

THE CITY OF BLOOMFIELD HILLS

SAFETY PATH MASTER PLAN



Prepared By:



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Section I - Executive Summary

The Safety Path Master Plan for the City of Bloomfield Hills is intended to outline the potential needs and critical issues of developing a comprehensive safety path system within the City so the City Commission can consider if it is in the City's best interest to proceed with a safety path program. This Master Plan is also intended to identify the potential costs to implement and construct such a system.

Should the desire of the Commission be to proceed with a safety path program, the Master Plan is a flexible document which may be utilized as a guide to the development of a coordinated City-wide pathway system. The Master Plan, in its present form, identifies existing sidewalks or paths, school sites, commercial centers, churches and other points of interest in and adjacent to the City and provides proposed routes and estimates of cost for new safety paths to provide maximum access for residents.

The Safety Path Master Plan proposes approximately fourteen miles of new safety paths at an estimated project cost of \$8.47 Million (2006 construction prices).

There are eight (8) primary safety path routes included in the Plan. The Plan may be implemented in stages or as a single large project, depending upon the City's immediate needs and funding availability. There are economies of scale (less cost per square foot) if the safety path construction is bid as one large project or in several large stages.

If the City elects to finance the Safety Path Master Plan out of the General Fund or utilizing a voted millage, it would require approximately 1.96 mills for 5 years based on the present SEV of City of Bloomfield Hills, with no allowance for additional appreciation of the SEV. This should be confirmed by the City's financial advisors.

Section II - Introduction

A. Background

The City of Bloomfield is a mature yet dynamic community of predominately residential areas. The rolling terrain, woodlands, watercourses, and distinctive architecture make the city quite unique. The City is also home to the nationally recognized Cranbrook Educational Community, including the Cranbrook Institute of Science and the Cranbrook Academy of Art. The current population estimates from SEMCOG have approximately 3,550 persons living in the City in approximately 1,520 households. The population and demographic estimates show the population continuing to decline and age through 2030.

Over the last few years, the City has begun to focus on its infrastructure needs and future service offerings to attract new residents and development to the City. Coincidentally, several existing residents have inquired about the desire for pedestrian facilities throughout the City. These inquires are centered around potential pedestrian access to commercial areas in and around the City and providing a more safe pedestrian facility for children and adults alike.

Currently, the City does not have any pedestrian facilities except the private facilities in and surrounding parts of the Cranbrook property. There are few, if any, internal subdivision sidewalks and no paths along the more significant thoroughfares within the City. There is no requirement for new developments to incorporate pedestrian or non-motorized facilities within their site plans.

In general, residents are increasingly using and desiring areas outside of the traveled roadway areas for walking, jogging, running, biking, roller blading, and skateboarding. As such, communities are considering facilities such as safety paths to accommodate this growing trend.

The Safety Path Master Plan for the City of Bloomfield Hills is intended to outline the potential needs and critical issues of developing a comprehensive safety path system in the City so the City Commission can consider if it is in the City's best interest to proceed with a safety path program.

B. Project Scope

The scope of this Safety Path Master Plan includes the following items:

1. Identify the major points of interest such as schools, commercial centers, churches, existing sidewalks or paths, etc., in and around the City of Bloomfield Hills which could be accessed by pedestrian or non-motorized traffic. (This is shown in Section V, Exhibit A)
2. Identify and locate existing safety paths on major roadways in or near the City which may be utilized as the basis for a City-wide coordinated path system. (This is shown in Section V, Exhibit A)
3. Establish design criteria for the proposed Safety Path System based on the guidelines of the American Association of State Highway and Transportation Officials (AASHTO) and the Americans with Disabilities Act (ADA) Outdoor Developed Areas including recommended cross sections and materials. (This is discussed in Section III)
4. Review potential safety path routes in the field to determine design and construction constraints and estimated costs. (This is shown in Section V, Exhibit B)
5. Prepare a Safety Path Master Plan which utilizes existing pathways and develops a coordinated path system for pedestrian and non-motorized access to City amenities with costs and priorities. (This is shown in Section V, Exhibit C)

