OLDHAM COUNTY TRANSPORTATION CAPITAL IMPROVEMENT PROGRAM

DECEMBER 21, 2007

Oldham County Transportation Capital Improvement Program

The Transportation Capital Improvement Program (TCIP) for Oldham County evolved gradually over a 12 month period. An Executive Committee was formed by former County Judge Executive Mary Ellen Kinser in late September of 2006. The Executive Committee consisted of the three Fiscal Court Magistrates who also serve as the County Road Committee (Iva Davis, Steve Greenwell and Bob Leslie), and three members of the Planning Commission (Joyce Albertsen, Frank Fain and Greg King). Furthermore, throughout the project, the following staff participated: Paula Gish, Deputy County Judge Executive; M. Louise Allen, Planning and Zoning Administrator; Emily Liu, Assistant Planning and Zoning Administrator; Beth Stuber, County Engineer; Brian Campbell, Road Superintendent; Stuart Ulferts, County Attorney; and Diane Zimmerman, County Traffic Impact Consultant. The Executive Committee met monthly to review ideas and design the TCIP.

At its conception, the project was envisioned as a traditional TCIP with a list of projects and their proposed timing; however, as the Executive Committee and Planning Commission staff worked together the following became apparent:

- The pavement management system already in place within the Road Department is being used successfully and acts very much like a capital improvement program in that each county maintained road is reviewed and ranked objectively for improvements, thus providing a long range plan that is implemented each year dependent upon available funding.

- In order to meet the transportation needs within the constraints of the County's current budget situation, some shifts would need to be made in the methodology, and the focus of the project became to design a process to fund necessary capital improvements for county maintained roads. This led to the development of the Road Mitigation Fee Program.

This report will address the following components of the overall Transportation Capital Improvement Program and Road Mitigation Fee Program:

Section One	County Budget Constraints/Population Growth
Section Two	Transportation Funding Research
Section Three	Road Mitigation Fee Program
	Program Objective and Outline
	Road Mitigation Estimates
	Traffic Shed Map
	Sample Shed Analysis
	Ordinance
	Integration of the Pavement Management System
Section Four	Sidewalk Component
Section Five	Actions and Future Recommendations

TABLE OF CONTENTS

Section One
Budget Dilemma/Population Growth

To this date, Oldham County has never systematically requested that developers mitigate substandard county maintained roads that are affected by new residential development. However, in the past several years, the Oldham County Planning Commission members and Staff have recognized that the county does not have sufficient tax revenue to keep pace with the rapid rate of residential growth and the strain it places on the substandard roads within the county.

Although Oldham County residents maintain the highest average household income in the state, the operating resources generated by tax revenue for the county when measured against property values and household income are among the lowest in the state.

Contributing factors include the following:

- Due to the appreciation of housing costs in Oldham County in relationship to the constraints prescribed by House Bill 44 on the amount of revenue generated from property taxes, Oldham County has been consistently forced to reduce the property tax rate for the past several years resulting in a tax rate that is approximately 1/3 below the average for Kentucky (80 of 120 counties have a higher tax rate).
- 104 of 120 Kentucky counties have a separate tax for Extension Services, and another 65 counties have a separate tax for Soil Conservation. Oldham County does not, and pays these expenses from its General Fund.
- Unlike most Kentucky counties, Oldham County does not have an occupational license fee (payroll tax) imposed either by the county, or by one or more or its cities. As a reference, Metro Louisville reports that 57% of its budget is supported by its payroll tax.

Additionally, Oldham County lost $550,000 from its Road Department budget due to the loss of funding from the state road bond fund that had been received for the past two fiscal years. This cuts the Road Department general maintenance budget almost in half.

Concurrently, Oldham County is experiencing record growth. The county is projected to experience a 25.9% growth rate from 2000 to 2010, with a culminating total projected population of 58,123. This projected change in population is nearly four times the projected statewide average of 7%. Oldham County ranks fourth in population growth between 2000 and 2005 with a 15.9% change in population behind Spencer County (33.0%), Boone County (23.6%), and Scott County at (19.1%).

In acknowledgement of the combination of budget constraints and rapid population growth, Staff and the Executive Committee determined that there is a need for alternative funding sources to adequately maintain and improve the substandard roads (see map on page 16) within Oldham County in order to protect the health and welfare of its citizens.

Information Sources:
Office of the Oldham County Judge/Executive
The Oldham County Planning and Zoning Department Annual Report 2006

Section Two
Transportation Funding Research

The Executive Committee researched and discussed the following funding programs in the process of developing the Road Mitigation Fee program.

Transportation Improvement Districts (TID)
A transportation improvement district is a defined limited geographic area that can be as small as a roadway corridor or as large as a county or conglomeration of counties that needs to improve transportation infrastructure (i.e. road condition and traffic flow). By forming a TID, identified projects can be funded by bonds issued for the purpose. The bonds are paid off by assessments, typically property tax assessments, to the persons or properties in the district who benefit from the improvement.

Local Improvement Districts (LID)
Closely related to the TID, a local improvement district is generally speaking a geographic area in which at the request of the affected property owners, real property is taxed to defray all or part of the costs of a public improvement. Costs are apportioned according to the estimated benefit that will accrue to each property. The basic principle of special assessment is that it is a charge imposed upon property owners who receive special benefits from an improvement beyond the general benefits received by all citizens of the community. The local government undertakes all aspects of design, financing and construction of improvements and sells bonds to provide cash for the project. Property owners within the benefit district repay the money through special assessments usually over 15 to 20 years.

Impact Fees
Impact fees (also known as development impact fees, system development charges, exactions) are assessments levied on new development to help pay for the construction of capital improvements that benefit the contributing development. Impact fees are typically assessed using a fee schedule that sets forth the charge per dwelling unit or per 1,000 square feet of non-residential floor space. Impact fees are one-time, up-front charges usually made at the time the building permit is issued.

Generally speaking for an impact fee to be legally viable it must meet the following requirements:

- have a rational "nexus" or connection between the fee or improvement required and the service impact created
- the fee or improvement required must be proportionate to the impact created
- fees generally cannot be used to correct problems that are in existence (and therefore attributable to prior development) before the enactment of the fee system
- all fees collected must be utilized for the intended purpose within a reasonable period of time or returned

It would be necessary to work with the state legislative delegation to determine the legislative feasibility and requirements for enabling laws.

