund proposed transportation improvements.

PROPOSED TRANPORTATION IMPROVEMENT PROJECTS

The City has a Capital Improvement Plan (CIP) which serves as the guiding document for determining and allocating the City's System Development Charges. The Capital Improvement Plan has a transportation element, which identifies and prioritizes transportation projects the City has targeted to complete within a five years planning period. The Capital Improvement Plan is revised as needed, usually on an annual basis. The availability of funds impacts how often the Capital Improvement Plan is revised, and how many new projects are added to the Plan. Table 4-1 below lists the transportation projects identified in the City's 1999 Capital Improvement Plan.

Table 4-1 City of Harrisburg Transportation CIP: 1999

Project description	**Planned Date of Completion**	***Estimated Cost: June 1999 dollars**
9th St. from LaSalle to Priceboro (new road)	2006	$654,759
9th St. from Diamond Hill to LaSalle (upgrade)	2010	$345,000
Cramer Ave. from Priceboro to Diamond Hill	2006	$1,668,980
LaSalle from 3rd to 6th	2006	$630,000
LaSalle overlay from 6th to 9th	2006	$75,000
Smith St. from 4th to UPRR	2010	$189,000
10th Street(Terr.-Priceboro	2010	$1,410,000
So. 6th from Kesling to Smith		$306,000
Total		**$3,562,739**

*Costs are updated periodically using the Engineering News Record (ENR) Construction Cost Index

System development charges are fees charged to help pay for capital improvements, including facilities or assets used for transportation. Fees are usually paid by developers. Detailed information on the City's System Development Charge methodology and costs are available at City Hall.

TRANSPORTATION FINANCING AND FUNDING OVERVIEW

According to the 1993 Oregon Roads Finance Study, nearly one-third of Oregon's road miles are in poor condition. City transportation needs identified in the 1999 Capital Improvement Plan through the year 2010 total $3,562,739. The City currently has $120,571 available to fund transportation needs. Harrisburg is growing faster than the state or county, and is likely to face increased growth pressures over the next twenty years due to its location so near Eugene/Springfield, Corvallis, and Albany. Harrisburg will have to develop creative transportation funding strategies for future projects. This may be particularly challenging given the recent anti-tax sentiment of Oregon voters.

To help identify funding options for the City of Harrisburg we reviewed documents and programs at the State, County and local levels. Appendix D provides a summary of current funding programs the City may be able to access to help fund its transportation need.

Transportation Funding in Oregon

Table 4-1 shows the sources of road related revenues in Oregon by jurisdiction level. Statewide, the State Highway Trust Fund composes nearly half of road related revenues. This fund is funded by state imposed transportation user fees, including motor vehicle fuel taxes, weight-mile taxes on trucks, and vehicle registration fees.

Table 4-1
FY 91 Road-Related Revenues by Jurisdictional Level

Funding Source	State	County	City	Statewide
State Highway Trust Fund	58%	38%	41%	48%
Federal	34%	40%	4%	30%
Local	0%	22%	55%	17%
Other	9%	0%	0%	4%
Total	100%	100%	100%	100%

Source: Oregon Department of Transportation (1993), Oregon Roads Study

Approximately 16% of the Highway Trust Fund is shared with cities and 24% with counties. State highway programs receive the remaining 60%. The shared funds are distributed to counties based on their share of vehicle registrations, and to cities based on their share of population. $500,000 is reserved to share with counties to improve county equity, and $500,000 is reserved to share with cities as a part of the Special City Allotment program.

Federal transportation monies come from a variety of taxes on gasoline, diesel, other fuels, truck sales, tires, and interstate truck weight. These funds are allocated to programs established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The programs include the Surface Transportation, Interstate, National Highway System, Bridge Replacement and Rehabilitation, and Enhancement

programs. Based on 1995 estimates Intermodal Surface Transportation Efficiency Act programs contributed $156 million to State Highway programs, $7 million to counties, $10 million to large cities and $5 million to small cities in Oregon.

In addition to Intermodal Surface Transportation Efficienty Act funds, some counties receive a share of funds from timber sales.

Table 4-2 shows that for Harrisburg and other cities, the State Highway Trust Fund contributes 41% of their total transportation revenues. Federal and State transportation funds are allocated by ODOT throughout the state through the Statewide Transportation Improvement Program or STIP.

Table 4-2
Estimated State Highway Funds
Revenue (in millions of current $$)

Year	Revenue	Average Annual Growth Rate
1996	$584.30	
1997	$628.30	7.0%
1998	$665.00	5.5%
1999	$712.20	6.6%
2000	$764.70	6.9%
2005	$963.60	4.7%
2010	$1,110.00	2.9%
2015	$1,248.90	2.4%

Source: Oregon Department of Transportation, 1995. Financial Assumptions for the Development of Metropolitan Transportation Plans.

Outlook for federal and state revenue in Oregon

Table 4-3 shows the estimated level of state highway funds in Oregon through the year 2015. These are estimates only, and are subject to change with changes in economic conditions. The estimates were developed in 1994 by an ODOT committee and were based on the following assumptions; for the State Highway Fund revenue it was assumed that fuel tax will increase 1 cent per gallon added every fourth year, or equivalent increases in vehicle registration fees or other revenue sources. The committee also assumed that the Transportation Planning Rule goals are met. The estimate shows that the State Highway Fund will grow faster than inflation (the committee assumed annual inflation will be 3.7%) prior to 2005, and then grow slower than inflation after 2005.

Table 4-3
Funds Available to Finance State Highway Modernization or Other Activities (in millions of current dollars)

Year	Available Funds	Average Annual Growth Rate
1998	$57.2	
2000	$100.5	32.6%
2005	$175.5	11.8%
2010	$161.9	-1.6%
2015	$118.8	-6.0%
2020	$40.8	-19.2%

Source: Oregon Department of Transporation, 1995. Financial Assumptions for the Development of Metropolitan Transportation Plans

ODOT subtracted out sufficient funds to maintain and preserve existing infrastructure and services in order to estimate funds available for State Highway Modernization. Those estimates are listed in Table 4-3 above. Funds for Modernization are expected to grow much faster that inflation through 2005 and then decline through 2020. By the year 2020 ODOT estimates modernization funds (adjusting for inflation rate of 3.7%) would drop approximately $17 million below the 1998 levels.

ODOT also estimated future funding levels for two additional Intermodal Surface Transportation Efficiency Act funds; Bridge Replacement and Rehabilitation and Transportation Enhancement. Bridge Replacement and Rehabilitation funds provide funds to rehabilitate or replace existing bridges on any public right–of-way. The funds are allocated based on technical formula that measures bridge condition and use. Transportation enhancement funds are used to provide bicycle and pedestrian facilities, landscaping, scenic or historical highway programs, rehabilitation and operation of historic transportation structures, and similar uses. Expected funding levels for Intermodal Surface Transportation Efficiency Act program through the year 2020 are presented in Table 4-4 below. The funds are expected to grow at the same rate assumed by the ODOT committee (3.7%). Adjusting for inflation the funds are expected to decline at an annual rate of 1.9% during the planning period.

Table 4-4
Estimated Level of Other ISTEA Funds Available in Oregon 1998-2020 (in millions of current dollars)

Year	Bridge Replacement and Rehabilitation	Transportation Enhancement
1998	$10.6	$6.0
2000	$11.0	$6.2
2005	$12.0	$6.8
2010	$13.1	$7.4
2015	$14.1	$8.0
2020	$15.1	$8.6

Source: Oregon Department of Transportation, 1995. Financial Assumptions for the Development of Metropolitan Transportation Plans.

TRANSPORTATION FUNDING IN LINN COUNTY

Linn County has financed road construction, improvement and maintenance with funds from the sale of federal forest service timber dollars and state gas taxes. All receipts from timber sales on federal forest lands within the County are split with the County. Linn receives 25% of the proceeds from the sales. Schools receive 25% of the money and roads receive 75%.

Historically Linn has received approximately 6.8 million dollars annually from sales. Timber sales have declined on Northwest forests and the County expects the trend to continue as the Clinton timber plan is implemented. If the plan is renewed in the year 2004, the County can expect timber receipts worth 58% of the current five year average.

Based on the County's analysis, its road network will not need significant expansion over the nest 20 years. The County's financing needs over the next 20 years will revolve primarily around maintenance and repair of existing roadways. Currently the County's capital improvement program runs around 4 to 5 million dollars each year.

The County receives a share of gasoline tax annually. The gas tax share is calculated by the proportion of the state's registered drivers in Linn County compared to the state as a whole. The tax is set by the state, and the shares are calculated from the Department of Motor Vehicle records from the previous year. The other major source of money comes from the Federal Intermodal Transportation Efficiency Act (ISTEA).

The total Road Department budget for fiscal year 1998-99 is nearly 11 million dollars with the bulk of funding coming from the forest service revenues and gas tax. As timber receipts continue to decline the County will need to identify an alternative

source of funding. The County has sufficient funding to implement its plan over the next 10 years, but long term funding has not been identified.

TRANPORTATION FUNDING IN HARRISBURG

Table 4-6 Below shows a breakdown of transportation revenues by source and expenditure from 1995 to 1998.

Table 4-6 Transportation Related Revenues by Source and Expenditures by Program in Harrisburg, Fiscal Year 1995-96 to 1998-99 (in current dollars)

Revenue Source/ Expenditure Program	1995-96 Actual	1996-97 Actual	1997-98 Actual
Total Revenue	**$272,803**	**$341,459**	**$373,581**
Fund Balance	$87,037	$117,183	$146,298
Gas Tax	$95,390	$95,194	$97,485
SCA Grants	$25,000		$0
Interest Income	$4,926	$7,827	$4,986
Franchise Fee	$11,500	$11,500	$11,500
Miscellaneous	$4,565	$3,470	$1,558
Bikeway/Walkway Grant(ODOT)		$85,462	$25,000
Forest Service Grant			$25,000
Transportation SDC	$0	$11,452	$29,253
Assessments	$44,385	$9,371	$32,501
Total Expenditure	**$155,620**	**$98,247**	**$275,190**
Personnel Services	$35,500	$38,020	$39,223
Materials and Services	$14,572	$21,141	$21,534
Captial Outlay	$103,121	$36,635	$207,708
Transfers to Other Funds	$2,427	$2,451	$6,725
Contingency			

Source: City of Harrisburg

The City's share of gas tax receipts has been the major source of transportation funding for the City. Grant funds have played a major role in financing City projects. System Development Fees are contributing more dollars over time, and may play a significant role in financing transportation projects in the future.

FUTURE FUNDING SOURCES FOR THE CITY OF HARRISBURG

The City should continue to seek state and federal grant fund to help meet the City's future transportation needs. The City should review the funding sources in Appendix D of this document and determine if new funding streams can be tapped.

The City's Capital Improvement Program should be updated annually to ensure adequate System Development Fees are determined and collected for projects that primarily serve new development.

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Section 5

Transportation System Plan

TRANSPORTATION SYSTEM PLAN

INTRODUCTION

This section describes the individual elements that comprise the Harrisburg Transportation System Plan. Appendix A contains recommended changes to the City's subdivision and zoning ordinances, based on the requirements set forth in the Transportation Planning Rule. The elements addressed in this section are:

- Street Network Classification
- Bicycle and Pedestrian Plan
- Public Transportation Plan
- Air, Rail, Pipeline and Water Plan

STREET CLASSIFICATION

Existing street classifications were made from ODOT's traffic counts along Highway 99E and a recent traffic count along major intersections conducted by the City's public works department. The City's traffic counts were based on a 24 hour, one week duration count at each location. Table 5-1. Below shows transportation classification guidelines.

Table 5-1. Design Classification Guidelines

Characteristic	Arterial	Collector	Local Street
Street Spacing	1 mile	1/4 mile	300 ft.
Length	Continuous	1/2 mile	500 ft.
Lanes	4-6	2	2
Minimum Pavement	64 ft.	36 ft.	36 ft.
Access Spacing	1,300 ft.	300 ft.	60 ft.
Vehicle Volume/Day	6,000-30,000	1,000-5,000	Less than 1,000
Striping	Center and Lanes	Center	None
Driveway Design	Curb return	Curb return	Dustpan
Parking	Prohibited	Allowed	Allowed
Median	Yes	No	No

Source: Kimley-Horn and Associates, Inc.

