

### Covered in Section 5...

Section 5 discusses how pedestrian projects were collected and analyzed to produce a prioritized list of future projects. Corridor and intersection projects are also a part of this assessment.

## Section 5. Project Prioritization

This section describes the project prioritization process and proposed implementation plan for project construction. Included in the chapter is a discussion of the project ranking method and preliminary project cost estimates.

Projects were prioritized using a scoring system that was based on a variety of factors, including project characteristics and identified needs as reflected in the results of the Durham Pedestrian Plan Survey conducted as part of the public involvement effort for this Plan (see Section 2). High-scoring projects had many factors deemed necessary to make a top priority project. Projects were also divided into three types: corridors, intersections, and maintenance. Each project type had a slightly different prioritization system depending on public comments, survey results, and staff input. As discussed in Section 2, survey results indicated that the most important priority for survey respondents was the construction of new sidewalk, followed by connecting gaps in the existing system and maintenance. Respondents also indicated safety, the need for access to more and better destinations, schools, and transit as priorities. The following is a description of the prioritization method for each type of project and a ranking of projects.

### 5.1 Corridor Projects

Corridor projects were prioritized based on the following factors: project type, presence of transit, proximity to schools, safety need, road type, nearby compatible land uses, public comments, proximity to parks and recreation centers, and the presence of greenways. Based on survey results, staff input, and public comment, factors were placed into tiers of importance. Project type was placed in the top tier, based on survey results that indicated that new sidewalk construction should be the top priority above all else. Presence of transit, proximity to schools, safety need, and road type were placed in the second tier of factors, receiving slightly less importance than project type. Factors for public comments, nearby compatible land uses, proximity to parks and recreation centers, and the presence of greenways were placed in the third tier. Each project was given a score based on how well it met these characteristics, and the scores were then weighted according to the tier of the factor. Factors in the first tier received three times as much weight as those in the third tier and factors in the second tier received twice as much weight. The following describes each factor and the scoring associated with it.

#### Top Tier

*Project Type:* Project type was broken down into three different categories: gap construction, new construction, and construction on one side only. A “gap construction” project is one which constructs the sidewalk on a road that may have sidewalk, but it is not continuous. A “new construction” project is one in which some portion of the roadway had no sidewalk on either side.

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This type of project includes projects to construct all new sidewalk on locations where none previously existed, and projects to connect gaps in the sidewalk on a road that may have sidewalk, but it is not continuous. A “one side only” project is a project in which there is continuous sidewalk on one side of the road, but not on the other. This type of project proposes to put new sidewalk on both sides of the road. Project scoring is as follows:

- Gap Construction: 1
- New Construction: ½
- One Side Only: 0

Second Tier

*Presence of Transit:* If there was a transit route (bus or proposed rail) along any length of the project, the project received a score of 1, otherwise it received a 0.

*Safety Need:* Safety need was defined by the number of reported pedestrian-vehicle crashes that occurred along the length of the project over a three-year period between January 2001 and December 2003. Projects received a score for this factor as follows:

- 10 – 7 crashes: 1
- 6 – 5 crashes: ¾
- 4 – 3 crashes: ½
- 2 – 1 crashes: ¼
- 0 crashes: 0

*Schools:* If a school was located along the length of a project or near to it, the project received a score of 1 for this factor, otherwise it received a 0. Schools included Durham Public Schools, universities, colleges, and private schools.

*Road Type:* It was important to identify the type of road in order to approximate the overall benefit of the project to the community. A major road, one with a high volume of either pedestrian or vehicle traffic, received a score of 1. A collector road, one with lesser volume traffic, received a score of ½. A neighborhood road, defined as a road with low traffic volume, frequently in a subdivision or a cul-de-sac, received a score of 0.

Third Tier

*Compatible Land Use:* It is important to characterize land uses near projects because land uses suggest the current sidewalk use, and the potential for future sidewalk use (also known as the latent demand for sidewalk). Examples of compatible land uses include residential and commercial, commercial and

office, or office and residential. A project received a score of 1 if it had very compatible land uses along the length of it, and a score of 0 if it only had some compatible land uses.

