# FINAL ENVIRONMENTAL IMPACT STATEMENT
# FOR
# DUTCH KILLS REZONING AND RELATED ACTIONS

**August 29, 2008**

**CEQR No.: 08DCP021Q**

**ULURP Nos.: C 080429 ZMQ, N 080428 ZRY**

**ACTION LOCATION:** Long Island City, New York

**LEAD AGENCY:**

City Planning Commission
City of New York
Amanda M. Burden, FAICP, Chair

**LEAD AGENCY CONTACT:**

Robert Dobruskin, AICP, Director
Environmental Assessment and Review Division
New York City Department of City Planning
22 Reade Street, Room 4E
New York, New York, 10007
(212) 720-3423

**PREPARED FOR:**

Glen A. Price III, Director
Studies Implementation
New York City Department of City Planning
22 Reade Street, Room 4E
New York, New York, 10007
(212) 720-3491

John Young, Director
Queens Office
New York City Department of City Planning
120-55 Queens Blvd., Room 201
Kew Gardens, NY 11424
(718) 286-3170

**PREPARED BY:**

The Louis Berger Group Inc.
AKRF, Inc.
Philip Habib and Associates

## TABLE OF CONTENTS


**Page**

**EXECUTIVE SUMMARY** ..... ES-1

**CHAPTER 1 PROJECT DESCRIPTION** ..... 1-1

A. Introduction ..... 1-1
B. Background ..... 1-5
Study Area History ..... 1-5
Existing Zoning ..... 1-6
C. Description of the Proposed Actions ..... ~~1-8~~ 1-7
Zoning Map Amendments ..... ~~1-8~~ 1-7
Zoning Text Amendments ..... 1-11
Inclusionary Housing Text Amendment ..... 1-12
D. Reasonable Worst Case Development Scenario (RWCDS) ..... 1-13
Overview ..... 1-13
General Criteria for Determining Development Sites ..... 1-13
The Future Condition Without the Proposed Actions ..... 1-15
The Future Condition With the Proposed Actions ..... 1-29
E. Purpose and Need ..... 1-29
Purpose and Need of Text Amendments ..... 1-30
F. Analysis and Procedural Framework ..... 1-30
Environmental Review Process ..... ~~1-30~~ 1-31
Legislative Applicability ..... 1-31
Environmental Impact Statement ..... 1-31
Process Overview ..... 1-31
Establishing a Lead Agency ..... 1-31
Determination of Significance ..... 1-32
Scoping ..... 1-32
Preparation of the Draft Environmental Impact Statement ..... 1-33
Public Review ..... 1-33
Preparation and Completion of the Final Environmental Impact Statement ..... ~~1-33~~ 1-34
Statement of Findings ..... ~~1-33~~ 1-34
Coordination with Other Review Processes ..... 1-34
Uniform Land Use Review Procedure ..... 1-34
G. Framework for Environmental Analysis ..... 1-35
Scope of Environmental Analysis ..... 1-35
Analysis Year ..... ~~1-35~~ 1-36
Study Areas ..... ~~1-35~~ 1-36
Existing Conditions ..... ~~1-35~~ 1-36
The Future Condition Without the Proposed Actions ..... 1-36
The Future Condition With the Proposed Actions ..... 1-36

**CHAPTER 2 LAND USE, ZONING, AND PUBLIC POLICY** ..... 2-1

A. Introduction ..... 2-1

B. Overview....2-1
C. Methodology....2-2
Study Areas....2-3
Primary Study Area....2-3
Secondary Study Area....2-3
D. Existing Conditions....2-3
Primary Study Area....2-3
Subarea A1....2-7
Subarea A2....2-7
Subarea A3....2-11
Subarea A4....2-11
Subarea A5....2-14
Subarea B1....2-14
Subarea B2....2-17
Subarea C1....2-17
Subarea D1....2-21
Subarea E1....2-24
Secondary Study Area....2-24
Zoning....2-28
Primary Study Area....2-28
Secondary Study Area....2-29
Public Policy....2-32
Long Island City In-Place Industrial Park, City of New York, 1983....2-32
The Plan for Long Island City: A Framework for Development, Department of City Planning, 1993....2-32
Long Island City Air Quality Improvement Project, Department of City Planning, 1997....2-33
Bloomberg Administration: Major Economic Initiatives, City of New York, 2004....2-33
The New Housing Marketplace: Creating Housing for the Next Generation, 2004-2013, City of New York....2-33
Inclusionary Housing Program, Department of City Planning, 2005....2-33
New York City Industrial Policy: Protecting and Growing New York City's Industrial Job Base, City of New York, 2005....2-34
Queens East River and North Shore Greenway Master Plan, New York City Department of City Planning & Department of Parks and Recreation, 2006....2-34
Long Island City Vision, Department of City Planning and Economic Development Commission, 2007....2-34
Agency Strategic Plan, Department of City Planning, 2007....2-34
Commercial and Industrial/Manufacturing Expansion Program....2-35
Long Island City Links, Department of City Planning....2-35
E. ~~Future No Build Condition~~ Future Condition Without the Proposed Actions....2-35
Land Use....2-35
Primary Study Area....2-35
Secondary Study Area....2-36
Zoning....2-36
Public Policy....2-37
F. ~~Future Build Condition~~ Future Condition With the Proposed Actions....2-37

Land Use ..... 2-37
Primary Study Area ..... 2-37
Subarea A1 ..... 2-38
Subarea A2 ..... 2-38
Subarea A3 ..... 2-38
Subarea A4 ..... 2-40
Subarea A5 ..... 2-40
Subarea B1 ..... 2-40
Subarea B2 ..... 2-40
Subarea C1 ..... 2-40
Subarea D1 ..... 2-41
Subarea E1 ..... 2-41
Secondary Study Area ..... 2-41
Zoning ..... 2-42
Primary Study Area ..... 2-42
Subareas ..... 2-43
Subareas A1 through A5 ..... ~~2-43~~ 2-44
Subareas B1 and B2 ..... ~~2-43~~ 2-44
Subarea C1 ..... ~~2-43~~ 2-44
Subarea D1 ..... ~~2-46~~ 2-44
Subarea E1 ..... ~~2-46~~ 2-44
Secondary Study Area ..... ~~2-46~~ 2-47
Public Policy ..... ~~2-46~~ 2-47
Primary Study Area ..... ~~2-46~~ 2-47
Secondary Study Area ..... 2-47
G. Conclusion ..... ~~2-47~~ 2-48
Land Use ..... ~~2-47~~ 2-48
Zoning ..... ~~2-47~~ 2-48
Public Policy ..... 2-48

**CHAPTER 3 SOCIOECONOMIC CONDITIONS** ..... 3-1

A. Introduction ..... 3-1
B. Overview ..... 3-1
C. Methodology ..... 3-2
Analytical Framework ..... 3-2
Study Area ..... 3-2
Data Sources ..... 3-2
Residential Displacement ..... 3-2
Business and Institutional Displacement ..... 3-4
Adverse Effects on Specific Industries ..... 3-5
D. Preliminary Assessment ..... 3-5
Direct Residential Displacement ..... 3-5
CEQR Assessment Criteria ..... 3-6
Indirect Residential Displacement ..... 3-8
Direct Business and Institutional Displacement ..... 3-10
Indirect Business and Institutional Displacement ..... 3-17
Existing Conditions ..... 3-17
Economic Activity ..... 3-17