Table 5-2 Inventory of Arterial and Collector Streets by Street Classification

Street	Current Conditions		Year 2020	
	*ADT	Classification	ADT	Classification (proposed)
Highway 99E/3rd Street	6900-9400	Major Arterial	**13,467-18,346	Major Arterial
Diamond Hill/7th Street	2460	Major Arterial	3031	Minor Arterial
Peoria Rd.	1899	Major Arterial	***3,149	Minor Arterial
So. 6th /Coburg Rd.	3980	Major Arterial	4863	Minor Arterial
Territorial (West of 9th)	740	Major Arterial	909	Collector
LaSalle(2nd. St. to Cramer Ave.)	3510 (W. of So 6th)	M & m Arterial	4,287	Collector
Priceboro (6th St. to Cramer)	310	Major Arterial	689	Collector
Smith St.(2nd St. to Cramer)	1320 (W. of 7th)	Minor Arterial	1,636	Collector
Sommerville Lp.(6th St. to Cramer)	450	Collector	999	Collector
2nd St. (Sommerville Ave. to Territorial)	NA	Collector	N/A	Collector
9th St. (Diamond Hill to Priceboro)	700-1000	Minor Arterial/ Collector	848-1,200	Collector
10th St. (Diamond Hill to Priceboro)	NA	Minor Arterial	2,000-2,500	Collector
Cramer(Diamond Hill to Priceboro)	NA	Major Arterial	N/A	

**Based on 3.4% AAGR This projections assumes that the additional traffic generated from new growth will be absorbed into these figures. New growth is expected to generate an additional 2,181 trip ends on Hwy 99E by 2020. ***Based on 2.13% AAGR.
* Average Daily Traffic

BICYCLE AND PEDESTRIAN PLAN

Bicycling and walking are important modes of transportation. They benefit the community by providing recreational opportunities and alternatives to automobile travel thereby reducing congestion, noise and air pollution associated with motor vehicle use while helping to meet the needs of the "transportation disadvantaged"—the poor, elderly, people with disabilities, and those who do not wish to use a motor vehicle for other reasons. In addition bicycle and pedestrian facilities can provide convenient access to the commercial downtown which may increase the economic well being of the commercial downtown. Bikeways and pedestrian facilities

encourage increased social inter-reaction ...preserving the special small town feel so important to Harrisburg residents. It is important for bicycle and pedestrian facilities to be designed to be as convenient as the automobile and pleasant, in order to function as an integral part of a bicycle and pedestrian network.

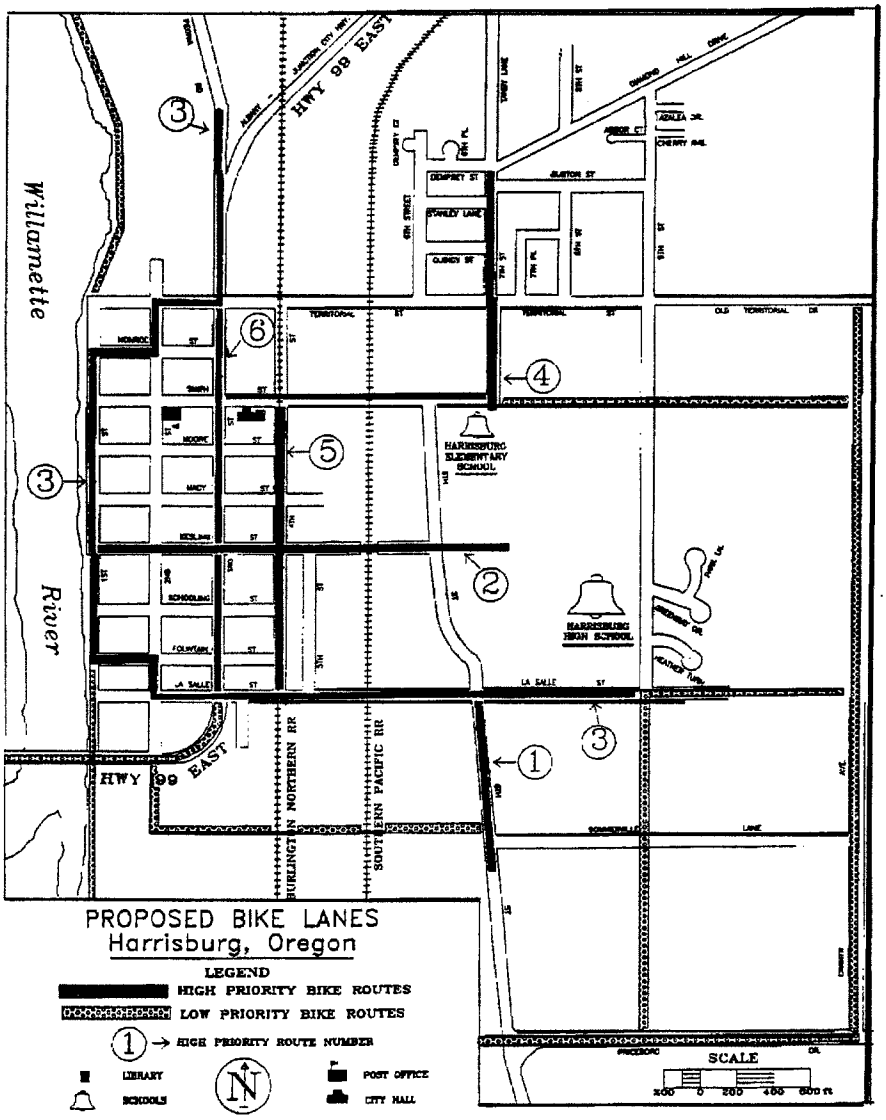
Harrisburg adopted a Master Bicycle Plan in June of 1993. City bicycle policies and priorities are detailed in that document. Well-kept facilities provide users with a feeling of security. Parents are more likely to allow their children to walk or bike to school, which would decrease school hour congestion. Figure 5-1 is the official bicycle plan for top priority bicycle routes in Harrisburg.

Bicycle Amenities

Bicycle parking is an important element of the bicycle plan. Bicycle users are more adversely affected by weather and theft than are automobile users. Therefore it is important to plan for covered and secure parking facilities whenever possible. Long term parking facilities should be fenced and locked. These facilities should be available at multi-family dwellings with more than four units. The City should utilize The American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities (August, 1991) and /or the 1995 Oregon Bicycle and Pedestrian Plan for guidance when planning for bicycle facilities. Appendix A includes recommended revisions to the City's subdivision and zoning ordinances that would make those ordinances consistent with bicycle and pedestrian policies set forth in the City's Comprehensive Plan, Master Bicycle Plan and Transportation System Plan.

Figure 5-1. High and Low Priority Bike Routes

Map 5. High and Low Priority Bike Routes



Facility Maintenance

Well maintained bicycle facilities are important. Cyclists face more hazards than motorists. Encounters with loose gravel, pot-holes, and poor signage, though hazardous to motorists, can have life threatening consequences for cyclists.

Existing Bicycle Facilities

As stated earlier, except for Diamond Hill and So. 6th Street, bicyclists must share the roadway with automobiles.

Bicycle Facility Needs as Required by TPR

The Transportation System Planning Rule requires bicycle lanes on all new and reconstructed arterial and collector streets. Currently within the UGB there is one street classified as a major arterial (Hwy 99E); three classified as minor arterials; and nine classified as collectors. All others are classified as local streets. The Oregon Bicycle and Pedestrian Plan states that bicycles can safely mix with automobile traffic on local streets with a 25 mph speed limit, or traffic volumes below 3,000 ADT (Average Daily Traffic).

Future Bicycle Facilities

Figure 5-1 shows the proposed high priority bikeways identified in the City's Master Bicycle Plan.

The Master Bicycle Plan identifies six high priority bicycle projects and associated costs. One of the six projects has been completed. The remaining five projects are listed in Table 5-3.

Table 5-3: High Priority Bikeway Projects

Project Description	Cost (1993 dollars)	Cost (may 1999 dollars)
Kesling St. from 1st to High School (.6 miles)	$94,082	$118,54332.
Peoria Rd. to So. 6th	$212,379	$267,597.54
7th St.-Diamond Hill to Elementary School	$21,239.70	$26,762.02
4th St. From Smith to LaSalle	$21,239.70	$26,762.02
Hwy 99E From Territorial to LaSalle	$28,219.60	$35,682.69

The City currently has $2,400 budgeted in FY 1999-2000 for implementing bicycle improvement projects. The City should continue to seek funding to implement the remaining high priority bicycle facilities.

Pedestrian Facilities

Sidewalks and walkways provide access for pedestrians between home and shopping, work, and recreation. Attractive sidewalks also encourage visitors to shop in the downtown or recreate along the river and become familiar with the community. Just because a city has sidewalks doesn't necessarily guarantee people will use them. Sidewalks must address the following four design elements in order to encourage pedestrian usage:

1) Topography
2) Connected Streets
3) Continuous Sidewalks
4) Safe Crosswalks

People tend to walk more if the topography is flat. Harrisburg has a definite advantage here. Connected streets provide more direct links to numerous destinations which in turn causes traffic to spread out and reduces congestion and travel times. Obviously the sidewalk system should mirror the connected street system in order to facilitate foot traffic. Crosswalks provide a measure of safety for pedestrians by signaling vehicles to slow down at intersections. Narrow streets with frequent crosswalks have been shown to encourage pedestrian traffic.

Pedestrian facilities include walkways, traffic signals, crosswalks, and other amenities such as lights and benches. A walkway is a transportation facility built for use by pedestrians and persons in wheelchairs. Walkways include:

Sidewalks: Usually located along roadways and separated by a curb and or planting strip. They have a hard, smooth surface. Bicycles may or may not use sidewalks depending on local regulations.

Paths: Designed for multiple uses, they can be paved or unpaved, but must meet ADA requirements.

Shoulders: Roadway shoulders are often adequate to serve the populations of rural communities. Shoulders should be wide enough to accommodate both pedestrians and bicyclists. Shoulder widths recommended by The American Association of State Highway and Transportation Officials are usually adequate to accommodate pedestrians.

Ideally all roadways should have a sidewalk or path at least on one side. The City of Harrisburg has consistently been upgrading its sidewalk facilities, and requires sidewalks for all new development. Appendix C lists all sidewalk facilities by location and condition within the UGB, and Section 2 summarizes the results of the sidewalk inventory. Sidewalks are the number one priority for the Harrisburg residents who responded to a mail survey. Most of the City's sidewalks are in good

condition. Sidewalks in the older section of town tend to be in the worst condition, as could be expected. A few roadways do not have any sidewalks.

Impediments to Bicyclists and Pedestrians

There are generally two types of physical impediments faced by cyclists. The first is geographical, such as rivers, slopes etc, the second is man-made, such as railroad tracks. In Harrisburg, ODOT is refurbishing the bridge that spans the Willamette River. The bridge accommodates cyclists. There are few if any other geographical constraints to cyclists in the planning area. Two sets of railroad tracks present some problems for cyclist in town. Burlington Northern (4th Street) and Union Pacific tracks run parallel north and south through town. Crossings are located at LaSalle, Smith, and Territorial.

As mentioned earlier bicycles must share the roadway with automobiles and farm equipment on most local streets. Although traffic speeds are low on local streets, and bicyclists are relatively safe on these streets, traffic is expected to increase on local streets as new residential development occurs in the eastern section of town. Residents have expressed desire for additional bike lanes to serve the schools to provide safer transportation routes for children going to and from school.

Pedestrian and Bicyclist Connections with Transit

There are no public transportation facilities or services currently available to the residents of Harrisburg. If public transportation becomes available to Harrisburg residents in the future, the City should make sure to provide safe pedestrian and bicycle access to the transportation facility.

PUBLIC TRANSPORATION PLAN

As previously addressed in Section 2, Residents have expressed interest in having access to limited bus service to the Eugene-Springfield Metro Area. One suggestion was to have Lane Transit District provide a bus stop at the Lane County side of the bridge. Residents also expressed a desire to have a bus stop once in the a.m. and once in the p.m. near the downtown district, perhaps at Hwy 99E and Smith Street. If either alternative is implemented, residents will need safe pedestrian and bicycle access to either public transportation facility. The City should continue to seek public transportation services that provide access to the Eugene/Springfield area. As Harrisburg is just across the river from Lane County, it may be worthwhile to open a dialog between the Commissioners of Lane and Linn Counties to explore possible future transportation alternatives for Harrisburg.

AIR, RAIL, PIPELINE, AND WATER PLAN

Air Transportation

There are no air transportation or services available in Harrisburg. Commercial passenger services are available at Mahlon Sweet in Eugene, (10 miles), and Portland International Airport (95 miles). Other airports less than an hour away include Albany Municipal (runway length: 3,000 ft.), Corvallis Municipal (runway length: 5,060 ft.), and Lebanon State Airport (runway length: 2,500 ft.).

There are a couple of regional issues that may affect the future of air transportation in Linn County. The Albany facility is currently being studied and may close; and the Lebanon facility my be maintained at the current B1 level, which means it cannot accommodate planes that have more than 10 seating capacity. If Albany closes and Lebanon stays at the current level there may be economic potential for the construction of another airport in Linn County. The airport would not accommodate commercial carriers but would serve other important recreational, business and resource related planes.

RAIL FACILITIES

Burlington Northern and Union Pacific rail lines bisect the City, running north and south. Amtrak is available in Eugene (20 miles). The future of high speed rail in Linn County is still undecided, but may become a reality in the future. The original plan was for the rail to use the Union Pacific line and come through Harrisburg. This may disrupt transportation patterns in Harrisburg as a high speed rail system would necessitate an additional crossing in town. In addition, having a high speed train go through town raises safety issues yet to be resolved. One alternative that has been discussed is to by pass Halsey and Harrisburg. This would eliminate safety concerns and traffic disruptions. The City will continue to participate in any future discussions of high speed rail through Harrisburg.

WATER FACILITIES

There are no navigable waterways within Harrisburg. The Willamette River, which serves as the western city limit provides scenic and recreational amenities as well as significant wildlife habitat.

PIPELINE FACILITIES

Northwest Natural Gas provides Harrisburg with a high quality pressure main. Pipelines serve the south industrial area and are also located along Highway 99E, Peoria Rd., and along So. 6th Street. Several pipelines branch off to serve the city.

T S P

Section 6

Traffic Calming

TRAFFIC CALMING

INTRODUCTION

In Harrisburg, bicyclists must share roadways with motor vehicles on most of the local streets. Residents have expressed concern over bicycle and pedestrian safety issues and have indicated they would support additional bike lanes on local streets. There is particular concern over cycling safety near the schools.