*Comments:* Like land use compatibility, public comments also indicate both the existing demand for sidewalk, and also potential sidewalk use. The factor for public comment was broken down into the following:

- 10 – 6 comments: 1
- 5 – 4 comments:  $\frac{3}{4}$
- 3 – 2 comments:  $\frac{1}{2}$
- 1 comment:  $\frac{1}{4}$
- 0 comments: 0

*Parks:* If there was a park or community recreation facility along the length of the project or nearby, the project received a score of 1, otherwise it received a score of 0 for this factor.

*Greenways:* If an existing or proposed greenway either ran along the length of a project or intersected the project at any point, the project received a score of 1 for this factor, otherwise it received a score of 0.

#### Example Ranking of Projects

Based on the above-described scoring method, an ideal project would receive a score of 15. This project would be a gap construction project on a heavily trafficked (major) road with transit, schools, parks, greenways, and compatible land uses along the length of it. In addition, the road would have had between 7 to 10 pedestrian-vehicle crashes on it and received between 6 and 10 comments from the public about it.

Using the above-described scoring method, the following is an example scoring approach for a “one side only” construction project on a collector road with a school, a transit route, and very compatible land uses on it. It also received 3 comments and has had no accidents.

**Final Score** = 3\*(Project Type) + 2\*(Safety Need + Schools + Transit + Road Type) + 1\*(Compatible Land Use + Comments + Parks + Greenways)

**Final Score** = 3\*(Project Type = one side only = 0) + 2\*(Safety Need = No Crashes = 0 + Schools = Yes = 1 + Transit Route = Yes = 1 + Road Type = Collector =  $\frac{1}{2}$ ) + (Compatible Land Use = very = 1 + Comments = 3 comments =  $\frac{1}{2}$  + Parks = No = 0 + Greenways = No = 0)

**Final Score** = 3\*0 + 2\*(0 + 1 + 1 +  $\frac{1}{2}$ ) + (1 +  $\frac{1}{2}$  + 0 + 0) = 6  $\frac{1}{2}$

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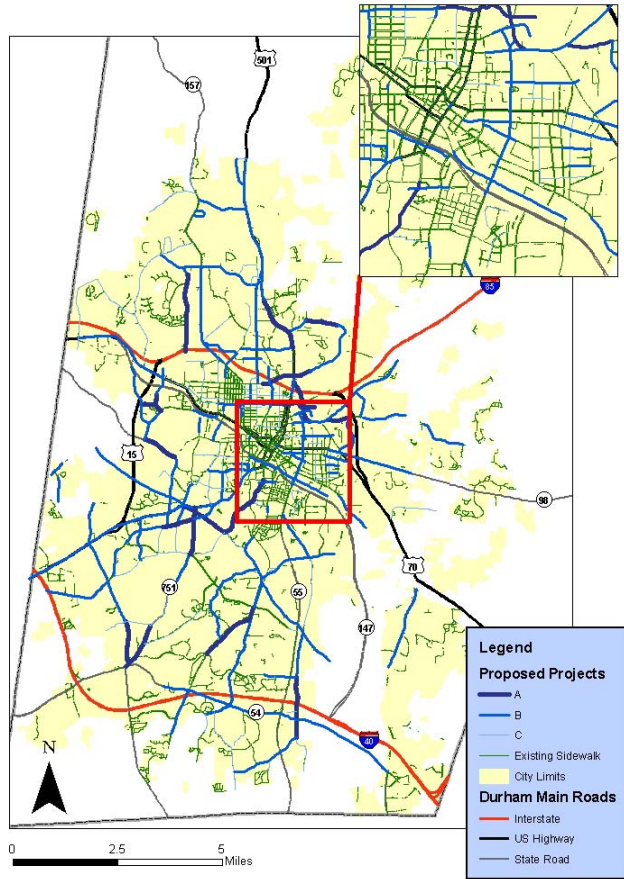
Table 5- 1. An example image of the spreadsheet used to calculate the ranking of each project.