C. Definitions

Throughout this Plan the following definitions shall be used:

Safety or Pedestrian Path – a path physically separated from motorized vehicular traffic by an open space or barrier and which is either within the road right of way or within an independent right of way used by pedestrians, skaters, wheelchair users, joggers, bicyclists, and other non-motorized users. A

safety or pedestrian path is typically 5-8 feet wide and found along minor or major thoroughfares. The best example would be the Bloomfield Township safety path system.

Sidewalk – The portion of a street or highway right of way designed for the preferential or exclusive use by pedestrians. A sidewalk is typically 3-4 feet wide and found in residential subdivisions.

Non-Motorized Path or Trail – A designated pathway system for all non-motorized users including pedestrians and bicyclists typically found in abandoned railway or road easements, parks, or along highways. These paths or trails are typically 8-12 feet wide. Examples include rail-trails, the Paint Creek Trail, the Western Oakland County Trail system.

Shared Roadway – A roadway which is open to both bicycle (or pedestrian) and motor vehicle travel. This may be an existing roadway, street with a wide shoulder or curb lane, or a paved shoulder designated for this use.

Section III - Proposed Safety Paths

A. Safety Path Design Criteria

The path system for City of Bloomfield Hills will, for the most part, be occupied by pedestrian traffic, with walkers, joggers, and runners being the predominant users. Observation of the bicycle clubs and recreational biking in areas where paths presently exist revealed that most bikers preferred riding on the road system. However, it is anticipated that children, teenagers, and an occasional adult biker will utilize the proposed pathway system. The sidewalks in and around the Cranbrook facility generally range from three to five (3-5') feet wide. Bloomfield Township's paths, which are located on boundary roads with the City are six (6') feet wide. These paths are concrete.

The American Association of State Highway and Transportation Officials (AASHTO) guidelines vary but generally require eight (8') foot wide minimum non-motorized paths but 10-12' wide paths are preferred especially when a significant bicycle volume is anticipated. The Americans with Disabilities Act (ADA) Outdoor Developed Areas guidelines are less restrictive on path width but focus on path materials, slopes, and clearances with fixed objects.

Due to existing path widths, terrain, and mature landscaping which is very difficult to cross without major disruption, and realizing that anticipated path usage is predominantly pedestrian, with occasional non-motorized use (bicycle or roller blades), it is recommended that path width be established at six (6') feet wide as the standard for the Master Plan to be consistent with the existing path system built by the Township on the boundary roads. There may be some circumstances where the construction of a five (5') foot wide path would be considered to due to limited right-of-way or major landscape obstructions. In these cases, a five (5') foot wide paths may be preferable to the no path option which forces pedestrian use of motorized roadways or the construction of shared roadways. With a six (6') foot wide path, the total recommended width required to construct a safety path would be ten (10') feet, which includes a two (2') foot minimum graded clear area on each side of the path. Similarly, if the path width is five (5') feet, then a total width of nine (9') feet is required.

The safety path system would be designed with a two (2%) percent cross slope to allow for adequate drainage. The grade of the path system would, in most cases, match that of the adjacent roadway. In most cases the path grades would be five (5%) percent or less. However, there may be certain locations where adjacent road grades are as steep as eight (8%) percent and the path would have comparable grade for short distances. Provisions for resting intervals, or short landing areas with slopes less than 8%, should be provided in any areas where path slopes are greater than 5% of any considerable distance. These are the AASHTO and ADA recommended minimums.

It is recommended that the City's safety path system be constructed out of concrete on a base material appropriate for the existing underlying soils. Since the City's roads are almost entirely paved with asphalt, the concrete will be visibly different and will help differentiate the paths from the road so motorists don't mistake the path for a road or driveway. Concrete sections are also easier to replace than asphalt with equipment/tools already in the City DPW's possession. Finally, concrete will match the existing Cranbrook and Bloomfield Township paths and sidewalks.