Traffic volume and speed are also of local concern. Current street standards require a 36' road surface. The Quick Response Team has recommended a 32' road surface for new residential streets to encourage reduced traffic speeds within residential areas, however the Harrisburg Planning Commission wishes to retain the 36' road standard. The recommendation is an example of traffic calming techniques. Traffic calming is a general term used to describe use of physical, visual, psychological, social, and legal means to guide or restrict movement of motor vehicles, bicycles, and pedestrians. Traffic calming is useful for reducing traffic speed and volumes of traffic to provide a safer environment for pedestrians and bicyclists.

Benefits of Traffic Calming

Based on research from Denmark, Holland, Sweden, Japan, Italy, Switzerland, Germany, America, England and Australia, where these planning initiatives have been tried the following results can be expected:

- Noise and pollution reduced by 50%
- The top speed of traffic reduced by 50% (travel times only increases 11% because there is less start stop driving)
- Smaller roads, which move the same amount of people.
- Extra space for trees, bike ways, walk ways, mini parks or squares (by narrowing roads more space is created)
- Greater safety for drivers, pedestrians, cyclists, and children playing in the street
- 43-60% less chance of being killed or seriously injured in a car accident
- 30% to 50% less traffic on the roads during peak hours
- Greater choice of travel modes for everyone - especially for those who do not drive
- Increased vitality of community life
- Less start stop driving
- Enhancement of neighborhoods with an increase in greenery.

Source: CART, Traffic Calming: The Solution to Urban traffic and a New Vision For Livability, 1989

Traffic Calming Design Concerns

For any type of traffic management program to be successful, citizen involvement is critical. It is also very important to consult with the emergency and city service personnel departments. Police and fire department are concerned with response times

to all neighborhoods. City maintenance departments are concerned with storm drainage, street cleaning and repair. Police and fire departments should be involved in the beginning stages of implementing traffic calming. Each department should be consulted to identify major emergency routes.

When Not to Install Traffic Calming Devices

- On arterial streets, with volumes greater than 3,000 vehicles per day, or with posted speeds greater than 30 mph.
- On streets without curbs, unless supplemental features are included to keep vehicles within the travel way.
- On streets with grades greater than 10 percent.
- On major truck routes.
- On primary emergency routes. Secondary access routes should be considered on a case-by case basis.
- On curving, winding roads, which limit sight distances, unless reduced speed limits and adequate warning signs are used in conjunction with the device.
- In front of driveways.
- On parallel routes, as this prevents or hinders emergency response.

The following tables are included to provide guidance to City officials when deciding on how best to address traffic problems in residential neighborhoods.

Accident Problem Toolbox

Accidents are rarely a major problem in residential neighborhoods. The Accident Toolbox includes a number of traffic calming techniques to reduce the number of accidents at residential intersections. Also, a comprehensive use of traffic calming measures throughout neighborhoods can reduce the number of accidents on local access streets.

Many accidents are caused by speeding vehicles. Therefore, many of the actions in the Speeding Toolbox may be applicable in a given situation. Standard traffic engineering measures such as warning signs, proper illumination and pavement markings can be applied at high accident locations in residential areas. Sidewalks, paved shoulders, and bike lanes can provide a separate travel way for pedestrians and bicyclists. It is important that the residential street maintains the character of a low-speed street, and does not resemble an arterial, in order to provide a visual and psychological clue to drivers that they must be cautious and slow down.

Table 6-1
Accident Problem Toolbox

Phase I Toolbox	Phase II Toolbox (when Phase I measures fail)	
Speed Limit, zone sign	Intersecton & Entryways	Along the Street
Speed watch/warning. Residents use radar, record license plate # of speeders, police send warning letters	Raised street surface	Raised and landscaped crosswalks for pedestrian accidents
Police presence/enforcement	Half-closures, curb extensionss/bulb-outs	Speed humps, etc., (good when accidents are speed related)
Warning signs	Traffic circles, round abouts	Slow points, chokers, curb extentions
Stop signs	Diagonal diverters	
Yield signs	Forced turn channelization	Median barriers
Turn prohibition signs	Full street closures, cul-de-sacs	
	Flashing beacons	

Volume/Cut-Through Traffic Toolbox

In order to decrease cut-through situations in neighborhoods travel times for drivers need to be increased. Many traffic calming techniques are highly effective in diverting cut-through traffic such as speed humps, diverters or in some cases street closure. These traffic calming techniques will cause travel times to increase, therefore deterring traffic from the neighborhood. Although this will also cause inconveniences to residents as well. Cut-through traffic will decrease only if other viable routes are available.

One way streets have been applied in situations to restrict travel into or out of neighborhoods at key points. Stop signs are not effective in reducing traffic volumes in most cases. Special treatments to entryways into residential neighborhoods can be effective in communicating to the driver that he or she is entering a residential area. Narrowed lanes combined with special pavement treatments of color or texture and landscaping convey the residential nature of the street and help discourage cut-through traffic.

Physical measures to stop traffic movement in selected areas are the best way to deal with unwanted traffic volumes and cut-through traffic. These include street closures, half street closures to allow one direction travel, or diagonal diverters at intersections. Street closures create problems for emergency vehicles because they restrict access. This type of solution should be implemented only after thorough analysis.

Table 6-2
Cut-Through Traffic Toolbox

Phase I	**Phase II (when phase I measures fail)**	
No Through Traffic signs	Intersections & Entry Ways	Along the Street
One-way Signs	Chokers (half-closures), bulb extensions	Speed humps etc.
Speed watch/warning	Traffic circles, round abouts	Slow points, chokers, curb extensions
Police presence/enforcement	Diagonal diverters	
Photo radar. Police off-site; Automatically issues tickets to owners of speeding vehicles.	Forced turn channelization	Median barriers
	Full street closures, Cul-de-sacs	

Speeding Toolbox

Speeding is a common complaint from neighborhoods. The Speeding Toolbox below contains solutions which are easily, and quickly implemented and those which require more planning and lead time. Phase I solutions are the easiest and quickest to implement and Phase II solutions are used when Phase I solutions fail.

Table 6-3
Speeding Toolbox By Program Phase

Phase I Toolbox	**Phase II Toolbox (when Phase I methods fail)**	
	Intersection & Entry Ways	**Along the Street**
Warning signs	Pavement pattern, texture, etc.	Landscaping; planting strip, curb extensions, medians
Speed limit, zone signs	Landscaping; trees in circle; curb extension, islands	Parking variants (add, change angle, alternate etc.)
Pavement striping, marking	Raised street surface	Curb extensions that don't alter number lanes
Rumble strips	Chokers, curb extensions	Median islands
Roadside Speed alert unit	Traffic circles, round-a –bouts	Raised crosswalks
Police presence/enforcement	Median islands, barriers, turn channels	Speed humps, dips etc.
Speed watch/warning. Residents us radar, record license plate #, police send warning letters	Diagonal diverters	Slow points: Chokers, curb extensions, width of lanes etc.
Photo radar. Police off-site, automatically issues tickets to owner of vehicle.	Street closure	

APPENDIX A

Transportation Planning Rule Requirements for Cities Less Than 25,000

Table A-1: TSP Requirements for cities less than 25,000.

A road plan for a network of arterials and collectors Local functional classifications must be consistent with state and regional classifications
A public transportation plan (excluding local public transit system) Describe services available for the transportation disadvantaged Identify service inadequacies Inventory and assessment of existing and committed facilities and services
A bicycle and pedestrian plan A plan for a network of bicycle and pedestrian routes A list of facility improvements
An air transportation plan Identification of existing and planned public use airports
A rail transportation plan Identification of existing and planned public use mainline and branch-line railroads and railroad facilities
A pipeline transportation plan Identification of existing and planned major regional water facilities
Policies and land use regulations for implementing the transportation system plan Local government shall amend its land use regulation to implement the TSP
Adopt land use and subdivision ordinance amendments to protect transportation facilities for their identified functions Access control measures, standards to protect future operation of airports, etc. Bicycle parking facilities within and between residential, commercial, employment and institutional areas.
A water transportation plan Identification of existing and planned major regional water facilities.

																	Gravel
Second	Fountain	Schooling	City	275'	Collector	Collector	25	56'	40'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Second	Schooling	Kesling	City	330'	Collector	Collector	25	56'	40'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Second	Kesling	Macy	City	275'	Collector	Collector	25	60'	37'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Second	Macy	Moore Street	City	280'	Collector	Collector	25	60'	33'	2	Both	Yes	Both	No	Asphalt	G	W-Gutter E-Gravel
Second	Moore Street	Smith Street	City	280'	Collector	Collector	25	60'	41'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Second	Smith Street	Monroe Street	City	270'	Collector	Collector	25	61.5'	41'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Second	Monroe Street	Territorial Street	City	300'	Collector	Collector	25	60'	41'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Second	Territorial	Dead End	City	190'	Local	Local	25	60'	29'	2	None	No	None	No	Gravel	G	Gravel
Fourth	LaSalle	Fountain	City	140'	Local	Local	25	56'	25'	2	None	Yes	None	No	Asphalt	F	Gravel
Fourth	Fountain	Schooling	City	270'	Local	Local	25	56'	23'	2	None	Yes	None	No	Asphalt	F	Gravel
Fourth	Schooling	Kesling	City	340'	Local	Local	25	56'	25'	2	None	Yes	None	No	Asphalt	F	Gravel
Fourth	Kesling	Macy	City	275'	Local	Local	25	60'	25'	2	None	Yes	East Side	No	Asphalt	P	Gravel
Fourth	Macy	Moore Street	City	278'	Local	Local	25	60'	25'	2	None	Yes	East Side	No	Asphalt	F	W-Asphalt E-Gravel
Fourth	Moore Street	Smith Street	City	275'	Local	Local	25	60'	25'	2	Both	Yes	Both	No	Asphalt	G	W-Asphalt E-Gravel
Fourth	Smith Street	Territorial Street	City	535'	Collector	Local	25	61.5'	31'	2	Both	E. Side	None	No	Asphalt	E	Gutter
Fifth	LaSalle	Kesling	City	735'	Local	Local	25	60'	15'	2	None	No	None	No	Asphalt	P	Gravel
Sixth	LaSalle	Kesling	City	800'	m.Arterial	Local	25	60'	33'	2	Both	No	Both	Yes	Asphalt	E	Gutter
Sixth	Kesling	Smith Street	City	800'	m.Arterial	Local	20-school	60'	33'	2	East	E. Side	East Side	Yes	Asphalt	G	E-Gutter W-Gravel
Sixth	Territorial	Quincy	City	400'	Local	Local	25	60'	33'	2	Both	Yes	East Side	No	Asphalt	G	Gutter
Sixth	Quincy	Stanley	City	264'	Local	Local	25	60'	28'	2	None	Yes	None	No	Asphalt	P	Gravel
Sixth	Stanley	Dempsey	City	218'	Local	Local	25	20'	28'	2	None	Yes	None	No	Asphalt	P	Gravel
Sixth	Dempsey Street	Branton Court	City	385'	Local	Local	25	50'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Sixth Place	Cul-de-sac		City	105'	Local	Local	25	50'	73'	2	Both	Yes	None	No	Asphalt	G	Gutter
Branton Court	Cul-de-sac		City	105'	Local	Local	25	46'	65'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Riley Way	Sixth	Dead End	City	198'	Local	Local	25	60'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Seventh Street	Smith Street	Territorial Street	City	504'	Local	Local	25	60'	33'	2	Both	Yes	West Side	No	Asphalt	G	Gutter
Ninth Street	Azalea	Diamond Hill	City	210'	Local	Local	25	60'	33'	2	Both	Yes	None	No	Asphalt	G	Gutter