Project Name	Data									Scores								Overall Score		
	Project Type	Safety Need (Crashes)	Schools	Transit	Road Type	Compatible Land Use	Comments	Parks	Greenways	X 3	X 2			X 1						
										Project Type	Safety Need (Crashes)	Schools	Transit	Road Type	Compatible Land Use	Comments	Parks		Greenways	
Hope Valley A1	Connectivity	0	Yes	Yes	Major	Very	15	Yes	Planned	1	0	1	1	1	1	1	1	1	1	13
Alston A3	Connectivity	1	No	Yes	Major	Some	0	Yes	Planned	1	.25	0	1	1	0	0	1	1	1	9.5
Chapel Hill4	New Const.	0	No	Yes	Collector	Very	1	No	No	.5	0	0	1	.5	1	.25	0	0	0	5.75

Projects by Ranking.

Once projects received a score, they were then ranked. Those projects that received a score of 10 or above received a rank of “A” – these projects should have top priority. Projects with scores between 6 and 10 received a rank of “B”. Projects with a score less than 6 received a rank of “C”. Figure 5-1 shows all of the projects by rank, and Table 5-2 shows the “A” rank projects and their limits. A listing of all projects by rank is available in Appendix 5.

**Table 5-2. "A" Rank sidewalk construction projects and their limits.**



**Figure 5-1. Map of proposed projects by ranking.**

Road Name	From	To	State/City Maintained
AlstonA6*	Carpenter Fletcher	Sedwick	State
Avondale	Roxboro	Geer	State
Cameron	Erwin	Duke University	State
Campus Walk	Morrene	LaSalle	City
CheekPW2	Geer	Hardee	State
Club1	Ruffin	Ambridge	City & State
CornwallisA1*	15-501	Roxboro	State
DearbornA1	Old Oxford	Ruth	State
FayettevilleA2	Woodcroft	MLK	State
GarrettA1	Hope Valley	Swarthmore	State
HillandaleA1	Peppertree	Carver	State
HillandaleA2*	Carver	I-85	State
Hope Valley A1	HWY 54	Swarthmore	State
Hope Valley A4	Archdale	15-501	City & State
LaSalleA1	Kangaroo	Erwin	City
Markham2	Washington	Avondale	City & State
Roxboro2	Pacific	Murray	State
Roxboro6	Enterprise	Cornwallis	City & State
University3	Old Chapel Hill	Hope Valley	State

*\*Portions of this project are part of a proposed incidental project in the 2006 – 2012 State TIP.*

**PLEASE NOTE:** The numbers and letters after road names have been added to for the purposes of creating a unique identifier for each proposed project. This will allow for projects that may occur on the same road but in different locations to be distinguished one from another.

## 5.2 Intersections

Similar to the method for prioritizing corridor projects, the method for prioritizing intersection improvement projects was also based on a variety of tiered factors. These factors were: ADA compliance, safety need, public comments, land use compatibility, the presence and condition of sidewalk, road type, and the presence of transit, schools, parks, or greenways. Since safety and ADA compliance were identified by the public and staff as of the utmost importance at intersections, these factors made up the first tier of factors. The presence of schools, parks, or greenways, and comments were placed in the second tier. In the third tier was placed transit, compatible land uses, presence and condition of sidewalk, and road type. Each project was given a score based on how well it met these characteristics, and the scores were then weighted according to the tier of the factor. Factors in the first tier received three times as much weight as those in the third tier and factors in the second tier received twice as much weight. The following describes each of the factors and their scoring.

### First Tier

*ADA Compliance:* For the purposes of this project, an intersection project received a 0 for ADA compliance if all of the corners of the intersection had ADA compliant curb ramps. If some or all of the corners of the intersection did not have ADA compliant curb ramps then the project received a score of 1 (this includes those projects that did not have ADA compliant curb ramps because they did not have sidewalks at some or all of the corners of the intersection). In general, ADA requirements for pedestrian facilities are more than just curb ramps; they include items such as clear widths, level landings, and maximum slope restrictions. For a complete listing of ADA requirements, see the Department of Justice's ADA Standards for Accessible Design (28 CFR Part 6, revised of July 1, 1994).