Employment....3-19
Commercial Space....3-20
Commercial Space Availability Outside Study Area....3-20
CEQR Assessment Criteria....~~3-20~~ 3-21
Adverse Effects on a Specific Industry....3-24
E. Detailed Analysis of Indirect Residential Displacement....3-24
Existing Conditions....3-24
Population....3-25
Households....3-26
Income....3-26
Housing Characteristics....3-27
Housing Value....3-30
Recent Residential Trends....3-30
Rent Regulated and Non-Regulated Housing....3-31
Population at Risk of Displacement....3-32
Unprotected Units....3-32
Identifying Population at Risk....3-33
Conclusion: At-Risk Population....~~3-36~~ 3-37
Future Condition Without the Proposed Actions—2017....3-37
Future Condition With the Proposed Actions....3-38
F. Conclusion....3-40
Direct Residential Displacement....3-40
Indirect Residential Displacement....3-40
Direct Business and Institutional Displacement....3-40
Indirect Business and Institutional Displacement....3-41
Adverse Effects on Specific Industries....3-41

**CHAPTER 4 COMMUNITY FACILITIES AND SERVICES**....4-1

A. Introduction....4-1
B. Overview....4-1
C. Methodology....4-1
Schools....4-2
Libraries....4-2
Day Care Facilities....4-5
Health Care Facilities....4-6
Police and Fire Protection....4-6
D. Existing Conditions....4-7
Schools....4-7
Elementary Schools....4-7
Intermediate Schools....4-7
Libraries....4-7
Population Served....4-7
Library Facilities....4-8
Court Square Library....4-9
Broadway Library....4-9
Long Island City Library....4-9
Study Area Total....4-10
Day Care Facilities....4-10

Health Care Facilities....4-12
Hospitals and Emergency Rooms....4-12
Other Outpatient Services....4-12
Police....4-13
Fire Protection....4-15
E. Future Condition Without the Proposed Actions....4-15
Schools....4-15
Elementary and Intermediate Schools....4-16
Libraries....4-18
Day Care Facilities....4-18
Health Care Facilities....4-19
Police....4-19
Fire Protection....4-19
F. Future Condition With the Proposed Actions....4-19
Schools....4-19
Libraries....4-20
Day Care Facilities....4-21
Health Care Facilities....4-21
Police....4-21
Fire Protection....4-21
G. Conclusion....4-21
Schools....4-22
Libraries....4-22
Day Care Facilities....4-22
Health Care Facilities....4-22
Police and Fire Protection....4-22

**CHAPTER 5 OPEN SPACE**....5-1

A. Introduction....5-1
B. Overview....5-1
C. Methodology....~~5-1~~5-2
Study Area....~~5-1~~5-2
Inventory of Open Space Resources....5-2
Adequacy of Open Space Resources....~~5-2~~5-4
Criteria for Quantitative Analysis....~~5-2~~ 5-4
Comparison to DCP Guidelines....5-4
Impact Assessment....5-4
D. Existing Conditions....5-4
Study Area Population....5-4
Open Space Resources....5-5
Arrow Community Garden....~~5-5~~5-9
Citicorp Plaza....5-9
Dutch Kills Playground....5-9
Court Square Park....5-9
Gordan Triangle....5-9
Long Island City High School Field....~~5-9~~5-12
McKenna Triangle....~~5-13~~5-12
Playground 35....~~5-13~~5-12

Queensbridge "Baby" Park ..... ~~5-13~~ 5-12
Rafferty Triangle ..... ~~5-13~~ 5-12
Ravenswood Playground ..... ~~5-13~~ 5-15
Sixteen Oaks Grove ..... ~~5-13~~ 5-15
Spirit Playground ..... ~~5-17~~ 5-15
Triangle Forty One ..... ~~5-17~~ 5-15
Triangle Thirty Seven ..... ~~5-17~~ 5-15
Queensbridge Houses Open Space ..... ~~5-17~~ 5-15
Ravenswood Houses Open Space ..... ~~5-17~~ 5-20
Queensbridge Park ..... ~~5-17~~ 5-20
Existing Conditions ..... 5-20
Adequacy of Open Space ..... 5-20
Qualitative Assessment of Open Space Adequacy ..... ~~5-20~~ 5-21
E. Future Condition Without the Proposed Actions ..... 5-21
Study Area Population ..... 5-21
Study Area Open Space Resources ..... 5-22
Adequacy of Open Space ..... 5-24
Qualitative Assessment of Open Space Adequacy ..... 5-25
F. Future Condition With the Proposed Actions ..... ~~5-25~~ 5-26
Study Area Population ..... ~~5-25~~ 5-26
Study Area Open Space Resources ..... 5-26
Adequacy of Open Space ..... 5-26
Qualitative Assessment of Open Space Adequacy ..... 5-27
G. Conclusion ..... 5-28

**CHAPTER 6 SHADOWS** ..... 6-1

A. Introduction ..... 6-1
B. Overview ..... 6-2
C. Methodology ..... 6-2
D. Resources of Concern ..... 6-3
Open Spaces ..... 6-3
Dutch Kills Playground ..... 6-3
Triangle Forty-One ..... 6-3
Triangle Thirty-Seven ..... ~~6-4~~ 6-3
Historic Resources ..... 6-5
E. Future Condition Without the Proposed Actions ..... 6-5
F. Future Condition With the Proposed Actions ..... 6-5
Triangle Forty-One ..... 6-6
Triangle Thirty-Seven ..... 6-6
G. Conclusion ..... 6-16

**CHAPTER 7 HISTORIC RESOURCES** ..... 7-1

A. Introduction ..... 7-1
B. Overview ..... 7-1
Historical Outline ..... 7-1
C. Methodology ..... ~~7-8~~ 7-9
Archaeological Resources ..... ~~7-8~~ 7-9

Architectural Resources ..... 7-9
D. Existing Conditions ..... ~~7-12~~ 7-13
Archaeological Resources ..... ~~7-12~~ 7-13
Block 367, Lot 23 ..... ~~7-14~~ 7-15
Block 368, Lot 11 ..... ~~7-15~~ 7-16
Block 371, Lot 38 ..... ~~7-17~~ 7-18
Block 398, Lot 1 ..... ~~7-18~~ 7-19
Block 398, Lot 39 ..... ~~7-21~~ 7-22
Architectural Resources ..... ~~7-23~~ 7-24
Previously Listed or Eligible Historic Properties within the Architectural APE ..... ~~7-24~~ 7-25
New York Consolidated Card Company, Block 601, Lot 1 ..... ~~7-24~~ 7-25
Pierce-Arrow Building (Harrolds Motor Car Company), Block 376, Lot 1 ..... ~~7-28~~ 7-29
A. Garside & Sons Shoe Factory, Block 377, Lot 13 ..... ~~7-30~~ 7-31
FDNY Engine Company 261, Hook & Ladder 116 Block 370, Lot 23 ..... ~~7-32~~ 7-33
E. Future Condition Without the Proposed Actions ..... ~~7-32~~ 7-33
Archaeological Resources ..... ~~7-33~~ 7-34
Architectural Resources ..... ~~7-33~~ 7-34
F. Future Condition With the Proposed Actions ..... ~~7-34~~ 7-35
Archaeological Resources ..... ~~7-34~~ 7-35
Architectural Resources ..... ~~7-35~~ 7-36
G. Conclusion ..... ~~7-36~~ 7-37
Archaeological Resources ..... ~~7-36~~ 7-37
Architectural Resources ..... ~~7-37~~ 7-38