Azalea	Ninth Street	Dead End	City	275'	Local	Local	25	50'	33'	2	Both	Yes	None	No	Asphalt	G	Gutter
Ninth Street	Diamond Hill	Red Clover Ct.	City	150'	Local	Local	25	57.52'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Red Clover Ct.	Ninth Street	Cul-de-sac	City	226'	Local	Local	25	50'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Ninth Street	Red Clover Ct.	Ladino Pl.	City	445'	Local	Local	25	50'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Ladino Pl. West	Ninth Street	Cul-de-sac	City	238'	Local	Local	25	50'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Ladino Pl. East	Ninth Street	Cul-de-sac	City	242'	Local	Local	25	50'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Ninth Street	Ladino Place	Arrow Leaf	City	321'	Local	Local	25	60'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Arrow Leaf West	Ninth Street	Dead End	City	600'	Local	Local	25	60'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Arrow Leaf East	Ninth Street	Dead End	City	245'	Local	Local	25	50'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
Ninth Street	Arrow Leaf	Dead End	City	121'	Local	Local	25	60'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
LaSalle	Second	Dead End	City	272'	Local	Local	25	60'	23'	2	None	Yes	None	No	Gravel	G	Gravel
LaSalle	Second	Third	City	325'	Local	Collector	25	60'	33'	2	Both	Yes	Both	No	Asphalt	G	Gutter
LaSalle	Third	Fourth	City	350'	M. Arterial	Collector	25	60'	34'	2	N.Side	Yes	N.Side	No	Asphalt	F	N.Gutter S-Gravel
LaSalle	Fourth	Fifth	City	135'	M. Arterial	Collector	25	60'	33'	2	None	No	None	No	Asphalt	F	Gravel
LaSalle	Fifth	Sixth	City	1070'	M. Arterial	Collector	25	60'	32'	2	None	Yes	None	No	Asphalt	F	Gravel
LaSalle	Sixth	Eighth Place	City	765'	m. Arterial	Collector	25	50'	33'	2	Both	Yes	Both.	No	Asphalt	E	Gutter
Eighth Place	LaSalle	Cul-de-sac	City	610'	Local	Local	25	50'	30'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Cul-de-sac/ 8th Pl	Eighth	Cul-de-sac	City	98'	Local	Local	25	50'	30'	2	Both	Yes	Both	No	Asphalt	G	Gutter
LaSalle	Eighth Place	Eagles Way	City	285'	m.Arterial	Collector	25	50'	33'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Eagles Way	LaSalle	Cul-de-sac	City	187'	Local	Local	25	50'	30'	2	Both	Yes	Both	No	Asphalt	G	Gutter
LaSalle	Eagles Way	Ninth	City	452'	m. Arterial	Collector	25	60'	33'	2	Both	Yes	Both	No	Asphalt	E	Gutter
LaSalle	Ninth Street	Dead End	City	405'	m. Arterial	Collector	25	60'	33'	2	N.Side	Yes	None	No	Asphalt	P	N.Gutter S-Gravel
Fountain	Second	Dead End	City	278'	Local	Local	25	56'	23'	2	None	Yes	None	No	Asphalt	P	Gravel
Fountain	Second	Third	City	340'	Local	Local	25	56'	30'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Fountain	Third	Fourth	City	340'	Local	Local	25	56'	30'	2	Both	Yes	S. Side	No	Asphalt	F	Gutter
Schooling	First	Second	City	329'	Local	Local	25	56'	33'	2	Both	Yes	Both	No	Asphalt	G	Gutter
Schooling	Second	Third	City	331'	Local	Local	25	56'	24'	2	None	Yes	None	No	Asphalt	F	Gravel
Schooling	Third	Fourth	City	338'	Local	Local	25	56'	25'	2	None	Yes	None	No	Asphalt	F	Gravel

Kesling	First	Second	City	333'	Local	Local	25	56'	26'	2	None	Yes	Both	No	Asphalt	P	Gravel
Kesling	Second	Third	City	344'	Local	Local	25	56'	33'	2	Both	Yes	S. Side	No	Asphalt	G	Gutter
Kesling	Third	Fourth	City	330'	Local	Local	25	56'	23'	2	None	Yes	Both	No	Asphalt	G	Gravel
Priceboro	So. 6th	City Limits	City/Co	2,200'	M. Arterial	Collector	35	60'	23'	2	None	No	None	No	Asphalt	G	Gravel
HWY 99	Bridge	N. City Limits	State	4,218	M. Arterial	M.Arterial	35	60'	40'	3	Both till Terr.	No	Both	No	Asphalt	E	Gutter
Sommerville Lp.	So. 6th	City Limits	City	2,500'	Collector	Collector	25	60'	23'	2	None	No	None	No	Asphalt	G	Gravel
Diamond Hill	7th	City Limits	City	1700'	M. Arterial	m.Arterial	25	60'	36'	3	Both	No	Both	Both	Asphalt	E	Gutter
Peoria Rd.	At Hwy 99E	City Limits	County	628'	M. Arterial	m.Arterial	?	60'	36'	2	None	No	None	No	Asphalt	G	Gravel
So. 6th	LaSalle	Priceboro	City	2,440	M. Arterial	m.Arterial	35	60	36'	3	East	No	East	Both	Asphalt?	E	Gutter

APPENDIX C

Sidewalk Inventory

City of Harrisburg Sidewalk Inventory							
Street segment name	**Cross-street measurement was taken from**	***Distance measured (in feet)***	**Sidewalk location**	**Sidewalk type**	**Sidewalk condition**	**Location of cracks**	**Location of raised or sunken segments**
First Street	Schooling to Kesling	130	SE	Concrete	Good	None	None
	Kesling to Macy	220	E	Concrete	Fair	North side	None
	Macy to Moore	NONE	NONE				
	Moore to Smith	145	E	Concrete	Good	16',42',81'	None
	Smith to Monroe	NONE	NONE				
Second Street	Hwy 99E to La Salle	97	SW	Concrete	Excellent	None	None
	La Salle to Fountain	118	E	Concrete	Good	None	None
	Fountain to Schooling	E 226; W 233	Both	Concrete	Good	None	S end-E side sunken
	Schooling to Kesling	E 296; W 293	Both	Concrete	Good	None	None
	Kesling to Macy	E 232; W 230	Both	Concrete	Fair	25'; 75'	None
	Macy to Moore	E 235; W 235	Both	Concrete	Fair/poor	SW	None
	Moore to Smith	E 231 W 231	Both	Concrete	Fair	None	None
	Smith to Monroe	E 230 W 230	Both	Concrete	Good	None	None
	Monroe to Territorial	E 257 W 257	Both	Concrete	Good	None	None
	Territorial to Dead End	0	None				
Fourth Street	La Salle to Fountain	0	NONE				
	Fountain to Schooling	0	NONE				
	Schooling to Kesling	0	NONE				
	Kesling to Macy	255	E	Concrete	Poor	Numerous	Numerous
	Macy to Moore	295	E	Concrete	Fair	None	210' by alley
	Moore to Smith	E 115 W 108	Both	Concrete	Good	None	None
	Smith to Territorial	0	NONE				

Fifth Street	La Salle to Kesling	0	NONE				
Sixth Street	La Salle to Kesling	E 278 W 252	Both	Concrete	Excellent	None	None
	Kesling to Smith	792	E	Concrete	Good	None	None
	Territorial to Quincy	92	E	Concrete	Good	None	None
	Quincy to Stanley	0	NONE				
	Stanley to Dempsey	0	NONE				
	Dempsey to Branten Ct.	E 172 W 182	Both	Concrete	Excellent	None	None
Sixth Place	Cul de Sac	0	NONE				
Branten Ct.	Cul de Sac	173	All	Concrete	Excellent	None	None
Riley Way	Sixth to Dead end	N 105 S 202	Both	Concrete	Excellent	None	None
Seventh Street	Smith to Territorial	506	W	Concrete	Good	None	None
	Territorial to Quincy	380	W	Concrete	Fair	Numerous	South end
	Quincy to Stanley	E 52 W 238	Both	Concrete	Fair	None	None
	Stanley to Diamond Hill	81	W	Concrete	Good	None	None
	Diamond Hill to Riley Way	0	NONE				
	Riley Way to Dead End	0	NONE				
Gaileen Way	Seventh to Cul de Sac	0	NONE				
Riley Way	Seventh to Dead End	0	NONE				
Seventh Place	Territorial to Eighth St.	0	NONE				
Eighth Street	Territorial to Seventh St..	166	E	Concrete	Good	None	None
	Seventh Pl. to Burton	0	NONE				
	Diamond Hill to Dead End	0	NONE				
Crimson Way	Diamond Hill to Cul de Sac	E 469 W 491	Both	Concrete	Excellent	None	None
		Cul de Sac 220					
Crimson Place	Crimson Way to Cul de Sac	E 100 W 100 Cul	Both	Concrete	Excellent	None	None
		de Sac 220					
Ninth Street	La Salle to Heather Turn	358	W	Concrete	Excellent	None	None

	Heather Turn to Greenway	280	W	Concrete	Good	None	None
9th Street	Greenway to Moore	E 210 W 590	Both	Concrete	Excellent	None	None
	Moore to Smith	E 235 W 235	Both	Concrete	Excellent	None	None
	Smith to Moore	E 251 W 251	Both	Concrete	Excellent	None	None
	Moore to Territorial	E 243 W 243	Both	Concrete	Excellent	None	None
	Territorial to Burton	0	NONE				
	Burton to Cherry	0	NONE				
	Cherry to Azalea	116	E	Concrete	Good	None	None
	Azalea to Diamond Hill	0	NONE				
	Diamond Hill to Red Clover	E 105 W 117	Both	Concrete	Excellent	None	None
	Red Clover to Ladino Place	E 415 W 400	Both	Concrete	Excellent	None	None
	Ladino Pl. to Arrowleaf	E 296 W 296	Both	Concrete	Excellent	None	None
	Arrowleaf to Dead End	E 119 W 119	Both	Concrete	Excellent	None	None
Heather Turn	Ninth to Cul de Sac	0	NONE				
Greenway	Ninth to Parklane	0	NONE				
	Parklane to Dead End	0	NONE				
Parklane	Greenway to Cul de Sac	0	NONE				
Moore	Ninth to Dead End West	N 245 S 210	Both	Concrete	Excellent	None	None
	Ninth to Dead End East	N 331 S 299	Both	Concrete	Excellent	None	None
Clay Court	Moore to Cul de Sac	E 76 W 76	Both	Concrete	Excellent	None	None
		Cul de Sac 190					
McKenzie Place	Moore to Cul de Sac	E 78 W 78					
		Cul de Sac 192	Both	Concrete	Excellent	None	None
Arbor Court	Ninth to Cul de Sac	0	NONE				
Cherry	Ninth to Dead End	85	North	Concrete	Good	None	None
Azalea	Ninth to Dead End	0	NONE				
Red Clover Court	Ninth to Cul de Sac	N 152 S 152	Both	Concrete	Excellent	None	None
		Cul de Sac 215					

Ladino Place -West	Ninth to Cul de Sac	N 140 S 140	Both	Concrete	Excellent	None	None
		Cul de Sac 260					
Ladino Place -East	Ninth to Cul de Sac	N 143 S 143	Both	Concrete	Excellent	None	None
		Cul de Sac 251					
Arrow leaf-west	Ninth to Dead End	N 597 S 597	Both	Concrete	Excellent	None	None
Arrow leaf-East	Ninth to Dead End	N 243 S 243	Both	Concrete	Excellent	None	None
La Salle	Second to Dead End	0	NONE				
	Second to Third	N 305 S 305	Both	Concrete	Good	None	None
	Third to Fourth	N 131	North	Concrete	Good	None	None
	Fourth to Fifth	0	NONE				
	Fifth to Sixth	0	NONE				
	Sixth to Eighth Place	N 745 S 752	Both	Concrete	Excellent	None	None
	Eight h Place to Eagles Way	N 187 S 158	Both	Concrete	Good	None	None
	Eagles Way to Ninth	N 448 S 452	Both	Concrete	Excellent	None	None
	Ninth to Dead End	0	NONE				
Eighth Place	La Salle to Cul de Sac	E 534 W 538	Both	Concrete	Good	None	None
		Cul de Sac 250					
Cul de Sac off	Eighth Place to Cul de Sac	250	Both	Concrete	Good	None	None
Eighth Place							
Eagles Way	La Salle to Cul de Sac	E 100 W 100	Both	Concrete	Fair	None	100' on East Side
		Cul de Sac 235					
Fountain	Second to Dead End	0	NONE				
	Second to Third	N 255 S 51	Both	Concrete	Fair	Numerous-E	Last 50' on E side
	Third to Fourth	2001	South	Concrete	Good	None	None
Schooling	First to Second	N 289 S 289	Both	Concrete	Good	None	None
	Second to Third	S 135	South	Concrete	Fair	None	72' Big Dip
	Third to Fourth	0	NONE				
Kesling	First to Second	N 95 S 309	Both	Concrete	Fair/Poor	Numerous- W	Big Cracks/dips on W side

	Second to Third	339	South	Concrete	Poor	Numerous- E	Big Cracks/dips on E side
	Third to Fourth	N 190 S 321	Both	Concrete	Fair	Numerous-E	Big Cracks/dips on E side
	Fourth to Fifth	135	South	Concrete	Poor	Numerous	Ups and Downs the
Kesling (cont.)						big cracks	whole length
	Fifth to Dead End	N 48 S 310	Both	Concrete	Good/poor	Numerous big	Big Cracks & highs & lows
						cracks	
	Dead End to Sixth	365	South	Concrete	Fair	Numerous-w	High-low spots W end
Macy	First to Second	300	South	Concrete	Fair		High-low spots W end
	Second to Third	N 315 S 315	Both	Concrete	Good	None	None
	Third to Fourth	N 325 S 325	Both	Concrete	Good	None	None
	Fourth to Dead End	0	NONE				
Moore	First to Second	N 137 S 320	Both	Concrete	Fair	Lot on W end	Lots on West and end
	Second to Third	N 315 S 315	Both	Concrete	Fair	South Side/East	
						end	
	Third to Fourth	N 316 S 318	Both	Concrete	Fair/Poor	Numerous big	
						cracks -South side	
Smith	First to Second	N 316 S 319	Both	Concrete	Fair	Numerous breaks	
						midway down	
						North side	
	Second to Third	N 320 S 320	Both	Concrete	Fair	Numerous big	
						cracks midway	
						down N side	
	Third to Fourth	N 319 S 319	Both	Concrete	Fair	some N & S	
	Fourth to Sixth	N 240 S 861	Both	Concrete(781')	Good		
				Asphalt(80')			
	Sixth to Seventh	N 202 S 529	Both	Concrete(388')	Good	Broken up on East	
				Asphalt(141')on		end of North side	
				South side			