*Safety Need:* Safety need was defined by the number of reported pedestrian-vehicle crashes over a three year period from January 2001 to December 2003 that occurred at the intersection. Intersections received a score for this factor as follows:

- 3 or more crashes: 1
- 1 – 2 crashes: 1/2
- No crashes: 0

### Second Tier

*Schools:* If a school was located near to the intersection, the project received a score of 1 for this factor, otherwise it received a 0. Schools included Durham Public Schools, universities, colleges, and private schools.

*Parks:* If there was a park or community recreation facility near to the intersection, the project received a score of 1, otherwise it received a score of 0 for this factor.

*Greenways:* If there was an existing or proposed greenway near the intersection, the project received a score of 1 for this factor, otherwise it received a score of 0.

*Comments:* Public comments were a primary driving force for the identification of needed intersection improvement projects. The factor for public comment was broken down into the following:

3 – 6 comments: 1

1 or 2 comments: ½

No comments: 0

### Third Tier

*Presence of Transit:* If there was a transit route (bus or proposed rail) near the intersection, the project received a score of 1, otherwise it received a 0.

*Compatible Land Use:* As discussed with the corridor projects, it is important to characterize land uses near projects because land uses suggest the current sidewalk use, and the potential for future sidewalk use (also known as the latent demand for sidewalk). Examples of compatible land uses include residential and commercial, commercial and office, or office and residential. An intersection received a score of 1 if it had very compatible land uses near it, and a score of 0 if it only had some compatible land uses.

*Presence of Sidewalk:* Due to the emphasis on new sidewalk construction for this plan, intersections where all four of the legs have no sidewalk had the highest priority and therefore received a score of 1. Intersections where there is sidewalk on some of the legs of the intersection received a score of 1/2 and intersections with sidewalk on all four legs received a score of 0.

*Sidewalk Condition:* Sidewalk condition was determined based on the results of the sidewalk inventory. Sidewalk condition is important at intersections because it can have an effect on the accessibility of the sidewalk. Intersections received a score of 1 if there was moderate or severe deterioration of any sort at any of the four legs of the intersection. Intersections received a ½ for only light deterioration of any sort at the intersection and a 0 for no deterioration.

*Road Type:* As described with corridor projects, it is important to identify the type of road in order to approximate the overall benefit of the project to the community. Intersections with a major road, one with a high volume of either pedestrian or vehicle traffic, received a score of 1. Intersections

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with two collector roads or a collector and a neighborhood road received a score of 1/2. Intersections with only neighborhood roads received a score of 0.

Example Ranking of Projects

Based on the above-described scoring method, an ideal intersection project would receive a score of 19. This project would be at an intersection which had no sidewalk (and therefore was also not ADA accessible), had experienced three or more accidents in a three-year period between January 2001 and December 2003, was near to compatible land uses, a school, park, a greenway, and a transit route. The intersection would also have received between 3 and 6 comments about it through the public participation process, and had at least one major road as one of the legs.

Using the above-described scoring method, the following is an example scoring approach for an intersection with sidewalk on all four of its legs, but one of its legs has no curb ramps, and another one has lightly deteriorated sidewalk. It is on a road classified as collector, received four public comments, and is across from a school. It has had one accident.

$$\text{Final Score} = 3*(\text{ADA Compliance} + \text{Safety Need}) + 2*(\text{Schools} + \text{Parks} + \text{Greenways} + \text{Comments}) + 1*(\text{Transit} + \text{Sidewalk} + \text{Sidewalk Condition} + \text{Road Type})$$

$$\text{Final Score} = 3*(\text{ADA Compliance} = \text{No} = 1 + \text{Safety Need} = 1 \text{ Crash} = 1/2) + 2*(\text{Schools} = \text{Yes} = 1 + \text{Parks} = \text{No} = 0 + \text{Greenways} = \text{No} = 0 + \text{Comments} = 4 \text{ Comments} = 1) + 1*(\text{Transit} = \text{No} = 0 + \text{Sidewalk} = \text{Yes} = 0 + \text{Sidewalk Condition} = 1/2 + \text{Road Type} = \text{Collector} = 1/2)$$

$$\text{Final Score} = 3*(1 + 1 + 1/2) + 2*(1 + 0 + 0 + 1) + 1*(0 + 0 + 1/2 + 1/2) = 12.5$$