Grade differentials requiring retaining walls should be made out of segmented concrete retaining wall blocks similar to the walls built in the Township. It is suggested that the City either standardize their wall product and color or match the Township's standard. Any fencing needed should be adequate to prevent users from exiting the path area. Timber split rail fencing, vinyl coated chain link, or aluminum spindle type fencing is recommended and may vary depending on the hazard to be protected against. Finally, ramps at existing curb lines need to be installed to accommodate ADA requirements and include the current standard for a textured and colored stop bar.

The proposed safety path system would also incorporate signage to assist residents in the safe usage of the path system. Roadway and crossing signage will also be required for motorist awareness of the path.

In certain areas such as linkages into Cranbrook's garden areas, leading up to the post office or City Hall, stamped and colored concrete may be appropriate. Stamped concrete is a better and more durable product than brick pavers but requires more maintenance than regular concrete and, if not sealed properly, can be slippery when wet.

Maintenance is another very important consideration to determine if safety paths are needed. Winter maintenance of safety paths can be expensive, time consuming, and a legal liability. To keep the paths free of snow and ice will require additional DPW equipment and more salt tonnage, and also will divert the City's road crews from plowing and salting City roads to addressing the pathway system. Some communities have adopted a policy that they do not plow or salt the paths. A legal opinion from the City Attorney may be in order regarding the pros and cons of the City's winter path maintenance policy.

General repair, replacement and maintenance of the path and any associated construction items will also have to be made part of the City's roadway maintenance budget.

B. Safety Path Routes

The selection process for determining safety path routes was based upon:

1. Destinations in or around the City such as schools, churches, commercial areas, municipal facilities, and the Township/Cranbrook paths
2. Constructability including slopes, available right of way, tree or water course impacts, etc.
3. Subdivision linkages

Exhibit A shows points of interest within the City and in nearby areas that safety paths would provide pedestrian access to.

A preliminary route map was then created showing safety path routes connecting these points (**Exhibit B**). Each project route was then reviewed in the field and photographs were taken at select locations along the route. The preliminary route map was then modified based on the field investigation and the final Safety Path Route Map, including priority rankings, was created as shown in **Exhibit C**.

Following in this Section is a brief description for each safety path route which identifies the route limits, general discussion, the preferred side of the road, and the design and construction constraints of the route. The cost estimates and suggested priority for each route are summarized later in this report.

The routes are:



Priority No. X - Woodward Avenue from Hickory Grove Road to Quarton Road

General

Woodward Avenue is the main north-south thoroughfare in the City. There are many points of interest located along Woodward and paths to the north and south of the City connect to the Woodward-Square Lake commercial area and downtown Birmingham respectively. Paths along Woodward will also provide safe pedestrian access and vantage points during the Woodward Dream Cruise.

Road Side

Due to the lack of more than one signalized intersection to provide safe crossings, we would recommend paths on both sides of Woodward.

Design and Construction Constraints

A significant portion of the Woodward Avenue corridor provides for relatively easy safety path construction. However, in many areas, light to moderate clearing will be needed to provide clearances for the path construction. In some areas, heavy clearing and the removal of large specimen trees will be required. Also, in several areas along Woodward, a berm exists between the edge of the road and right of way limits requiring significant grading to flatten the slopes and construct the path. Retaining walls will be needed in at least 10-12 locations. Further, it is anticipated that several landscape beds near subdivision or condo entrances, as well as existing fences and walls, will have to be removed. Due to the number of road intersections, entranceways, drives, etc., signage will be required for both the path and the intersecting roadways. All work in the Woodward Ave. right of way is subject to MDOT review and approval.

There are several significant stream crossings of Woodward Avenue. These crossings will require culvert extensions or prefabricated pedestrian bridges. There are a few areas where drainage improvements to maintain the existing drainage pattern will be required.

