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## SELECTION OF THE PREFERRED ALTERNATIVE

### 1. Introduction

This document describes and evaluates the Alternatives Carried Forward for detailed study as part of the Mobility Improvements to Support the South Lakefront Framework Plan (SLFP) project. The evaluation of the detailed alternatives will result in a recommendation of a Preferred Alternative. The following alternatives to be studied in detail include:

- No-Action Alternative
- Alternative 9 – Mobility Improvement – Widen Lake Shore Drive/Widen Stony Island Avenue/Reconfigure Hayes Drive

Efforts to avoid and minimize use of Section 4(f) resources for each of these alternatives are discussed and evaluated. Impacts of each alternative to environmental resources are also evaluated and compared.

#### 1.1. Study Area

The Study Area is located in Chicago, Illinois, and encompasses Jackson Park. See Exhibits 1A, 1B and 2 in Appendix A. Jackson Park is bounded by 67<sup>th</sup> Street, Stony Island Avenue, 56<sup>th</sup> Street and Lake Michigan. See Exhibits 1 and 2 in Appendix A. Jackson Park is served by heavily travelled arterial roadways, including Lake Shore Drive (US Route 41) to the east and Stony Island Avenue to the west. Within Jackson Park, 57<sup>th</sup> Drive carries east-west traffic from Lake Shore Drive to the Museum of Science and Industry (MSI). South of the Museum, 57<sup>th</sup> Drive becomes Cornell Drive which carries north-south traffic from the Museum toward park recreational facilities and beyond to residential neighborhoods. These roadway facilities provide an important route for westbound morning commuters and eastbound evening commuters between major commuter expressways and the City's Central Business District. Collector roadways within Jackson Park include Hayes Drive and Marquette Drive. Lake Shore Drive north of 57<sup>th</sup> Drive and Stony Island Avenue south of 57<sup>th</sup> Street are on the National Highway System, which consists of roadways that are important to the nation's economy, defense and mobility. The Lakefront Trail is parallel to the east side of Lake Shore Drive and serves recreational users, commuters, and tourists.

## 2. Purpose and Need

### 2.1. Proposed Action

The City of Chicago (City) is proposing to close roadways within Jackson Park, Chicago, Illinois to meet the planning and development objectives for Jackson Park as described in the 2018 South Lakefront Framework Plan<sup>1</sup>. The permanent roadway closures include: Cornell Drive between 63<sup>rd</sup> Street (Hayes Drive) and 59th Street, the northbound section of Cornell Drive between 68<sup>th</sup> Street and 65<sup>th</sup> Street, Marquette Drive between Stony Island Avenue and Richards Drive, and South Midway Plaisance (eastbound only) between Stony Island Avenue and Cornell Drive. See Exhibit 3. Closures of South Midway Plaisance and Cornell Drive between 63<sup>rd</sup> Street and 59th Street are necessary to accommodate the development of the Obama Presidential Center. The additional roadway closures will allow for continuous parkland within Jackson Park. The roadway closures are separate independent actions that do not require any Federal approvals and are therefore considered the baseline condition as well as the No-Action alternative.

The roadway closures may require improvements to other roadways to mitigate traffic impacts. The potential roadway improvements may be funded through the Federal Highway Administration (FHWA) Federal-Aid Highway Program, which would require approval from FHWA.

### 2.2. Project Need

The Proposed Action relates to the potential roadway improvements that are necessary to address traffic impacts that will result from roadway closures within Jackson Park. Improvement needs vary within the project area, but fall into two broad categories:

- Accommodate changes in travel patterns.
- Improve bicyclist and pedestrian access and circulation.

A full description and analysis of these identified needs can be found in the Purpose and Need documentation, under separate cover.

### 2.3. Project Purpose

The purpose of the Proposed Action is to (1) address changes in travel patterns resulting from closing roadways in Jackson Park and (2) improve bicycle and pedestrian access and circulation.

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<sup>1</sup> The 2018 South Lakefront Framework Plan was approved by the Chicago Park District in April 2018.

### 3. Alternatives Analysis

A range of preliminary project alternatives were evaluated to determine if the alternative met the project’s Purpose and Need. Alternatives that avoided permanently incorporating Section 4(f) land into a transportation facility were considered first, including the No-Action Alternative, Congestion Management Process Strategies, and Alternative 1 – Alternative Avoiding Section 4(f) Use. The alternatives analysis considered a tiered approach to satisfy the Purpose and Need, as described in Section 2.0. If any alternative failed to meet the Purpose and Need, components of that alternative would be included in successive alternatives in addition to incremental improvements to determine the necessary facilities to meet the Purpose and Need while minimizing impacts to environmental resources. The preliminary alternatives included:

- No-Action Alternative
- Congestion Management Process Strategies
- Alternative 1 – Alternative Avoiding Section 4(f) Use
- Alternative 2 – Operational Changes to Roadways
- Alternative 3 – Mobility Improvement – Widen Lake Shore Drive
- Alternative 4 – Mobility Improvement – Widen Stony Island Avenue
- Alternative 5 – Mobility Improvement – Reconfigure Hayes Drive
- Alternative 6 – Mobility Improvement – Widen Lake Shore Drive and Widen Stony Island Avenue
- Alternative 7 – Mobility Improvement – Widen Lake Shore Drive and Reconfigure Hayes Drive
- Alternative 8 – Mobility Improvement – Widen Stony Island Avenue Reconfigure Hayes Drive
- Alternative 9 – Mobility Improvement – Widen Lake Shore Drive/Widen Stony Island Avenue/  
Reconfigure Hayes Drive

The amount of permanent incorporation of Section 4(f) land into a transportation facility and potential temporary occupancy was quantified for each alternative. For this project, proposed trails and underpasses within Jackson Park may qualify as a temporary occupancy and would be considered excepted from Section 4(f) approval<sup>2</sup>.

A summary table of each preliminary alternative evaluation and recommended action is provided in Table 1.

<sup>2</sup> A temporary occupancy does not require a Section 4(f) approval if the criteria in 23 CRF 774.13(d) are satisfied.