Local Option Tax Sources (Gas, Occupational, Real Estate Transfer or Sales)
State enabling legislation is generally required in Kentucky to permit these types of taxes to be assessed at the local government level. Presently, many Kentucky communities utilize an occupational tax (including Jefferson and Shelby Counties); however, most do not utilize the money specifically for transportation improvements. It is more common to find this use outside of the State of Kentucky. It would be necessary to work with the state legislative delegation to determine the legislative feasibility and requirements for enabling laws.

Traffic Shed
Analogous to the familiar concept of a water shed, the traffic shed concept stems from the premise that rural residents use county roads to get to major arterials (typically state or federal highways) to commute to their jobs. Thus the flow down the rural road to a major arterial is similar to the flow of water downstream from a creek to a river. In a traffic shed system, the basic zoning standards (lot size, density) are not changed. Instead the zoning ordinance is modified to include a performance overlay for each traffic shed that indicates the amount of development permitted given the roadway carrying capacity. Using traffic sheds allows each landowner to receive a fair share of the traffic shed's capacity. Capacity is allocated on a pro rata basis, so the owner of 2% of the land receives 2% of the shed capacity. The owner of 24% of the land receives 24% of the capacity. Every landowner is treated equally. None is prohibited from developing, and no property is downzoned in comparison to other sites. A simplified example is outlined in Section Three of this report. Landowners and/or developers can then use the traffic shed data to determine the cost/practicality of developing a piece of property by making improvements to the traffic shed and thus increasing the capacity, building out at the current overlay density, using the overlay density permitted and reserving land for future development, adjusting the deal for the sale and/or development of the property or pursuing other development options.

Transferable Development Rights (TDR)
In its simplest terms, a TDR program facilitates the sale and transfer of the right to develop a piece of property (development credits) in an area to be protected, known as the sending area, to another piece of property, the receiving area. Typically, a sending site contains features identified as being worthy of preservation in the Comprehensive Plan, such as productive farmland, environmentally sensitive or scenic areas, or natural landmarks that provide a unique sense of place. A good sending site should be relatively large compared to its receiving site. (Unfragmented sections of farm land yield more development credits than do small, fragmented agricultural areas.) The owner of a sending site must have an incentive to sell his/her development rights. This occurs only if the local government correctly calibrates the density credits that come with a developments rights purchase so that the receiving site owner is willing to pay more per credit that the sending site owner would make were his/her land to be developed. To accommodate the extra development potential, a TDR program provides an increase in density in the receiving area. KRS 110.208 allows for any county government to provide by ordinance for the voluntary transfer of the development rights permitted on one parcel of land to another parcel of land.

Information Sources:
City and County of Denver Public Works Department

Oregon Legislative Policy & Research Office, *"Basics about LOCAL IMPROVEMENT DISTRICTS"*
City of Everett, Washington, *"Local Improvement Districts"*
Oldham County Major Thoroughfare Plan, prepared by Wilbur Smith Associates in December of 2003
Mid-Ohio Regional Planning Commission, *"Best Practices in Growth Management with Recommendations"* Delaware-Franklin County, Ohio
"Traffic Sheds, Rural Highway Capacity and Growth Management" by Lane Kendig with Stephen Tocknell, AICP

Section Three
Road Mitigation Fee Program

Program Objective
The objective of Staff and the Executive Committee when designing the Road Mitigation Fee Program was to use a variation of the traffic shed methodology to devise a fair and uniform method to accomplish road mitigation projects necessitated by new development.

The Executive Committee decided to use the traffic shed model as a basis for the following reasons:

- The applicant pays a fee that is proportionate to the specific amount of traffic being generated by his/her development. It will allow for a fair-share contribution rather than one applicant paying more or less than the next.
- The funds generated by the fee will be spent only to mitigate the road that is affected by the development.
- Applicants will be able to determine the amount of the fee in advance of the approval process.
- Development will be encouraged in areas of the county where sufficient infrastructure is already in place.

Road Mitigation Fee Program Outline

Traffic Shed Map
The County will maintain a traffic shed map created by Planning and Zoning staff in conjunction with the County Traffic Impact Consultant delineating individual traffic sheds within Oldham County. The map will be effective upon its adoption by the Oldham County Planning Commission. The Staff may make amendments to the map as needed subject to the approval of the Planning Commission.

Traffic Shed Criteria
The criteria used to determine the land area of a traffic shed are: parcel lines, topography and the reasonably anticipated traffic flow generated by the land area to a specific road and/or a road segment.

Mitigation
The applicant for any new residential development will be required to provide mitigation as detailed below if the development occurs within a traffic shed containing; a County-maintained road that does not meet the applicable minimum width and capacity standards adopted by the County; and, which can reasonably be anticipated to be impacted by the traffic flow generated by the new residential development.

Any applicant required to provide mitigation pursuant to this program shall submit a mitigation plan for approval by the Planning Commission prior to plan approval.

Mitigation can be accomplished by:

- building a new road as approved by the Planning Commission in the traffic shed that meets applicable minimum width and capacity standards adopted by the County
- improving the existing road within the traffic shed identified by Staff and relating to the above referenced criteria to meet applicable minimum width and capacity standards adopted by the County
- paying a pro rata amount of money (mitigation fee) to be held by the County in escrow and to be expended by the County solely for the purpose of improving the existing identified substandard road within the traffic shed

For this program, mitigation shall not be required in any traffic shed in which a County-maintained road which would otherwise obligate the applicant to provide mitigation is scheduled for improvements that will bring the road into full compliance with all adopted applicable county standards, and full funding has been secured for all such improvements.

Mitigation Fee
If an applicant chooses to pay a mitigation fee, Staff in consultation with the County Traffic Impact Consultant, will utilize standardized procedures and data from the most recent edition of the Institute of Transportation Engineers, *Trip Generation* to determine;

- the number of trips per day per acre of property that will be generated by the applicant's development
- the potential maximum number of trips per day per acre that could be generated by the remaining developable acreage within the traffic shed under the official zoning map
- the existing number of trips per acre per day generated within the traffic shed
- the percentage of the potential and existing total trips per day that will be generated by the development

The applicant will pay the percentage of the estimated cost to improve the identified existing substandard road equivalent to the ratio of the total trips per day generated by the applicant's development over the total existing and potential trips per day generated within the traffic shed.

