



The SCDOT has also developed policies to ensure that pedestrians and bicyclists are taken into consideration when planning to widen existing roadways or for new road construction projects. On January 14, 2003, the SCDOT Commission passed a resolution stating that “bicycling and walking accommodations should be a routine part of the department’s planning, design, construction and operating activities, and will be included in the everyday operations of our transportation system.” It further stated that, the SCDOT Transportation Commission “requires South Carolina counties and municipalities to make bicycling and pedestrian improvements an integral part of their transportation planning and programming where State or Federal Highway funding is utilized.”⁶

Where bridges are constructed to elevate roadways over the interstate, facilities would be provided for bicyclists and pedestrians. The bridges constructed at these locations would have 10-foot shoulders, which would accommodate pedestrian and bicyclists safely. The existing road system within the project study area is comprised primarily of secondary roadways including U.S. Route 15/401, S.C. Route 38, S.C. Route 79, and S.C. Route 9. The secondary roadways have limited or no shoulders making it difficult to accommodate pedestrians or bicyclists.

Due to the fact that access to the proposed project would be fully-controlled at designated locations, secondary roadways would be elevated and constructed over the interstate. The frontage roadways would also be considered for bike and pedestrian facilities based on SCDOT policies. Although the proposed project would require the modification of several local roads, it would not reduce the routes available for travel by pedestrians or bicyclists. By providing bridges that would better accommodate pedestrians and bicyclists, the proposed project is anticipated to positively affect future provisions for pedestrian and/or bicycle traffic.

C.3 Environmental Justice

C.3.1 Would any environmental justice populations be impacted?

The effects of the No-build Alternative on populations within the project study area would be essentially the same for all environmental justice areas. No relocations or visual impacts would occur. However, under the No-build Alternative, traffic volumes on local routes such as S.C. Route 38 would continue to increase and local travel patterns and accessibility in environmental justice communities could be affected. Other negative effects of the No-build Alternative may be the lack of increased development and employment opportunities within the project study area.

⁶ SCDOT Transportation Commission, January 14, 2003, Bike Resolution, http://www.scdot.org/getting/pdfs/bike_resolution.pdf (July 26, 2006).



In total, there are 56 block groups in the project study area, of which 37 block groups (66 percent) meet the established thresholds for low-income and/or minority (refer to Figure C-29). Combined, the Build Alternatives pass through 21 of the 56 block groups within the project study area. Of these 21 block groups, 15 (71 percent) meet the established thresholds to qualify as low-income and/or minority, including two in Dillon County, 10 in Marlboro County, two in Richmond County, and one in Scotland County. Environmental justice populations also exist in 22 other block groups within the project study area, but these are not directly impacted by the Build Alternatives.

