Innovative Urban Village

Final Environmental Impact Statement

PREPARED FOR

Innovative Urban Living, LLC
432 Park Avenue South
2nd Floor
New York, NY 10016

PREPARED BY

One Penn Plaza
Suite 715
New York, NY 10119
212.857.7350

CEQR No. 20DCP057K
ULURP Nos. C220314ZSK, C220311ZSK,
C220312ZMK, N220313ZRK, N220165LDK

September 30, 2022

Innovative Urban Village

Final Environmental Impact Statement (FEIS)

Project Location:	East New York, Brooklyn
CEQR No.	20DCP057K
Type of Action:	Type 1
ULURP Nos.	C220314ZSK, C220311ZSK, C220312ZMK, N220313ZRK, N220165LDK
Lead Agency:	City Planning Commission, City of New York Daniel R. Garodnick, Chair
Lead Agency Contact:	Stephanie Shellooe, AICP Director, Environmental Assessment and Review Division New York City Department of City Planning 120 Broadway, 31st Floor New York, NY 10217
Project Applicant:	Innovative Urban Living, LLC
Prepared by:	VHB One Penn Plaza, Suite 715 New York, NY 10119-0800 212-857-7350
Acceptance Date:	September 30, 2022

The FEIS is available on the website of the New York City Department of City Planning, via the Innovative Urban Village project page on ZAP: **https://zap.planning.nyc.gov/projects/2019K0038**.

To view the Innovative Urban Village FEIS and Appendix, navigate to the project page in ZAP and select Public Documents, then "FEIS_20DCP057K".

Table of Contents

Section Page

Executive Summary 1

Introduction 1
Project Area and Context 3
Development Site 3
Project Area 6
Background and Surrounding Context 7
Proposed Actions 8
Zoning Map Amendment 8
Zoning Text Amendment 9
Special Permits 9
Proposed Project 12
Project Purpose and Need 19
Analysis Framework and Reasonable Worst-Case Development Scenario 20
Future No-Action Condition 21
Future With-Action Condition 21
Analysis (Build) Year 23
Principal Conclusions of Environmental Analysis 23
Land Use, Zoning, and Public Policy 23
Socioeconomic Conditions 23
Community Facilities and Services 24
Open Space 26
Shadows 27
Historic Resources 27
Urban Design and Visual Resources 27
Natural Resources 28
Hazardous Materials 29
Water and Sewer Infrastructure 31
Solid Waste and Sanitation Services 31
Transportation 32
Air Quality 34
Greenhouse Gas Emissions 35
Noise 36
Public Health 38
Neighborhood Character 40
Construction 41
Mitigation 46
Alternatives 51
Unavoidable Significant Adverse Impacts 53
Growth-Inducing Aspects of the Proposed Project 53
Irreversible and Irretrievable Commitments of Resources 55

Project Description 1-1

Introduction 1-1
Project Area and Context 1-3
Development Site 1-3
Project Area 1-4
Background and Surrounding Context 1-7
Proposed Actions 1-8
Zoning Map Amendment 1-8
Zoning Text Amendment 1-9
Special Permits 1-9
Proposed Project 1-12
Project Purpose and Need 1-19
Analysis Framework and Reasonable Worst-Case Development Scenario 1-20
Future No-Action Condition 1-21
Future With-Action Condition 1-21
Analysis (Build Year) 1-23
Public Review Process 1-23
Uniform Land Use Review Procedure (ULURP) 1-23
City Environmental Quality Review (CEQR) 1-23

Land Use, Zoning, and Public Policy 2-1

Introduction 2-1
Principal Conclusions 2-2
Land Use and Zoning 2-2
Public Policy 2-2
Methodology 2-3
Study Area Definition 2-3
Assessment 2-4
Existing Conditions 2-4
No-Action Condition 2-13
With-Action Condition 2-13

Socioeconomic Conditions 3-1

Introduction 3-1
Principal Conclusions 3-2
Methodology 3-2
Analysis Format 3-3
Initial Screening Assessment 3-3
Indirect Residential Displacement Preliminary Assessment 3-4
Indirect Residential Displacement Methodology 3-4
Existing Conditions 3-5
No-Action Condition 3-8
With-Action Condition 3-8
Indirect Residential Displacement Detailed Assessment 3-10
Existing Conditions 3-10
No-Action Condition 3-16