It is highly recommended that pedestrian activated signals be installed at all major road crossings such as Hickory Grove, Long Lake, and Lone Pine.

Since the intersection of Woodward Avenue and Quarton is actually outside of the City limits, extending the paths to this intersection will require working with the other municipalities at this intersection.

Priority No. X - Opdyke Road from Hickory Grove Road to Woodward Avenue

General

A safety path on Opdyke Road will provide a pedestrian link between the Bloomfield Hills commercial area, St. Hugo of the Hills, the Bloomfield Township path system to the north, and the commercial area at Centerpointe.

Road Side

Due to the grades, side slopes and impacts to the St Hugo chapel frontage and school/church parking areas, we recommend the path be installed on the east side of the road.

Design and Construction Constraints

Opdyke Road has a relatively steep grade down to the stream crossing that may require resting intervals to accommodate ADA requirements. The stream crossing itself is a significant design challenge and will require a prefabricated bridge.

The right of way is generally open and flat in many areas and treed and sloped in others resulting in some limited clearing and grading. There are several larger specimen trees that would have to be removed. Also, large sections of the Stonycroft Golf Club fence will need to be replaced or relocated to accommodate the path construction. There are other fences and walls in or on the right of way line that will need to be removed. There will be a significant stretch of existing roadside ditch that will need to be enclosed. It appears that curbing of the roadway may be practical to keep the path closer to the road to avoid additional impacts.

The Woodward Ave. intersection is not signalized and therefore no pedestrian signals are needed. However, substantial signage on Opdyke as well as Woodward will be needed for the intersection. The Hickory Grove intersection is already pedestrian crossing enabled but will need to be modified to accommodate the City's crossing from the east to west side of Opdyke south of the intersection.

Priority No. X - Long Lake Road from Lahser Road to Eastways Road (including City Hall to the Post Office)

General

Long Lake Road is the major east-west road and the only east-west road that extends to the City limits at each side of the City. The Long Lake and Woodward intersection is also the major commercial area in the City. City Hall and the Post Office are also located on Long Lake Road.

Road Side

Determining the best side of the road along Long Lake is difficult. Provided that the City could work with the Bloomfield Hills Country Club to place the path up near the parking lot, the north side of the road is preferred. If this concept is not available or possible, then a mid-block crossing at Vaughan would be needed to bring the path to the south side of the road until Woodward Ave. where it would cross back to the north side.

Design and Construction Constraints

There several wide open sections for path construction along Long Lake Road on the north side of the road. However, there are the same number of sections that will require large retaining walls, grading, clearing, specimen tree removal, landscaping removal, and fencing/wall relocations. There will also be two large culvert extensions needed to build this path route. Also, there may be several business signs that need to be relocated.

The most notable feature and constraint of a safety path on Long Lake Road is the existing railroad viaduct. Based on our field review it may be possible to fit a safety path under the viaduct between the abutment wall and the columns, behind the guardrail. This will require the review and approval of the railroad company. Based on our experiences with railroad companies, the City will have to enter into a long term maintenance, insurance, and indemnification agreement with the railroad company.

Careful planning and the installation of pedestrian crossing signals will be necessary for the proposed crossings at Woodward Ave., Kensington, and Lahser. If the path has to be constructed along the south side of the road between Vaughan and Woodward, the path route will cut through several existing parking lot areas. These will have to be signed to avoid pedestrian and vehicle conflicts.

A specific detail of this path route should be the connection between the City Hall building and the Post Office. Walks up to each building should be incorporated into the path design.

Priority No. X - Eastways Road from Long Lake Road to the City Limits

General

It is not prudent to extend the City path easterly along Long Lake Road past Eastways Road due to the road curves, tree removals, lack of Bloomfield Township paths in this area, etc. Therefore, to complete the safety path loops and connections, we recommend extending the path north on Eastways Road to the existing Township path at that location.