	Seventh to Monroe	N 393 S 389	Both	Concrete	Excellent	None	None
	Monroe to Ninth	N 730 S 730	Both	Concrete	Excellent	None	None
	Ninth to Dead End	N 330 S 330	Both	Concrete	Excellent	None	None
Monroe	Ninth to Dead End	N 332 S 332	Both	Concrete	Excellent	None	None
	First to Second	N 320 S 319	Both	Concrete	Excellent	None	None
	Second to Third	N 330 S 330	Both	Concrete	Good	None	Some on W end of N side
Territorial	Second to Dead End-West	0	NONE				
	Second to Third	108	N	Concrete	Good	None	None
	Third to Fourth	N 222 S 220	Both	Concrete	Good	1, S side @ 50'	
	Fourth to Sixth	0	NONE				
	Sixth to Seventh	N 286 S 126	Both	Concrete	Good/Poor	Numerous E end	Highs & lows on E end on
						on N side	N side
	Seventh to Seventh Place	N 258 S 265	Both	Concrete	Good	None	None
	Seventh Place to Eighth	N 215 S 235	Both	Concrete	Good	None	None
	Eighth to Ninth	N 634 S 645	Both	Concrete	Good	None	None
	Ninth to End 25 mph sign	0	NONE				
Burton	Seventh to Eighth	N 495 S 483	Both	Concrete	Good	None	None
	Eighth to Ninth	0	NONE				
Stanley Lane	Sixth to Seventh	0	NONE				
Quincy	Sixth to Seventh	0	NONE				
Dempsey	Sixth to Seventh	0	NONE				
Diamond Hill	7th to City Limits	1700'	Both (none On N. 8th To Crimson	Concrete	Excellent	None	None
So. 6th	La Salle to Priceboro	2,440'	West	Concrete	Excellent	None	None
Sommerville Lp.	So. 6th to City Limits	2,500	None				
Priceboro	So. 6th to City Limits	2,200	None				
Dempsey Court	Dempsey to Cul de Sac	0	NONE				

APPENDIX D

Transportation facility Funding programs

Table D-1 Federal Funding Sources

Program Name	Description	Potential for Harrisburg
Intermodal Surface Transportation Act (ISTEA)	Provides flexibility in funding Transportation projects. Funds available for the following programs: National Highway System, Interstate Program, Surface Transportation Program, Congestion Management & Air Quality Improvements Program, and the National Scenic Byways Program.	Can fund selected local projects after meeting certain criteria. Cost to local taxpayer is low. Coordinate with Cascades West Council of Governments, ODOT Region 2 Office, and the Linn-Benton Transportation Committee to identify potential projects.
Surface Transportation Program (STP)	See above. Funds are allocated to the state for suballocation to cities and counties on a formula basis by the transportation commission. Funds may be use for any road except those classified as a local or minor collector. The road project must be included in the State's STIP (State Transportation Improvement Program) to receive STP funds.	Must meet certain criteria and then be included in the State Transportation Improvement Program (STIP) to qualify. Coordinate with same agencies as above.
Transportation Enhancement Program (STP) element.	Eligible projects must relate to the intermodal transportation system. Improvements may include pedestrian or bicycle related activities, scenic beautification or landscaping , outdoor advertising control, acquisition of scenic easements and historical sites, the rehab and operation of historic	Must meet criteria and approval of the ODOT transportation enhancement committee and then be included in the STIP. Coordinate as above.

	transportation facilities, archaeological planning and research , and mitigation of pollution caused by runoff from a highway.	
Highway Enhancement System (HES)	Sponsored by the Federal Highway Administration (FHWA), the HES program provides funding for the development of safety improvement projects on public roads. Projects don't have to be part of the STIP, but should be either a part of the annual element of the Regional Transportation Plan or the annual list of ODOT projects.	The City should coordinate With the CWCOG, ODOT Region 2 Office, and the Linn-Benton Transportation Committee to identify possible projects.
Timber Receipts (USFS)	The United States Forest Service (USFS) shares 25% of national forest receipts with counties. ORS 294.060 requires that counties allocate 75% of the funds received from the federal government to the road fund, and 25% to local school districts. Timber receipts from O & C lands do not go into the road fund. Linn County received an average of 6.0 Million dollars per year from timber receipts in the recent past. These dollars are expected to decrease over time.	Timber receipts have enabled Linn County to make significant capital improvements to its road system. The road fund is used for maintaining and improving County roads within the City's UGB. Although funds are expected to decrease to nearly 58% of the current 5 year average, the City may continue to request County support for needed maintenance of that portion of Peoria Rd. located within the UGB.

Table D-2 State Funding Sources

Program Name	Description	Potential for Harrisburg
State Hwy Fund (SHF)	The State of Oregon collects gas taxes on vehicle registration fees, overweight/overfreight fines and weight/mile taxes and distributes a portion of these revenues to counties and cities using an allocation formula. The state distributes a local share to cities based on a per capita rate. Funds can be used for capital improvements or maintenance.	The City of Harrisburg receives on average $95,000 per year. Although this fund is not indexed for inflation, Harrisburg is growing at a fast rate and funding should increase slightly.
Special Public Works Funds (SPWF)	A portion of the State Lottery revenues are allocated through the Oregon Economic Development Department, to improve and repair infrastructure in support of local economic development and the creation of new jobs.	The City of Harrisburg may use the SFWF funds for the development of infrastructure to support an industrial or commercial project.
Traffic Control Projects (TCP)	The State maintains a policy of sharing installation, maintenance and operational costs of traffic signals and street light at the intersection of a State highway and a city or county road. A Statewide priority list is maintained by the Oregon State Highway division for future projects. The priority system is based on warrants which are described in the Manual for Uniform Traffic Control Devices. Local agencies	The TCP program provides opportunities to fund projects which meet specific program criteria. The City of Harrisburg should coordinate with the CWCOG, ODOT's Region 2 Office, and the Linn Benton Transportation Committee to identify projects suitable for TCP funding.

	are responsible for coordinating the Statewide signal priority list with local requirements.	
Bicycle /Pedestrian Projects	Approximately 1% of all State highway fund monies received by the Highway Division, counties and cities should be expended for the development of bikeways and footpaths (ORS 366.514). The Highway division administers funds for bikeways and footpaths. They are responsible for providing technical assistance and recommendation to local governments as well as the review of plans, specifications, engineering review and construction supervision..	Program funds are available for projects which met program criteria
Community Transportation Program (CTP)	The CTP provides grant assistance for transportation programs tailored to meet the needs of seniors (age 60 and older), people with disabilities and the general public. The CTP administratively coordinates funding for two programs which were previously funded separately: Special Transportation Grants (STGP), and the small City and Rural Area Capital Assistance Program (SCRACAP). The CTP provides ongoing revenue to transportation districts, counties, cities, or non-profit groups to finance transportation services.	The CTP uses Federal, State and local matching funds. An 80%/20% matching ratio is available for capital purchase, planning and construction projects. Funds requested for operational use are matched at a 50% ratio. CTP funds are distributed to eligible districts and counties in the following manner: Three fourths of the fund is based on population a minimum allocation of $15,000. An annual administrative allocation of $2,000. All remaining funds are deposited with the State STG account.

Community Transportation Program (cont.)	Private transportation companies may participate through service agreements with local governments. The fund may be used for the creation, maintenance, or expansion of transportation services for the elderly and disabled.	

Table D-3 Local Funding Sources

Program Name	Description	Potential for City
Local Improvement Districts (LID)/ Special Assessments	Special assessments are charges levied on property owners for improvements to facilities and services. The benefited users form the group that is assessed, usually following their vote of approval. LID's are design to fund public benefits which accrue to a limited number or group of citizens (special street lights for a neighborhood district etc). A properly drafted special assessment district can fall outside of Measure 5 property tax limitations.	The City of Harrisburg could consider using special assessments of LID's to finance transportation improvements whenever property owner support is assured.
Street Utility Fees	All businesses, industries and residences would be assessed on the basis of the street usage typically generated by a particular user. Traffic generation manuals can provide guidance when setting fees.	This type of funding is a fairly equitable approach to spreading the cost of street maintenance among the people who use them. SUF's provide a substantial and stable funding stream.

	Fees are usually used to cover maintenance costs. The City of Medford currently has Street Utility Fees (SUF's) A single family resident pays $2/month.	
Revenue Bonds	Cities have the legal authority to issue revenue bonds. They are generally used to finance long term capital improvements. They involve a written promise to return principal at a future date, predicted on the payment of periodic interest until the bond matures. The issuer of the bond is not legally required to levy taxes to avoid default if revenues are not sufficient to meet debt service. Cities may use revenues generated by the Oregon Highway fund, a local gas tax, street utility fees, or other transportation related revenue stream to cover the debt service of bonds designated to fund transportation facilities.	If the City of Harrisburg wishes to use revenue bonds to fund transportation facilities, it should be indexed to a transportation related revenue stream.
General Obligation Bonds	The City has the legal authority to issue GOB's. They fall outside the limitations of Ballot Measure 5. They must have the approval of the electorate, and therefore the City must pledge its "full faith and credit" to repay both interest and principal on a scheduled basis.	The City of Harrisburg can use GOB's to fund transportation improvements or street maintenance. They are repaid with revenues from property taxes. GOB's tend to be less equitable as the revenue generated by these taxes are not based on the impact

		created by the project being funded.
Gasoline Tax	Cities have the authority, with the support of the electorate, to assess a local at the gas pump. Tillamook and The Dalles have a local gas tax.	The City could consider a gas tax if there is support within the community.
System Development Charges (SDC's)	SDC's or impact fees reflect the cost of infrastructure necessary to support new development. In Oregon, cities can collect SDC's for Transportation, Sanitary Sewer, Parks, Water, and Storm Drainage improvements.	The City current has SDC's and updates them on a regular basis (usually annually).

APPENDIX E

1999 TRANSPORTATION SURVEY

Table E-1 below is a summary of the responses received from the City's 1999 transportation survey. The additional comments are also listed in this section. A copy of the survey that was mailed to 700 residents is included in this appendix as well. Fifty residents (7.1%) completed and returned the survey.

Table E-1 : Survey Results

Streets:	Not very important	Fairly important	Very important	Totals
Sidewalks	4 (8%)	13 (26%)	33 (66%)	50
Curb & Gutter	6 (12%)	14 (29%)	29 (59%)	49
Bike Lanes	22 (44%)	16 (32%)	12 (24%)	50
Planting Strip	29 (58%)	16 (32%)	5 (10%)	50
On-Street Parking	19 (40%)	18 (38%)	10 (21%)	47
Street Lights	2 (4%)	13 (26%)	35 (70%)	50
Other:				
Public Transportation	19 (38%)	18 (36%)	13 (26%)	50
Park & Rides	23 (49%)	19 (40%)	5 (11%)	47
Public Parking Lots	15 (33%)	19 (41%)	12 (26%)	46

Additional Comments: Streets

Stop light at Smith and 99E(13)
Stop light at Territorial and 99E (8)
Stop light at LaSalle and 99E (1)
Stop light at Macy and 99E (1)
4 way stop at Diamond Hill and 7th (1) and 9th (1)
Stop sign at LaSalle and 2nd (1)
Widen streets (4)
Repave streets (3)
Need a crossing guard at 4th and Smith (1)
Make 1st St. one way (1)
Limit parking time east of the Post Office (1)
Increase police patrols on Diamond Hill (1)
Take down freeway sign at Territorial and 99E(1)
Need a new bridge (1)
In new developments, reduce parking width and require planting strips (1)

Finish curbs and gutters (2)
Move 45 mph sign PAST bridge to Junction City; place 30 mph sign BEFORE bridge
Total additional comments:

Additional Comments: Bikes
Focus on school areas high activity youth areas; make connection from downtown to schools (2)
Continue river bike path from Eugene to Albany (through Harrisburg) (1)
Teach bike safety and safety certification classes (1)
Need Bike crossing at Kesling and 6th (1)
More and longer paths (1)
Provide bike racks in front of businesses ((9)
Need bike lane on Hwy 99E from Harrisburg to Junction City (1)
Bike lanes on major streets need to be well marked (1)
Need bike land on Diamond Hill on past Safari (1)

Additional comments: Facilities
Continue path along river (1)
Require landscaping (trees, shrubs etc.) when installing new sidewalks; fix up 99E like Coburg (2)
Double traffic fines in school zones (1)
Street lights like Coburg, in the downtown (1)
Additional street lights (7)
Sidewalks: new ones and repair old ones (11)
99E only (1); Diamond Hill (1) 9th from Diamond Hill to Territorial (1); on Territorial from 3rd to 7th (1)
Crosswalks:
3rd Street (8)
9th at Diamond Hill (1)
Territorial at 7th (1)
Traffic lights:
99E and Smith (4)
At major thoroughfares (1)
Along 99E in general (1)

Additional Comments: Other Transportation Issues
Bus service from Eugene, Albany, Corvallis (5)
Repave streets (2)
Keep alleys clear (1)
Mark residential streets as no passing zones (1)
Better traffic control on major thoroughfares (1)
Repair sidewalks (1)
Enforce 30 mph on Hwy 99E
Enforce posted speed limits around town (1)

TRANSPORTATION SYSTEM PLANNING SURVEY

The City of Harrisburg is currently developing a Transportation System Plan as part of it's state required Comprehensive Plan Review. Please respond to the survey below by **April 15th** so we may incorporate your concerns into the planning process. You may be as brief or as comprehensive as you like. If you need additional space you may write on the back of this page or attach additional sheets as you deem necessary.

Please indicate (with an X or a ✓) how important you think each improvement or issue may be to Harrisburg's transportation system.