With-Action Condition *3-16*

Community Facilities and Services **4-1**

Introduction 4-1
Principal Conclusions 4-2
Indirect Effects on Public Schools *4-2*
Indirect Effects on Early Childhood Programs *4-2*
Indirect Effects on Libraries *4-2*
Methodology 4-3
Early Childhood Programs *4-6*
Libraries *4-7*
Detailed Analysis: Public Schools 4-8
Existing Conditions *4-8*
No-Action Condition *4-11*
With-Action Condition *4-13*
Detailed Analysis: Early Childhood Programs 4-13
Existing Conditions *4-13*
No-Action Condition *4-15*
Future With-Action Condition *4-16*
Detailed Analysis: Libraries 4-17
Existing Conditions *4-17*
No-Action Condition *4-20*
With-Action Condition *4-20*

Open Space **5-1**

Introduction 5-1
Principal Conclusions 5-2
Methodology 5-3
Open Space Study Area *5-4*
Direct Effects Analysis *5-6*
Indirect Effects Analysis *5-6*
Walk-to-a-Park Initiative *5-7*
Impact Assessment *5-9*
Detailed Assessment 5-9
Existing Conditions *5-9*
No-Action Condition *5-16*
With-Action Condition *5-17*
Determining Impact Significance 5-21
Passive Open Space *5-21*
Active Open Space *5-21*
Total Open Space *5-21*

Shadows **6-1**

Introduction 6-1
Methodology 6-3
Sunlight-Sensitive Resources *6-3*

Preliminary Assessment *6-4*
Detailed Assessment *6-5*
Determination of Significance *6-5*
Preliminary Assessment 6-6
Tier 1 and 2 Screening *6-6*
Tier 3 Screening Assessment *6-9*
Conclusion 6-15

Historic and Cultural Resources 7-1

Principal Conclusions 7-2
Methodology 7-2
Development Site and Study Area *7-3*
Preliminary Assessment 7-5
Archaeological Resources *7-5*
Architectural Resources *7-5*

Urban Design and Visual Resources 8-1

Introduction 8-1
Principal Conclusions 8-2
Urban Design *8-2*
Visual Resources *8-3*
Methodology 8-3
Assessment Criteria *8-4*
Study Area *8-5*
Detailed Analysis 8-5
Existing Conditions *8-5*
No-Action Condition *8-19*
With-Action Condition *8-19*

Natural Resources 9-1

Introduction 9-1
Principal Conclusions 9-2
Methodology 9-3
Existing Conditions 9-3
Fresh Creek Nature Preserve/Fish Creek Basin *9-3*
Jamaica Bay *9-4*
The Future Without the Proposed Actions 9-5
The Future With the Proposed Actions 9-5

Hazardous Materials 10-1

Introduction 10-1
Principal Conclusions 10-2
Methodology 10-4
Assessment 10-5
Existing Conditions *10-5*

Future No-Action Condition *10-14*
Future With-Action Condition *10-14*

Water and Sewer Infrastructure 11-1

Introduction 11-1
Principal Conclusions 11-2
Methodology 11-2
Existing Conditions 11-3
Water Supply *11-3*
Conveyance System *11-4*
Sanitary Flows *11-5*
Stormwater Flows *11-6*
The Future Without the Proposed Actions 11-7
The Future with the Proposed Actions 11-7
Sanitary Flows *11-7*
Stormwater Flows *11-8*

Solid Waste and Sanitation Services 12-1

Introduction 12-1
Principal Conclusions 12-2
Methodology 12-2
Assessment 12-3
Existing Conditions *12-3*
No-Action Condition *12-5*
With-Action Condition *12-6*

Transportation 13-1

Introduction 13-1
Principal Conclusions 13-4
Traffic *13-4*
Parking *13-4*
Subways *13-5*
Buses *13-5*
Pedestrians *13-6*
Vehicular and Pedestrian Safety *13-6*
Methodology 13-6
Level 1 Screening Assessment *13-7*
Level 1 Screening Results *13-16*
Level 2 Screening Assessment *13-23*
Level 2 Screening Results *13-47*
Detailed Analysis Methodology 13-53
Traffic *13-53*
Parking *13-54*
Transit *13-54*
Pedestrians *13-57*
Vehicle and Pedestrian Safety *13-60*

