CHAPTER 5 – COMPARISON OF ALTERNATIVES

5.1. Introduction

This chapter provides a summary of the No-Build and Build alternatives, and the positive and adverse effects associated with each.

5.2. Discussion

5.2.1. No-Build Alternative

The No-Build Alternative is established as a baseline against which the "Build Alternative" is compared. Under the No-Build Alternative, all built features of the RMP would remain in place between Main Street and Findlay Drive. This would involve continuation of the current use/alignment established under the 2000 "Pilot Project", including: use of the former southbound expressway lanes as the "Robert Moses Parkway Trail" (a multi-purpose trail for walking, bicycling and rollerblading); use of the former northbound expressway lanes as a single, two-way, 40-MPH highway; and continuation of all other existing expressway features, such as the Whirlpool Bridge overpass, pedestrian bridges, and access prevention from adjoining neighborhoods (e.g., fencing, guiderails, grade separation, etc.). In turn, the existing four-lane alignments of Whirlpool Street and Third Street would remain directly adjacent to the RMP between Main Street and Findlay Drive.

The No-Build Alternative would not meet the Project Needs presented in **Sections 1.2.2 and 1.2.3.1**, nor would it address the Project Objectives presented in **Section 1.2.3.2**.

5.2.2. Build Alternative

The Build Alternative would include the following elements:

- Removal of the RMP (i.e., all vehicular lanes, lanes used for the Robert Moses Parkway Trail, the Whirlpool Bridge Plaza overpass, and all other RMP interchange/accessory facilities from Main Street (NYS Route 104) to Findlay Drive;
- Reconstruction of Whirlpool Street from Main Street to Walnut Avenue and from Cedar Avenue to Findlay Drive as an at-grade, 30-MPH road to accommodate north-south vehicular/bus access, and removal of Whirlpool Street from Walnut Avenue to Cedar Avenue;
- Reconstruction of Third Street from Main Street to Cedar Avenue in a manner consistent with that of Whirlpool Street;
- Restoration of the landscape / habitat on lands reclaimed along the Niagara Gorge rim from the removal of the RMP with native species;

- Construction of a pedestrian / bicycle trail network along the Gorge rim, connecting to other trail systems and adjoining neighborhoods; and
- Incorporation of amenities / betterments associated with the above improvements.

5.2.2.(a) Project Purpose and Objectives Discussion

The Build Alternative would fulfill the Project Purpose and Need, and would meet all Project Objectives as stated in **Section 1.2.3**.

5.2.2.(b) Additional Features of the Build Alternative and Related Effects

Removal of pavement associated with the existing RMP would add 6.7 acres to the contiguous parkland / green space that currently exists along the Gorge rim within the Project Study Area. This action would also allow 13.4 acres of isolated parcels east of the RMP to be annexed as part of the total contiguous parkland / green space within the Project Study Area. In combination, these enhancements would add a total of 20.1 acres to the contiguous parkland / green space that currently exists west of the RMP. As a result, the current total of 116.7 acres of contiguous parkland / green space within the Project Study Area would increase to 136.8 acres, comprising a wide, fully-accessible green ribbon connecting Niagara Falls State Park and Whirlpool State Park.

The Build Alternative would also provide for the following features:

- A new two-lane park road from Main Street to the Niagara Gorge Discovery Center.
- A new trail system within the parklands between Niagara Falls State Park and Findlay Drive, anchored by a new 13-foot wide multimodal trail and including connections to existing trails leading to the base of the Gorge, the Gorge Discovery Center, the Aquarium of Niagara and various locations along Whirlpool Street to provide access to adjoining neighborhoods.
- Upgrades and reconstruction of the existing Gorge rim trail with connections to the new trail network.
- Construction of new overlooks and improvements to existing overlooks within the parklands between Main Street and Findlay Drive.
- Gateway features at selected locations along the Project corridor that would serve to mark key predominant entranceways into the Gorge area.
- A dedicated parking lane along most of the east side of Whirlpool Street between Third Street and Findlay Drive.

Chapter 5 Ver. 5 July 2016

5-2

¹ Although total pavement removal would be 12.4 acres when the existing Robert Moses Parkway Trail on the former southbound lanes of the RMP is also taken into account, the pavement associated with this trail is already considered to be recreational land due to its purpose as a bicycle and pedestrian facility.