**CHAPTER 8 URBAN DESIGN AND VISUAL RESOURCES** ..... 8-1

A. Introduction ..... 8-1
B. Overview ..... 8-1
C. Methodology ..... 8-2
D. Existing Conditions ..... 8-5
Subarea A, North of Queens Plaza ..... 8-6
Area Overview ..... 8-6
Built Environment, Natural and Visual Resources ..... 8-6
Subarea B, Adjacent to Northern Boulevard ..... 8-9
Area Overview ..... 8-9
Built Environment, Natural and Visual Resources ..... 8-9
Subarea C, Adjacent to 36th Avenue ..... 8-11
Area Overview ..... 8-11
Built Environment, Natural and Visual Resources ..... 8-11
Subarea D, Northern Interior Corridor ..... 8-12
Area Overview ..... 8-12
Built Environment, Natural and Visual Resources ..... 8-12
Subarea E, Southern Interior Corridor ..... 8-16
Area Overview ..... 8-16
Built Environment, Natural and Visual Resources ..... 8-16
Secondary Study Area ..... ~~8-17~~ 8-18

E. Future Condition Without the Proposed Actions ..... 8-19
Secondary Study Area ..... 8-21
F. Future Condition With the Proposed Actions ..... 8-22
Urban Design and Visual Resources Analysis by Technical Area ..... 8-22
Building Bulk, Use and Type ..... 8-22
Building Arrangement ..... 8-27
Block Form and Street Pattern ..... 8-27
Streetscape Elements ..... 8-27
Street Hierarchy ..... 8-29
Natural and Visual Features ..... 8-29
Urban Design and Visual Resources Analysis by Area ..... 8-29
Subarea A, North of Queens Plaza ..... 8-29
Subarea B, Adjacent to the Sunnyside Yards ..... 8-29
Subarea C, Adjacent to 36th Avenue ..... 8-31
Subarea D, Northern Interior Corridor ..... 8-31
Subarea E, Southern Interior Corridor ..... 8-32
Secondary Study Area ..... 8-32
G. Conclusion ..... 8-32

**CHAPTER 9 NEIGHBORHOOD CHARACTER** ..... 9-1

A. Introduction ..... 9-1
B. Overview ..... 9-1
C. Methodology ..... 9-2
D. Existing Conditions ..... 9-5
Primary Study Area ..... 9-5
Subarea A, North of Queens Plaza ..... 9-5
Subarea B, Adjacent to the Sunnyside Yards ..... 9-7
Subarea C, Adjacent to 36th Avenue ..... 9-11
Subarea D, Northern Interior Corridor ..... 9-14
Subarea E, Southern Interior Corridor ..... 9-17
Secondary Study Area ..... 9-17
E. Future Condition Without the Proposed Actions ..... 9-20
Secondary Study Area ..... 9-21
F. Future Condition With the Proposed Actions ..... 9-23
Neighborhood Character Analysis by Technical Area ..... 9-23
Land Use ..... 9-23
Socioeconomic Conditions ..... 9-23
Historic Resources ..... 9-25
Urban Design and Visual Resources ..... 9-25
Transportation ..... 9-25
Noise ..... 9-27
Neighborhood Character Analysis by Area ..... 9-27
Primary Study Area ..... 9-27
Subarea A, North of Queens Plaza ..... 9-27
Subarea B, Adjacent to the Sunnyside Yards ..... 9-27
Subarea C, Adjacent to 36th Avenue ..... 9-28
Subarea D, Northern Interior Corridor ..... 9-28
Subarea E, Southern Interior Corridor ..... 9-29

Secondary Study Area ..... 9-29
G. Conclusion ..... 9-29

**CHAPTER 10 NATURAL RESOURCES** ..... 10-1

A. Introduction ..... 10-1
B. Overview ..... 10-1
C. Methodology ..... 10-1
D. Existing Conditions ..... 10-2
E. Future Condition Without the Proposed Actions ..... 10-2
F. Future Condition With the Proposed Actions ..... 10-2
G. Conclusion ..... 10-2

**CHAPTER 11 HAZARDOUS MATERIALS** ..... 11-1

A. Introduction ..... 11-1
Study Area ..... 11-1
B. Overview ..... ~~11-2~~ 11-3
C. Methodology ..... ~~11-2~~ 11-3
D. Historical Development ..... ~~11-3~~ 11-4
E. Existing Conditions ..... ~~11-3~~ 11-4
Governmental Records ..... ~~11-4~~ 11-5
Hazardous Waste Sites ..... ~~11-4~~ 11-5
State Spills Incidents Database ..... ~~11-5~~ 11-6
U.S. Census ..... ~~11-5~~ 11-6
New York City Department of Buildings ..... ~~11-5~~ 11-6
Field Survey ..... ~~11-5~~ 11-6
Potential Above-Ground Contamination ..... ~~11-6~~ 11-7
F. Future Condition Without the Proposed Actions ..... ~~11-6~~ 11-7
G. Future Condition With the Proposed Actions ..... ~~11-6~~ 11-7
H. Conclusion ..... ~~11-6~~ 11-9

**CHAPTER 12 INFRASTRUCTURE** ..... 12-1

A. Introduction ..... 12-1
B. Overview ..... 12-1
C. Methodology ..... 12-1
Water Supply ..... 12-2
Sanitary Sewage ..... 12-2
D. Existing Conditions ..... 12-2
Water Supply ..... 12-2
New York City ..... 12-2
Proposed Rezoning Area ..... 12-3
Sanitary Sewage and Stormwater Management ..... 12-3
Sanitary Sewage Collection and Treatment ..... 12-3
Stormwater Management ..... 12-5
E. Future Condition Without the Proposed Actions ..... 12-5
F. Future Condition With the Proposed Actions ..... 12-7
G. Conclusion ..... 12-7

**CHAPTER 13 SOLID WASTE AND SANITATION SERVICES** ..... 13-1

A. Introduction ..... 13-1
B. Overview ..... 13-1
C. Methodology ..... 13-2
D. Existing Conditions ..... 13-2
E. Future Condition Without the Proposed Actions ..... 13-3
F. Future Condition With the Proposed Actions ..... 13-4
G. Conclusion ..... 13-4