Simplified Example:
The Smith Lane traffic shed is currently undeveloped and contains 100 acres of potentially developable land. Smith Lane does not meet minimum width and capacity standards. The estimated cost to improve Smith Lane is $500,000.

The applicant, Joe Smith, plans to develop 20 acres of the property with one single family home per acre. His development will generate 200 trips per day.

20 x 10 (average daily trips per single family household) = 200 trips per day

Under current zoning, the remaining 80 acres of the traffic shed has the potential to develop 80 additional single family homes with one home per acre. This will generate 800 trips per day.

80 x 10 (average daily trips per single family household) = 800 trips per day

Mr. Smith will be responsible for paying for 20% of the total cost to bring Smith Lane to current width and capacity standards. He will pay a $100,000 road mitigation fee.

800 + 200 = 1,000	1,000 total daily trips can potentially be generated by the shed
200/1,000 = 20%	200 is equivalent to 20% of the shed's total daily trips
$500,000 x 20% = $100,000	20% of the cost to improve the road is $100,000

Mitigation Fee Payment Schedule
The mitigation fee shall be paid in full at the time of first record plat for any residential development consisting of less than 50 lots.

The mitigation fee shall be paid in phases for any residential development consisting of more than 50 lots as follows:
First Phase: The applicant shall pay the greater of: 30% of the total required mitigation fee at the time of the first record plat or the percentage of the total mitigation fee equal to the ratio of the number of lots recorded in the first record plat over the total number of lots in the development; and
Subsequent Phase(s): For each subsequent record plat, the applicant will pay the percentage of the remaining fee equal to the ratio of the number of lots recorded in the record plat over the total number of lots in the development.

Estimate Preparation
Staff in conjunction with Road Department staff will provide the road improvement estimates used to determine mitigation fee amounts. Planning and Zoning will add a nominal fee to the adopted fee schedule to be paid by the applicant for preparing the road improvement estimate. Funds generated by the estimate preparation fee will be used to update the estimates on an annual basis.

Variance Request
In situations involving extreme topographical circumstances, applicants may request a variance to the adopted road width requirements for consideration when determining mitigation fee estimates.

Exclusivity
Remedies toward the mitigation of development and capacity impact described above are not exclusive of any other applicable ordinances or regulations as adopted by the Oldham County Fiscal Court and/or the Planning Commission. Applicants may still be required to pay for other improvements necessitated by the development (i.e. turn lanes, intersection improvements, signalization, etc.) in addition to the mitigation fee.

Road Mitigation Estimates

Cost estimates for this program were prepared by Flynn Brothers Contracting, in conjunction with the Oldham County Road Department.

Fendley Mill Road Estimate
Area – 20' x 15,312' = 34,027 square yards

Asphalt Work – 1 ½ " asphalt surface (2807 tons at $55.00 per ton)	$ 154,385.00
Prep Work (asphalt) includes tack ct. at .25 per square yard	8,507.00
Guard Rail – approximately 3,500 linear feet at $55.00 per linear foot	192,500.00
Curb and Gutter – approximately 4,700 linear feet at $15.00 per linear foot	70,500.00
Tree Removal – approximate	30,000
At 2.4 miles – new 48" ADS culvert with headwalls and approximately 100 cubic yards of embankment	20,000
Road Widening - 1.3 miles an average of 2' (1524 square yards)	
9" D.G.A. Base (790 tons at $16.00 per ton)	12,640.00
Sitework	20,000.00
4" of asphalt base (336 tons at $75.00 per ton)	25,200.00
Rip – Rap	10,000.00
	$543,732.00

Cedar Point Road Estimate
10,000 linear feet
9 core drills – average pavement thickness 6.17 inches

Surface	$ 90,750.00
Scratch lift	22,000.00
Prep work	5,000.00
Guide Rail	100,000.00
Curb and gutter (13,000 linear feet)	130,000.00
Dig outs / full depth milling / widening road to 18'	33,000.00
D.G.A. (3,000 tons)	42,000.00
1,271 tons of asphalt	70,000.00
Shoulder work back up curbs	20,000.00
	$512,750.00

Glen Arm Road Estimate
Area – 2.4 miles or 12,672' x 20' = 28, 160 square yards

Prep asphalt work at .25 per square yard	$ 7,040.00
Asphalt surface – 1 ½" (2,323 tons at $55.00 per ton)	127,765.00
**Tree work	100,000.00
Curb and gutter – 5,000 linear feet at $15.00 per linear foot	75,000.00
Guard rail – 500 linear feet at $55.00 per linear foot	27,500.00
Install culvert	20,000.00
Road widening – 2 miles an average of 4.5 feet	
Sitework	100,000.00
9" of DGA (6,280 square yards) 3250 tons at $16.00 per ton	52,000.00
4" Asphalt base – 1,382 tons at $65.00 per ton	89,830.00
Rip Rap and drainage work with some hoe ramming of rock required	25,000.00
Seed and straw	30,000.00
	$654,135.00

**Relocation of utilities is not included in this estimate and could add a significant additional cost.

Goshen Lane Estimate
Area – 1.4 miles or 7,392' x 20' = 16,427 square yards

Prep asphalt work at .25 per square yard	$ 4,107.00
Asphalt surface – 1 ½" (1355 tons at $55.00 per ton)	74,525.00
**Tree work	50,000.00
Curb and gutter – 5,800 linear feet at $15.00 per linear foot	87,000.00
Guard rail – 1,100 linear feet at $55.00 per linear foot	60,500.00
Full depth milling – 1,000' x 16' = 1,778 square yards Milling costs, trucking, backfill with 4" of asphalt base (391 tons)	35,000.00
Road widening – 1.3 miles an average of 4 feet (3051 square yards)	
Sitework	125,000.00
9" of DGA – 1,579 tons at $16.00 per ton	25,264.00
4" Asphalt base – 671 tons at $65.00 per ton	43,615.00
Seed and straw	30,000.00
	$535,011.00

**Relocation of utilities is not included in this estimate and could add a significant additional cost.
A minimum of 12 telephones will have to be relocated plus possible other utilities.