	Not Very Important	Fairly Important	Very Important
Streets:			
Sidewalks	_____	_____	_____
Curb & Gutter	_____	_____	_____
Bike Lanes	_____	_____	_____
Planting Strip	_____	_____	_____
On-Street Parking	_____	_____	_____
Street Lights	_____	_____	_____
Other:			
Public Transportation	_____	_____	_____
Park & Rides	_____	_____	_____
Public Parking Lots	_____	_____	_____

What modifications to the street system, if any, would you suggest? (i.e. intersection improvements, wider or narrower streets, reduced congestion etc.)

What modifications to the bicycle system, if any, would you suggest? (i.e. bike lanes, paths, bike racks etc.)

What modifications to the pedestrian facilities, if any, would you suggest? (i.e. sidewalk improvements, safety , crosswalks, lighting etc.)

What other transportation issues do you feel should be addressed?

Thank you!!!

(Optional)
Name: Phone (daytime number)
Address:

Please mail or hand deliver the survey to:

City of Harrisburg Attn. Matilda Deas
P.0. Box 378
354 Smith Street
Harrisburg, Oregon 97446
If you would like additional information or have questions please contact:
Matilda Deas, City of Harrisburg 995-6655

APPENDIX F

NEIGHBOORHOOD COMMERCIAL CENTER

INTRODUCTION

The Department of Land Conservation and Development provided funding to assist Harrisburg with two primary tasks relating to the Transportation System Plan. The first task was to identify the actual design and location of a future 10 street extending from Diamond Hill to the north and Priceboro to the south. The second task was to develop criteria and possible locations for a neighborhood commercial center in the eastern residential area of the City. The Department of Land Conservation and Development's Quick Response Team Developed recommendations based on their research and the public stakeholder meetings they facilitated during the course of their research. The final document with recommendations is included in this Appendix. The recommendations are not binding, but they provide valuable information that can be used by City Officials when making decisions about the design and location of a future 10^{th} street and any accompanying neighborhood commercial center overlay district.

T
S
P

Addendum

Revisions to Harrisburg's 1999 TSP

Introduction

The city council adopted the 1999 Harrisburg Transportation System Plan (TSP) on January 12, 2000. The TSP was then submitted to the Department of Land Conservation and Development for review. Upon review of Harrisburg's TSP, the DLCD gave it partial approval. Harrisburg's TSP received a partial approval because the city's TSP did not adequately address several requirements of the state Transportation Planning Rule (TPR). In order to fully comply with the TPR, Harrisburg's TSP must amend its road plan, bicycle and pedestrian plan, transportation financing program, local street standards, and land use regulations. All other elements of Harrisburg's TSP have been approved.

The City of Harrisburg is growing rapidly; according to the census it was the fastest growing city in Linn County during the decade of the 1990s. For this reason, it is important for Harrisburg to plan for this increased traffic and design a street network with this growth in mind. This addendum will specifically address the amendments necessary for full approval of Harrisburg's TSP by the DLCD. It will modify the TSP in order to provide a safe and efficient transportation network for motorists, bicyclists and pedestrians as the city continues to grow.

Road Plan

Street Connectivity

Street connectivity is important because it allows for more travel options, both for vehicles and pedestrians. A poorly connected street network puts more demand on the collector streets, causing congestion. Streets that are not well connected also discourage pedestrian and bicyclist travel; because poor connectivity limits possible travel routes, making routes to a desired destination longer. A poorly connected network also increases traffic on collector streets, which makes travel more dangerous for bicyclists and pedestrians.

One of the requested revisions to Harrisburg's TSP is to create specific city requirements for street design and layout which encourage connectivity. In addition to street design modifications, changes in land development regulations are also needed to ensure a well connected street network of future Harrisburg streets. The importance of connectivity to the Harrisburg street network will increase as traffic increases and more demand is placed on collector streets. The purpose of the following revisions is to consider how the future growth of Harrisburg will increase demand on collector streets. Taking Harrisburg's growth into consideration, design guidelines are given to ensure that Harrisburg's street network is well connected for both motorists and pedestrians.

Current Block Lengths

The current city subdivision ordinance permits block lengths of up to 1,200 feet and cul-de-sacs up to 600 feet. Shorter block lengths improve connectivity and lessen perceived distances because they allow traffic more direct routes. With this concept in mind, another way to ensure shorter blocks is to limit block perimeter. A shorter block perimeter shortens perceived distances and gives the city more flexibility in street layout and design.

New Block Perimeter Restrictions. The total block perimeter will not exceed more than 1,800 feet.

Revisions to Block Lengths:

- To ensure a better connected street network, block lengths will be limited to a maximum of 630 feet. Because the city requires 70 foot lots, this allows for a maximum of 9 houses in a block. Except where cul-de-sacs are used, block perimeters will not exceed 1,800 feet.
- Exceptions to the maximum block length will be considered when due to environmental constraints or permanent obstacles in the built environment, a longer block length is necessary. This exception will be considered on a case-by-case basis, with the difficulty of building around the environmental or built environmental feature, the determining factor in permitting block length longer than minimum requirements.
- When an exception to maximum block lengths is approved, pedestrian access ways will be required in order to provide direct access to the sidewalk

Revisions to Cul-de-sac Depths

Cul-de-sacs do not contribute to a well connected street network. However, if shorter in depth, they will not hinder the connectivity of the street network. A short cul-de-sac, (no greater than 300 ft in depth) will help ensure a well connected street network. Cul-de-sacs will not be permitted where the street would logically connect to a future street that has not been constructed. In these cases, for the sake of future connectivity, it is better to stub out the street rather than close it for a cul-de-sac.

Cul-de-sac Depth Limitations

Cul-de-sac depths will be limited to 300 feet, unless environmental features or permanent obstacles require a depth greater than 300 feet.

Requirements for Pedestrian Accessways in Street Layout

In locations where cul-de-sacs are not well connected with the street network, meaning they exceed maximum block lengths, pedestrian access ways will be required.

Requirements for Pedestrian Access on Commercial Developments

- Pedestrian walkways and access ways shall be included wherever possible to connect a new development to existing sidewalk networks.
- New development should accommodate safe and convenient pedestrian and bicycle access to surrounding residential and commercial developments.

General Requirements for Street Connectivity

As part of the review of any new development, the effect of the new development on street connectivity will be assessed.

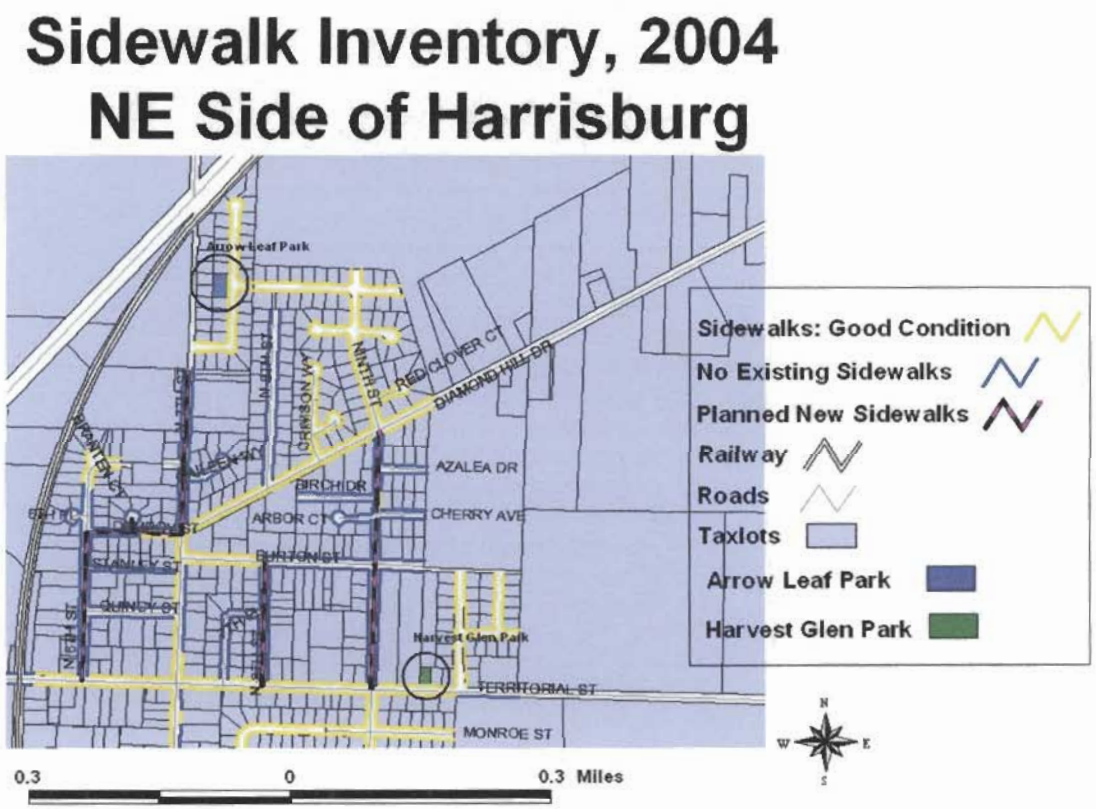
Bicycle and Pedestrian Plan

Harrisburg is a small town, so it is possible to walk or bike to your destination instead of drive in many cases. Therefore, it is important that pedestrian and bike facilities are well provided for and maintained. Pedestrian access is important to Harrisburg residents. The results of a 1999 transportation survey revealed that ninety-two percent (92%) of those surveyed said sidewalks were fairly to very important, making sidewalks one of the highest concerns of citizens. Fifty-six percent (56%) of respondents thought bike lanes were fairly to very important.

School children are one of the most prominent users of sidewalks and bike lanes. Bike and pedestrian routes around and connecting to school property are therefore the city's first priority. The historical district and center of town, which contains Harrisburg's commercial center, also carries a large amount of pedestrian traffic, so the maintenance of these sidewalks is also a high priority of the city.

Sidewalk Inventory 2004

A sidewalk inventory was done during the spring of 2004 to determine gaps in the sidewalk network. The color coding for the maps below is as follows: yellow indicates sidewalks in good condition, blue indicates places where there are no existing sidewalks and a black and pink striped line indicates the locations where sidewalks are scheduled to be installed by 2010. **MAP 1.0 Sidewalk Inventory NE** :

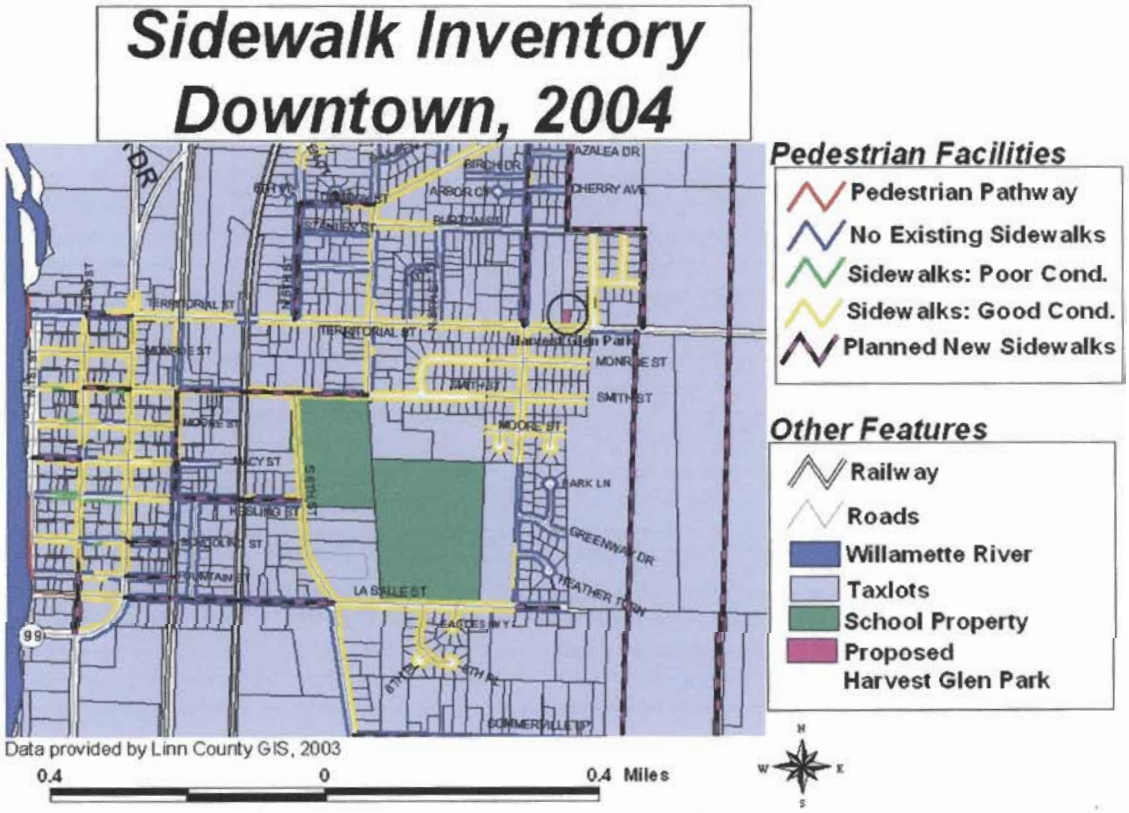


Findings that NE Pedestrian System will be safe and convenient

- The existing and proposed sidewalks in the northwest corner of Harrisburg provide safe routes to school, with the connecting streets to school having sidewalks: 6th Street (planned), 7th Street and 9th Street connecting to Territorial Street.
- Existing and proposed sidewalks provide pedestrian access to the two proposed parks: Arrow leaf and Harvest Glen.