- Transitional landscaping to parkland in areas where existing pavement would be removed focused on preserving and enhancing the Gorge rim and re-naturalizing the areas by reintroducing native species and removing invasive species.
- A stop sign on Findlay Drive at a new T-intersection with Whirlpool Street to facilitate through traffic movements from Whirlpool Street to the RMP segment north of Findlay Drive.
- Consideration during final design of various ecological sustainability features such as eliminating sections of the curb in selected locations to permit drainage of stormwater into a grassy meadow and the use of bio-swale and/or bio-retention areas to reduce the amount of stormwater into the Gorge and the City's combined sewer system.

The Build Alternative would result in a *de minimis* use of several 4(f) resources in the Project Study Area (i.e., Niagara Falls State Park / Niagara Reservation Historic Landmark, Robert Moses Parkway Trail, DiFranco Park and Aquarium of Niagara).

Other effects are included in **Table 5-1** below and are discussed in more detail in **Chapters 4 and 6**.

5.3. Cost, Benefit, and Effect Comparison

Table 5-1 includes a summary of costs, and selected benefits and effects of the Build Alternative with reference to additional information contained in this Design Report / Environmental Assessment (DR/EA). This is intended to be a brief summary of representative information provided elsewhere in the document and is not intended to be comprehensive. The location of a more detailed discussion of each summarized entry in **Table 5-1** is also referenced in the table.

Table 5-1 - Summary of Costs, Benefits, and Effects

	EA Reference Section	No-Build Alternative	Build Alternative
Are the Project Objectives Met?			
Improve access and transportation	1.2.	No	Yes
Promote and conserve the ecology and environment of the Project Area	1.2.	No	Yes
Support economic vitality	1.2.	No	Yes
Minimize impacts to adjacent neighborhoods	1.2.	No	Yes
Support Niagara River Greenway Plan and Other Local/Regional Policy Documents	1.2	No	Yes
Are any Enhancement Opportunities Attained?			
Additional contiguous green space acreage due to pavement removal and annexation of isolated parcels	4.4.12 & 6.7	None	20.1
Access points to Niagara Gorge rim and parklands from neighborhoods east of Whirlpool Street	2.3.2. (incl. 2.3.2.1 & 2.3.2.2) & 4.4.12	3 in Project Area & 1 north of Project	Continuous
Improved pedestrian and bicyclist facilities / experience along Niagara Gorge parklands	3.3.4.	No	Yes
Number of new or improved overlooks along the Niagara Gorge rim	4.4.12	None	7 new overlooks 6 improved overlooks
Landscaping with native species and removal of invasive species	3.3.4.	No	Yes
Use of green infrastructure features to reduce untreated stormwater runoff	3.3.4.	No	Yes (where feasible)
Wider verge areas (grassed buffers) and parking cut- outs along Third Street and Whirlpool Street	3.3.1.10. & 4.2.2.1.	No	Yes
Costs (2015 \$U.S. Millions)			
Demolition	Table 3-1	-	\$7.74
Bridge Rehabilitation, Road Repair/Maintenance and Associated Work	Table 3-1	\$3.64	-
Construction, Landscaping and Associated Work	Table 3-1	-	\$18.16



	EA Reference Section	No-Build Alternative	Build Alternative
Mobilization, MPT and Contingency	Table 3-1	\$0.84	\$9.06
Total Cost 2015 \$U.S. Millions (Rounded Total)	Table 3-1	\$4.48 (\$5.0)	\$34.96 (\$35.0)
Quantitative and Qualitative Impacts		,	
Transportation			
2040 AADT Volumes through Niagara Gorge Parklands (Main Street to Findlay Drive) – both directions	Table 3-6	3,590	No Traffic – RMP Removed
2040 AADT Volumes on Whirlpool Street (Third Street to Ontario Avenue) – both directions	Table 3-6	4,340	6,720
2040 AADT Volumes on Whirlpool Street (Ontario Avenue to Findlay Drive) – both directions	Table 3-6	2,830	4,860
Social and Economic			
Land Use	4.2.1.	No direct change. No indirect redevelopment potential.	Improve use of and accessibility to parkland. Indirect redevelopment potential.
Demographics	4.2.1.1.	No direct change to continuing outmigration of population.	No direct change, but potential to improve quality of life to slow out-migration of population.
Planning/Zoning	4.2.1.2	Would not allow existing City plans to be achieved.	Would allow existing City plans to be achieved.
Community Cohesion	4.2.2.1.	No change in accessibility to parklands or community cohesion.	Improved accessibility to parklands and resulting improved community cohesion. Minor disruptions during construction.
Home / Business Relocations	4.2.2.2.	None.	None.
Social Groups / Environmental Justice	4.2.3 (including 4.2.3.1., 4.2.3.2., & 4.2.3.3.)	No change in existing services or conditions to target populations.	Increased opportunity for target populations to access parklands. Enhanced bicycle / pedestrian use. No disproportionately high / adverse impacts to EJ populations.