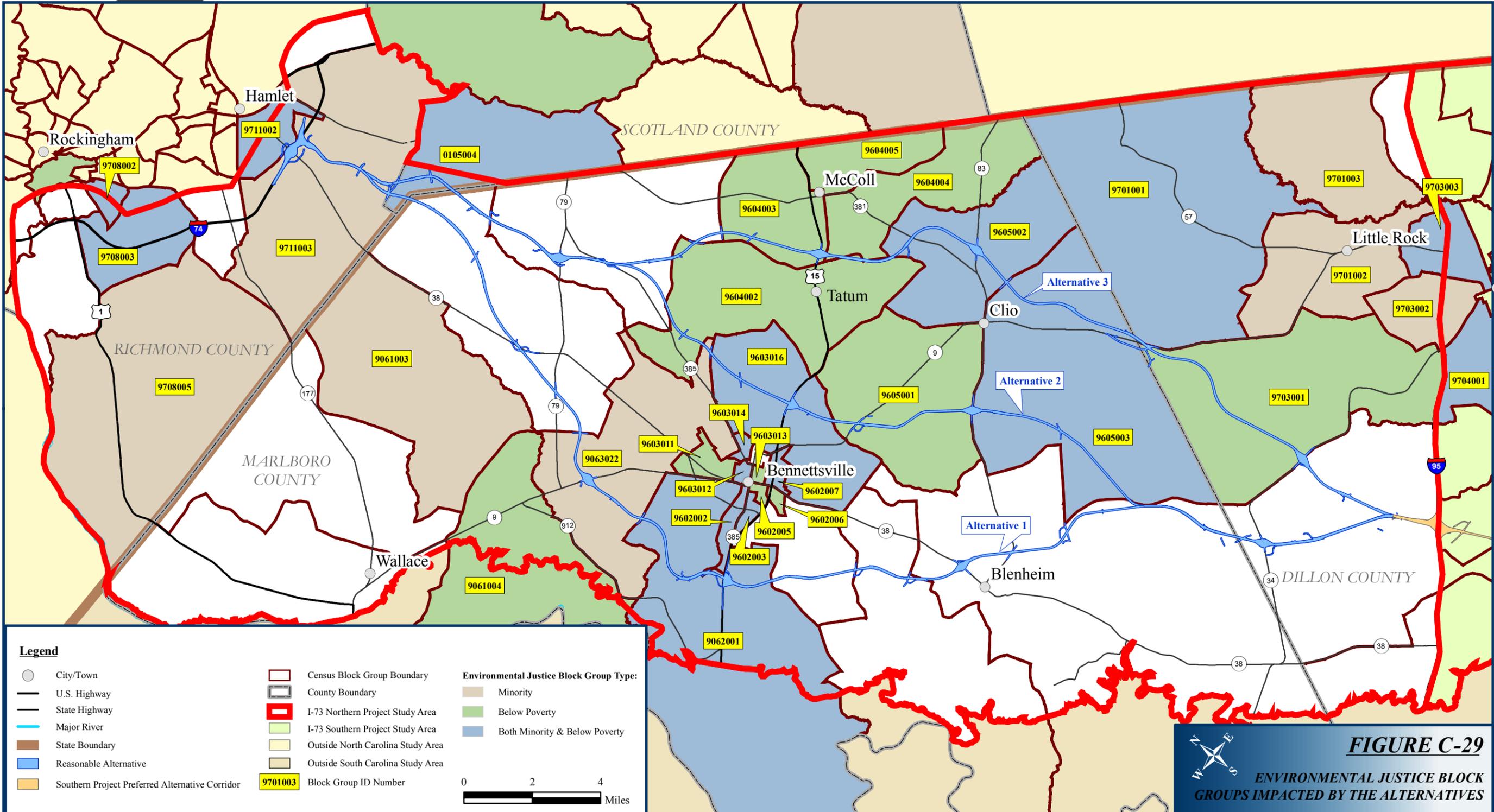
Ten block groups of the 21 directly impacted by the Build Alternatives have minority populations over their respective county thresholds including the following: one minority block group in Dillon County, six in Marlboro County, two in Richmond County, and one in Scotland County (refer to Table C.10, page C-65). Thirteen of the 21 total block groups directly impacted have block groups that meet their respective county thresholds for low-income populations, including two in Dillon County, nine in Marlboro County, one in Richmond County, and one in Scotland County (refer to Table C.10, page C-65).

Alternative 1 impacts the lowest percentage of minority and/or low income block groups (58 percent), while Alternative 3 impacts the highest percentage of minority and/or low-income block groups (77 percent) (refer to Table C.10, page C-65). The percentage of environmental justice census block groups impacted by the Build Alternatives (between 58 and 77 percent) would not be disproportionate when compared to the composition of the project study area as a whole (66 percent).

C.3.2 What other methods were used to consider impacts to environmental justice populations in the project study area?