The NE side of Harrisburg has gaps where there are no existing sidewalks. Two of the main residential streets which feed to Territorial: N 6th Street and N 9th Street both are scheduled to have sidewalks by 2010. The remaining gaps in the sidewalk inventory are small sections of residential street which require sidewalks. These sidewalks are the responsibility of property owners.

MAP 1.1 Sidewalk Inventory, 2004
Downtown Harrisburg



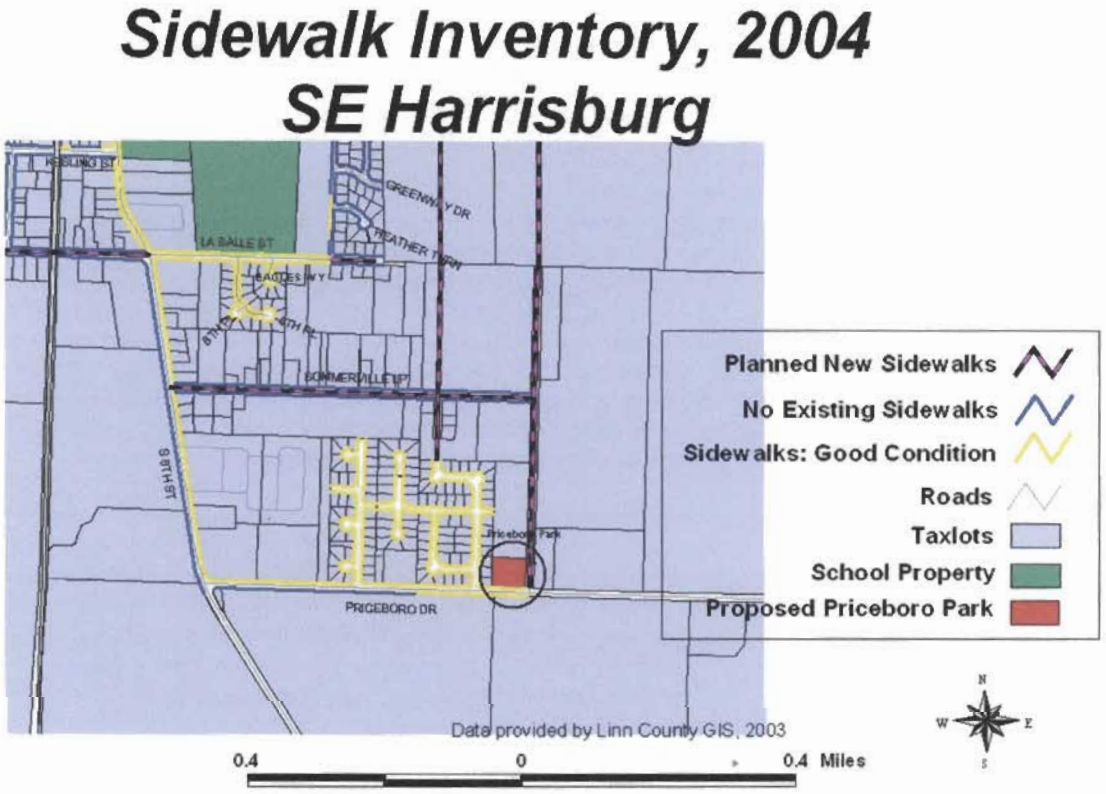
The downtown area, generally, except for a few gaps where there are poor or missing sidewalks, is well connected for pedestrian travel. La Salle Street is scheduled to have new sidewalks installed by 2006 to connect it with 6th Street. Future sidewalk projects that are needed are for sidewalk installation are the streets of Schooling, Kesling and N. 8th Street. The cul-de-sacs on the east side, Heather Turn, Greenway Drive and Park

Lane all do not have sidewalks. However, they carry a very low volume of traffic so they are a low priority for sidewalks.

Findings that the Downtown Pedestrian System will be safe and convenient

- Gaps in the sidewalk network have been identified and improvements are planned to ensure pedestrian safety.
- Sidewalks are planned for Smith Street and La Salle Street, connecting the western side of the city with the eastern side of the city.
- Sidewalks are planned for N. 6th street and N. 9th street which will allow for pedestrian access from these subdivisions to the school.
- Planned and existing sidewalks provide safe routes to the proposed Harvest Glen Park.

MAP 1.2 Sidewalk Inventory, 2004
SE Side of Harrisburg



This section of town has only a few gaps in the sidewalk network. Sommerville Loop does not have sidewalks, but this road does not have a high density of residential development. Portions of La Salle Street in this map also are missing sidewalks but this street is scheduled for sidewalks to be installed by 2006. Also some cul-de-sacs in the upper right portion of this map across from the school are missing sidewalks but cul-de-sacs experience a low volume of traffic so they are not a high priority for sidewalk installation.

Findings SE Pedestrian System will be safe and convenient for pedestrians

- There are safe routes to school with full sidewalk access from Marcus Landing and other new subdivisions on Priceboro Rd.
- The proposed Priceboro Park will be connected to the sidewalk network.

Streets Requiring Bike Lanes

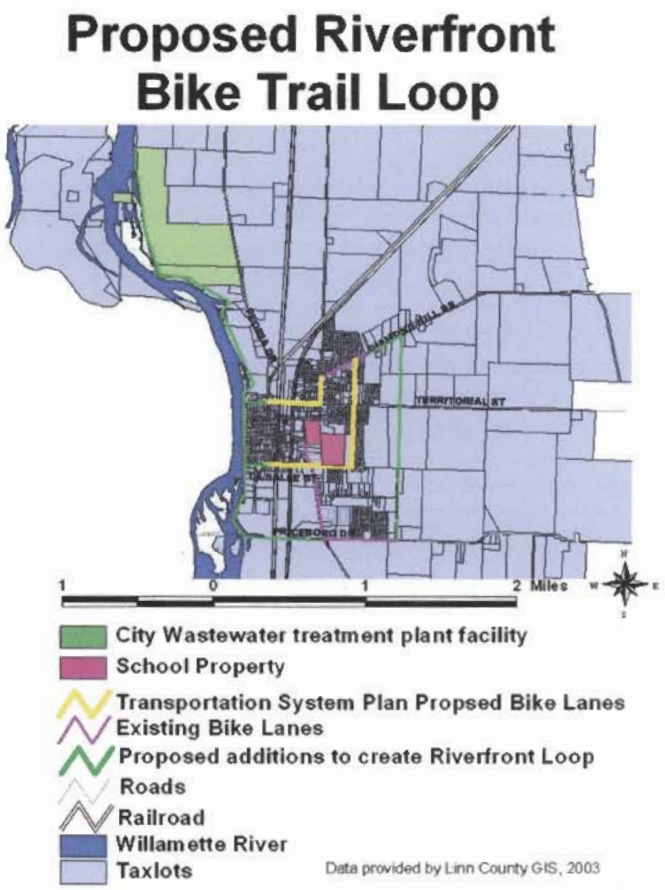
Shoulders are sufficient for bicyclists, particularly in rural areas where traffic volumes are lighter. However, as land use densities and traffic increase over the long-term, streets will require sidewalks and bike lanes in order to accommodate all users. Local streets where speeds and volumes of motor vehicles are relatively low are not in need of bike lanes. However, collector streets have enough traffic to warrant bike lanes. With the help of money from gas taxes, bike lanes should be constructed on the proposed Cramer Avenue which will eventually become a minor arterial. This street with bike lanes will help connect the existing bike lanes to the rest of the city.

As with pedestrian facilities, the highest priority for bike lanes is for routes that connect the local streets to schools.

Parks Master Plan and Bike Lanes

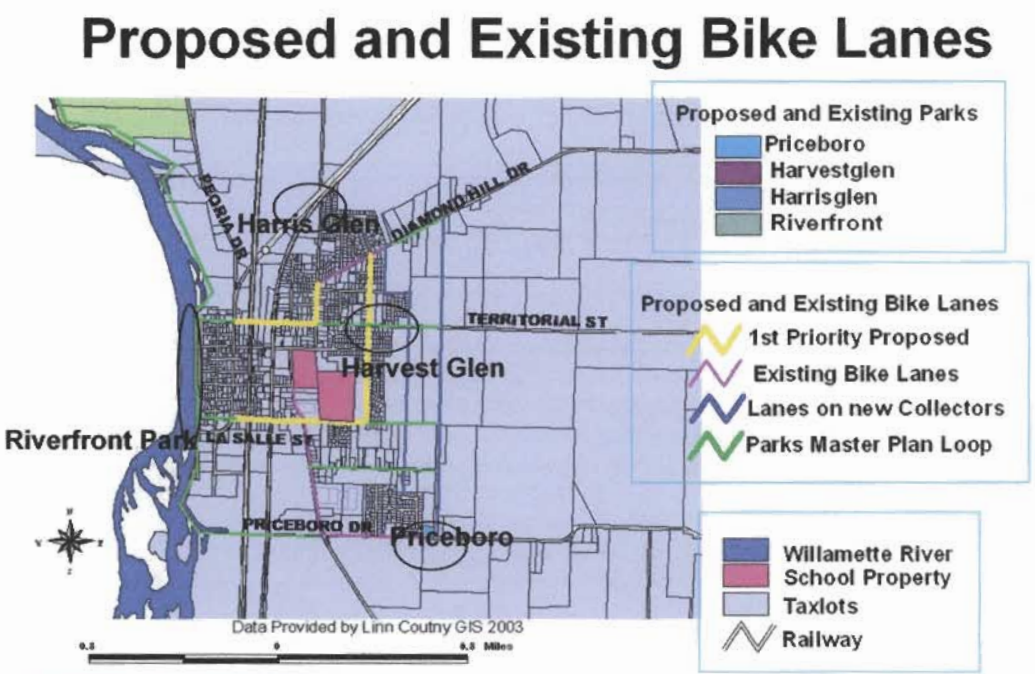
The Parks Master Plan recommends a looping bike path that goes up Territorial Street, connects to Diamond Hill Road, goes down 9th Street past the high school and then down La Salle Street to connect Riverfront Park to the east side of the city. Also, to connect future neighborhoods with Riverfront Park, which will be extended as part of the Parks Master Plan, bike lanes on La Salle and Territorial Streets would need to be extended. Map 1.3 shows the bike lanes proposed in the Parks Master Plan in green.

Map 1.3 Riverfront Bike Trail Loop



Currently, the city only has one true park, Riverfront Park and school park facilities. However, as Harrisburg grows, it will be important to make sure that bike lanes and pedestrian access is safe and convenient to new parks. As of 2004, there are three proposed mini-neighborhood parks, which are shown on Map 1.4. All of these new parks are well connected to proposed and existing bike lanes.

Map 1.4 Proposed and Existing Bike Lanes



Bike Racks

Bike racks are currently provided at City Hall, the library, the HART Family Resource Center, and at school facilities. Bike racks are needed at Riverfront Park and downtown. When new parks are completed they will also need bike racks. According to the Cascade Locks 2001 TSP, typical bike rack designs cost about $50 per bike plus installation. A budget of $250 plus the costs of installation will be needed for the purchase of bike racks.

Table 1.1
Existing and Proposed Bike Racks

Existing	Proposed	Costs
School	Riverfront Park	$50 plus installation
HART Resource Center	Downtown	$50 plus installation
City Hall/Library	New Parks	$150 plus installation.

Tables of Proposed and Existing Bike Lanes

Table 1.2
Existing Bike Lanes

Location	Segment
Diamond Hill	7th to 10th Ave
6th Street	Keisling to Priceboro

Table 1.3
Proposed Bike Lanes: TSP

Location	Segment
7th Street	Diamond Hill to Territorial
Territorial Street	3rd to 7th
9th	Diamond Hill to LaSalle
LaSalle	3rd to 9th

Table 1.4
Proposed Bike Lanes: Parks Master Plan

Location	Segment
Diamond Hill	10th –Cramer
Territorial	7th –Cramer
Territorial	1st-3rd
La Salle	1st-3rd
La Salle	9th-Cramer
Sommerville LP	6th-Cramer
Priceboro	Extension to Riverfront, would require a ROW through Morse Bros. Corp. property
Along the city's riverfront	From Priceboro up to the city's wastewater treatment plant.