**Table 5-3. An example image of the spreadsheet used to calculate the ranking of each intersection.**

Intersection Name	Data										Scores									Overall Score	
											X 3			X 2			X 1				
	ADA Compliant	Safety (Crashes)	Schools	Parks	Greenways	Comments	Comp. Land Use	Sidewalk	Sidewalk Condition	Road Type	ADA Compliant	Safety (Crashes)	Schools	Parks	Greenways	Comments	Comp. Land Use	Sidewalk	Sidewalk Condition		Road Type
Broad & Green	No	0	Yes	No	No	1	Very	Some	Good	Coll.	1	0	1	0	0	.5	1	.5	0	.5	9
Club & Oakland	Yes	0	No	Yes	Yes	2	Very	Yes	Good	Coll.	0	0	0	1	1	.5	1	0	0	.5	6.5



Projects by Ranking.

Once projects received a score, they were then ranked. Those projects that received a score of 11 or above received a rank of “A” – these projects should have top priority. Projects with scores between 8 and 10 received a rank of “B”. Projects with a score less than 8 received a rank of “C”. Figure 5-2 shows all of the projects by rank, and Table 5-3 shows the “A” rank projects. A listing of all projects by rank is available in Appendix 4.

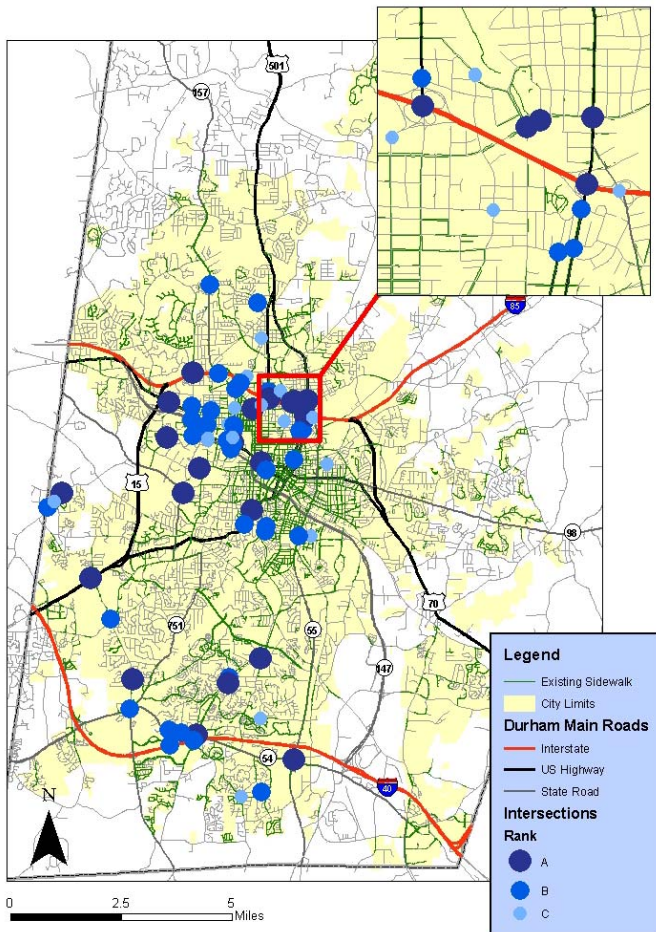


Figure 5-2. Map of proposed intersection projects by ranking.