Blakemore Lane Estimate
Area – 2.7 miles or 14,256’ x 20’ = 31,680 square yards

Prep asphalt work at .25 per square yard	$ 7,920.00
Asphalt surface – 1 ½” (2,614 tons at $55.00 per ton)	143,770.00
Tree work	250,000.00
Replace wire woven fence 1.5 miles (7,920 linear feet) at $6.50 per linear foot	51,480.00
Curb and gutter – 16,500 linear feet at $15.00 per linear foot	247,500.00
Guard rail – 500 linear feet at $55.00 per linear foot	27,500.00
Road widening	
Sitework – widening on both sides	250,000.00
Surge 6” stone – 14,500 tons at $16.00 per ton	232,000.00
9” of DGA –4,250 tons at $16.00 per ton	68,000.00
4” Asphalt base – 2,323 tons at $60.00 per ton	139,380.00
Seed and straw	30,000.00
Drainage culvert work	35,000.00
Striping – 57,024 linear feet of striping and with glass beads at .35 per linear foot	19,958.00
Box culvert – 10’ x 10’	50,000.00
	$1,552,508.00

Old Zaring Road
Beginning at Glenarm Road and ending at Cedar Point
Area – 1.9 miles or 10,032’ x 20’ = 22,293 square yards

Prep asphalt work at .25 per square yard	$ 7,323.00
Asphalt surface – 1 ½” (1839 tons at $55.00 per ton)	101,145.00
Tree work	245,000.00
Replace wire woven fence 1.5 miles (7,920 linear feet) at $6.50 per linear foot	51,480.00
Curb and gutter – 18,000 linear feet at $15.00 per linear foot	270,000.00
Guard rail – 600 linear feet at $55.00 per linear foot	33,000.00
Sitework on both sides	250,000.00
Mass rock excavation	50,000.00
9” of DGA – 10,032’ x 8’ = 8,917 square yards 4,615 tons at $16.00 per ton	73,840.00
4” Asphalt base – 1,961 tons at $55.00 per ton	107,855.00
Seed and straw	25,000.00
Box culvert work – remove existing and install new one 20’ in length by 30” in width and 5’ in height	100,000.00
Drainage culverts	30,000.00
	$1,344,643.00

Massey School Road Estimate
Starts at Jericho Road
Area – 1.2 miles or 6336’ x 22’ = 15,488 square yards

Prep asphalt work at .25 per square yard	$ 3,872.00
Asphalt surface – 1 ½” (1,278 tons at $55.00 per ton installed)	70,290.00
Tree work and fence work	20,000.00
Utilities – approximate cost of moving telephone poles	40,000.00
Curb and gutter – 4,000 linear feet at $15.00 per linear foot	60,000.00
Guard rail – 600 linear feet at $55.00 per linear foot	33,000.00
Road widening – 1,320’ x 4’ – 587 square yards; 2,640’ x 11’ – 3,227 square yards = total 3,814 square yards	
Sitework:	125,000.00
Shouldering and embankment required	20,000.00
9” of DGA – 1,974 tons at $16.00 per ton	31,584.00
4” Asphalt base	839.00
Seed and straw	25,000.00
Drainage culvert replacement	10,000.00
	$439,585.00

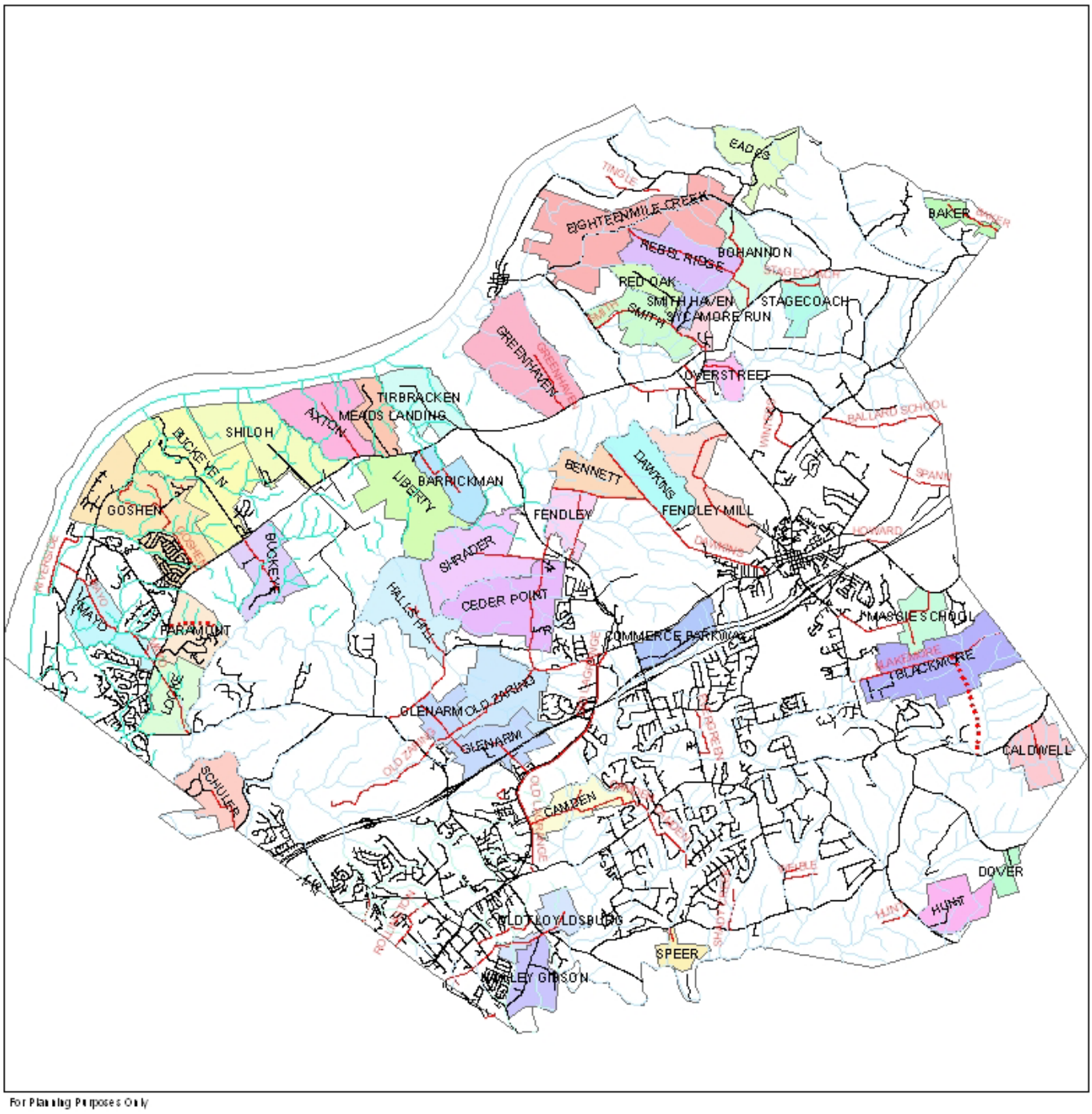
Zhale Smith Road Estimate
Area – 1.3 miles or 6,864’ x 22’ = 16,779 square yards