**Table 1  
Preliminary Alternatives Summary**

Range of Alternatives	Section 4(f) Land Use for Transportation (acre)	Temporary Occupancy of Section 4(f) Land (acre)	Purpose & Need Criteria		Carried Forward for Detailed Analysis
			Accommodate Changes in Travel Patterns	Improve Bicycle & Pedestrian Access & Circulation	
No-Action	0.0	0.0	No	No	YES
Congestion Management Process Strategies	0.0	2.7	No	Yes	NO
Alternative 1 - Alternative Avoiding Section 4(f) Use	0.0	0.0	No	No	NO
Alternative 2 - Operational Changes to Roadways	0.6	2.7	No	Yes	NO
Alternative 3 - Widen LSD	2.0	2.6	No	Yes	NO
Alternative 4 - Widen Stony Island	3.1	2.7	No	Yes	NO
Alternative 5 - Reconfigure Hayes	1.5	3.7	No	Yes	NO
Alternative 6 - Widen LSD/Widen Stony Island	4.5	2.6	No	Yes	NO
Alternative 7 - Widen LSD/Reconfigure Hayes	3.2	3.6	No	Yes	NO
Alternative 8 - Widen Stony Island/ Reconfigure Hayes	3.9	3.7	No	Yes	NO
Alternative 9 - Widen LSD/ Widen Stony Island/ Reconfigure Hayes	5.6	3.6	Yes	Yes	YES

### 3.1. Alternatives to be Carried Forward

As shown in Table 1, the No-Action Alternative would not convert any Section 4(f) land to a transportation use, nor would it involve any potential temporary occupancy of Section 4(f) properties. The No-Action Alternative does not provide sufficient pedestrian and bicyclist accommodations to improve access and circulation to and within Jackson Park. Unacceptable operational performance within the study area results from the No-Action Alternative. Therefore, the No-Action Alternative does not meet the project's Purpose and Need and it would not be reasonable to continue with the project considering the stated Purpose and Need. However, the No-Action Alternative is required to be analyzed in detail and will be carried forward as a benchmark to compare against Build alternatives.

Alternative 9 converts 5.6 acres of Section 4(f) land to a transportation use to construct an additional southbound travel lane along Lake Shore Drive, to widen Stony Island Avenue between 67<sup>th</sup> Street and 59<sup>th</sup> Street, to reconfigure Hayes Drive at the Lake Shore Drive, Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. This alternative also involves 3.6 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67<sup>th</sup> Street, and the South Shore Drive/67<sup>th</sup> Street intersection. Alternative 9 meets the project's Purpose and Need by providing improvements to bicyclist and pedestrian access and circulation while also performing with acceptable operations throughout the study area. Therefore, Alternative 9 is carried forward for further detailed study.

In summary, the following alternatives were carried forward for detailed evaluation:

- No-Action Alternative
- Alternative 9 – Mobility Improvement – Widen Lake Shore Drive/Widen Stony Island Avenue/Reconfigure Hayes Drive

A full description of the preliminary alternatives and analysis can be found in the Alternatives to be Carried Forward documentation, under separate cover.

## 4. Alternatives Studied in Detail

Each of the Alternatives to be Carried Forward have been refined based on further design studies and additional efforts to avoid or minimize a transportation use of Section 4(f) resources. This section discusses the improvements included in each alternative studied in detail. Section 5 discusses the efforts completed to minimize transportation use of Section 4(f) resources for the Build Alternative. An evaluation of the alternatives studied in detail is included in Section 6.

### 4.1. No-Action Alternative

The No-Action Alternative is depicted on Exhibit 4. The No-Action Alternative represents future conditions that assume the following:

- The Obama Presidential Center (OPC) site is constructed within Jackson Park as proposed by the City of Chicago. The OPC site can be found on Exhibit 2.
- The City closes roadways within Jackson Park, Chicago, Illinois to implement a portion of their South Lakefront Framework Plan (SLFP), as described in Section 2.1 and depicted on Exhibit 3.
- No roadway improvements are made in response to changing conditions caused by the roadway closures.

### 4.2. Alternative 9: Mobility Improvement – Widen Lake Shore Drive/Widen Stony Island Avenue/Reconfigure Hayes Drive

Alternative 9 improvements include providing additional capacity along Lake Shore Drive and Stony Island Avenue as well as a reconfiguration of Hayes Drive in order to accommodate changes in travel patterns as a result of the roadway closures. As part of the preliminary alternatives analysis, each of these improvements were assessed individually as well as in various combinations to determine the minimum improvements needed to achieve acceptable operational performance. The combination of improvements along all three roadways was determined necessary to achieve acceptable Levels of Service at all intersections in the study area. The specific improvements included in Alternative 9 are detailed below:

#### Capacity Improvements

##### **Lake Shore Drive – 57<sup>th</sup> Drive to Hayes Drive**

- This existing section of Lake Shore Drive consists of three northbound and two southbound travel lanes. This section would be widened to add an additional southbound travel lane, resulting in a proposed section that consists of three northbound and three southbound travel lanes.

**Hayes Drive – Cornell Drive to Lake Shore Drive**

- This existing section of Hayes Drive consists of one lane in each direction with on-street parking along both sides. In this alternative, 147 on-street parking spaces would be removed to increase the number of travel lanes to two lanes in each direction with a raised barrier median.

**Cornell Drive – Hayes Drive to Stony Island Avenue**

- This existing section of Cornell Drive consists of three southbound-only travel lanes. This section would be widened to accommodate an additional lane and converted to two-way traffic, resulting in the proposed section that consists of two southbound and two northbound lanes.

**Stony Island Avenue – Midway Plaisance to 65<sup>th</sup> Street**

- This existing section of Stony Island Avenue consists of one lane each direction with on-street parking on each side. This section would be widened to add one southbound lane, one northbound lane, a center raised median with left turn lanes, and space for bus loading lanes. The proposed Stony Island Avenue section then consists of two lanes in each direction, a raised median with left turn lanes, and on-street parking/bus loading lanes on each side of the street.

**Stony Island Avenue – 65<sup>th</sup> Street to 67<sup>th</sup> Street**

- This existing section of Stony Island Avenue consists of two northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side. This section would be widened to add one northbound through lane along Stony Island Avenue to result in a proposed section that consists of three northbound lanes, four southbound lanes, a raised median with left turn lanes, and on-street parking on the west side.

Bridge Modifications

**Lake Shore Drive**

- Widen the 59<sup>th</sup> Street underpass, the 59<sup>th</sup> Street Lagoon Inlet Bridge, and the 63<sup>rd</sup> Street underpass to accommodate the additional southbound lane proposed along Lake Shore Drive.

Intersection Modifications

**Lake Shore Drive**

- At 57<sup>th</sup> Drive, widen the intersection to accommodate the new third southbound lane, and re-time the traffic signal to optimize signal operations.
- At Science Drive, widen the intersection to accommodate the new third southbound lane, and re-time the traffic signal to optimize signal operations.
- At Hayes Drive, widen the intersection to accommodate the new third southbound lane on Lake Shore Drive, the two new through lanes on Hayes Drive, and new turn lanes. Also, modernize the traffic signal installation and re-time the signal to optimize operations. Provide a new pedestrian crossing on the south leg.

### Hayes Drive

- At Richards Drive, reconfigure the existing triangular, stop-controlled intersection to a signalized T-intersection. Provide new pedestrian crossings on the east and south legs.
- At Cornell Drive, reconfigure the intersection to provide a through movement for the predominant travel through the intersection. Realign the existing section of Hayes Drive between Stony Island Avenue and Cornell Drive to create a signalized T-intersection with the realigned Hayes Drive-Cornell Drive through movement.