**CHAPTER 14 ENERGY** ..... 14-1

A. Introduction ..... 14-1
B. Overview ..... 14-1
C. Methodology ..... 14-3
D. Existing Conditions ..... 14-4
E. Future Condition Without the Proposed Actions ..... 14-4
F. Future Condition With the Proposed Actions ..... 14-4
G. Conclusion ..... 14-5

**CHAPTER 15 TRAFFIC AND PARKING** ..... 15-1

A. Introduction ..... 15-1
B. Overview ..... 15-1
Traffic ..... 15-1
Travel Demand ..... 15-3
Impact Analysis ..... 15-3
Parking ..... 15-3
C. Methodology ..... 15-4
Traffic ..... 15-4
Traffic Study Area ..... 15-4
Peak Hours for Analysis ..... 15-4
Intersection Capacity Analyses ..... 15-4
Impact Criteria ..... 15-5
Parking ..... 15-6
D. Existing Conditions ..... 15-6
Data Collection ..... 15-6
Vehicular Traffic ..... 15-6
Study Area Street Network ..... 15-6
Intersection Capacity Analysis ..... 15-7
Northern Boulevard at 40th Avenue/31st Street ..... 15-7
Northern Boulevard at 38th Avenue/35th Street ..... 15-10
Northern Boulevard at Steinway Street/39th Avenue ..... 15-10
38th Avenue at Crescent Street ..... 15-10
Accidents ..... 15-10
Parking ..... 15-10
E. Future Condition Without the Proposed Actions ..... 15-14
Vehicular Traffic ..... 15-14

Parking ..... 15-19
F. Future Condition With the Proposed Actions ..... 15-19
Trip Generation ..... 15-19
Trip Assignment ..... 15-22
Vehicular Traffic ..... 15-22
Impact Analysis ..... 15-22
Northern Boulevard at 40th Avenue/31st Street ..... 15-28
Northern Boulevard at 39th Avenue/Honeywell Street Bridge ..... 15-28
Northern Boulevard at 38th Avenue/35th Street ..... 15-29
Northern Boulevard at Steinway Street/39th Street Bridge ..... 15-29
Parking ..... 15-29

**CHAPTER 16 TRANSIT AND PEDESTRIANS** ..... 16-1

A. Introduction ..... 16-1
B. Overview ..... 16-1
Subway Service ..... 16-1
Bus Service ..... 16-2
Pedestrians ..... 16-2
C. Methodology ..... 16-2
Subway Service ..... 16-3
Selection of Subway Stations to be Analyzed ..... 16-3
Analysis Methodology ..... 16-3
Impact Criteria ..... 16-4
Bus Service ..... 16-4
Pedestrians ..... 16-5
Study Area ..... 16-5
Analysis Methodology ..... 16-5
Impact Criteria ..... 16-6
D. Existing Conditions ..... 16-6
Data Collection ..... 16-6
Subway Service ..... 16-6
21st Street-Queensbridge (F) Station ..... 16-7
36th Avenue (N, W) Station ..... 16-9
36th Street (G, R, V) Station ..... 16-9
39th Avenue (N, W) Station ..... 16-9
Queensboro Plaza (N, W, 7) Station ..... 16-10
Queens Plaza (E, G, R, V) Station ..... 16-10
Bus Service ..... 16-12
Q19A (MTA Bus) ..... 16-12
Q32 (NYC Transit) ..... 16-12
Q39 (MTA Bus) ..... 16-12
Q60 (MTA Bus) ..... 16-12
Q66 (MTA Bus) ..... 16-12
Q67 (MTA Bus) ..... 16-14
Q101 (MTA Bus) ..... 16-14
Q102 (MTA Bus) ..... 16-14
Q103 (MTA Bus) ..... 16-14

B61 (NYC Transit) ..... 16-14
Pedestrians ..... 16-14
E. Future Condition Without the Proposed Actions ..... 16-16
Subway Service ..... 16-16
Bus Service ..... 16-16
Pedestrians ..... 16-21
F. Future Condition With the Proposed Actions ..... 16-21
Subway Service ..... 16-25
Bus Service ..... 16-26
Pedestrians ..... 16-26

**CHAPTER 17 AIR QUALITY** ..... 17-1

A. Introduction ..... 17-1
B. Overview ..... 17-1
Pollutants for Analysis ..... 17-1
Carbon Monoxide ..... ~~17-1~~ 17-2
Nitrogen Oxides, VOC, and Ozone ..... 17-2
Lead ..... 17-2
Respirable Particulate Matter—$PM_{10}$ and $PM_{2.5}$ ..... 17-3
Sulfur Dioxide ..... 17-3
Air Toxics ..... ~~17-3~~ 17-4
Air Quality Regulations, Standards, and Benchmarks ..... 17-4
National and State Air Quality Standards ..... 17-4
NAAQS Attainment Status and State Implementation Plans (SIP) ..... 17-4
Determining the Significance of Air Quality Impacts ..... 17-6
De Minimis Criteria Regarding CO Impacts ..... 17-6
Non-Criteria Pollutant Thresholds ..... 17-7
C. Methodology for Predicting Pollutant Concentrations ..... 17-7
Mobile Sources ..... 17-7
Dispersion Models for Microscale Analyses ..... 17-9
Meteorology ..... 17-9
CAL3QHC ..... 17-9
Analysis Year ..... 17-9
Vehicle Emissions Data ..... 17-9
Engine Emissions ..... 17-9
Traffic Data ..... 17-10
Background Concentrations ..... 17-10
Mobile Source Analysis Sites ..... 17-10
Receptor Locations ..... 17-11
Parking Facilities ..... 17-11
Stationary Sources ..... 17-12
HVAC Source Analyses ..... 17-12
Individual Sources ..... 17-12
Cumulative Impacts from HVAC Sources ..... 17-13
Background Concentrations ..... 17-13
Industrial Source Analysis ..... 17-14
Cumulative Health Risk Assessment ..... 17-15
D. Existing Conditions ..... 17-16

Predicted Pollutant Concentrations in the Study Area....17-16
E. Future Condition Without the Proposed Actions....17-16
Mobile Sources Analysis....17-16
Stationary Source Analysis....17-17
F. Probable Impacts of the Proposed Actions....17-17
Mobile Sources Analysis....17-17
Parking Facilities....17-18
Stationary Sources....17-18
HVAC Source Analyses....17-18
Individual Sources....17-18
Cumulative Impacts from HVAC Sources....17-19
Industrial Source Analysis....17-20
Cumulative Health Risk Assessment....17-22
Consistency with New York State Air Quality Implementation Plan ..~~17-22~~ 17-24
G. Conclusion....17-24

**CHAPTER 18 NOISE**....18-1

A. Introduction....18-1
B. Overview....18-1
Noise Fundamentals....18-1
"A"-Weighted Sound Level (dBA)....18-1
Community Response to Changes in Noise Levels....18-2
Noise Descriptors Used in Impact Assessment....18-3
C. Methodology....18-4
Proportional Modeling....18-4
Applicable Noise Codes and Impact Criteria....18-5
New York City Noise Code....18-5
New York CEQR Noise Standards....18-5
D. Existing Conditions....18-7
Noise Monitoring....18-7
Equipment used During Noise Monitoring....18-7
Existing Noise Levels at Noise Receptor Locations....18-9
Measured Noise Levels....18-9
E. Impact Analysis....18-10
Noise Attenuation....18-10
Attenuation Requirements....18-10
Mechanical Equipment....18-12
F. Conclusion....18-12