Prep asphalt work at .25 per square yard	$ 4,194.75
Asphalt surface – 1 ½” (1,384 tons at $55.00 per ton installed)	76,120.00
Tree work	10,000.00
Re-grout all connections on existing 36’ RCP	1,000.00
Road widening – 1.2 miles or 6,336’ x 2.5’ = 1,760 square yards	
Sitework	100,000.00
Embankment work	20,000.00
9” of DGA – 911 tons at $16.00 per ton	14,576.00
4” Asphalt base – 387 tons at $55.00 per ton	21,285.00
Seed and straw	25,000.00
	$272,175.75

South Camden Lane
Start at US 22
Area – .9 miles or 14,752’ x 22’ = 11,616 square yards

Prep asphalt work at .25 per square yard	$ 2,904.00
Asphalt surface – 1 ½” (958 tons at $55.00 per ton installed)	52,690.00
Tree work	28,000.00
Utilities – estimated cost to relocate telephone poles	100,000.00
Curb and gutter – 7,392 linear feet at $15.00 per linear foot	110,880.00
Guard rail – 650 linear feet at $55.00 per linear foot	35,750.00
Road widening – 4,224’ x 4.5’ = 2,112 square yards	
Sitework	125,000.00
Embankment	20,000.00
9” of DGA – 1,093 tons at $16.00 per ton	17,488.00
4” Asphalt base – 465 tons at $55.00 per ton	25,575.00
Seed and straw	20,000.00
Drainage culvert improvements	5,000.00
Install new wire woven fencing; relocate four board fencing	15,000.00
	$558,287.00

Traffic Shed Map



Sample Shed Analysis

Old Zaring Traffic Shed Analysis

Summary: The cost per housing unit for the Old Zaring Traffic Shed is $1,664 if sanitary sewers will not be available. With sanitary sewers, the cost per housing unit for the Old Zaring Traffic Shed is $776.

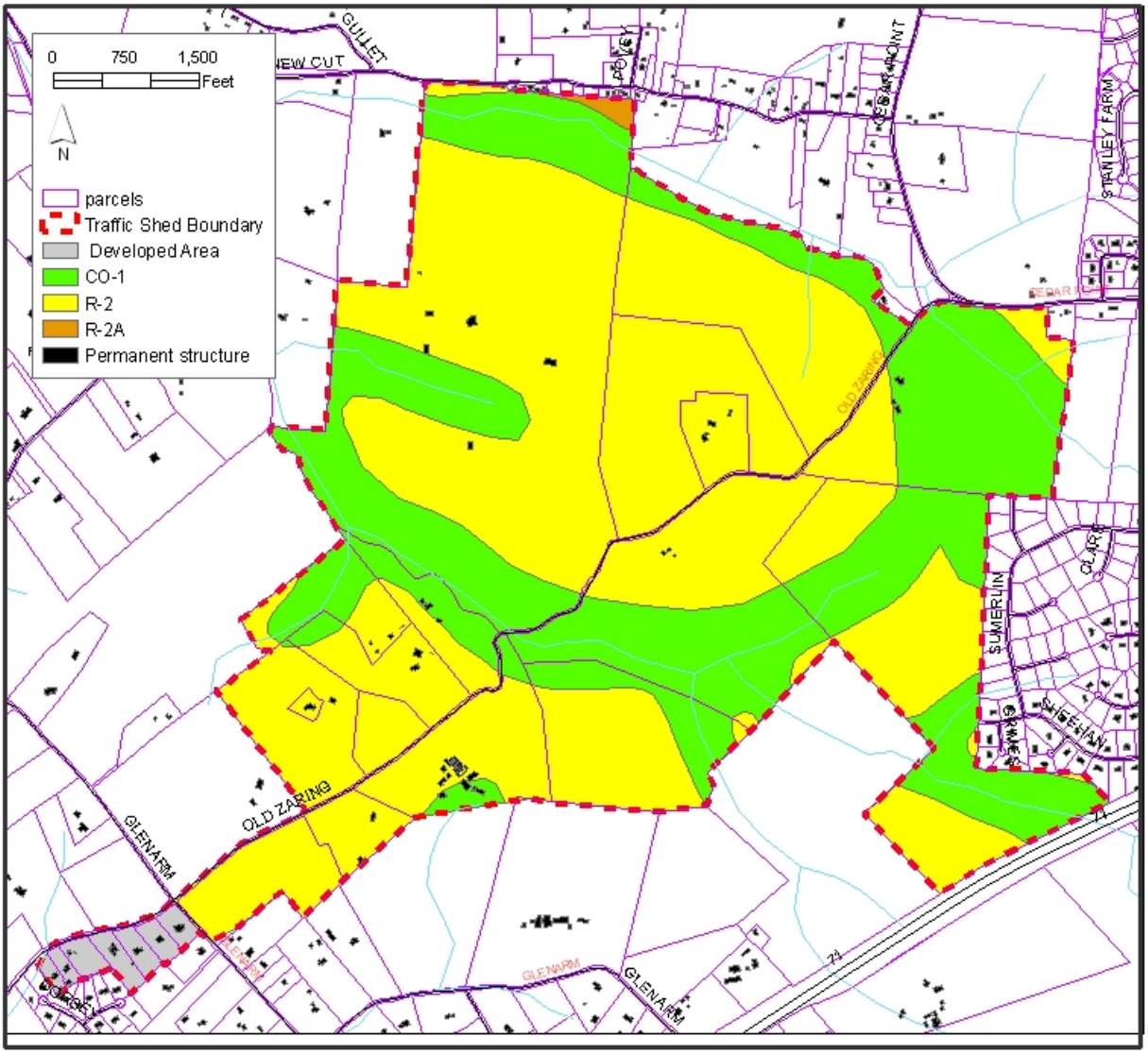
Analysis:

Total Traffic Shed Area: 1,082 Acres
Developed Area: 18 Acres
Undeveloped Area: 1,064 Acres
CO-1 Zoning: 373 Acres
R-2 Zoning: 688 Acres
R-2A Zoning: 3 Acres

Projected Housing Units w/o Sewers
CO-1 Zoning: 283
R-2 Zoning: 523
R-2A Zoning: 2
Total: 808
Cost Per Houisng Unit: $1,664

Projected Housing Units w/ Sewers
CO-1 Zoning: 224
R-2 Zoning: 1,498
R-2A Zoning: 10
Total: 1,732
Cost Per Houisng Unit: $776

Assumptions: Total Cost for improving Old Zaring Road is estimated at $1,344,643.00 (2007 dollars)
Land will be developed to the maximum density allowed under the current zoning.
Based on the density calculation formula in Section 5.12 of the Subdivision regulations, 76% of the undeveloped area will be allowed to calculate densitity for non-sewered developments; 60% of the undeveloped area will be allowed to calculate density for sewered developments.



Ordinance

DRAFT – Insert Final Draft when completed
For this section, mitigation is defined by the following regarding residential development in unincorporated areas of the County.

Traffic Shed
A county traffic shed map shall be created by Planning and Zoning staff (Staff) in conjunction with the County Traffic Impact Consultant delineating individual traffic sheds within Oldham County. The map will be effective upon its adoption by the Oldham County Planning Commission. The Staff may make amendments to the map from time to time as needed subject to the approval of the Planning Commission.

Criteria
The criteria used to determine the land area of a traffic shed are: parcel lines, topography and the reasonably anticipated traffic flow generated by the land area to a specific road and/or a road segment.

Mitigation
The applicant for any new residential development shall be required to provide mitigation as provided below in this section if such new residential development occurs within a traffic shed containing; a County-maintained road that does not meet the applicable minimum width and capacity standards adopted by the County; and, which can reasonably be anticipated to be impacted by the traffic flow generated by the new residential development.

Any applicant required to provide mitigation pursuant to this section shall submit a mitigation plan for approval by the Planning Commission prior to plan approval.

Mitigation can be accomplished by: building a new road as approved by the Planning Commission in the traffic shed that meets applicable minimum width and capacity standards adopted by the County; or,
improving the existing road within the traffic shed identified by Staff and relating to the above referenced criteria (identified) to meet applicable minimum width and capacity standards adopted by the County; or,
paying a pro rata amount of money (mitigation fee) to be held by the County in escrow and to be expended by the County solely for the purpose of improving the existing identified substandard road within the traffic shed.

Notwithstanding the other provisions of this section, mitigation shall not be required in any traffic shed in which a County-maintained road which would otherwise obligate the applicant to provide mitigation under this section is scheduled for improvements that will bring the road into full compliance with all adopted applicable county standards, and full funding has been secured for all such improvements.

Mitigation Fee
If an applicant chooses to pay a mitigation fee, Staff in consultation with the County Traffic Impact Consultant, will utilize standardized procedures and data from the most recent edition of the Institute of Transportation Engineers, *Trip Generation* to determine;
the number of trips per day per acre of property that will be generated by the applicant's development; and,
the potential maximum number of trips per day per acre that could be generated by the remaining developable acreage within the traffic shed under the official zoning map; and,
the existing number of trips per acre per day generated within the traffic shed; and,
the percentage of the potential and existing total trips per day that will be generated by the development.

The applicant shall pay the percentage of the estimated cost to improve the identified existing substandard road equivalent to the ratio of the total trips per day generated by the applicant's development over the total existing and potential trips per day generated within the traffic shed.

Payment Schedule
The mitigation fee shall be paid in full at the time of first record plat for any residential development consisting of less than 50 lots.

The mitigation fee shall be paid in phases for any residential development consisting of more than 50 lots as follows.
First Phase: The applicant shall pay the greater of: 30% of the total required mitigation fee at the time of the first record plat or the percentage of the total mitigation fee equal to the ratio of the number of lots recorded in the first record plat over the total number of lots in the development; and
Subsequent Phase(s): For each subsequent record plat, the applicant will pay the percentage of the remaining fee equal to the ratio of the number of lots recorded in the record plat over the total number of lots in the development.

Estimate Preparation
Staff in conjunction with Road Department staff will provide the road improvement estimates used to determine mitigation fee amounts. Planning and Zoning will add a nominal fee to the adopted fee schedule to be paid by the applicant for preparing the road improvement estimate.

Variance Request
In situations involving extreme topographical circumstances, applicants may request a variance to the adopted road width requirements for consideration when determining mitigation fee estimates.

Exclusivity
Remedies toward the mitigation of development and capacity impact described in this section are not exclusive of any other applicable ordinances or regulations as adopted by the Oldham County Fiscal Court and/or the Planning Commission.

Integration of Pavement Management System

As mentioned earlier in this report, the Road Department currently uses a pavement management system to objectively rate and rank all county maintained roads for maintenance purposes. The system assigns a numerical score based on criteria including; road width, alligatoring, block cracks, rutting, raveling, surface irregularities and other factors. Each road receives a numerical score between 0 and 100 which ranks the roads in order of need for repair. Currently, roads which score below an 80 are reviewed annually until such time as improvements are completed. In 2006 the 20 lowest ranking projects were presented to the Road Committee for action. In 2007 the next 30 were considered for repair. Staff and the Executive Committee believe that this remains an appropriate method for allocating the road maintenance budget, and in effect acts as a transportation capital improvement program.

The Executive Committee plans to integrate the funds generated by the Road Mitigation Fee Program into the budget on a case by case basis. Because the funds can only be spent to mitigate the road they were collected for, the Road Committee and Fiscal Court will need to annually review the amount of money being held in escrow for each project, the amount of funding available from the Road Department budget, other infrastructure improvements within the traffic shed (sewer, school, etc.), the current level of residential activity within the shed and overall safety factors to determine the order in which road mitigation projects will be completed along with the projects selected by the pavement management system.