### Stony Island Avenue

- At 57<sup>th</sup> Street, re-time the traffic signal to optimize signal operations.
- At 59<sup>th</sup> Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only.
- At North Midway Plaisance (westbound), widen the intersection to accommodate additional through and turning lanes on Stony Island Avenue, to convert North Midway Plaisance east of Stony Island Avenue to two-way traffic, and provide two lanes in each direction on North Midway Plaisance east of Stony Island Avenue. Re-time the traffic signal to optimize signal operations.
- At South Midway Plaisance (eastbound), widen the intersection to accommodate the additional lanes on Stony Island Avenue. Remove 14 on-street parking spaces on the west leg to provide an additional eastbound left-turn lane. Re-time the traffic signal to optimize signal operations.
- At 60<sup>th</sup> Street, remove the existing traffic signal and restrict westerly access to right-in/right-out only. Widen the intersection to accommodate the additional lanes on Stony Island Avenue.
- At 63<sup>rd</sup> Street/Hayes Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and shift the east leg to the north to provide better alignment for the westbound through movement across the intersection. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 64<sup>th</sup> Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue, and convert the stop-controlled intersection to a signalized intersection to maintain traffic progression through interconnected signals on Stony Island Avenue.
- At 65<sup>th</sup> Place/Cornell Drive, widen the intersection to accommodate the additional lanes on Stony Island Avenue and Cornell Drive, to convert Cornell Drive east of Stony Island Avenue to two-way, and to provide additional turn lanes. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At Marquette Street, widen the intersection to accommodate the additional lanes on Stony Island. Modernize the traffic signal installation and re-time the signal to optimize operations.
- At 67<sup>th</sup> Street, widen the intersection to accommodate the additional lanes on Stony Island Avenue. Modernize the traffic signal installation and re-time the signal to optimize operations.

### 57<sup>th</sup> Drive

- At Hyde Park Boulevard, re-time the traffic signal to optimize signal operations.



- At Cornell Drive/57<sup>th</sup> Street/MSI Drop-off, re-time the traffic signal to optimize signal operations.

#### **Marquette Drive**

- At Lake Shore Drive/Jeffery Drive, re-time the traffic signal to optimize signal operations.
- At the La Rabida Children's Hospital entrance, re-time the traffic signal to optimize signal operations.

#### **67<sup>th</sup> Drive**

- At Jeffery Drive/Jeffery Avenue, re-time the traffic signal to optimize signal operations.
- At South Shore Drive, modernize the traffic signal installation and re-time the signal to optimize operations.

#### Pedestrian and Bicycle Enhancements

- ADA improvements at widened or modernized intersections
- Crosswalk improvements at widened or modernized intersections
- Additional trails (consistent with the City's *Streets for Cycling 2020* plan) along Cornell Drive and Hayes Drive
- Pedestrian underpasses at the following locations:
  - Two legs of the Cornell Drive/Hayes Drive intersection
  - Along Hayes Drive between Richards Drive and Lake Shore Drive
  - Along Jeffery Drive between Marquette Drive and 67<sup>th</sup> Street
  - South Shore Drive/67<sup>th</sup> Street intersection
- Curb extensions at the following intersections or mid-block crossings:
  - Stony Island Avenue at 60<sup>th</sup> Street
  - Stony Island Avenue at 61<sup>st</sup> Street
  - Stony Island Avenue at 62<sup>nd</sup> Street
  - Stony Island Avenue at 63<sup>rd</sup> Street
  - Stony Island Avenue at 64<sup>th</sup> Street
  - Stony Island Avenue at 65<sup>th</sup> Street
  - Stony Island Avenue at 65<sup>th</sup> Place
  - Stony Island Avenue at Marquette Street
  - Stony Island Avenue at 67<sup>th</sup> Street
  - Mid-Block Crossing of Cornell Drive between 57<sup>th</sup> Street and Stony Island Avenue
- Pedestrian refuge islands at the following intersections or mid-block crossings:
  - Hayes Drive at Richards Drive
  - Stony Island Avenue at North Midway Plaisance
  - Stony Island Avenue at 60<sup>th</sup> Street
  - Stony Island Avenue at 62<sup>nd</sup> Street
  - Stony Island Avenue at 64<sup>th</sup> Street
  - Stony Island Avenue at 65<sup>th</sup> Street

- Stony Island Avenue at 65<sup>th</sup> Place
- Stony Island Avenue at Marquette Street
- Mid-Block Crossing of Cornell Drive between 57<sup>th</sup> Street and Stony Island Avenue

### Alternative Refinements

#### **Cornell Drive**

- The Alternatives to be Carried Forward document proposed the removal of excess capacity (“road diet”) from existing Cornell Drive between 57<sup>th</sup> Street/MSI Drop-off and Stony Island Avenue by reducing travel lanes from two lanes in each direction to one lane in each direction with a center median to add 80 new on-street parking spaces. Based on public opposition to reducing capacity along the corridor, options were investigated that would improve pedestrian crossings while maintaining two lanes in each direction. Based on this input, the reduction of travel lanes and addition of on-street parking has been eliminated from Alternative 9. Removal of the road diet does not affect the performance of the alternative (i.e., the intersection capacity results do not change) and it does not result in an increase (or decrease) in the amount of Section 4(f) land required for a transportation use. Alternative 9 includes a proposed pedestrian refuge island at the existing unsignalized crossing to reduce crossing exposure distance at this location.

## 5. Efforts to Avoid or Minimize Use of Section 4(f) Resources

As documented in the Alternatives to be Carried Forward (under separate cover), the avoidance alternatives, including the No-Action Alternative, Congestion Management Process Strategies, and Alternative 1 – Alternative Avoiding Section 4(f) Use, do not meet the project Purpose and Need which would make it unreasonable to proceed with those alternatives. As previously mentioned, the No-Action Alternative is required to be analyzed in detail and is carried forward as a benchmark to compare against Build alternatives.

Additional planning efforts were made to minimize the permanent incorporation of Section 4(f) lands into the transportation network for the Alternatives Studied in Detail, which include the No-Action Alternative and Alternative 9. As the No-Action Alternative does not include any proposed improvements that would require use of Section 4(f) properties, as demonstrated in Exhibit 6, minimization efforts were only considered for Alternative 9 and are detailed below.

### Lake Shore Drive

- To provide a third southbound travel lane, an 11'-4" travel lane (versus a desired lane width of 12 feet) is proposed to minimize permanent use of Section 4(f) land while providing a safe and efficient travel lane.
- Intersection modifications at 57<sup>th</sup> Drive are contained to the existing roadway footprint.
- Turn lane widths at intersections are proposed to be 10 feet wide (versus a desired lane width of 12 feet) to minimize permanent use of Section 4(f) land.
- Additional turn lanes and storage at Science Drive and Hayes Drive are minimized to avoid excess capacity while providing sufficient operations.

### 59<sup>th</sup> Street Lagoon Inlet Bridge

- To provide a third southbound travel lane along Lake Shore Drive, bridge widening and modifications are minimized to 11 feet 4 inches (versus 12 feet to provide a desired lane width).