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**Table 5-3. Listing of intersection projects by ranking.**

“A”	“B”		“C”
15-501 and Garrett*	Alston and Lawson	I-85 and Guess	Anderson and I-85
Academy and Cranford	ATT at I-40	I-85 on ramp and Ruby	Avondale and I-85
Broad and Main	ATT Crossing at Cook Rd	Mangum and Markham	Broad and Club
Club and Guess	Broad and Green	Ninth and Main	Broad and Perry
Duke and I-85	Broad and Guess	Oval and Oakland/Woodrow	Clermont and Grandale
Duke and Main	Broad and I-85	Revere and Clermont	Club and Oakland
Duke University and Chapel	Broad and Markham	Rollingwood and HWY 54	Erwin and Anderson
E Forest Hill and University	Broad and Pettigrew	Roxboro and Erie	Erwin and Randolph
Fayetteville and Barbee	Chalk Level and Horton	Roxboro and Knox	Glendale and Washington
Fayetteville Crossing for SW Elementary	Chapel Hill and Pettigrew	Roxboro and Lawson	Great Jones and Main
Garrett and Trotter Ridge	Dowd and Cleveland	Roxboro and Markham	Juniper and Hyde Park
Glendale and Acadia	Durham Freeway and Swift	Trent and Hillsborough	Kenan and Carver
Glendale and Club	Erwin and Blue Bottle (ped only crossing)	W Forest Hills and University	Ninth and Green
Hillandale and I-85*	Erwin between Fulton and Kent (hospital crossing)		North Pointe and Broad
Hillsborough and Lasalle	Fayetteville and I-40		Ridgeway and Wabash
HWY 54 and Fayetteville	Fulton and Durham Freeway		Washington and Glendale
HWY 55 and HWY 54	Garrett and Old Chapel Hill		Washington and Knox
Lasalle and Erwin	Guess and Horton*		Woodcroft and Copper Creek
Mt. Sinai and Erwin	Highgate and HWY 54		
Roxboro and Club	Hillandale and Club*		
Roxboro and I-85	Hope Valley and HWY 54		

*\*Intersection is part of a proposed project with pedestrian-related features in the 2006 – 2012 State TIP.*

### 5.3 Maintenance Projects

As stated in Section 4, any segment of sidewalk that showed signs of deterioration as evidenced by cracking, faulting, or surface wear was identified as a candidate maintenance project. For information on each of these maintenance categories, see Appendix 5. Sidewalks with severe deterioration in all categories are listed in Table 5-4. In addition to these sidewalks, several greenways also displayed severe deterioration; their locations were: Southern Boundary Park, Sherwood Park, Lyon Park, and Ellerbee Creek Trail.

The sidewalk and trail locations in Table 5-4 will serve as priority maintenance projects for the City, in addition to others identified by Public Works from the Geographic Information System (GIS) sidewalk inventory data, which is available for public review through the City’s GIS office. The condition rating included in the GIS sidewalk inventory was based on an objective visual assessment of all sidewalks inventoried in the City of Durham, and did not take into account factors such as sidewalk usage, pedestrian crash rates, or pedestrian generators. These additional factors should be considered as each segment of sidewalk with a “poor” condition rating receives an engineering assessment by the City and project selections are made for future maintenance work.

**Table 5-4. Priority Maintenance Projects.**

Street Name	From	To	Length (Miles)	Street Name	From	To	Length (Miles)
Angier	Alston	Holman	0.06	Lakewood	Fayetteville	Old Fayetteville	0.02
Concord	Lawson	Otis	0.09	Lyon Park Trail			0.18
Conyers	Wilkerson	End	0.02	Martin Luther King Jr	Dixon	Hope Valley	0.01
Duke	Morehead	Proctor	0.07	Morehead	Vickers	Duke	0.12
Ellerbee Creek Trail			0.74	Roxboro	Corporation	Dowd	0.06
Ellis	New Haven	Taylor Ridge	0.07	Sherwood Park Trail			0.24
Farthing	Ellerbee	Club	0.01	Southern Boundary Park Trail			0.61
Formosa	Otis	Concord	0.03	Taylor	Hyde Park	Maple	0.06
Garrett	15-501	University	0.05	Trinity	Shawnee	Rosetta	0.14
Geer	Foster	North	0.19	University	Cornwallis	Woodridge	0.04
Gregson	Minerva	Morgan	0.25				
Gurley	Mallard	Primitive	0.02				
Hillsborough	Hale	Carolina	0.05				
Knox	Hale	Carolina	0.06				

### 5.4 Preliminary Cost Estimates for Corridor Projects

This section presents rough cost estimates for “Tier A” projects and describes how the estimates were created. These estimates should be used as an indicator of the “constructability” of each project, rather than for exact pricing. Constructability in this case refers to an estimate of the cost of installing the sidewalk or other pedestrian facility.