**CHAPTER 19 CONSTRUCTION IMPACTS**....19-1

A. Introduction....19-1
B. Overview....19-1
C. Methodology....19-1
D. Future Condition Without the Proposed Actions....19-1
E. Future Condition With the Proposed Actions....19-2
Construction Activities and Schedule....19-2
Building Demolition and Site Clearance/Excavation and Foundation

Work ..... 19-3
Core and Shell Construction ..... ~~19-3~~ 19-4
Interior Construction and Finishing ..... 19-4
Typical Construction Equipment ..... 19-4
Potential Impacts During Construction ..... ~~19-4~~ 19-5
Land Use and Neighborhood Character ..... ~~19-4~~ 19-5
Socioeconomic Conditions ..... 19-5
Community Facilities and Services ..... 19-5
Open Space ..... 19-5
Historic Resources ..... ~~19-5~~ 19-6
Archaeological Resources ..... ~~19-5~~ 19-6
Architectural Resources ..... 19-6
Neighborhood Character ..... 19-7
Traffic and Parking ..... ~~19-6~~ 19-7
Air Quality ..... ~~19-7~~ 19-8
Airborne Particulate Emissions ..... ~~19-7~~ 19-8
Mobile Source Emissions ..... ~~19-7~~ 19-8
Noise and Vibration ..... ~~19-8~~ 19-9
Noise ..... ~~19-8~~ 19-9
Vibration ..... ~~19-8~~ 19-9
Natural Resources ..... ~~19-10~~ 19-11
Infrastructure ..... ~~19-10~~ 19-11
Hazardous Materials ..... ~~19-10~~ 19-11
F. Conclusion ..... ~~19-11~~ 19-12

**CHAPTER 20 PUBLIC HEALTH** ..... 20-1

A. Introduction ..... 20-1
B. Overview ..... 20-1
C. Methodology ..... 20-1
D. Future Condition Without the Proposed Actions ..... 20-1
E. Future Condition With the Proposed Actions ..... 20-2
Hazardous Materials ..... 20-2
Air Quality ..... 20-2
Cumulative Health Risk Assessment ..... 20-3
Stationary Source Analyses ..... 20-3
Noise ..... 20-3
F. Conclusion ..... 20-4

**CHAPTER 21 MITIGATION** ..... 21-1

A. Introduction ..... 21-1
B. Open Space ..... 21-1
C. Traffic and Parking ..... ~~21-1~~ 21-2
Traffic ..... ~~21-1~~ 21-2
Northern Boulevard at 40th Avenue/31st Street ..... 21-2
Northern Boulevard at 39th Avenue/Honeywell Street Bridge ..... ~~21-2~~ 21-3
Northern Boulevard at 38th Avenue/35th Street ..... ~~21-3~~ 21-4
Northern Boulevard at Steinway Street/39th Street Bridge ..... ~~21-3~~ 21-4

Parking ..... ~~21-6~~ 21-7

**CHAPTER 22 ALTERNATIVES** ..... 22-1

A. Introduction ..... 22-1
B. No Action Alternative ..... 22-2
Land Use, Zoning, and Public Policy ..... 22-2
Land Use ..... 22-2
Zoning ..... 22-2
Public Policy ..... 22-3
Socioeconomics ..... 22-3
Community Facilities and Services ..... 22-4
Open Space ~~and Recreational Facilities~~ ..... 22-4
Shadows ..... 22-4
Historic Resources ..... 22-5
Archaeological Resources ..... 22-5
Architectural Resources ..... 22-5
Urban Design and Visual Resources ..... 22-6
Neighborhood Character ..... 22-6
Natural Resources ..... ~~22-6~~ 22-7
Hazardous Materials ..... 22-7
Infrastructure ..... 22-7
Solid Waste and Sanitation Services ..... 22-7
Energy ..... ~~22-7~~ 22-8
Traffic and Parking ..... 22-8
Traffic ..... 22-8
Parking ..... 22-8
Transit and Pedestrians ..... 22-8
Subway ..... 22-8
Bus ..... ~~22-8~~ 22-9
Pedestrians ..... 22-9
Air Quality ..... 22-9
Mobile Sources Analysis ..... 22-9
Stationary Source Analysis ..... ~~22-9~~ 22-10
Noise ..... 22-10
Construction Impacts ..... 22-10
Public Health ..... ~~22-10~~ 22-11
C. Lower Density Alternative ..... 22-11
Land Use, Zoning, and Public Policy ..... 22-13
Socioeconomics ..... 22-13
Community Facilities and Services ..... 22-14
Open Space ~~and Recreational Facilities~~ ..... 22-14
Shadows ..... 22-14
Historic Resources ..... 22-15
Archaeological Resources ..... 22-15
Architectural Resources ..... 22-15
Urban Design and Visual Resources ..... 22-16
Neighborhood Character ..... 22-16
Natural Resources ..... 22-17

Hazardous Materials ..... 22-18
Infrastructure ..... 22-18
Solid Waste and Sanitation Services ..... 22-18
Energy ..... 22-18
Traffic and Parking ..... 22-18
Traffic ..... 22-19
Parking ..... 22-20
Transit and Pedestrians ..... 22-20
Subway Service ..... 22-20
Bus Service ..... 22-20
Pedestrians ..... 22-20
Air Quality ..... 22-21
Mobile Source ..... 22-21
Industrial Sources ..... 22-21
HVAC Sources ..... 22-21
Noise ..... 22-22
Construction Impacts ..... 22-22
Public Health ..... 22-22
Mitigation ..... 22-22
Unavoidable Adverse Impacts ..... 22-23
Historic Resources ..... 22-23
Archaeological Resources ..... 22-23
Architectural Resources ..... 22-23
Traffic ..... 22-24
D. No Impact Alternative ..... 22-25
E. 3.0 FAR Alternative For Light Industrial Uses ..... 22-26
Land Use, Zoning, and Public Policy ..... 22-26
Socioeconomics ..... 22-27
Community Facilities and Services ..... 22-27
Open Space ..... 22-27
Shadows ..... 22-27
Historic Resources ..... 22-27
Archaeological Resources ..... 22-27
Architectural Resources ..... 22-28
Urban Design and Visual Resources ..... 22-28
Neighborhood Character ..... 22-29
Natural Resources ..... 22-30
Hazardous Materials ..... 22-30
Infrastructure ..... 22-30
Solid Waste and Sanitation Services ..... 22-30
Energy ..... 22-30
Traffic and Parking ..... 22-31
Parking ..... 22-31
Transit and Pedestrians ..... 22-31
Transit Services ..... 22-31
Pedestrians ..... 22-31
Air Quality ..... 22-31
Mobile Source ..... 22-31
Industrial Sources ..... 22-32