### Hayes Drive

- Parking along Hayes Drive will be removed to allow Hayes Drive to be reconfigured for two lanes in each direction with less than 2 feet of widening occurring between Richards Drive and Lake Shore Drive. Between Richards Drive and the proposed realignment of Hayes Drive, the removal of parking allows the improvement to remain within the existing roadway footprint.
- Turn lane widths at intersections are proposed to be 10 feet wide (versus a desired lane width of 12 feet) to minimize permanent use of Section 4(f) land.
- At the Richards Drive and Cornell Drive/63<sup>rd</sup> Street intersections, additional turn lanes and storage have been minimized to avoid excess capacity while providing sufficient operations.
- The proposed 5'-6" median barrier has been minimized (versus a desired 16-18 foot median) to decrease the total proposed cross-section width.

- The Hayes Drive curved realignment at Hayes Drive/Cornell Drive/63<sup>rd</sup> Street is optimized to reduce conversion of Section 4(f) land while providing a safe facility to accommodate through movements for predominant travel.

### **Stony Island Avenue**

- Additional through lanes are proposed to be 11 feet wide (versus a desired lane width of 12 feet) to minimize permanent use of Section 4(f) land while providing a safe and efficient travel lane.
- Turn lanes are proposed to be 10 feet wide (versus a desired lane width of 12 feet) to minimize permanent use of Section 4(f) land while providing a safe and efficient turn lane.
- Proposed medians typically shadow left turn lanes which are proposed to be 10 feet (versus a desired lane width of 12 feet) and have been minimized to decrease the total proposed cross-section width.
- Additional turn lanes and storage at intersections with Stony Island Avenue are minimized to avoid excess capacity while providing sufficient operations.

In addition to the above minimization efforts, sub-alternatives of each of these corridor improvements were investigated to explore further opportunities to reduce permanent conversion of Section 4(f) land to transportation use. All improvements along Lake Shore Drive will occur to the west of the existing roadway to avoid impact to the Pitcher's (Dune) thistle, a native endangered species. As Section 4(f) parkland is present at the backs of curb along both sides of Lake Shore Drive, widening to the east would equally impact Section 4(f) parkland.

The reconfiguration of Hayes Drive is generally contained within the existing roadway footprint. Therefore, analysis of sub-alternatives was focused on reducing use of Section 4(f) resources along Stony Island Avenue. Alternative 9A proposes to widen Stony Island Avenue to the west (Exhibit 5A) and Alternative 9B proposes to widen Stony Island Avenue to the east (Exhibit 5B). Both sub-alternatives will consider the same cross-section along Stony Island Avenue, as well as the improvements discussed in Section 4.2 and the minimization efforts above, to provide the necessary facilities to meet the project's Purpose and Need while attempting to reduce Section 4(f) use.

### **ALTERNATIVE 9A**

As shown on Exhibit 7, Alternative 9A converts 3.4 acres of Section 4(f) land consisting of open green space, trails, trees, and benches within the NRHP boundary of Jackson Park to a transportation use. The conversion is needed to construct an additional southbound travel lane along Lake Shore Drive, to widen Stony Island Avenue between 67<sup>th</sup> Street and 59<sup>th</sup> Street to the west, to reconfigure Hayes Drive at the Lake Shore Drive, Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. Widening along Stony Island Avenue at the North Midway Plaisance converts 0.2 acres of open-space Section 4(f) land from the Midway Plaisance. This alternative also involves 7.4 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive

between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67<sup>th</sup> Street, and the South Shore Drive/67<sup>th</sup> Street intersection.

In order to provide the necessary cross-section along Stony Island Avenue to obtain sufficient operations, widening the roadway to the west in Alternative 9A involves the removal of four buildings, including one three-story building of the Jackson Park Terrace housing complex (6 units), the 21-story Island Terrace apartment building (264 units), a two-story mixed residential/commercial building (24 units), and one three story apartment building (16 units). This widening results in 1.6 acres of proposed right-of-way acquisition, including 0.4 acres from properties eligible for the NRHP. Greater than 90% of residents in the two Census blocks where these properties are located include low-income and minority populations (compared within the state of Illinois, 2012-2016 American Community Survey (ACS) 5-year estimate). The Jackson Park Terrace housing complex and Island Terrace apartment building provide housing for low-income residents in accordance with Section 8 of the U.S. Department of Housing Program and are considered eligible properties for listing on the National Register of Historic Places (NRHP)<sup>3</sup> and Section 4(f) properties.

**ALTERNATIVE 9B**

As shown on Exhibit 8, Alternative 9B converts 5.7 acres of Section 4(f) land consisting of open green space, trails, trees, and benches within the NRHP boundary of Jackson Park to a transportation use to construct an additional southbound travel lane along Lake Shore Drive, to widen Stony Island Avenue between 67<sup>th</sup> Street and 59<sup>th</sup> Street to the west, to reconfigure Hayes Drive at the Lake Shore Drive, Richards Drive and Cornell Drive intersections, and to convert and widen one way streets along North Midway Plaisance and southbound Cornell Drive to two-way operation. There is no conversion of use to the Midway Plaisance or proposed right-of-way acquisition from private properties as a result of widening Stony Island Avenue to the east. This alternative also involves 8.1 acres of potential temporary occupancy to construct trail connections along Cornell Drive and Hayes Drive as well as pedestrian underpasses at the following locations: Cornell Drive/Hayes Drive intersection, along Hayes Drive between Richards Drive and Lake Shore Drive, along Jeffery Drive between Marquette Drive and 67<sup>th</sup> Street, and the South Shore Drive/67<sup>th</sup> Street intersection.

As shown in Exhibit 8 and summarized in Table 3 below, Alternative 9B involves more permanent use of Section 4(f) resources. However, Alternative 9B does not require building demolition or right-of-way acquisition on properties eligible for the NRHP, which are Section 4(f) resources. It does not require the removal of any other residential or commercial properties, nor will it affect the low-income and minority populations that reside along Stony Island Avenue.

Each sub-alternative and their impact to environmental resources, including Section 4(f) resources, is further evaluated in Section 6.

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<sup>3</sup> Pending concurrence from the State Historic Preservation Officer (SHPO).

A summary of the minimization efforts completed for Alternatives 9A and 9B is included in Table 2. This includes a comparison of the Section 4(f) uses associated with providing standard and/or desired design criteria versus the proposed design.