Due to the rural nature of the area, block groups are very large and development can be sparse. The Build Alternatives pass through block groups that are considered to contain environmental justice populations, but do not impact these populations or communities. It also was evident based on field observations, community impact studies, survey data, and block level census data, that some communities that fell within low-income or minority block groups were not actually low-income or minority populations. Other communities were identified to have concentrations of low-income and minority populations, but did not fall within the identified low income and/or minority block groups. For these reasons, a community-based analysis of impacts was conducted to identify the location of potential disproportionate effects associated with the Build Alternatives. Issues that were considered when evaluating the potential for environmental justice impacts included the following:

- relocations;
- effects on community cohesion;
- economic impacts;





**Table C.10
Block Groups Impacted by Build Alternatives**

Block Group	Percent Minority	Percent Low Income	1	2 (Preferred)	3
Dillon County					
450339701001	76%	39%			X
450339703001	51%	35%			X
450339706001	37%	19%	x	x	x
Marlboro County					
450699602001	58%	21%	X		
450699602002	79%	34%	X		
450699602004	54%	13%	x		
450699603016	78%	27%		X	
450699603021	46%	12%	x	x	x
450699603022	69%	9%	X	X	
450699604001	52%	9%		x	x
450699604002	50%	21%		X	X
450699604003	35%	20%			X
450699604004	47%	20%			X
450699605001	52%	20%		X	
450699605002	71%	22%			X
450699605003	69%	33%	X	X	X
450699606001	37%	12%	x		
450699606002	34%	17%	x	x	
Richmond County					
371539711002	78%	35%	X	X	X
371539711003	41%	11%	X	X	X
Scotland County					
371650105004	62%	20%	X	X	X
Total number of block groups impacted per alternative			12	12	13
Number of minority/low-income block groups that are impacted by alternative			7	8	10
Percent of block groups per alternative that are EJ			58%	66%	77%

Notes:

Bold text signifies that area qualifies as an EJ area.

X signifies EJ block group impacted by Alternative; **x** signifies non-EJ block group impacted by Alternative.



- access and mobility issues;
- noise impacts;
- change of visual character; and,
- impacts to parks and community facilities.

In general, comments and surveys received from environmental justice communities played an important part in establishing whether effects on the communities of concern were positive or negative, as well as determining the magnitude of the potential impacts.

C.3.2.1 Relocations

Areas with known concentrations of environmental justice populations were identified during the EIS analysis. Concerted efforts were made to shift Build Alternatives to avoid or minimize impacts to these communities, including low-income and minority areas in Adamsville, Bennettsville, Chavistown, Clio, Dunbar, Free State, Hamlet, Lester, McColl, and Tatum. In many instances, the Build Alternatives were shifted from known environmental justice areas to minimize relocations and direct impacts to environmental justice populations in these communities.

For the purpose of the community-based study, relocations that fell within both environmental justice block groups and community boundaries, as defined by survey responses of citizens in the project study area, were included in Table C.11. Total relocations within environmental justice block groups were tallied for each of the Build Alternatives.

Since relocations located within environmental justice block groups could not be confirmed as minority and/or low-income at this stage in project development overall totals were used. Alternative 1 would have the most relocations with 31 residential relocations and two business relocations, while Alternative 3 would have the fewest relocations, with 15 residential and four business relocations. Alternative 2 would have 18 residential and six business relocations.

Overall, the pattern of residential displacements is evenly dispersed throughout populations along the Build Alternatives and relocations within minority or low-income populations did not constitute a disproportionately high and adverse effect on any single community. Other non-environmental justice communities would experience similar relocation effects and no particular community would bear a disproportionate portion of the relocations.

Any changes made to the alignment of the Preferred Alternative would be re-evaluated for relocation impacts on environmental justice communities. Based on field visits, housing and/or land would be available for those who are displaced to relocate within the affected communities.