HVAC Sources ..... 22-32
Noise ..... 22-32
Construction Impacts ..... 22-32
Public Health ..... 22-33
Mitigation ..... 22-33
Unavoidable Adverse Impacts ..... 22-33
Open Space ..... 22-33
Historic Resources ..... 22-33
Archaeological Resources ..... 22-33
Architectural Resources ..... 22-34
Traffic ..... 22-34

**CHAPTER 23 UNAVOIDABLE ADVERSE IMPACTS** ..... 23-1

A. Introduction ..... 23-1
B. Open Space ..... 23-1
C. Historic Resources ..... 23-1
Archaeological Resources ..... 23-1
Architectural Resources ..... ~~23-2~~ 23-3
D. Traffic ..... ~~23-3~~ 23-4

**CHAPTER 24 GROWTH INDUCING ASPECTS OF THE PROPOSED ACTIONS** ..... 24-1

**CHAPTER 25 IRREVERSIBLE & IRRETRIEVABLE COMMITMENT OF RESOURCES** ... 25-1

**CHAPTER 26 RESPONSE TO COMMENTS** ..... 26-1

## LIST OF APPENDICES

Appendix A Agency Correspondence
Appendix B Zoning Text Amendment
Appendix C Socioeconomic Conditions Referenced Materials
Appendix D Hazardous Materials E- Designations
Appendix E ~~Site Development in the Future Condition Without the Proposed Actions~~ Traffic and Parking: Background Developments and Mitigation Measures
Appendix F Air Quality E-Designations
Appendix G Noise E-Designations
Appendix H Final Scope of Work for EIS
Appendix I Transportation Planning Factors
Appendix J Reasonable Worst Case Development Scenario for the Lower Density Alternative
Appendix K Background Developments ~~Sites~~ Within Community School District 30
Appendix L Written Comments to Draft Scope of Work and DEIS
Appendix M Phase IA Cultural Resource Assessment
Appendix N Zoning Text Amendment for 3.0 FAR Alternative for Light Industrial Uses
Appendix O E-Designations for 3.0 FAR Alternative For Light Industrial Uses

## LIST OF FIGURES


Figure 1-1 Project Location ..... 1-2
Figure 1-1a Project Location (Subareas) ..... 1-3
Figure 1-2 Rezoning Area ..... 1-4
Figure 1-3 Existing Zoning ..... 1-7
Figure 1-4 Proposed Zoning ..... 1-10
Figure 1-5 Background Sites ..... 1-16
Figure 1-6 Projected Sites ..... 1-27
Figure 1-7 Potential Sites ..... 1-28

Figure 2-1 Primary Study Area Land Use Subareas ..... 2-4
Figure 2-2 Secondary Land Use Study Areas ..... 2-5
Figure 2-3 Primary Study Area Land Use Map ..... 2-6
Figure 2-4 Tax Block and Lot ..... 2-8
Figure 2-5 Study Area Photographs ..... 2-9
Figure 2-6 Study Area Photographs ..... 2-10
Figure 2-7 Study Area Photographs ..... 2-12
Figure 2-8 Study Area Photographs ..... 2-13
Figure 2-9 Study Area Photographs ..... 2-15
Figure 2-10 Study Area Photographs ..... 2-16
Figure 2-11 Study Area Photographs ..... 2-18
Figure 2-12 Study Area Photographs ..... 2-19
Figure 2-13 Study Area Photographs ..... 2-20
Figure 2-14 Study Area Photographs ..... 2-22
Figure 2-15 Study Area Photographs ..... 2-23
Figure 2-16 Study Area Photographs ..... 2-25
Figure 2-17 Study Area Photographs ..... 2-26
Figure 2-18 Secondary Study Area Land Use Map ..... 2-27
Figure 2-19 Existing Zoning ..... 2-30
Figure 2-20 Projected Development Sites + Rezoning ..... 2-39
Figure 2-21 Proposed Zoning ..... 2-44

Figure 3-1 Socioeconomic Study Area ..... 3-3
Figure 3-2 Direct Residential Displacement on Projected Development Sites ..... 3-7
Figure 3-3 Direct Business Displacement on Projected Development Sites ..... 3-13
Figure 3-4 Long Island City Industrial Business Area ..... 3-16
Figure 3-5 Prevailing Economic Activities Within Sections of the Study Area ..... 3-18
Figure 3-6 Percentage of Population Below the Poverty Level 1999 ..... 3-28
Figure 3-7 Census Tracts Containing Population Vulnerable to Direct Displacement ..... 3-35

Figure 4-1 Police and School Facilities Within One-Half Mile of Rezoning Area ..... 4-3
Figure 4-2 Library Facilities Within Three-Fourths Mile of the Rezoning Area ..... 4-4
Figure 4-3 Health Care, Day Care, and Fire Facilities Within One Mile of the Rezoning Area ..... 4-11

Figure 5-1 Open Space Within Half Mile of Rezoning Area ..... 5-3
Figure 5-2 Open Space Photographs ..... 5-8
Figure 5-3 Open Space Photographs ..... 5-10
Figure 5-4 Open Space Photographs ..... 5-11

Figure 5-5 Open Space Photographs ..... 5-12
Figure 5-6 Open Space Photographs ..... 5-14
Figure 5-7 Open Space Photographs ..... 5-15
Figure 5-8 Open Space Photographs ..... 5-16
Figure 5-9 Open Space Photographs ..... 5-18
Figure 5-10 Open Space Photographs ..... 5-19
Figure 5-11 Anticipated Future Open Spaces within a ½ Mile within the Study Area 2017 ..... 5-23

Figure 6-1 Shadow Analysis Potentially Sensitive Sites ..... 6-4
Figure 6-2 Triangle 37 Shadow Analysis Study Area ..... 6-7
Figure 6-3 Triangle 37 Aerial Overview ..... 6-9
Figure 6-4 Incremental Shadows from Proposed Project, March 21st 3:00 PM ..... 6-12
Figure 6-5 Incremental Shadows from Proposed Project, May 6th 3:00 PM ..... 6-13
Figure 6-6 Incremental Shadows from Proposed Project, June 21st 3:00 PM ..... 6-14
Figure 6-7 Incremental Shadows from Proposed Project, December 21st 3:00 PM ..... 6-15

Figure 7-1 Archaeological APE ..... 7-10
Figure 7-2 Architectural APE ..... 7-11
Figure 7-3 Areas Sensitive for Historical Period Archaeological Resources within Block 371, Lot 38 ..... 7-19
Figure 7-4 Areas Sensitive for Historical Period Archaeological Resources within Block 398, Lot 1 ..... 7-22
Figure 7-5 Historic Architectural Resources Surveyed For This Project ..... 7-25