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**Table 2**  
**Summary of Minimization Efforts**

Criterion	Impact Measure	Desired/Standard Criteria		Proposed Design		Amount of Section 4(f) Use Minimized	
		Alt. 9A	Alt. 9B	Alt. 9A	Alt. 9B	Alt. 9A	Alt. 9B
<b>Section 4(f) Land Permanent Use (Jackson Park)</b>							
Lake Shore Drive	Acre	1.8	1.8	1.4	1.4	<b>0.4</b>	<b>0.4</b>
Stony Island Avenue	Acre	0.2	3.3	0.1	2.5	<b>0.2</b>	<b>0.8</b>
Hayes Drive	Acre	1.7	1.7	1.5	1.4	<b>0.2</b>	<b>0.3</b>
Other Roadways	Acre	0.5	0.5	0.4	0.4	<b>0.1</b>	<b>0.1</b>
Total (Jackson Park)		4.2	7.3	3.4	5.7	<b>0.9</b>	<b>1.6</b>
<b>Section 4(f) Land Permanent Use (Midway Plaisance)</b>	Acre	0.3	0	0.2	0	<b>0.1</b>	-
<b>Right-of-way Acquisition from Historic Properties</b>	Acre	0.5	0	0.4	0	<b>0.1</b>	-
<b>Building Demolition of Historic Properties</b>	Each	2	0	2	0	-	-

## 6. Evaluation of Alternatives Studied in Detail

Each of the alternatives studied in detail were evaluated to determine any impacts to environmental resources that may result from their implementation. The evaluated environmental impacts and their quantifiable impact measure are described below:

- **Floodplains** - Acre-feet impacted by the alternative based upon Flood Insurance Maps published by the Federal Emergency Management Agency (FEMA) and drainage studies.
- **Wetlands** – Acres of wetlands impacted by the alternative based upon delineations from field studies.
- **Waterways** – Acres of waterway impacted by the alternative based upon aerial photographs and field studies.
- **Parking Loss** – Number of unmarked on-street parking spaces lost, assuming one parking space per 20 feet of continuous available curb length.
- **Section 4(f) Land Permanent Use (Jackson Park)** – Acres of Section 4(f) land converted to permanent transportation use within Jackson Park.
- **Section 4(f) Temporary Occupancy (Jackson Park)** – Acres of Section 4(f) land to be used for temporary occupancy. For this project, proposed trails and underpasses may qualify as temporary occupancy exception.
- **Section 4(f) Land Permanent Use (Midway Plaisance)** – Acres of Section 4(f) land converted to permanent transportation use within the Midway Plaisance.
- **Residential Displacements** – Number of residential units displaced.
- **Commercial Displacements** – Number of non-residential units displaced.
- **Proposed Right-of-Way Acquisition** – Acres of right-of-way acquisition from private properties.
- **Archaeological Sites** – Impacts to potential archaeological sites.
- **Historic Properties** – Impacts to historic properties
- **Noise** – Number of impacted receptors.
- **Trees** – Number of trees removed by the project.
- **Pedestrian & Bicycle Safety and Mobility** - Number of locations improved.
- **Vehicular Safety** – Number of locations improved.

A comparison of the impacts associated with the No-Action Alternative, Alternative 9A, and Alternative 9B is summarized in Table 3. The impacts outlined below are based upon conceptual improvement plans and further design refinements will be made in an effort to reduce overall impacts to the environment.



**Table 3  
Evaluation Summary**

<b>Criterion</b>	<b>Impact Measure</b>	<b>No-Action Alternative</b>	<b>Alternative 9A</b>	<b>Alternative 9B</b>
<b>Floodplain Impacts</b>	Acre-Feet	0.0	0.032	0.032
<b>Wetland Impacts</b>	Acres Filled	0.0	0.0	0.0
<b>Waterway Impacts</b>	Acres Filled	0.0	0.040	0.040
<b>Parking Loss - On-Street</b>	Number of Spaces	0	161	161
<b>Section 4(f) Land Permanent Use (Jackson Park)</b>	Acres	0	3.4	5.7
<b>Section 4(f) Temporary Occupancy (Jackson Park)</b>	Acres	0	7.4	8.1
<b>Section 4(f) Land Permanent Use (Midway Plaisance)</b>	Acres	0	0.2	0
<b>Residential Displacements</b>	Number of units	0	306	0
<b>Commercial Displacements</b>	Number of units	0	4	0
<b>Proposed Right-of-Way Acquisition</b>	Acres	0	1.6	0
<b>Archaeological Sites listed/eligible for the NRHP Effected</b>		No	No	No
<b>Historic Properties Affected</b>		No	Yes	Yes
Historic Properties Demolished	Number of properties	0	2	0
Right-of-Way Acquisition from Historic Properties	Acres	0	0.4	0
<b>Noise Impacts</b>	Number of receptors impacted	0	10	10
<b>Trees Removed</b>	Number of trees	0	250 to 300	350 to 400
<b>Pedestrian &amp; Bike Safety and Mobility</b>				
Pedestrian underpasses	Number of underpasses	0	5	5
Refuge islands	Number of locations	0	8	8
Curb extensions	Number of locations	0	9	9
Signalized intersection modernization	Number of locations	0	6	6
Convert intersection from stop-controlled to signalized	Number of locations	0	2	2
Additional Trails		No	Yes	Yes

**Table 3  
(Continued)**

Criterion	Impact Measure	No-Action Alternative	Alternative 9A	Alternative 9B
<b>Vehicular Safety</b>				
Signalized intersection modernization	Number of locations	0	6	6
Convert intersection from stop controlled to signalized	Number of locations	0	2	2
Exclusive turn lanes provided at intersection	Number of locations	0	9	9
Provide additional capacity	Number of locations	0	15	15

### 6.1. Evaluation of No-Action Alternative

As summarized in Table 3, the No-Action Alternative does not impact floodplains, wetlands, waterways, archaeological sites, historic architecture/landscape, or trees. The No-Action Alternative does not improve vehicular, pedestrian, and bicyclist safety and mobility.

As described in the Alternatives to be Carried Forward document, the No-Action Alternative results in nine signalized intersections and one all-way stop-controlled intersection failing during the morning peak hour, evening peak hour, or both. At these locations, overall intersection delay has reached or exceeded the delay criteria for an LOS F, or at least one through or turning movement has exceeded its available capacity.

Based upon the evaluation criteria, the No-Action Alternative does not meet the Purpose and Need for the Proposed Action.

### 6.2. Evaluation of Alternative 9A – Mobility Improvements - Widen Lake Shore Drive/Widen Stony Island West/Reconfigure Hayes

Table 3 shows Alternative 9A is anticipated to impact floodplains and waterways as a result of the 59<sup>th</sup> Street Harbor Inlet Bridge widening to provide an additional southbound lane along Lake Shore Drive. The banded killifish, a state threatened species, is present near the area of this bridge. Based on the scope of work, the Illinois Department of Natural Resources (IDNR) has concluded that the project will not affect the banded killifish. There are no impacts to wetlands associated with Alternative 9A. This alternative results in a net parking loss of 3,220 feet of unmarked parking equivalent to 161 spaces, primarily due to providing two lanes in each direction along Hayes Drive. The widening and reconfiguring of the roadways, including minimization efforts to widen Stony Island Avenue to the west, results in a conversion of 3.6 acres of Section 4(f) land consisting of open green space, trails, trees, and

benches within the NRHP boundary of Jackson Park to transportation use. Alternative 9A requires 0.2 acres of conversion of open space land within the Midway Plaisance. The widening of Stony Island Avenue to the west to minimize use of Section 4(f) parkland results in the removal of 306 residential and 4 commercial units, including the required demolition of two eligible properties for the National Register of Historic Places. There is 1.6 acres of proposed right-of-way acquisition required from private properties, including 0.4 acres from historic properties. Ten receptors would be impacted by noise. Alternative 9A will require between 250 to 300 tree removals.