**Table C.11
Community and Block Group Relocations**

	Community	Relocations	Alt. 1	Alt. 2 (Preferred)	Alt. 3
Dillon County – no business or residential relocations within identified EJ block groups					
Marlboro County					
450699602001	Adamsville	1R			X
450699602001	Bennettsville	18R	X		
450699603016	Bennettsville	3B		X	
450699605001	Bennettsville	4R, 1B		X	
450699603022	Chavistown	5R	X		
450699605002	Clio	1R, 2B			X
450699605002	Dunbar	1R		X	
Richmond County					
371539711003	Hamlet	2R	X		
371539711003	Hamlet	7R		X	X
371539711003	Hamlet	1R, 2B	X	X	X
371650105004	Hamlet	4R		X	X
371650105004	Hamlet	4R	X		
371539711002	Hamlet	1R	X	X	X
Scotland County – no business or residential relocations within identified EJ block groups					
Total			31R, 2B	18R, 6B	15R, 4B
<u>Notes:</u> R = residential relocation B = business relocation					

C.3.2.2 Community Cohesion

Community cohesion is affected when neighborhoods are divided or relocations reduce the number of residences in a community. As discussed in the Communities Section (refer to Section C.2, page C-20), loss of community cohesion could occur with the construction of the proposed project. Based on the boundaries identified by survey respondents, the communities of Adamsville and Free State, both of which have identified environmental justice populations, may experience some impact to cohesion depending on which Build Alternative is selected. Non-minority and non-low income communities could also experience similar impacts to community cohesion due to the Build Alternatives, and therefore, these identified environmental



justice populations would not bear a disproportionate impact. For additional discussion on community cohesion, refer to Section C.2 (page C-20), and the *Community Impact Analysis Technical Memorandum*.

C.3.2.3 Economic Impacts

The population of the project study area would be expected to benefit from economic opportunities resulting from the project. Potential economic opportunities could be beneficial to low-income populations in terms of more jobs and additional business development. Specific communities within the project study area including Bennettsville, Clio, and Hamlet, have expressed support for the project due to the potential economic opportunities of the project. For additional discussion on economic impacts, refer to Chapter 2, Section 2.6.1.2 on page 2-33.

C.3.2.4 Access and Mobility

Each of the Build Alternatives may cause minor changes to local access and mobility in communities throughout the project study area. Connectivity of travel routes would be maintained by the construction of crossovers and frontage roads that would be constructed where needed to maintain access to properties. Overall, changes in travel patterns and accessibility within communities are expected to be minor and should not prevent residents from accessing their churches, neighbors, or business and commercial centers. Therefore, environmental justice populations would not suffer a disproportionate impact from changes in travel patterns. For additional discussion on impacts to access and mobility, refer to Communities, Section C.2 beginning on page C-20, and the *Community Impact Analysis Technical Memorandum*.

C.3.2.5 Noise

All Build Alternatives would have the potential to introduce traffic noise into rural communities. Residences along each Build Alternative may experience noise levels above what currently exists. Overall, noise impacts resulting from the proposed project would be minimal, with three to four residences being impacted per each Build Alternative. For more information about potential noise impacts, please refer to Section C.8, page C-80. Impacted receivers would be distributed throughout the project study area, with no community experiencing more than one impacted receiver. Therefore, no individual community or environmental justice population would experience disproportionate noise impacts.



C.3.2.6 Visual and Aesthetic Character

As discussed in Section C.2 (page C-20), the Build Alternatives would have the potential to change the visual environment of environmental justice communities. The effect in view and aesthetic character depends on the existing characteristics of the community; the distance between homes and the proposed project; and whether the facility is at-grade, contains an elevated overpass, or interchange. The Build Alternatives may alter the visual elements of environmental justice populations living in the following communities: Adamsville (Alternatives 2 and 3), Chavistown (Alternative 1), Clio (Alternatives 2 and 3), Dunbar (Alternative 2), Free State (Alternative 3), Hamlet (Alternatives 1, 2, and 3), Lester/Breeden (Alternative 2), McColl (Alternative 3), and Tatum (Alternatives 2 and 3). However, non-minority and non-low income populations in these and other communities would experience similar changes to the visual landscape, and therefore, environmental justice populations would not bear a disproportionate impact. For additional discussion on anticipated changes to visual and aesthetic character, refer to the *Community Impact Analysis Technical Memorandum*.