	EA Reference Section	No-Build Alternative	Build Alternative
Schools / Places of Worship / Community Facilities	4.2.4. (including 4.2.4.1., 4.2.4.2., & 4.2.4.3.)	No impact.	No impact to schools or places of worship. Potential minor disruptions to County Court building during construction.
Regional and Local Economies	4.3.1.	No change. No construction expenditures to generate short-term employment and income. Continued opportunity cost of not capitalizing on City's proximity to Niagara Gorge.	Potential for positive effects on regional and local economies during construction. Citywide, has the potential to change image of Niagara Falls that could result in significant economic benefits in long term.
Businesses / Business Districts	4.3.2. & 4.3.3.	No change, except as result of continued economic struggles.	Minor disturbances to selected businesses near Whirlpool / Third Streets during construction. Potential minor short-term spending benefits for local businesses. Long-term potential to transform economic setting/context of Main Street and north side of downtown by eliminating physical and psychological barrier to Niagara Gorge.
Environmental			
Wetlands	4.4.1. (including 4.4.1.1. & 4.4.1.2.)	None.	None.
Surface Waters / Navigable Waters	4.4.2., 4.4.3. & 4.4.4.	Continued short/long-term detrimental effects to Niagara River from runoff associated with impervious surfaces.	Reduction in runoff effects from removal of paved surfaces associated with the RMP and incorporation of ecologically-sustainable stormwater systems.
Floodplains	4.4.5.	None.	None.
Aquifers / Wells	4.4.7 (including 4.4.7.1 & 4.4.7.2)	None.	None.



	EA Reference Section	No-Build Alternative	Build Alternative
Stormwater Management	4.4.8.	No change from existing drainage system. Continued short/long-term detrimental effects to Niagara River from runoff associated with impervious surfaces.	Disturbed areas would have closed ecologically-sustainable stormwater systems to treat runoff before being outlet into Niagara River. Multiuse paths would drain directly onto grasses / vegetated surfaces and/or be constructed of pervious pavement.
Ecology / Wildlife	4.4.9. (including 4.4.9.1., 4.4.9.2., 4.4.9.3., 4.4.9.4. & 4.4.9.5) and 4.4.10	Continued short/long-term detrimental effects from fragmentation of habitat and proliferation of nonnative invasive species.	Some temporary minor impacts to wildlife / vegetation during construction and demolition. No direct impact on natural communities, T&E species, aquatic species or critical environmental areas. Longterm benefits through removal of invasive vegetative species and restoration of Gorge rim with native species.
Historic / Cultural Resources	4.4.11.	No change. Continued adverse visual effects to context of the Old Customs House and several residential historic districts that pre-dated the RMP.	No direct / detrimental effect on any National Register listed or eligible historic or archaeological resources anticipated. Visual improvement to Old Customs House and two bridges across Niagara Gorge
Parks and Recreation Areas	4.4.12.	No change from existing limited access to Gorge rim and parkland west of RMP. No improvement to bicycle / pedestrian access.	RMP pavement removal and annexation of isolated parcels east of RMP add 20.1 total acres to contiguous parkland / green space. Improved access to Gorge and Gorge rim and improved bicycle pedestrian access via new network of trails.
Visual Resources	4.4.13.	No change.	All visual changes show an improvement on the current conditions within the project limits. No



	EA Reference Section	No-Build Alternative	Build Alternative
			notable negative impacts in the visual quality of the site.
Air Quality	4.4.15.	No change (area already in attainment for levels of all "criteria pollutants" under the U.S. Clean Air Act).	Given no significant traffic impacts, no measurable change in concentrations of ground-level carbon monoxide or any other criteria pollutants.
Energy	4.4.16.	Indirect energy similar to existing. Direct energy slightly higher.	Indirect energy to be reduced in long-term. Direct energy slightly higher than No-Build.
Noise	4.4.17.	All receptors below impact threshold	All receptors below impact threshold.
Asbestos	4.4.18.	None.	Further testing required for utilities to be disturbed / removed. Coordination and, if necessary, abatement at several sites during demolition activities.
Hazardous Waste / Contaminated Materials	4.4.19. (including 4.4.19.1. & 4.4.19.2.)	No disturbance.	Further site investigation may be required. Remediation Plan to be developed, as necessary.
Construction Effects	4.5.	None.	Short-term inconvenience, traffic disruption, construction noise and dust to nearby residents, businesses and recreational users.

Note: The No-Build Alternative serves as a baseline only.