Alternative 9A improves pedestrian and bicyclist safety and mobility by providing four grade separation locations within the park as well as providing trail facilities along Cornell Drive, Hayes Drive, and Marquette Drive. Curb extensions and refuge islands will be provided along Stony Island Avenue to reduce crossing exposure distances and traffic signals will be modernized to provide pedestrian countdown timers and push buttons.

The Alternatives to be Carried Forward document includes the performance of Alternative 9. The performance of Alternatives 9A and 9B are identical to the performance of Alternative 9 as they provide the same facilities needed to achieve the results presented. Under this alternative, all signalized intersections within the study area operate at LOS C or better during both peak hours. These capacity improvements provide acceptable levels of service in the design year of 2040.

### **6.3. Evaluation of Alternative 9B – Mobility Improvements - Widen Lake Shore Drive/Widen Stony Island East/Reconfigure Hayes**

Table 3 shows Alternative 9B is anticipated to impact floodplains and waterways as a result of the 59<sup>th</sup> Street Harbor Inlet Bridge widening to provide an additional southbound lane along Lake Shore Drive. The banded killifish, a state threatened species, is present near the area of this bridge. Based on the scope of work, the Illinois Department of Natural Resources (IDNR) has concluded that the project will not affect the banded killifish. There are no impacts to wetlands associated with Alternative 9B. This alternative results in a net parking loss of 161 spaces, primarily due to providing two lanes in each direction along Hayes Drive. The widening and reconfiguring of the roadways, including widening Stony Island Avenue to the east, results in a conversion of 5.7 acres of Section 4(f) land consisting of open green space, trails, trees, and benches within the NRHP boundary of Jackson Park to transportation use. The widening of Stony Island Avenue to the east involves a greater use of Section 4(f) parkland, however, it does not require the displacement of any residential, commercial, or eligible NRHP properties, nor does it require conversion of Section 4(f) use in the Midway Plaisance. Alternative 9B is anticipated to affect historic properties. Ten receptors would be impacted by noise. Alternative 9B will require between 350 to 400 tree removals.

Alternative 9B improves pedestrian and bicyclist safety and mobility by providing four grade separation locations within the park as well as providing trail facilities along Cornell Drive, Hayes Drive, and Marquette Drive. Curb extensions and refuge islands will be provided along Stony Island Avenue to

reduce crossing exposure distances and traffic signals will be modernized to provide pedestrian countdown timers and push buttons.

The Alternatives to be Carried Forward document includes the performance of Alternative 9. The performance of Alternatives 9A and 9B are identical to the performance of Alternative 9 as they provide the same facilities needed to achieve the results presented. Under this alternative, all signalized intersections within the study area operate at LOS C or better during both peak hours. These capacity improvements provide acceptable levels of service in the design year of 2040.

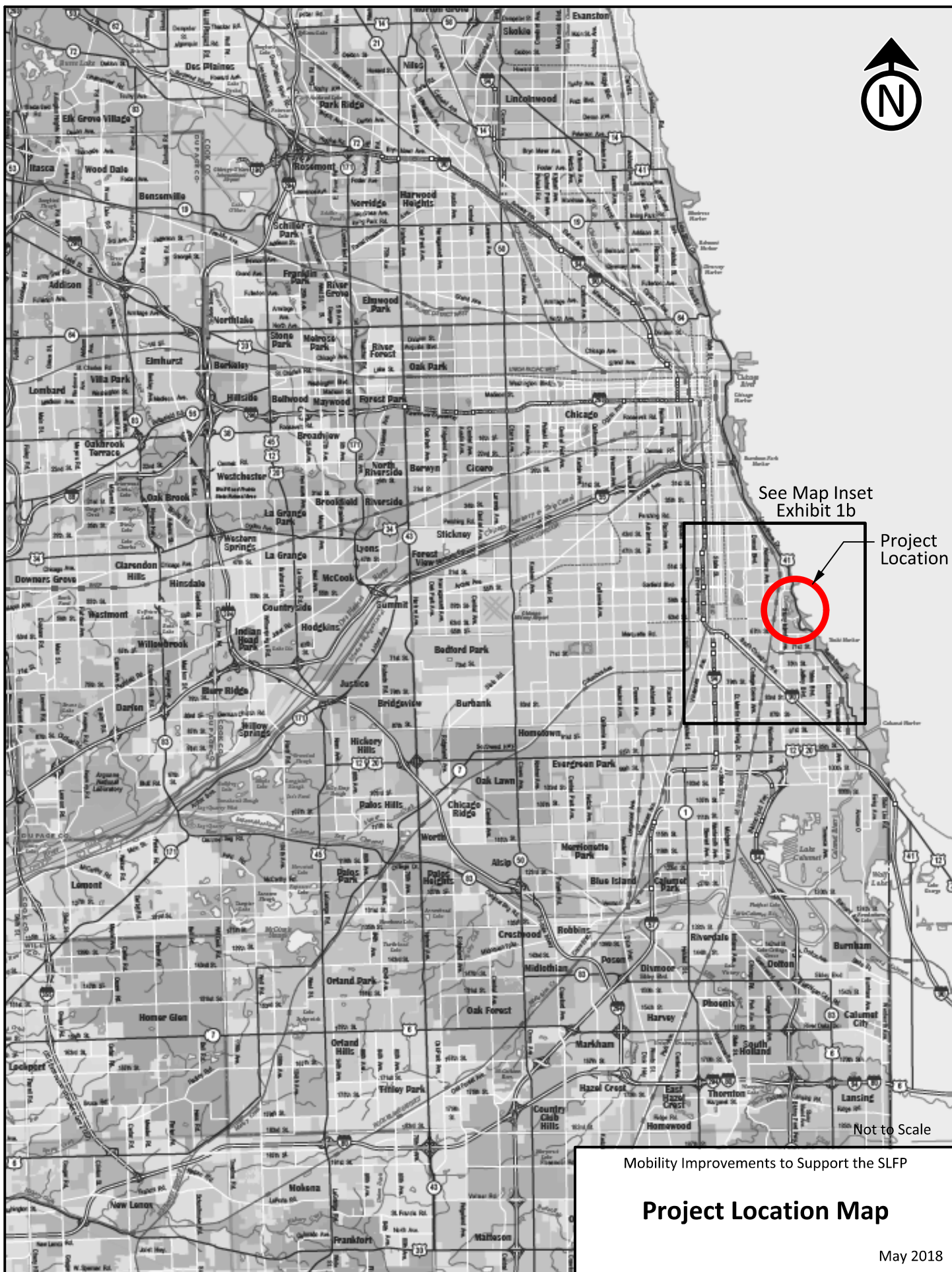
## 7. Selection of the Preferred Alternative

The evaluation of the No-Action Alternative concluded that the alternative does not meet the Purpose and Need for the Proposed Action. Poor operations and multiple failing intersections were observed with the No-Action Alternative, and opportunities to enhance bicyclist and pedestrian access and circulation to and within the park are not accomplished through this alternative.