C.3.2.7 Parks and Community Facilities

The Build Alternatives do not impact any public parks or facilities located in environmental justice communities. Alternatives 1 and 2 would not impact any churches, while Alternative 3 would displace The Community House of Prayer, a church located in the Free State community.

C.3.3 What efforts have been made to ensure full and fair participation of environmental justice populations in the transportation decision-making process?

In order to engage and provide for the full and fair participation of potentially affected environmental justice communities, the following strategies were implemented:

- Public information meetings were held in Marlboro and Richmond Counties, and advertised in the local newspapers and on television;
- Attendance of Project Team Representatives at local organization meetings to generate interest and participation in the proposed project;
- Stakeholder Working Group meetings were held and included local community leaders and NAACP representatives;
- Project website and toll-free hotline, which could be accessed at any time to learn the status of the project and information on times and locations of meetings; and,
- Distributed community surveys through various methods to ensure full participation of all populations, including school surveys, mail surveys, door-to-door survey distribution and/or interviews.



For more information about public involvement and participation in the project, refer to Chapter 3, Communities, Chapter 4, Public Involvement, the *Community Impact Assessment Technical Memorandum*, and the *Public Involvement Technical Memorandum*.

Full and fair access to information will continue to be provided to citizens during the future project phases through Public Hearings, Stakeholder Working Group meetings, updated information on the project website and hotline, and in project newsletters and mailings.

C.3.4 Summary

All identified areas that contain environmental justice populations would experience both beneficial and adverse effects similar to those of non-environmental justice populations in the project study area. No environmental justice populations would bear a disproportionate impact from the Build Alternatives.

During alternative development, impacts to both environmental justice and non-environmental justice communities have been avoided or minimized when possible. The preliminary Build Alternatives were developed by the CAT program to avoid municipal boundaries and dense residential areas (refer to Chapter 2 and the *Alternative Development Technical Memorandum*). Beyond these initial efforts of impact avoidance, the Build Alternatives were further refined to minimize the number of relocations as well as impacts to community cohesion and accessibility. Efforts to minimize impacts to environmental justice as well as non-environmental justice communities will continue during the refinement of the Preferred Alternative.

Although no environmental justice population would be disproportionately impacted by the Build Alternatives, mitigation opportunities may exist for impacts to low-income and/or minority communities in the project study area. Specific options for mitigating impacts of the Preferred Alternative on environmental justice communities will be studied further during public involvement for the Final EIS.

C.4 Parks, Recreational Facilities, and Wildlife/Waterfowl Refuges

Would the Build Alternatives impact Section 4(f) parks or recreational facilities?

None of the Build Alternatives, including the No-build Alternative, would impact Section 4(f) resources; therefore, no impacts are anticipated. No indirect impacts are anticipated since access to park and recreational facilities would not be affected by the Build Alternatives.



C.5 Section 6(f) Resources

Would any Section 6(f) Resources be impacted by the project?

The Build Alternatives would avoid Section 6(f) resources in the project study area; therefore, no impacts are anticipated.

C.6 Historic Resources

C.6.1 What above-ground historic resources were found during the survey?

Table 3.21 (page 3-121) lists the historic resources found in the vicinity of the Build Alternatives. It contains seven above-ground historic resources that are listed on the NRHP within one mile of the Build Alternatives (refer to Figure C-30, page C-73). This table also includes twelve sites that are located within one mile of the Build Alternatives that have been determined by the South Carolina SHPO as eligible for the NRHP, but are not yet listed (refer to Table C.12 on page C-72, and Figure C-30 on page C-73). In addition, there are two sites within the North Carolina portion of the project study area that have been determined potentially eligible for listing on the NRHP by the North Carolina SHPO. During the development of alternatives, properties listed on the NRHP or determined eligible for listing were considered constraints and efforts were made to avoid these known resources (refer to Chapter 2, page 2-1). For more details on the sites listed on the NRHP, refer to the *Cultural Resources Technical Memorandum*.