#### Cost Estimation Method

In order to determine the constructability of each of the top tier projects, a basic charge per linear foot of pedestrian path (sidewalk or trail) was provided by the City of Durham. This basic cost was then increased with the presence of one or more of the following factors along each segment of sidewalk: trees, no curb and gutter, sidewalk, structures, ditching, and utilities. Cost estimates were based on observations made from 2005 aerial orthophotography provided by the City of Durham. Costs were produced for each side of the roadway, since it was not known which side of the street might be the preferred side on which to construct sidewalk.

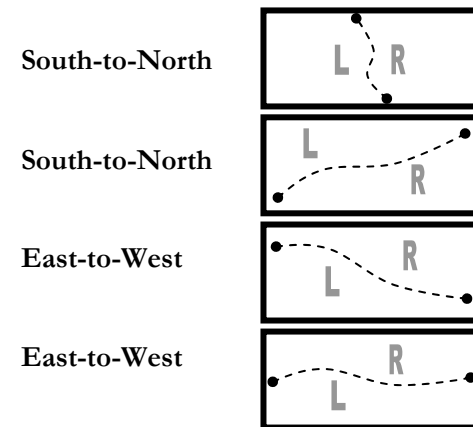
The equation to calculate the cost of each project is as follows (assuming sidewalks were installed behind the ditchline for the left side of the street, in this example):

$$\begin{aligned} \text{Proposed Sidewalk Cost} = & ([\text{ProjLength}] * (1 - [\text{LSidewalk}] / 100) * 40) + \\ & ([\text{ProjLength}] * ([\text{LDitching}] / 100) * 25) + ([\text{ProjLength}] * ([\text{LStructure}] / 100) * 50) + \\ & ([\text{ProjLength}] * ([\text{LTrees}] / 100) * 40) + ([\text{ProjLength}] * ([\text{LUtility}] / 100) * 15) \end{aligned}$$

Note that “ProjLength” is the length of the proposed sidewalk in feet. This formula is in a format that allows it to be copied and pasted directly into ArcView’s structured query language (SQL) formula calculator in order to update this information, as needed. The only adjustment needed is if the sidewalk is to be placed behind the ditchline (\$25/linear foot) or behind curb-and-gutter that does not currently exist (\$85/linear foot).

#### Directionality

Each side of the roadway was assessed independently (left and right side) to determine sidewalk costs. In order to determine which was the left and right sides, a decision to keep south-to-north and east-to-west as cardinal directions was assumed. The diagrams that follow indicate how the directionality rule was applied for roadways of different orientations. Note that if the project “rises” from left-to-right it is assumed to have south-to-north directionality; if it “falls” from left-to-right then the project is assumed to have east-to-west directionality.





**Suburban Neighborhood: Trees Interfering with Sidewalk Construction (Markham Av).**



**Evidence of Drainage Ditch Interfering with Sidewalk Construction (Dearborn Av).**

### Cost Factors

For each sidewalk project and individual segment, cost factors would increase the per foot cost of constructing sidewalk by the amount shown inside the parentheses. Sidewalk material was not considered a factor due to the relative similarity in costs for concrete and asphalt. The basic, linear cost of a foot of sidewalk is assumed to be valued at \$40 per linear foot (source: City of Durham Public Works Department). A percentage of each segment (0% to 100%) was applied to determine the lineal extent of each cost factor for each segment.