Both Alternative 9A and 9B include components to achieve acceptable operations and improve bicyclist and pedestrian access and circulation within Jackson Park, therefore meeting the Purpose and Need for the Proposed Action. However, while Alternative 9A converts fewer acres of Section 4(f) land compared to Alternative 9B (3.6 acres vs. 5.7 acres), Alternative 9A has 306 residential replacements and requires the demolition of four buildings, two of which are eligible for the NRHP and Section 4(f) properties.

As a result of these factors, **Alternative 9B - Mobility Improvements - Widen Lake Shore Drive/Widen Stony Island East/Reconfigure Hayes has been selected as the Preferred Alternative.**

As further design studies are completed for the Preferred Alternative, additional opportunities to reduce impacts to environmental resources will be investigated.



See Map Inset  
Exhibit 1b

Project  
Location

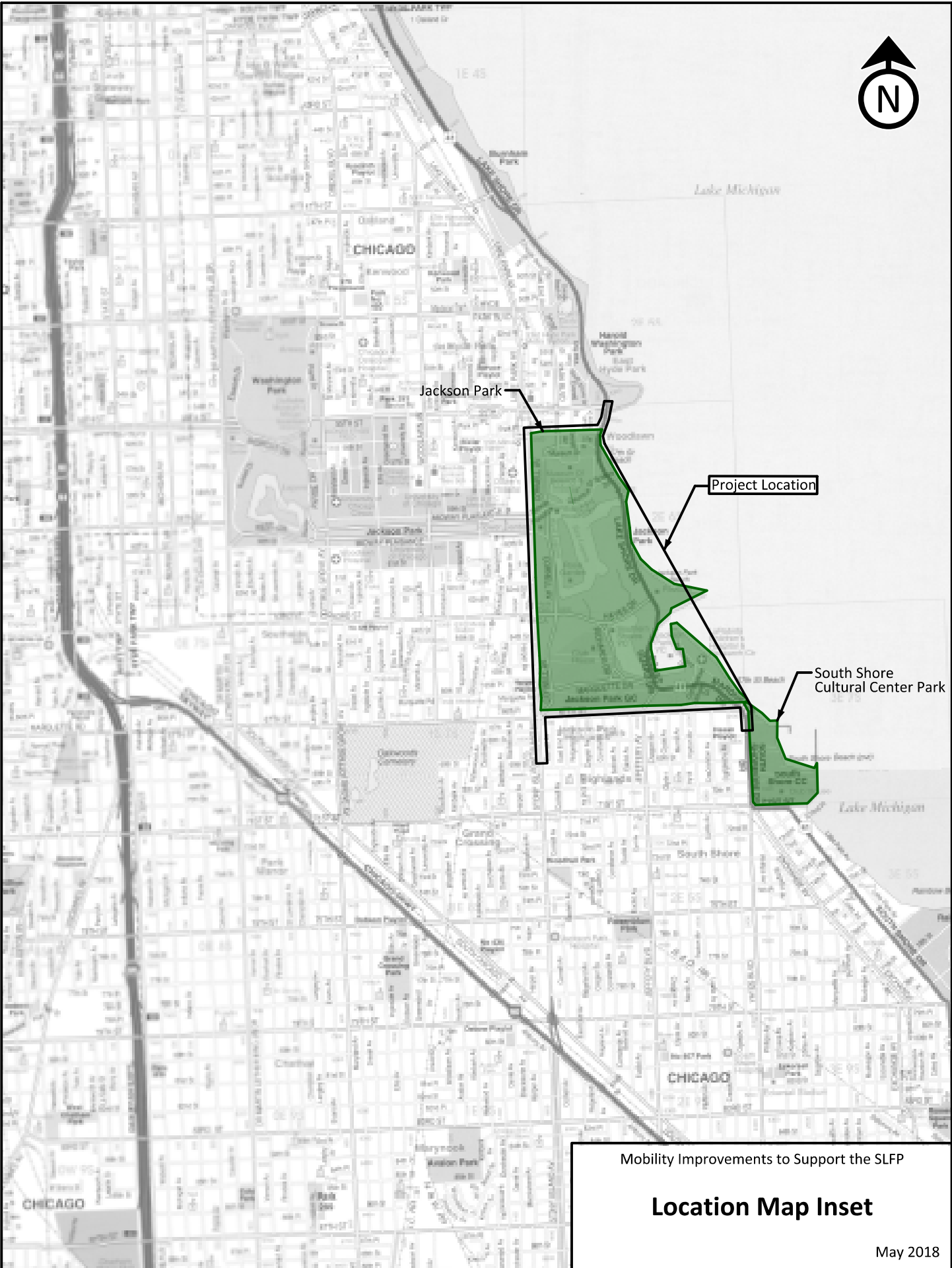
Not to Scale

Mobility Improvements to Support the SLFP

# Project Location Map

May 2018

Exhibit 1A

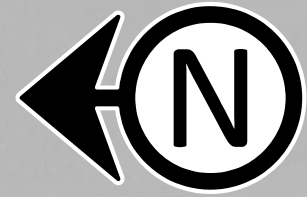







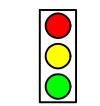

Mobility Improvements to Support the SLFP

### Location Map Inset

May 2018





- |   |                   |   |                           |
|---|-------------------|---|---------------------------|
|  | Study Limits      |  | Lakefront Trail           |
|  | Section 4(f) Land |  | Other Paths               |
|  | Structures        |  | Existing Traffic Signal   |
|   |                   |  | Obama Presidential Center |

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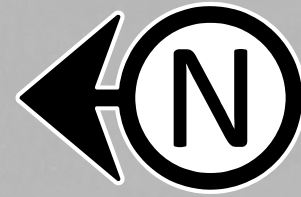
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Mobility Improvements to Support the SLFP

### Study Area Map

May 2018





South Midway Plaisance (eastbound) from Stony Island Avenue to Cornell Drive

Cornell Drive from 59th Street to 63rd Street (Hayes Drive)

Marquette Drive from Stony Island Avenue to Richards Drive

Northbound Cornell Drive from 68th Street to 65th Street

- Study Limits
- Section 4(f) Land
- Structures
- Lakefront Trail
- Other Paths
- ●  
●
 
 Existing Traffic Signal
- Roadway Closure

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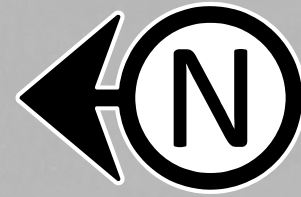
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Mobility Improvements to Support the SLFP

**Roadway Closures**

May 2018





Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 2 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	1 EB, 1 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	3 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	1 NB, 1 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	2 NB, 4 SB