C.6.2 What would be the potential impacts to historic resources?

When evaluating potential impacts to historic resources for the proposed project, a historic resource was considered directly impacted if it was partially or completely located within Build Alternative's right-of-way. An adverse visual impact may occur when the project can be seen from the historic resource. Each Build Alternative's 400-foot ROW was buffered by 300 feet on both sides and examined to determine potential impacts on historic resources located outside of the ROW, including lack of access to the resource, a change in the resource's setting, or indirect and cumulative impacts. Known historic and archaeological resources within the project study area were set as constraints during the Alternative Development Process, and therefore avoided (refer to Chapter 2 or the *Alternative Development Technical Memorandum* for further information).

Adverse Affect

An adverse affect refers to the **diminishment of a property's integrity, with respect to its location, design, setting, materials, workmanship, feeling, or association.**

The No-build Alternative and Alternative 2 would not directly affect any known above-ground historic resources.



**Table C.12
Historic Resources Within One Mile of a Build Alternative**

ID Number (Figure 3-34)	County	Resource Name	Location	Potential Effect
Sites Listed on the NRHP				
1	Marlboro	Appin Historic District	U.S. Route 15, Bennettsville	None
2	Marlboro	Clio Historic District	Clio	None
3	Marlboro	Manship Farmstead	Tatum	None
4	Marlboro	McLaurin House	State Road 40, Clio	Direct Effect Alternative 3
5	Marlboro	Robertson-Easterling- McLaurin House	S.C. Route 912	None
6	Dillon	Joel Allen House	State Road 38, Free State	None
7	Dillon	Selkirk Farm	State Road 28, Minturn	None
Sites Eligible for Listing on the NRHP				
8	Marlboro	Blenheim Mineral Springs and Ginger Ale Plant	Blenheim	None
9	Marlboro	Hebron United Methodist Church District	State Road 23, Hebron	None
10	Marlboro	Manning House	State Road 23, Hebron	None
11	Marlboro	Marlboro Aviation School, Palmer Field	State Road 626, Bennettsville	None
12	Marlboro	Mill Race/Spillway at Appin	U.S. Route 15, Bennettsville	None
13	Marlboro	Mimosa Plantation	U.S. Route 15, Tatum	None
14	Marlboro	Oakley House	State Road 33, Bennettsville	None
15	Marlboro	Resource 0918	State Route 18, Bennettsville	Adverse Visual Alternative 1
16	Marlboro	Resource 1095	S.C. Route 9, Bennettsville	None
17	Marlboro	Sparks House	S.C. Route 38, Blenheim	None
18	Marlboro	The Beauty Spot Church of Tatum	U.S. Route 15, Tatum	None
19	Dillon	Alford House	State Road 28, Minturn	None
Sites Potentially Eligible for Listing on the NRHP				
21	Marlboro	Old McLaurens Pond	S.C. Route 9, Chavistown	None
Not Shown	Marlboro	38ML13	Clio	None
Not Shown	Marlboro	38ML18	Dunbar	None
Not Shown	Marlboro	38ML39	Adamsville	None
Not Shown	Marlboro	38ML40	Adamsville	None
Not Shown	Marlboro	38ML41	Adamsville	None
Not Shown	Marlboro	38ML108	Blenheim	None
Not Shown	Marlboro	38ML213	Dunbar	None
Not Shown	Marlboro	38ML214	Dunbar	None
Not Shown	Dillon	38DN14	Minturn	None
22	Richmond	Log Tobacco Barn	State Road 1804	None
23	Richmond	Freeman House	State Road 1181	None

Source: Brockington and Associates, 2007. Archaeological sites are not shown on Figure 3-34 due to their sensitive nature.