Road Side

We recommend constructing the path on the east side of the road to match the Township path location.

Design and Construction Constraints

The Eastways Road and Long Lake Road intersection on the curve is not ideal for pedestrian traffic. As such, road and path signage will be required. This stretch of road is relatively open as far as trees and landscaping are concerned but some isolated clearing and tree removals will be necessary. There are some walls along the right of way that may be impacted. The most difficult aspects of this path route will be the stream crossing immediately north of the intersection as well as maintaining the existing drainage along the road and most noticeably at the Long Lake Road intersection. Long stretches of the ditch line will need to be enclosed or otherwise managed.

Priority No. X - Kensington Road from the Northern City Limits to the Eastern City Limits

General

The Kensington Road route seems warranted to connect to the points of interest in this area and those in the City that are divided by the railroad tracks. After reviewing the proposed route along Kensington Road south of Long Lake, it was determined that the site constraints made the anticipated impacts of this section of path too great and too costly to reasonably consider this path any further. Therefore, this plan only includes the portion of the path on Kensington Road north of Long Lake Road.

Road Side

Due to the drainage and grading impacts to the east side of the road, it is recommended that the path north of Long Lake Road be built on the west side of the road along the railroad tracks.

Design and Construction Constraints

Building a safety path along Kensington Road from Long Lake Road to the northern City Limits is very difficult for several reasons. First, to provide a safe buffer from the rail road tracks, the path needs to be as close to the road as possible. However, there are high tension power poles along the edge of the road. Therefore, curbing sections of the road and even shifting the road to the east to accommodate the path may be needed. Second, a mid-block crossing near the middle school at the north end of the route will be needed and require detailed signage and crossing warning provisions. Third, there is an existing wireless communication facility adjacent to the road for an antenna on one of the existing towers. This will have to be properly avoided and protected. Finally, fitting the path and related pedestrian signal facilities next to the DPW building and detention basin will be difficult.

Priority No. X - Cranbrook Road from Woodward Avenue to Quarton Road

General

Cranbrook Road is one of only a few internal north-south roads in the City and has several points of interest along its route from Quarton to Woodward.

Road Side

Existing, albeit narrow, paths exist in front of Christ Church Cranbrook and along the west side of the Cranbrook property north of Lone Pine. Therefore, from Quarton to the existing path we recommend constructing the path on the west side of the road. From the existing path near Tamarak Way to the Woodward Ave intersection we recommend switching to the east side of the road.

Design and Construction Constraints

From Quarton to Lone Pine there are several landscape areas, trees, fences and walls that will be disrupted and/or removed. It appears that curbing this stretch of Cranbrook would be better suited to accommodate the path. Previous plans to repave this section of road called for curbs to be installed.

The northern section poses more difficult design and construction considerations. To avoid massive impacts to the existing vegetation, we would propose to install the path immediately behind the curb. Significant clearing and grading will still be needed as will retaining walls, and fence and landscaping relocation. The road grade in this area is also very steep, creating the need to install resting intervals on the path to meet ADA requirements. Due to the hill, sight distance is limited requiring additional signage.

Crossing the road in mid-block is not ideal but, due to the site constraints, appears to be necessary. This crossing will need to be signed extensively on both the road and the path.

The Cranbrook and Lone Pine Road intersection will involve the most detailed crossing. There are very poor site distances in all four directions. The views of path users and motorists alike are obstructed by grades, walls, buildings, the bridge, and existing landscaping. Advanced warning signs and a pedestrian activated signal will need to be installed to facilitate a more safe crossing. Additional turn restrictions may be necessary as well.

Priority No. X - Lone Pine from Lahser Road to Woodward Avenue

General

There are existing paths along Lone Pine Road across the Cranbrook property. Connecting these paths to the rest of the City's path makes sense. The Lone Pine Road safety path can be divided into two parts; 1) Lahser Road to Orchard Ridge and 2) Cranbrook Road to Woodward Ave.