Figure 8-1 Urban Design and Visual Resources Primary and Secondary Study Areas ..... 8-3
Figure 8-2 Urban Design and Visual Resources Primary Study Area Subareas ..... 8-4
Figure 8-3 Study Area Photographs ..... 8-7
Figure 8-4 Building Heights: Number of Floors ..... 8-8
Figure 8-5 Visual Resource View Corridors in Primary Study Area ..... 8-10
Figure 8-6 Study Area Photographs ..... 8-13
Figure 8-7 Study Area Photographs ..... 8-14
Figure 8-8 Study Area Photographs ..... 8-18
~~Figure 8-9 Background Development Sites ..... 8-20~~
Figure 8-10 Potential R5B Zoning District ..... 8-23
Figure 8-11 Potential R5D Zoning District ..... 8-25
Figure 8-12 Potential R6A Zoning District ..... 8-26
Figure 8-13 Potential R7X Zoning District ..... 8-28
Figure 8-14 Projected Sites ..... 8-30

Figure 9-1 Neighborhood Character Primary Study Area and Secondary Study Subareas ..... 9-3
Figure 9-2 Neighborhood Character Primary Study Area Subareas ..... 9-4
Figure 9-3 Study Area Photographs ..... 9-6
Figure 9-4 Study Area Photographs ..... 9-8
Figure 9-5 Study Area Photographs ..... 9-9
Figure 9-6 Study Area Photographs ..... 9-10
Figure 9-7 Study Area Photographs ..... 9-12
Figure 9-8 Study Area Photographs ..... 9-13
Figure 9-9 Study Area Photographs ..... 9-15
Figure 9-10 Study Area Photographs ..... 9-16

Figure 9-11 Study Area Photographs ..... 9-18
Figure 9-12 Study Area Photographs ..... 9-19
~~Figure 9-13 Background Development Sites ..... 9-22~~

Figure 15-1 Traffic Study Area and Analyzed Intersections ..... 15-2
Figure 15-2 Existing Peak Hour Traffic Volumes ..... 15-8
Figure 15-3 Parking Study Area and Existing Off-Street Public Parking Facilities ..... 15-12
Figure 15-4a Curbside Parking Regulations ..... 15-15
Figure 15-4b Curbside Parking Regulations ..... 15-16
Figure 15-5 2017 Future No-Action Peak Traffic Volumes ..... 15-17
Figure 15-6 Net Project Increment Peak Hour Traffic Volumes ..... 15-25
Figure 15-7 2017 With-Action Peak Hour Traffic Volumes ..... 15-26

Figure 16-1 Rezoning Area Subway Stations and Analyzed Station Facilities ..... 16-8
Figure 16-2 Local Bus Routes ..... 16-13
Figure 16-3 Pedestrian Analysis Locations ..... 16-15

Figure 18-1 Noise Receptor Sites ..... 18-8

Figure 22-1 Zoning Under Lower Density Alternative ..... 22-11

## LIST OF TABLES

Table 1-1 Dutch Kills Zoning Comparison ..... 1-9
Table 1-2 Known Development Projects ..... 1-15
Table 1-3 Projected Development Sites ..... 1-17
Table 1-4 Potential Development Sites ..... 1-19

Table 2-1 Dutch Kills Existing Zoning ..... 2-31
Table 2-2 Development Projects in the Future Without the Proposed Actions ..... 2-37
Table 2-3 Dutch Kills Proposed Zoning ..... 2-45

Table 3-1 Average Income and Rent for Renters in Large and Small Buildings, 2000 ..... 3-8
Table 3-2 Potentially Displaced Business Employment Estimate ..... 3-12
Table 3-3 Employment by Industry Sector for the Study Area, Queens, and New York City ..... 3-17
Table 3-4 Commercial Categories within Neighborhood ..... 3-20
Table 3-5 Population ..... 3-25
Table 3-6 Age Distribution as a Percent of Total Population ..... 3-25
Table 3-7 Household Characteristics ..... 3-26
Table 3-8 Year Moved into Housing Unit, 1990 & 2000 ..... 3-26
Table 3-9 Income and Poverty Status ..... 3-27
Table 3-10 1999 Household Income Distribution ..... 3-29
Table 3-11 Housing Unit Characteristics ..... 3-29
Table 3-12 2000 Housing Units by Year Structure Built ..... 3-30
Table 3-13 Households and Housing Value Characteristics ..... 3-30
Table 3-14 Estimated Number of Unprotected Units in the Study Area ..... 3-33
Table 3-15 Average Household Income for Renters in Small Buildings and All Renter-Occupied Buildings in Queens (19991)and Number of Unprotected Housing Units by Tract ..... 3-34

Table 3-16 Population and Housing Growth: Future Condition Without the Proposed Action, 2007-2017 ..... 3-37
Table 3-17 Population and Housing Growth: With-Action Condition, 2017 ..... 3-38

Table 4-1 Public Elementary and Intermediate School Utilization, Capacity, and Enrollment Figures - 2006-2007 Academic Year ..... 4-8
Table 4-2 Library Services in the Study Area ..... 4-9
Table 4-3 Public Day Care and Head Start Facilities in the Study Area ..... 4-10
Table 4-4 Outpatient Health Care Facilities Within the Rezoning Area ..... 4-12
Table 4-5 Outpatient Health Care Facilities Within 1 mile of the Rezoning Area ..... 4-13
Table 4-6 Police Protection Facilities Within ½ mile of the Rezoning Area ..... 4-14
Table 4-7 Crime Statistics for the 114th Police Precinct, 1998-2006 ..... 4-14
Table 4-8 Additional Fire Protection Services Within 1 Mile of the Rezoning Area ..... 4-16
Table 4-9 Background Development Sites Within the Study Area ..... 4-17
Table 4-10 Projected New Housing Units and Estimated Number of Students Generated in the Study Area and CSD 30: 2017 Future Without the Proposed Actions ..... 4-17
Table 4-11 Projected Public Elementary/Intermediate School Enrollment, Capacity, and Utilization - 2017 Future Without the Proposed Actions ..... 4-18
Table 4-12 Projected New Housing Units and Estimated Number of Students Generated in the Study Area and CSD 30: 2017 Future With the Proposed Actions ..... 4-20
Table 4-13 Projected Public Elementary/Intermediate School Enrollment, Capacity, and Utilization - 2017 Future With the Proposed Action ..... 4-20

Table 5-1 Study Area Residential Population by Age Group, 2007 ..... 5-5
Table 5-2 Open Space Resources ..... 5-6
Table 5-3 Background Development Sites within the Study Area ..... 5-21
Table 5-4 Study Area Residential Population by Age Group, No Action Condition, 2017 ..... 5-22
Table 5-5 Anticipated Future Open Spaces within a ½ Mile within the Study Area, 2017 ..... 5-24
Table 5-6 No Build Scenario Acres per 1,000 Residents by Age Cohort, 2017 ..... 5-25
Table 5-7 Study Area Residential Population by Age Group, Action Condition, 2017 ..... 5-26
Table 5-8 Build Scenario Acres per 1,000 Residents by Age Cohort, 2017 ..... 5-27

Table 6-1 Triangle Thirty-Seven, Segment 1 ..... 6-10
Table 6-2 Triangle Thirty-Seven, Segment 2 ..... 6-11

Table 7-1 Archaeological Potential for each Lot within the Dutch Kills Archaeological APE ..... 7-13
Table 7-2 Historic Architectural Resources Surveyed for the Dutch Kills Rezoning Project ..... 7-26