Existing Conditions 13-60
Traffic *13-60*
Parking *13-85*
Subways *13-85*
Buses *13-88*
Pedestrians *13-89*
No-Action Conditions 13-100
Traffic *13-100*
Parking *13-124*
Subways *13-125*
Buses *13-126*
Pedestrians *13-127*
With-Action Conditions 13-139
Traffic *13-139*
Parking *13-182*
Subways *13-186*
Buses *13-188*
Pedestrians *13-190*
Vehicle and Pedestrian Safety *13-203*

Air Quality 14-1

Introduction 14-1
Principal Conclusions 14-2
Mobile Sources *14-2*
Parking Facilities *14-2*
Stationary Sources *14-3*
Industrial Sources *14-3*
National Ambient Air Quality Standards 14-5
Pollutants of Concern 14-7
Regulatory Context 14-7
Impact Criteria 14-8
CO De Minimis Criteria *14-8*
$PM_{2.5}$ De Minimis Criteria *14-8*
Non-Criteria Pollutant Thresholds *14-9*
Background Concentrations 14-9
Methodology and Screening Analyses-Mobile Sources 14-10
Mobile Sources *14-10*
Stationary Sources *14-12*
Existing Condition 14-14
Assessment 14-15
Mobile Sources *14-15*
HVAC Analysis *14-25*
Industrial Source Analysis *14-29*

Greenhouse Gas Emissions and Climate Change 15-1

Introduction 15-1
Principal Conclusions 15-2
Pollutants of Concern 15-3
Climate Change Initiatives 15-7
Methodology 15-8
GHG Emissions Assessment 15-8
Climate Change Assessment 15-10
Assessment 15-10
Direct GHG Emissions 15-10
Indirect GHG Emissions 15-10
Mobile Source Emissions 15-10
Construction Emissions 15-11
Consistency with the GHG Reduction Goals 15-12
Resilience to Climate Change 15-13

Noise 16-1

Introduction 16-1
Principal Conclusions 16-2
Existing Noise Receptors 16-2
New Noise Receptors 16-3
Noise Background 16-4
Noise Assessment for Existing Receptors 16-6
Mobile Sources 16-6
Stationary Sources 16-9
Noise Assessment for Monitoring Locations and New Receptors 16-10
Noise Exposure Guidelines 16-10
Existing Noise Levels 16-11
Mobile Source Noise Analysis 16-15
Stationary Source Noise Analysis 16-22
Acceptability Assessment 16-24
Noise Attenuation Measures 16-27

Public Health 17-1

Introduction 17-1
Principal Conclusions 17-2
Methodology 17-4
Assessment 17-4
Operational Period 17-4
Construction Period 17-8

Neighborhood Character 18-1

Introduction 18-1
Principal Conclusions 18-2
Methodology 18-3

Preliminary Assessment 18-4
Identification of the Defining Features of the Neighborhood- Existing Conditions *18-4*
No Action Condition *18-6*
With-Action Condition *18-6*

Construction 19-1

Introduction 19-1
Principal Conclusions 19-2
Transportation *19-2*
Air Quality *19-3*
Noise *19-3*
Vibration *19-5*
Other Technical Areas *19-5*
Methodology 19-6
Construction Regulations and General Practices 19-7
Construction Oversight *19-7*
Construction Hours *19-8*
Construction Practices *19-8*
Construction Description 19-11
Construction Schedule *19-11*
Construction Activities *19-13*
Number of Construction Workers and Material Deliveries *19-15*
Assessment of Project Construction 19-15
Transportation *19-15*
Air Quality *19-44*
Noise *19-54*
Vibration *19-121*
Natural Resources *19-122*

Mitigation 20-1

Introduction 20-1
Principal Conclusions 20-1
Community Facilities *20-2*
Open Space *20-3*
Transportation *20-3*
Noise *20-5*
Construction *20-5*
Community Facilities 20-6
Early Childhood Programs *20-6*
Libraries *20-9*
Open Space 20-10
Transportation 20-11
Traffic *20-11*
Subway *20-48*
Bus *20-49*
Pedestrians *20-50*