Road Side

We recommend constructing the path on the north side of the road to line up with the Cranbrook paths.

Design and Construction Constraints

There are significant constraints for each of the two sections of this path as described above. The western section will involve a very large drainage improvement to accommodate the path. There is an existing stream crossing on Lone Pine Road east of Thetford which also runs parallel to the road for a short distance. This will likely have to be enclosed. Within this section there are the usual landscaping, tree, retaining wall, and grading concerns as mentioned throughout this report.

The eastern section, between Cranbrook and Woodward has numerous walls, trees, and landscaping obstructions in the road right of way. To construct the path there will require substantial clearing, grading and tree removals.

Curbing Lone Pine Road may be a suitable way to accommodate the safety path in the right of way and minimize the construction disruption.

The most important feature/constraint within this path route is the crossing of the river immediately east of Cranbrook. This will require either a new separate prefabricated pedestrian bridge or, when the existing bridge is replaced, provisions to include a pedestrian crossing can be built into the new bridge. Either way this crossing is unique and challenging.

Priority No. X - Vaughan Road from Lahser Road to Long Lake Road

General

A safety path on Vaughan Road will provide a shorter route from Lahser Road to the Long Lake and Woodward area than taking Lahser north to Long Lake. There are also a number of Cranbrook facilities along this route.

Road Side

We recommend constructing the safety path on the northwestern side of the road from Lahser to Orchard Ridge then crossing to the southeastern side.

Design and Construction Constraints

Both sections of this path, i.e. north and south of Orchard Ridge, have the same general constraints. Specifically, numerous trees and landscaping areas will be removed. Significant clearing, grading and retaining walls will be needed. Also, fencing exists along both sides of the road in the right of way or near the right of way line.

In addition to several drainage improvements that will need to be made to facilitate the path construction, there are two larger stream crossings. The stream crossing north of Orchard Ridge may need a pedestrian bridge or at least a large culvert extension. The second stream crossing closer to Lahser will need a large diameter culvert crossing.

Curbing Vaughan Road may be a suitable way to accommodate the safety path in the right of way and minimize the construction disruption.

Constructing safe pedestrian facilities through the Long Lake, Barden, and Vaughan road intersection will be very difficult unless the realignment of this intersection comes to fruition as detailed in the Road Improvement Plan. Signage will be needed regardless on both the roads and the path. A mid-block crossing of Long Lake will be needed unless this route is not built.

C. Summary of Project Costs

The project costs provided in this Report are based upon unit prices for the 2006 construction season. The table below provides the estimated costs per route, as well as the total project budget for the City of Bloomfield Hills Safety Path Master Plan:

SUMMARY WITHOUT GRANT (ON WOODWARD)

CONSTRUCTION COSTS

| | |
|---|------------------------|
| WOODWARD AVE. FROM HICKORY GROVE TO QUARTON | \$ 2,194,000.00 |
| OPDYKE ROAD WOODWARD TO HICKORY GROVE | \$ 386,000.00 |
| LONG LAKE FROM LAHSER TO EASTWAYS | \$ 1,022,000.00 |
| EASTWAYS FROM LONG LAKE TO CITY LIMITS | \$ 126,000.00 |
| KENSINGTON FROM LONG LAKE TO NORTHERN CITY LIMITS | \$ 438,000.00 |
| CRANBROOK ROAD FROM WOODWARD TO QUARTON | \$ 457,000.00 |
| LONE PINE FROM LAHSER TO WOODWARD | \$ 786,000.00 |
| <u>VAUGHAN ROAD FROM LAHSER TO LONG LAKE</u> | <u>\$ 430,000.00</u> |
| Sub-Total Estimated Construction Costs | \$ 5,839,000.00 |

| | |
|-----------------------------------|----------------------|
| Engineering and Permitting (~15%) | \$ 877,000.00 |
| Layout and Inspection (~15%) | \$ 877,000.00 |
| Easements (~5%) | \$ 292,000.00 |
| <u>Contingencies (~10%)</u> | <u>\$ 585,000.00</u> |