1. Sidewalk. If sidewalk was already present, then this length of sidewalk segment was subtracted from the total, proposed segment cost. For example, if 40% of the segment had sidewalk, then only 60% of the sidewalk cost was reported. Note that for the project Fayetteville A2, the American Tobacco Trail runs parallel alongside (within 100') of several segments and that these segments were reported as having sidewalk on one side.
2. No Curb-and-Gutter (\$85). If curb-and-gutter is present, then sidewalk can typically be installed closer to the curbline. The cost factor here indicates the percentage of each sidewalk that does NOT have curb-and-gutter. It should be noted that the lack of curb-and-gutter does not necessarily mean that the area is less fit for sidewalk construction. There are several sections of roadway such as on the Hope Valley A1 project, for example, where sidewalk has been constructed without curb-and-gutter and placed across a wide swale to help prevent undercutting the sidewalk through erosion. However, a determination of whether this treatment was possible was not factored into the constructability index. The final cost approximation assumed most sidewalks would need curb-and-gutter, based on the direction of Durham staff.
3. Structure (\$50). Indicated the presence of a bridge overpass/wing wall, building, or other structure potentially in the path of the proposed facility. Generally, these costs were not considered, but serve as a “flag” for further consideration.
4. Trees (\$40). Since the aerial photography could not resolve if the tree bases would be in the typical track of a new sidewalk installation, this factor was applied only if the tree canopy extended to the centerline of the roadway (or striped lane marker for streets that were more than two lanes across). A conservative approach was applied for this factor – individual trees would not be noted as a cost element, for example, unless they would clearly pose a significant problem.
5. Ditching (\$25). Some roadways have drainage ditches near the edge of pavement of the roadway, which would either force piping the ditch or moving the sidewalk further from the roadway and encroaching more on private right-of-way. In either case, the costs were assumed to increase as a result. In some cases, such as the Dearborn A1 project, erosion and ditching combined to increase the percentage of roadway segment with this cost constraint.
6. Utility (\$15). The presence of utility poles potentially in the path of a proposed sidewalk. As with trees, the sidewalk can be installed “behind” the utility poles, but again would increase the potential for right-of-way conflicts.

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In essence, the base cost of constructing the sidewalk was calculated for those segments of street that did not already have sidewalk on them, and then individual cost factors were added to that base cost. This exercise was repeated for each side of the roadway, left and right.

**Preliminary Cost Estimates**

Table 4 describes the general constructability of each “Tier A” sidewalk project. The City of Durham would like to have sidewalks (or equivalent off-road trail) constructed on one side of priority roadways first before moving on to installing sidewalk on the other side as well. Also, Table 4 implies that some roadways in “Tier A” already have sidewalk for a significant portion of the project’s length (e.g., Hillandale2). Therefore, the total cost of these projects should be estimated at approximately \$6 million.

**Table 1. Preliminary cost estimates for “Tier A” projects.**

Project Name	Left Side Cost	Left Side Project Length (feet)	Right Side Cost	Right Side Project Length (feet)
AlstonA6	\$291,000	7,200	\$311,000	7,600
Avondale	\$355,000	5,100	\$124,000	2,800
Cameron	\$326,000	5,700	\$286,000	5,700
Campus Walk	\$72,000	1,800	\$58,000	1,400
CheekPW2	\$281,160	2,556	\$281,160	2,556
Club1	\$13,000	300	\$263,000	5,000
CornwallisA1	\$695,000	5,700	\$769,000	6,200
DearbornA1	\$532,000	3,800	\$547,000	4,000
FayettevilleA2	\$876,000	7,400	\$756,000	6,700
GarrettA1	\$522,000	4,700	\$581,000	4,600
HillandaleA1	\$255,000	6,400	\$255,000	6,400
HillandaleA2	\$137,000	3,400	\$137,000	3,400
Hope Valley A1	\$312,000	3,300	\$459,000	4,900
Hope Valley A4	\$586,000	5,700	\$619,000	5,700
LasalleA1	\$56,000	1,400	\$18,000	400
Markham2	\$341,000	5,300	\$335,000	5,600
Roxboro2	\$297,000	7,400	\$297,000	7,400
University3	\$231,000	2,500	\$189,000	2,000
<b>Totals</b>	<b>\$6,178,160</b>	<b>76,900</b>	<b>\$6,285,160</b>	<b>79,800</b>