Noise *20-57*
Construction *20-57*

Alternatives **21-1**

Introduction 21-1
Principal Conclusions 21-2
No-Action Alternative *21-2*
Modified Application Before the City Planning Commission *21-2*
No Unmitigated Significant Adverse Impacts Alternative *21-3*
No-Action Alternative 21-4
Description of the No-Action Alternative *21-4*
Land Use, Zoning, and Public Policy *21-4*
Socioeconomic Conditions *21-5*
Community Facilities and Services *21-5*
Open Space *21-6*
Shadows *21-6*
Historic and Cultural Resources *21-6*
Urban Design and Visual Resources *21-7*
Natural Resources *21-7*
Hazardous Materials *21-7*
Water and Sewer Infrastructure *21-8*
Solid Waste and Sanitation Services *21-8*
Transportation *21-8*
Air Quality *21-9*
Greenhouse Gas Emissions and Climate Change *21-9*
Noise *21-9*
Public Health *21-9*
Neighborhood Character *21-9*
Construction *21-10*
Modified Application Before the City Planning Commission 21-10
No Unmitigated Significant Adverse Impact Alternative 21-11
Community Facilities and Services *21-11*
Open Space *21-12*
Transportation *21-13*
Construction *21-14*

Unavoidable Significant Adverse Impacts **22-1**

Introduction 22-1
Community Facilities 22-2
Early Childhood Programs *22-2*
Libraries *22-3*
Open Space 22-4
Transportation 22-4
Traffic *22-4*
Transit *22-5*
Pedestrians *22-5*

Construction 22-6
Traffic *22-6*
Noise *22-6*

Growth-Inducing Aspects of the Proposed Project 23-1

Introduction 23-1
Principal Conclusions 23-2

Irreversible and Irretrievable Commitments of Resources 24-1

Response to Comments on the DEIS 25-1

Introduction 25-1
1. List of Elected Officials, Organizations, and Individuals who Commented on the DEIS 25-2
Organizations and Interested Public *25-2*
2. Comments and Responses on the DEIS 25-2
Comments Received in Support of the Proposed Action *25-2*
Comments Relating to EIS Analyses *25-2*

Appendices

Appendix A ..... Waterfront Revitalization Program – Consistency Assessment

Appendix B ..... LPC Correspondence

Appendix C ..... Traffic Analysis: Year 2026 with Project Improvements and Mitigation

Appendix D ..... Comments on the DEIS

List of Tables

Table No.	Title	Page
Table 1	Overview of Projected Development	14
Table 2	Future No-Action and With-Action Comparison	22
Table 1-1	Overview of Projected Development	1-14
Table 1-2	Future No-Action and With-Action Comparison	1-22
Table 2-1	Study Area Generalized Land Uses	2-6

Table 3-1 Population, 2020 3-7

Table 3-2 Average and Median Household Income 3-7

Table 3-3 Household Income Distribution, 2019 3-8

Table 3-4 Population Below the Poverty Level 3-8

Table 3-5 New York City AMI, 2021 3-9

Table 3-6 Renter-Occupied Units in Study Area, 2019 3-11

Table 3-7 East New York Median Asking Rent, 2016 to 2021[1] 3-13

Table 3-8 Inventory of Regulated Housing 3-14

Table 3-9 Study Area Regulated and Unregulated Rental Housing 3-15

Table 3-10 Regulated and Unregulated Housing Categories 3-15

Table 3-11 Renter-Occupied Units in Study Area, 2018 3-16

Table 4-1 Residential Community Facilities Increment for Analysis 4-4

Table 4-2 Public School Enrollment, Capacity, and Utilization for Existing Conditions, School District 19, Subdistrict 3 4-9

Table 4-3 Public Schools No-Action Condition- Proposed Housing Developments 4-11

Table 4-4 Projected Public School Enrollment, Capacity, and Utilization for No-Action Condition, School District 19, Subdistrict 3 4-12

Table 4-5 Projected Public School Enrollment, Capacity, and Utilization for With-Action Condition, School District 19, Subdistrict 3 4-13

Table 4-6 Publicly Funded Early Childhood Programs Serving the Study Area 4-14

Table 4-7 Child-Care Eligible Children Anticipated in No-Action Development Projects 4-16

Table 4-8 No-Action Condition Estimated Publicly Funded Child Care Center Enrollment, Capacity and Utilization 4-16