TOTAL ESTIMATED PROJECT COSTS \$8,470,000.00

| | |
|-------------------------------|---------------|
| TOTAL MILES | 13.8 |
| TOTAL COST PER MILE (rounded) | \$ 614,000.00 |

Project Cost Thoughts

The cost per lineal foot of path estimated above is high. In addition to the mentioned cost inflators such as clearing, grading, retaining walls, drainage improvements, pedestrian bridges, etc. there are a few additional thoughts on these costs worth explaining. First, the City of Bloomfield Hills takes great care in maintaining the tree lined-canopy appeal of the roadways. As such, many of the existing rights of way will require the removal of large trees which are costly to remove let alone replace if necessary. Second, over the years, the proliferation of extensive landscaping, retaining walls, fences, walls, boulders, and massive mailboxes all within the City right of way has been permitted to occur. These present obstacles to safety path construction. Even though they are in the right of way and the City could simply remove them with the path construction without in-kind replacement, we feel that this



would not be a good policy for the City to undertake and it is better to work with the residents regarding these matters. Nonetheless, these obstacles present a significant cost increase to the safety path project considered. Third, MDOT and RCOC will likely require full replacement of any signalized intersections to the new standard to accommodate pedestrian crossings. This represents a substantial cost.

D. Financing Options

The entire Safety Path Master Plan could be constructed in several large stages over a five year period or as one or two projects.

The annual payment for the total project cost of \$8.47 Million (including engineering, construction layout, inspection, legal fees, and contingencies) over a five (5) year payback period would average \$1.69 Million. This amount could be financed by a voted millage of approximately 1.96 mills, based on City of Bloomfield Hills's current SEV of approximately \$1.13 Billion.

Alternatively, the City could bond for this project. For a 20 year term, at 6% interest, the average payment would be \$738,500 or 0.854 mills based on the current SEV.

The City should also contemplate creating a safety path requirement within the Zoning Ordinance. This would require property owners on designated safety path routes to either build the path when they construct their project, or they can contribute in-kind monies to an established Safety Path fund for future connection. This type of requirement has been successful in other communities where the desire for a pathway system has been expressed.

There are many grants available for non-motorized paths or trails (8-12' wide) but little for paths of smaller width such as proposed. Therefore, it is unlikely that the City would qualify for such grants for a majority of the proposed system. However, Woodward Avenue, with paths on both sides, could meet the requirements of the grant programs and may be grant eligible. Most of the grant programs are highly competitive and require a local match of 20%-80%. In addition, applying for and administering a grant project will add 5-10% to the project costs due to the added design requirements and documentation necessary. Considering the grant funding available, application and administration costs, local match requirements, and the estimated project costs, applying for a grant for the paths on Woodward Avenue would be a worthwhile cause.

Finally, if the City elects to proceed with this program, we would recommend establishing a safety path maintenance fund immediately upon construction to be used for the repair and replacement of safety paths when needed.

Section IV - Moving Forward

If the City Commission determines that this matter should move forward, it is recommended that the City hold several public hearings on the path routes and the proposed financing alternatives. Based on input from the residents at these public hearings and following the past practices of other communities that have implemented Safety Path Master Plans, it is recommended that the City place the Safety Path Master Plan on a future ballot and ask the residents to vote a designated millage rate for the paths.

As with all capital improvement projects, the Safety Path Master Plan must be addressed in the overall context of all of the City's infrastructure improvements such as the Road Improvement Program, water system improvements, and sanitary sewer rehabilitation. Safety path construction must be coordinated with other improvements proposed or master planned for the same area.

Section V - Safety Path Master Plan Exhibits

Exhibit A – Points of interest, existing paths, etc.

Exhibit B – City of Bloomfield Hills path connections to these points of interest

Exhibit C – City safety path routes and priority rankings