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- Existing Structures
- Closed Road
- Obama Presidential Center
- Section 4(f) Land
- NRHP Eligible\* Property (Ind.)
- Existing Wetlands
- Proposed Traffic Signal
- Existing Traffic Signal
- Potential Ped Underpass Concept
- Proposed Roadway Improvement
- Proposed Sidewalk
- NRHP Listed Property (Ind.)
- Existing Waterway
- Proposed Curb Extensions
- Retime Existing Traffic Signal
- Proposed Trail Connection
- Structure Widening
- Building Removal
- NRHP Listed Historic District
- 100-Year Floodplain
- Proposed Pedestrian Refuge Island
- Modernize & Retime Existing Traffic Signal

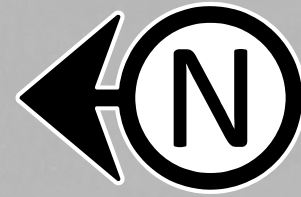
\*Pending SHPO Concurrence

Mobility Improvements to Support the SLPF

**No-Action Alternative Concept**

May 2018





Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 3 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	2 EB, 2 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	2 NB, 2 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	3 NB, 4 SB



Existing Structures	Closed Road	Obama Presidential Center	Section 4(f) Land	NRHP Eligible* Property (Ind.)	Existing Wetlands	Proposed Traffic Signal	Existing Traffic Signal
Potential Ped Underpass Concept	Proposed Roadway Improvement	Proposed Sidewalk	NRHP Listed Property (Ind.)	NRHP Eligible* Historic District	Existing Waterway	Proposed Curb Extensions	Retime Existing Traffic Signal
Proposed Trail Connection	Structure Widening	Building Removal	NRHP Listed Historic District	<i>*Pending SHPO Concurrence</i>	100-Year Floodplain	Proposed Pedestrian Refuge Island	Modernize & Retime Existing Traffic Signal

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Mobility Improvements to Support the SLFP

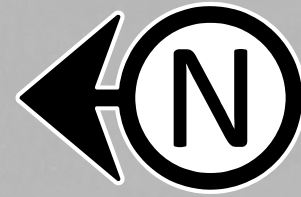
**Build Alternative Concept**

**Alternative 9A - Mobility Improvement**

Widen Stony West

May 2018





Road	Limits	Existing Travel Lane Configuration	Proposed Travel Lane Configuration
Lake Shore Dr	57th Dr to Hayes Dr	3 NB, 2 SB	3 NB, 3 SB
Cornell Dr	57th St to N Midway Plaisance	2 NB, 2 SB	2 NB, 2 SB
N Midway Plaisance	Cornell Dr to Stony Island Ave	2 WB	2 EB, 2 WB
Hayes Dr	Lake Shore Dr to Cornell Dr	1 EB, 1 WB	2 EB, 2 WB
Cornell Dr	Hayes Dr to Stony Island Ave	3 SB	2 NB, 2 SB
Stony Island Ave	60th St to 65th St	1 NB, 1 SB	2 NB, 2 SB
Stony Island Ave	65th St to 67th St	2 NB, 4 SB	3 NB, 4 SB



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- Existing Structures
- Closed Road
- Obama Presidential Center
- Section 4(f) Land
- NRHP Eligible\* Property (Ind.)
- Existing Wetlands
- Proposed Traffic Signal
- Existing Traffic Signal
- Potential Ped Underpass Concept
- Proposed Roadway Improvement
- Proposed Sidewalk
- NRHP Listed Property (Ind.)
- Existing Waterway
- Proposed Curb Extensions
- Retime Existing Traffic Signal
- Proposed Trail Connection
- Structure Widening
- Building Removal
- NRHP Listed Historic District
- 100-Year Floodplain
- Proposed Pedestrian Refuge Island
- Modernize & Retime Existing Traffic Signal

Mobility Improvements to Support the SLFP

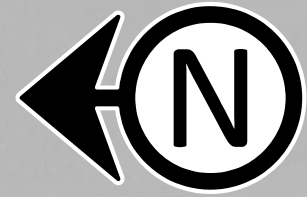
**Build Alternative Concept**

**Alternative 9B - Mobility Improvement**

**Widen Stony East**

May 2018





Total Area	
Conversion of Use	0.0 Ac
Temporary Occupancy	0.0 Ac



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0' 400' 800'

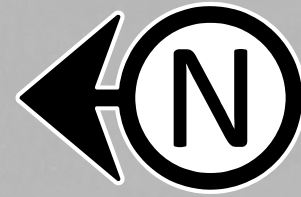
- Proposed Roadway Improvement
- NRHP Listed Property (Ind.)
- Section 4(f) Conversion of Use
- Obama Presidential Center
- NRHP Listed Historic District
- Section 4(f) Temporary Occupancy
- Section 4(f) Land
- NRHP Eligible\* Property (Ind.)
- Building Removal
- Closed Road
- NRHP Eligible\* Historic District
- \*Pending SHPO Concurrence

Mobility Improvements to Support the SLFP

**Section 4(f) Use**  
No Action Alternative

May 2018





Total Area	
Conversion of Use	3.6 Ac
Temporary Occupancy	7.4 Ac



Midway Plaisance  
Conversion of Use  
0.2 acres

Right-of-Way  
Acquisition  
from Historic Property  
0.3 acres

Right-of-Way  
Acquisition  
from Historic Property  
0.1 acres

- Proposed Roadway Improvement
  - Obama Presidential Center
  - Section 4(f) Land
  - Closed Road
  - NRHP Listed Property (Ind.)
  - NRHP Listed Historic District
  - NRHP Eligible\* Property (Ind.)
  - NRHP Eligible\* Historic District
  - Section 4(f) Conversion of Use
  - Section 4(f) Temporary Occupancy
  - Building Removal
  - Right-of-Way Acquisition
- \*Pending SHPO Concurrence

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Mobility Improvements to Support the SLFP

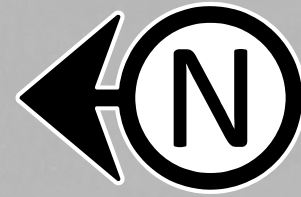
**Section 4(f) Use**

**Alternative 9A - Mobility Improvement**

**Widen Stony West**

May 2018





Total Area	
Conversion of Use	5.7 Ac
Temporary Occupancy	8.1 Ac



**DRAFT**

- Proposed Roadway Improvement
- Obama Presidential Center
- Section 4(f) Land
- Closed Road
- NRHP Listed Property (Ind.)
- NRHP Listed Historic District
- NRHP Eligible\* Property (Ind.)
- NRHP Eligible\* Historic District
- Section 4(f) Conversion of Use
- Section 4(f) Temporary Occupancy
- Building Removal
- \*Pending SHPO Concurrence

Mobility Improvements to Support the SLFP

**Setion 4(f) Use**

**Alternative 9B - Mobility Improvement**

**Widen Stony East**

May 2018