The forms on the following two pages have been developed for use to rank projects for improvement using road mitigation fees.

Form: TCIP/PRF
Revised: 082307

Transportation Capital Improvement Program
Project Request Form

Contact Information

Contact Name: Department:

Phone: E-Mail:

Project Information:

Project Name:

Project Description and Justification:

Cost Estimate (please attach detailed estimate if possible):

Current Traffic Volume:

Current Level of Service:

Is this area currently identified as a high accident location in the Major Thoroughfare Plan:

Is this route currently identified as failing to meet typical design standards in the Major Thoroughfare Plan:

Percentage of lots platted in the traffic shed (level of residential activity):

Current ranking in the Pavement Management System and projected date of repaving:

Other infrastructure improvements (sewer, school, etc.) currently scheduled/funded in project area:

Amount of road mitigation funds in escrow for the project:

Unique/Special Circumstances to be Considered:

Submitting Authority:

_____ _____
Name Title

_____ _____
Signature Date

Project ID:

Form: TCIP/PSS
Revised: 082307

Transportation Capital Improvement Program
Project Scoring Sheet

Project Information:

Name	
Date	
Project ID	
Project Name	
Description	

Please rate the proposed project using the criteria listed below on a scale from zero to five. A "0" is the lowest score possible and a "5" is the highest score possible.

Ranking Criteria	**Score**
Other Infrastructure Improvements (Sewer/School) Currently in Place or Scheduled/Funded	
Pavement Management System Ranking	
Road Mitigation Funds in Escrow Available for Project	
Structural Deficiency/Safety Enhancement	
Road Performance/Congestion Improvement	
Percentage of lots platted in the traffic shed (level of residential activity)	
Special/Unique Circumstances	
Total Score	

_____ _____

Name Date

_____

Signature

Sidewalk Component

Transportation Capital Improvement Program
Bicycle and Pedestrian Component

An additional component of the TCIP addressed by the Executive Committee throughout this project was bicycle and pedestrian use of sidewalks and greenways. The Executive Committee was committed to including alternative modes of transportation as part of the planning process and researched methods being utilized by several other communities such as; Nashville and Chattanooga, Tennessee and Olympia, Washington. Information was also gathered from the Walkable Community Workshops held in 2004 in the KIPDA MPO region including Oldham County. Using this information, the Executive Committee adopted a sidewalk project selection matrix and appropriate forms to be used in the future to define the process by which new projects are selected and implemented.

Benefits of a Walkable Community and Identified Problems
The National Center for Bicycling and Walking coined the term "Walkable Community Workshop" to describe a hands-on session where community members participate in identifying and proposing solutions concerning walkability. The KIPDA MPO held workshops in five location in 2004; Dupont (Louisville Metro), Fern Creek (Louisville Metro), Paroquet Springs (Bullitt County), 8th Street (downtown Jeffersonville) and KY 393 and KY 146 (Oldham County).

The workshop identified several obvious and not so obvious benefits of a "walkable" community.
The obvious benefits include:

- Reduced air pollution
- Reduced automotive congestion
- Healthier citizens

The not-so-obvious benefits include:

- Increased property values
- Higher sales through increased foot traffic
- Lower crime rates from having eyes on the street
- Increased safety for pedestrians and bicyclists (as more people walk and bike, motor vehicle operators begin to become more aware of them)
- Greater sense of community

Although there were five separate workshops in the KIPDA MPO region, the problems identified were relatively the same in each area. The workshops differed mainly in the site and in the specific solutions that were proposed. The following are the overall problems cited by participants in terms of making a truly walkable and bikeable community.

- Gaps in the existing sidewalk network
- Bicycle facilities and amenities are needed
- Too much traffic congestion
- Not enough landscaping
- Not enough greenspace

- Buildings are not oriented to pedestrians and bicyclists
- Not enough transit service
- Safety is a major concern
- Transit needs to be made more attractive
- Land use decisions directly affect transportation and vice-versa; decision makers need to be aware of the connection
- Transportation decision makers need to take into account alternate modes when considering roadway improvements
- All sidewalks and pedestrian facilities need to be ADA complaint if they are not already
- Not enough bicycle and pedestrian connections between residential and commercial areas
- Not enough bicycle and pedestrian connections between residential areas and schools
- Not enough bicycle and pedestrian connections between residential areas and recreational areas
- Regular maintenance of pedestrian and bicycle facilities is as important as building the facilities
- Streetscape (i.e. landscaping, street trees, furniture, etc.) is an important component of a good walking environment and needs to be given additional consideration in land use and transportation decisions
- Not enough multi-use paths in the region
- Too auto-dependent in terms of development
- Access management techniques are needed
- Not enough bicycle and pedestrian recreational opportunities
- Multi-modal (bicycle, pedestrian and transit) connections are needed in order to make using alternate modes more attractive

Goals and Objectives

The Nashville-Davidson County Strategic Plan for Sidewalks and Bikeways found that by building a multi-modal transportation infrastructure that serves not only motorists, but also pedestrians and bicyclists, a community commits to transportation choice, greater mobility, safer streets, cleaner air, less traffic congestion, healthier citizens, a more sustainable economic climate, and a higher quality of life for all residents.

It was determined that when programming sidewalk projects, Oldham County should consider the following objectives:

- To provide safe, comfortable, continuous, direct and convenient pedestrian facilities for use with all levels of physical ability
- To reduce the number of injuries and death resulting from crashes between motorists, bicyclists, and pedestrians
- To ensure that all new streets are safe and comfortable for pedestrians, bicyclists and motorists
- To maximize the multi-modal function of existing streets
- To increase the percentage of trips undertaken on foot and by bicycle

- To encourage increased use of public transportation by improving pedestrian and bicycle access to bus stops and facilitating bus use by bicyclists
- To minimize conflicts between motorists and bicyclists
- To establish methodology for prioritizing sidewalk projects on existing streets
- To recommend design guidelines for pedestrian facilities and bicycle facilities
- To develop budget cost estimates and an implementation strategy, and to identify potential funding sources for pedestrian and bicycle transportation and infrastructure

Sidewalk/Greenway Project Prioritization

Sidewalks should be part of a system that provides access to goods, services, transit and homes. In order to help prioritize the construction of new facilities and/or repair of existing facilities, a matrix can be used. The matrix takes into consideration a variety of trip-generators (desired destinations within the community). Prioritizing certain trip generators works to provide the ability for people to shop, work, attend school and take advantage of recreational opportunities without the need for a private vehicle. Based on this prioritization, the highest priority pedestrian improvements are those where facilities are lacking yet other variables that favor walking are in place.