Table 1.5
Planned Improvements to Pedestrian Facilities

Location	Segment	Type of Improvements Planned	Expected Date of Completion
LaSalle	3rd to 6th	Curb, gutter and sidewalk	Fall 2006
9th	Territorial to Burton	Curb, gutter and sidewalk	2009
9th	Burton to Diamond Hill	Sidewalk	2010
Smith	6th to 7th	Curb, gutter and sidewalk	Summer 2004
Smith	4th-6th	Curb, gutter and sidewalk	By 2010
4th Street	Smith to Macy	Curb, gutter and sidewalk on City property	Summer 2004
4th Street	Macy to Kesling	Curb, gutter and sidewalk on east side	By 2010
2nd Street	99E to Fountain	Curbs, gutters and sidewalk	By 2010
Smith	2nd to 3rd	Replace defective sidewalk on north side	By 2010
Schooling	3rd to RR tracks	Curbs, gutters and sidewalk	By 2010
Summerville LP	S.6th to 10th	Curbs, gutters and sidewalks	By 2010
Kesling	3rd to RR tracks	Curbs, gutters and sidewalks	By 2010

Macy	1st to 2nd	Curb, gutter and sidewalk on north side	By 2010
La Salle	East of 9th	Curb, gutter, sidewalk on south side; sidewalk on north side	By 2010
Territorial	2nd to 3rd	Curbs, gutters and sidewalk	By 2010
6th Street	Quincy to Territorial	Sidewalk	By 2010
6th Street	Dempsey to subdivision	Sidewalk	By 2010
10th Street	Priceboro and La Salle	Curbs, gutter and sidewalk	Contingent on development of new street
Dempsey Street	All: both sides	Sidewalk	By 2010
Diamond Hill Drive	10th to UGB	Sidewalk	Contingent on development of new street
Moore	Between 2nd and 3rd	Sidewalk	By 2010
Fountain	West from 3rd	Sidewalk on south side, ½ a block	By 2010

Land Use Regulations

The Transportation Planning Rule (OAR 660-012-0045) requires the city to adopt land use regulations into its city ordinances as part of its TSP. For full implementation of the following TSP revisions, city ordinances will also have to be modified to reflect the changes to the TSP in this document.

Access management

The City of Harrisburg has adopted the OTIA (Oregon Transportation Investment Act) Access Management Plan. Access management is the regulation of driveways, medians, median openings, traffic signals and street connections to ensure a safe and efficient transportation system. A copy of the Access Management Plan is attached hereto as "Attachment 1".

As part of the City's access management plan the city installed a traffic light at Territorial and 3rd Streets in 2003. Another traffic signal is planned for 3rd and La Salle Streets by 2010.

Table 2.1 Proposed Traffic Signal

Intersection	Type of Improvement	Cost Estimate	Priority	Funding Source
3rd and LaSalle	Traffic Signal	$468,000	2010	Grants

Coordinated Review of Land Use Decisions

As Harrisburg grows and develops, transportation facilities will be greatly impacted. Land use regulations play an important part of mitigating and directing the impact of increased traffic on existing and new streets. In order to use roads most efficiently, it is necessary to think about land use applications in terms of how many trips will be generated by different types of land uses and how to strategically modify the design of new development to control new traffic in the most efficient manner. A coordinated land review process and a process to apply conditions to development proposals when required is necessary to protect and efficiently use transportation facilities.

Any land use application which generates a significant number of trips per day, which as defined by the TSP will be any property which when built out can be classified as a major traffic generator (i.e., uses that generate more than 30 peak hour trips, as cited in the Institution of Transportation Engineers' (ITE) trip generation tables), will be required to go through a coordinated review process before approval. A coordinated review process will include review of the land use application by the city administrator, the public works department and the planning commission to determine if the land use application is designed in a manner to minimize traffic impacts. During this process, it is appropriate for any of the parties involved in the review process to apply conditions to development proposals, which would work to minimize the impacts of the land use on transportation facilities. As part of the coordinated review process, any amendment to land use designations, densities and design standards need to be shown to be consistent with the functions, capacities, and performance standards of the city's transportation facilities.

After a coordinated review process by the City, notice shall be provided to ODOT and Linn County of new developments and other applications which affect private access to roads.

The city shall coordinate with the Department of Transportation to implement the highway improvements listed in the Statewide Transportation Improvement Plan (STIP) that are consistent with the Transportation System Plan and comprehensive plan.

The city shall consider the findings of ODOT's draft Environmental Impact Statements and Environmental Assessments as an integral part of the land use decision making procedures. Other actions required, such as a goal exception or plan amendment, will be combined with review of the draft EIS or EA and land use approval process.

Local Street Standards

The issue of local street standards, specifically the width of streets, has been a very contentious issue with strong opinions from both the Planning Commission and City Council in opposition to state suggestions for the City to reduce street width. The debate has centered around a fear from city officials that narrower streets will decrease instead of increase the livability of the City. The state (DLCD) created guidelines mandating that cities reduce their street width because narrower streets have been proven to reduce traffic speeds. Slower traffic on residential streets increases livability by making streets

safer and more pedestrian friendly. No specific guidelines were set by the DLCD because they wanted their mandate to be flexible enough to adapt to local needs.

While narrower streets reduce vehicle speeds, Harrisburg city officials believe that if streets are too narrow it decreases the livability of residential neighborhoods. The reasons for viewing narrower streets as decreasing livability are concerns such as: reduced parking, increased congestion as vehicles have to queue up to pass, increased difficulty for larger vehicles such as motor homes to navigate the neighborhood, and the fear that very narrow streets could create more difficulty for emergency vehicle access, with the potential of trapping citizens in their neighborhood if an emergency vehicle was forced to block an exit. These fears have been expressed numerous times when discussing the prospect of "skinny streets". Residential streets in Harrisburg have traditionally been 36 feet wide. City officials will amend the Harrisburg City Code to require 32 foot wide local streets. This is a significant reduction while still providing for reasonable widths.

Findings re: Reduction in Street Widths

- The largest Harrisburg employer is Monaco Coach which builds recreational vehicles. This company has an RV service center in town, so Harrisburg experiences a large amount of RV traffic.
- A four foot reduction in street width is an 11% decrease in the width of streets for the City of Harrisburg. Any greater reduction could cause connectivity problems with existing wider streets.
- Because the City of Harrisburg borders farmland, farm vehicles often are required to use residential streets to access farm land. For example, Burton, Cherry and Azalea have been used to access farm land because a drainage ditch prevents access to the western side of the involved property without using these residential streets.

A 32 foot street width works towards the state goal of reducing street widths and the use of bulb outs will reduce vehicular speed, thus meeting the state requirements that traffic speeds are lessened on residential streets.

Bulb out Requirements

- 5 feet bulb outs on each side, thus reducing street width to 22 feet at intersections. This will be required for all intersections in residential neighborhoods.
- Use a mid-block bulb out if the block length exceeds 630 feet.

Right of Way and Street Design Options

Harrisburg ordinances do not provide much flexibility in right-of-way or street design. The ordinances require the right-of-ways for local streets to be 50 feet, with 36 foot wide streets; and, collector streets must have a 60 foot right-of-way with 36 foot wide streets. Providing more flexibility would allow the Planning Commission and City Council more ability to design right-of-ways and streets to meet particular needs. The following chart was developed for the purpose of giving street design options more flexibility:

Table 2.2 Street Width Matrix

Width of each of the following (in feet)	Local		Collector		Minor Arterial		Major Arterial	
	R/W	Street	R/W	Street	R/W	Street	R/W	Street
Extra R/W	.5		1		1		1	
Bike lane					5	5	6	6
Planter or utility	5.5		6		7		7-8	
Sidewalk	5		5.5		6		6-8	
Parking lane	7	7	7.5	7.5	7.5	7.5	7.5	7.5
Travel or turn lane	9	9	9	9	10	10	12	12

Notes regarding the above chart:

1. "R/W" refers to right-of-way.
2. "Extra R/W" refers to a space that will normally be left between the property line and a sidewalk to avoid accidentally constructing a sidewalk on private property.
3. The Planning Commission will determine if a right-of-way design will include bike lanes, parking lanes, and other amenities, as well as the number of travel and turn lanes.
4. The Planning Commission shall take into consideration future usage.
5. No public street or alley shall be less than 20 feet in width.

Transportation Financing Plan

The TPR requires that the TSP include a financing plan for all planned improvements to the road system. As part of this plan, all planned improvements, including pedestrian improvements, will be listed with rough cost estimates and approximate dates of proposed construction. Funding sources for all projects have been identified.

*Street classifications based on recommendations from Lennertz Coyle Associates

Table 3.1
New Street Projects

Street	Segment	Type of Improvement	Cost Estimate**	Funding Source	Type of Street*	Estimated date of completion
10th Street	Diamond Hill to Burton	Curbs, gutters and new street	Required build out for developers	Developers	Collector	2006
9th Street	LaSalle to Priceboro	Curbs, gutters and new street	$742,100	Developers	Collector	2006
9th Street	From Territorial to Burton	Curbs, gutters and new street	$226,800	Curbs and gutters are property owners responsibility; Street improvements are the City's responsibility	Collector	2009
LaSalle	3rd to 6th	New street	$742,100	SDC's and street construction funds	Minor arterial	2006
Cramer Ave	From Priceboro to Diamond Hill	Includes 2 lanes with median and bike lanes	$2,545,200	Grant, developers, SDC & street funds	Minor arterial	2008
Burton Street	9th Street to Harvest Glen subdivison	Curbs, gutters and new street	$270,700	Developer, property owners, SDC's street funds	Local	2004
10th Street	Territorial to Priceboro	Curbs, gutters and new street	$1,598,000	Developers	Collector	2010
Total Costs of New Street Projects 2004-2010			$6,124,900			

**May 2001 dollars=ENR CCI=7230, Jan2000 and ENR CCI=7864

All proposed improvements to the road and pedestrian system in the Harrisburg's TSP are listed in the tables below; new street projects, proposed traffic signal, planned improvements to pedestrian facilities, and proposed TSP bike lanes, and park master plan proposed bike lanes.

Table 3.2
Planned Improvements to Pedestrian Facilities

Location	Segment	Type of Improvements Planned	Cost	Expected Date of Completion
LaSalle	3rd to 6th	Curb, gutter and sidewalk	Prop. Owners	Fall 2005
9th	Territorial to Burton	Curb, gutter and sidewalk	Prop. Owners	2009

9th	Burton to Diamond Hill	Sidewalk	Prop. Owners	2010
Smith	6th to 7th	Curb, gutter and sidewalk	Prop. Owners	Summer 2005
Smith	4th-6th	Curb, gutter and sidewalk	Prop. Owners & street funds	By 2010
4th Street	Smith to Macy	Curb, gutter and sidewalk on City property	Prop. Owners	Summer 2005
4th Street	Macy to Kesling	Curb, gutter and sidewalk on east side	Prop. Owners	By 2010
2nd Street	99E to Fountain	Curbs, gutters and sidewalk	Prop. Owners	By 2010
Smith	2nd to 3rd	Replace defective sidewalk on north side	Prop. Owners	By 2010
Macy	1st to 2nd	Curb, gutter and sidewalk on north side	Prop. Owners	By 2010
La Salle	East of 9th	Curb, gutter, sidewalk on south side; sidewalk on north side	Prop. Owners	By 2010
Sommerville LP	S. 6th to 10th	Curbs, gutter, sidewalk	Prop. Owners	By 2010
Territorial	2nd to 3rd	Curbs, gutters and sidewalk	Prop. Owners	By 2010
N.10th	Territorial to Priceboro	Curbs, gutters and sidewalk	Prop. Owners	Contingent on development build out and construction of new street
6th Street	Quincy to Territorial	Sidewalk	Prop. Owners	By 2010
6th Street	Dempsey to subdivision	Sidewalk	Prop. Owners	By 2010
7th Street	North of Diamond Hill	Curbs, gutters and sidewalk	Prop. Owners	By 2010
8th Street	Territorial to Burton	Curbs, gutters and sidewalks	Prop. Owners	By 2010
Dempsey Street	All: both sides	Sidewalk	Prop. Owners	By 2010
Moore	Near Delta Valve between 2nd and 3rd	Sidewalk	Prop. Owners	By 2010
Fountain	West from 3rd	Sidewalk on south side, ½ a block	Prop. Owners	By 2010

Table 3.3
Proposed Bike Lanes: TSP

Location	Segment	Cost Estimate	Source of Funding	Expected Date of Completion
7th Street	Diamond Hill to Territorial	$1,868	Grants, bike funds from gas tax & street funds	2008
Territorial Street	3rd to 7th	$3,360		2009
9th	Diamond Hill to LaSalle	$6,701		2013
LaSalle	3rd to 9th	$5,488		2012

*Cost estimate provided by Tim Bunnell, Community Development Superintendent, 7/04

Table 3.4
Proposed Bike Lanes: Parks Master Plan

Location	Segment	Funding Source
Diamond Hill	10th –Cramer	Grants, bike funds from gas tax, parks funds, street funds
Territorial	7th –Cramer	
Territorial	1st-3rd	
La Salle	1st-3rd	
La Salle	9th-Cramer	
Sommerville LP	6th-Cramer	
Priceboro	Extension to Riverfront, would require a ROW through Morse Bros. Corp. property	
Along the city's riverfront	From Priceboro up to the city's wastewater treatment plant.	

Total Estimates for TSP Expenditures 2004-2010

Table 3.5
Total Transportation Expenditures Projected Through 2010

Project	Cost Estimate	Funding Source
New Street Projects	$6,942,900	Developers, SDC's, City street construction funds
Proposed Traffic Signal for 2010	$468,000	Urban Renewal Grant
Sidewalk construction	Paid for by Property Owners. City to cover the La Salle Street RR crossing and retaining wall.	Property owners & $75,000 from city street funds
Bike Lanes	$17,417	Grants, bike funds from gas tax & street funds
Bike Racks	$250 + installation	Bike funds from gas tax
Total Costs: 2004-2010	$6,685,567	

A funding source for all transportation projects through 2010 has been identified.

TSP Addendum Purpose

The purpose of this Addendum to the Transportation System Plan prepared in 1999, is to supplement that document and together provide direction and guidance in present and future transportation related issues. Furthermore, it should be used with the Comprehensive Plan and related documents in land use matters and in the creation or amendment of city ordinances to establish criteria to aide in the decision making process.