Table 12-1 Existing Water Consumption and Sewage Generation at Projected Development Sites ..... 12-4
Table 12-2 Future Water Consumption and Sewage Generation at Projected Development Sites Without the Proposed Actions ..... 12-6

Table 12-3 Future Water Consumption and Sewage Generation at Projected Development Sites With the Proposed Actions ..... 12-8

Table 13-1 Existing Solid Waste Generation at Projected Development Sites ..... 13-3
Table 13-2 Solid Waste Generation at Projected Development Sites Without the Proposed Actions ..... 13-4

Table 13-3 Solid Waste Generation at Projected Development Sites With the Proposed Actions .. 13-5
Table 13-4 Incremental Difference of Solid Waste Generation at Projected Development Sites With the Proposed Project and Without the Proposed Actions ..... 13-6

Table 14-1 Existing Annual Energy Consumption at Projected Development Sites ..... 14-4
Table 14-2 Future Annual Energy Consumption at Projected Development Sites Without the Proposed Project ..... 14-5
Table 14-3 Future Annual Energy Consumption at Projected Development Sites With the Proposed Project ..... 14-5

Table 15-1 Intersection Level of Service Criteria ..... 15-5
Table 15-2 Existing Conditions - Levels of Service at Signalized Intersections ..... 15-9
Table 15-3 Annual Motor Vehicle Accidents at Study Area Intersections, 2005-2007 ..... 15-11
Table 15-4 Existing Conditions - Off-Street Public Parking Facilities and Utilization ..... 15-13
Table 15-5 2017 Future No-Action Conditions - Levels of Service at Signalized Intersections ... 15-18
Table 15-6 2017 No-Action Conditions - Off-Street Public Parking Utilization ..... 15-20
Table 15-7 Transportation Planning Factors ..... 15-21
Table 15-8 With-Action Increment Peak Hour Travel Demand (Person Trips) ..... 15-23
Table 15-9 With-Action Increment Peak Hour Travel Demand (Vehicle Trips) ..... 15-24
Table 15-10 Comparison of 2017 Future No-Action and With-Action Conditions – Levels of Service at Signalized Intersections ..... 15-27
Table 15-11 Summary of Impacted Intersections ..... 15-28
Table 15-12 With-Action Increment Parking Demand ..... 15-30
Table 15-13 2017 With-Action Off-Street Public Parking Conditions ..... 15-31

Table 16-1 Stairway Level of Service Definitions ..... 16-4
Table 16-2 Pedestrian Crosswalk/Corner Area and Sidewalk Levels of Service Descriptions ..... 16-6
Table 16-3 Average Weekday Entering Turnstile Counts ..... 16-7
Table 16-4 Existing Conditions at the 39th Avenue (N, W) Subway Station ..... 16-11
Table 16-5 Existing Sidewalk Conditions ..... 16-17
Table 16-6 Existing Corner Conditions ..... 16-18
Table 16-7 Existing Crosswalk Conditions ..... 16-19
Table 16-8 2017 Future No-Action Conditions at the 39th Avenue (N, W) Subway Station ..... 16-20
Table 16-9 2017 Future No-Action Sidewalk Conditions ..... 16-22
Table 16-10 2017 Future No-Action Corner Conditions ..... 16-23
Table 16-11 2017 Future No-Action Crosswalk Conditions ..... 16-24
Table 16-12 Transit and Pedestrian Travel Demand Forecast for the Proposed Actions (Person Trips) ..... 16-25
Table 16-13 Weekday Peak Hour Project Increment - Subway Trips by Station ..... 16-25
Table 16-14 2017 Future With the Proposed Actions Conditions at the 39th Avenue (N, W) Subway Station ..... 16-27
Table 16-15 2017 With-Action Sidewalk Conditions ..... 16-29
Table 16-16 2017 With-Action Corner Conditions ..... 16-30
Table 16-17 2017 With-Action Crosswalk Conditions ..... 16-31

Table 17-1 National Ambient Air Quality Standards ..... 17-5
Table 17-2 Industrial Source Analysis: Relevant NYSDEC Air Guideline Concentrations ..... 17-8
Table 17-3 Mobile Source Analysis Intersection Locations ..... 17-11
Table 17-4 Parking Garage—Analyzed Sites ..... 17-11

Table 17-5 Background Pollutant Concentrations ..... 17-14
Table 17-6 Representative Monitored Ambient Air Quality Data ..... 17-16
Table 17-7 Maximum Predicted Existing 8-Hour Average CO Concentrations for 2008 ..... 17-17
Table 17-8 Future (2017) Maximum Predicted 8-Hour Average Carbon Monoxide No Build Concentrations ..... 17-17
Table 17-9 Build (2017) Maximum Predicted 8-Hour Carbon Monoxide Concentrations ..... 17-18
Table 17-10 Cluster Impacts from HVAC Sources Using No. 4 Fuel Oil Maximum Concentrations ..... 17-20
Table 17-11 Industrial Source Impacts - Maximum Predicted Concentrations at Projected and Potential Development Sites ..... 17-21
Table 17-12 Development Sites Affected by Air Contaminants Exceeding an SGC or AGC ..... 17-22
Table 17-13 Estimated Maximum Hazard Index ..... 17-23

Table 18-1 Common Noise Levels ..... 18-2
Table 18-2 Average Ability to Perceive Changes in Noise Levels ..... 18-3
Table 18-3 Community Response to Increases in Noise Levels ..... 18-3
Table 18-4 New York City Noise Codes ..... 18-5
Table 18-5 Noise Exposure Guidelines for Use in City Environmental Impact Review ..... 18-6
Table 18-6 Required Attenuation Values to Achieve Acceptable Interior Noise Levels ..... 18-6
Table 18-7 Existing Noise Levels (in dBA) ..... 18-9
Table 18-8 Noise Impact Screening Analysis Results ..... 18-10
Table 18-9 Required Attenuation at Noise Measurement Locations ..... 18-11

Table 19-1 Construction Equipment Noise Levels ..... 19-9
Table 19-2 Construction Equipment Vibration Source Levels ..... 19-10

Table 21-1 Proposed Traffic Mitigation Measures ..... 21-3
Table 21-2 2017 Future Conditions with the Proposed Actions w/Mitigation Conditions, Levels of Service at Signalized Intersections ..... 21-4

Table 22-1 Summary of Projected Development Under Alternatives ..... 22-1
Table 22-2 Summary of Projected Incremental Development Under Alternatives ..... 22-1
Table 22-3 Future (2017) Maximum Predicted 8-Hour Average Carbon Monoxide No Action Alternative Concentrations ..... 22-9
Table 22-4 Comparison of Proposed Actions and Lower Density Alternative ..... 22-11
Table 22-5 Summary of RWCDS for Lower Density Alternative to Proposed Actions – Projected Development Sites ..... 22-13
Table 22-6 Peak Hour Travel Demand Comparison - Lower Density Alternative with the Proposed Actions ..... 22-19
Table 22-7 Comparison of Impacted Intersections under Lower Density Alternative ..... 22-19