- Schools – Walking to school accounts for at least 1/3 of all pedestrian miles in the U.S. Providing adequate and safe facilities for such trips becomes integral to any plan for sidewalks. Schools include all private and public educational facilities.
- Parks/Recreation Facilities – Includes all public or semi-public parks and recreational facilities.
- Development Activity Center – Areas of dense commercial development with a high level of pedestrian activity.
- Greenway Proximity – Greenways are an important component of a comprehensive pedestrian plan.
- Existing Sidewalk Proximity/Connectivity – Examining proposed sidewalks in relation to existing pedestrian facilities places emphasis on a continuous pedestrian system.
- Mass Transit Stop Proximity – Pedestrian connectivity is one component of a multi-modal transportation system. Providing safe routes to alternative transportation options is integral to this concept.
- Special Needs Facilities – Generally pedestrians are defined as people who travel on foot or who use assistive devices, such as wheelchairs, for mobility. An important component of transportation systems is the consideration of access for disabled citizens.
- Other Factors – Right-of-way, Curb and Gutter, Utilities, Topography
- Other trip generators not addressed in the matrix that may be important to consider include average daily traffic volumes, businesses that have over fifty employees, post offices, city hall and other civic destinations.

The distance between many neighborhoods and trip generators is greater than most people typically walk. Most people are willing to walk ¼ mile to their destination. Based on this, a ¼ mile distance from the trip generator (school, park, commercial area, greenway) scores the highest priority in the sidewalk selection matrix.

Once all projects are ranked based on their weighted criteria, the highest scoring projects may be considered specifically for available funding. An additional level of consideration is important as a project may score highly for placement but due to certain constraints may not be an appropriate choice (i.e. timing may not be right, conflicts with another development, etc).

Information Sources:
Walkable Community Workshop, KIPDA
Oldham County Major Thoroughfare Study
Chattanooga Urban Area Sidewalk-Streetscape Policy Guide
The Nashville-Davidson County Strategic Plan for Sidewalks and Bikeways
Montgomery County, Maryland Sidewalk Program
Blacksburg, Virginia Comprehensive Plan
City of Olympia, Washington Sidewalk Program

Form: SCIP/PRF
Revised: 082307

Sidewalk Capital Improvement Program
Project Request Form

Contact Information:

Contact Name:

Department:

Phone:

E-Mail:

Project Information:

Street Name:

Starting Location:

Ending Location:

Description and Justification:

Side of Street:
North _____ South _____ East _____ West _____

Presence of Sidewalk:
Present _____ Partial _____ Missing _____

Location of missing/partial sections (use street address or landmarks):

If no sidewalk, please identify shoulder type (none, gravel/grass, paved or bike lane):

Width of the sidewalk (including curb):

Is the sidewalk at street grade (no curb) or raised with a curb:

Is there a planter strip between the sidewalk and the street:

Are there curb cuts at intersections:

If missing:
NE _____ NW _____ SE _____ SW _____

Does the site have any topographical constraints? If yes, please explain:

Will easements have to be acquired:

Proximity to public facility:

Proximity to school:

Proximity to bus route:

Other issues:

Estimated cost (Please attach detailed estimate if possible):

Anticipated funding source(s):

Submitting Authority:

_____	_____
Name	Title
_____	_____
Signature	Date

Project ID:

Form: SCIP/PSS
Revised: 082307

Sidewalk Project Scoring Sheet

Contact Information:

Contact Name		Department	
Phone		E-mail	

Project Information:

Project ID	
Street Name	
Starting Location	
Ending Location	
Description and Justification	

CRITERIA	MEASURE	SCORE	WEIGHT	FINAL SCORE
Current Pedestrian Use and/or Need	Scale 1-10 1 – No Worn Path/No Pedestrians 10 – Worn Path/Many Pedestrians		5	
School Proximity	Scale #1 (See Below)		5	
Public Park/Recreation Facility Proximity	Scale #1 (See Below)		4	
Retail, Commercial or Public Facility Proximity	Scale #1 (See Below)		5	
Greenway Proximity	Scale #1 (See Below)		4	
Existing or Funded Sidewalk Proximity and/or Connectivity	Scale #2 (See Below)		3	
Other Factors (Right-of-Way, Curb and Gutter, Utilities, Topography, etc.)	Scale 1-10 1 – Most Problems 10 – Fewest Problems (Determined Subjectively)		3	
Mass Transit Stop Proximity	Scale #1 (See Below)		3	
Consecutive Years on Priority List	Number of Consecutive Years the Project has been on the List		2	
Special/Unique Circumstances	0 - 50 (Determined Subjectively)		1	
			TOTAL	

Scale #1

10	0 - 0.25 mile
9	0.25 – 0.5 mile
8	0.5 – 0.75 mile
7	0.75 – 1 mile
no points	> 1 mile

Scale #2

10	0 – 0.1 mile
8	0.1 – 0.2 mile
6	0.2 – 0.3 mile
4	0.3 – 0.4 mile
2	0.4 – 0.5 mile
no points	> 0.5 mile

Section Five
Actions

The following actions are necessary to implement this project:

- Present the Road Mitigation Fee Program to the Study Review Committee for comments and recommendations.
- Present the Road Mitigation Fee Program to the Planning Commission for public hearing and adoption.
- Submit the Road Mitigation Fee Program enabling ordinance to Fiscal Court for public hearing and adoption.

Future Recommendations

Make as much information as possible available to the public via the County maintained website including but not limited to:

- the rankings of the pavement management system and projected improvement dates
- rankings of projects funded by mitigation fees
- an opportunity to submit comments regarding road mitigation concerns
- an opportunity to submit comments regarding sidewalk projects

In the future, expand the Road Mitigation Fee Program to include city and state maintained roads via interlocal agreements.