Table 4-9 With Action Condition Estimated Publicly Funded Child Care Center Enrollment, Capacity and Utilization 4-17

Table 4-10 Existing Conditions Public Library Catchment Area Population and Holdings 4-18

Table 4-11 No-Action Developments Within Library Catchment Area 4-20

Table 4-12 No-Action Condition Public Library Catchment Area Population and Holdings 4-20

Table 4-13 With-Action Condition Public Library Catchment Area Population and Holdings 4-21

Table 5-1 Future No-Action and With-Action Population/Employment Summary 5-3

Table 5-2 Percent Change Guidance to determine possible Open Space Impact 5-9

Table 5-3 Existing Population in the Study Area 5-10

Table 5-4 Existing Population within the Study Area 5-11

Table 5-5 Existing Study Area Open Spaces 5-14
Table 5-6 Existing Conditions – Adequacy of Open Space Resources in Half-Mile Study Area 5-16
Table 5-7 No-Action Condition – Adequacy of Open Space Resources in the Study Area 5-17
Table 5-8 With-Action Condition – Adequacy of Open Space Resources in the Half-Mile Study Area 5-19
Table 5-9 Open Space Ratio Summary 5-20
Table 6-1 Proposed Project Building Height 6-3
Table 6-2 Sunlight-Sensitive Resources in the Study Area 6-7
Table 6-3 Tier 1 through 3 Shadows Screening Results 6-16
Table 11-1 Water Consumption and Wastewater Generation Rates 11-4
Table 11-2 Existing Water Consumption and Sewage Generation 11-4
Table 11-3 26th Ward Average Monthly Flows 11-5
Table 11-4 Existing Surface Coverage 11-7
Table 11-5 With-Action Water Consumption and Sewage Generation 11-8
Table 11-6 With-Action Surface Coverage 11-9
Table 11-7 DEP Flow Volume Matrix – Existing Conditions 11-9
Table 11-8 DEP Flow Volume Matrix – With-Action Conditions 11-10
Table 11-9 Existing and With-Action Combined Stormwater Runoff Generation 11-10
Table 12-1 Existing Solid Waste Generation on the Development Site 12-5
Table 12-2 No-Action Solid Waste Generation on the Development Site 12-6
Table 12-3 With-Action Solid Waste Generation on the Development Site 12-7
Table 12-4 Comparison of Weekly Solid-Waste Generation on the Development Site (Existing, No-Action, and With-Action Conditions) 12-8
Table 13-1 Development Increment for Analysis 13-4
Table 13-2 Weekday Travel Demand Characteristics – Residential, Retail, PAC, and Trade School 13-8
Table 13-3 Weekday Travel Demand Characteristics – Daycare, Medical Office, and Open Space 13-9
Table 13-4 Weekend Travel Demand Characteristics – Residential, Retail, PAC, and Trade School 13-10
Table 13-5 Weekend Travel Demand Characteristics – Daycare, Medical Office, and Open Space 13-11
Table 13-6 Trip Generation Summary – Person Trips 13-17

Table 13-7 Weekday Trip Generation Summary by Land Use – Person Trips 13-18
Table 13-8 Weekend Trip Generation Summary by Land Use – Person Trips 13-19
Table 13-9 Trip Generation Summary – Vehicle Trips 13-20
Table 13-10 Weekday Trip Generation Summary by Land Use – Vehicle Trips 13-21
Table 13-11 Weekend Trip Generation Summary by Land Use – Vehicle Trips 13-22
Table 13-12 Project-Generated Bus Trips By Route 13-49
Table 13-13 Level-of-Service Criteria for Subway Station Elements 13-55
Table 13-14 Significant Impact Guidance for Stairs and Passageways 13-56
Table 13-15 Level-of-Service Criteria for Pedestrian Elements 13-58
Table 13-16 Significant Impact Criteria for Sidewalks - Non-CBD Areas 13-59
Table 13-17 Significant Impact Criteria for Corners and Crosswalks - Non-CBD Areas 13-60
Table 13-18 Year 2020 Existing Traffic Levels of Service Summary – Overall Intersections 13-74
Table 13-19 Year 2020 Existing Traffic Level of Service Summary – Traffic Movements 13-74
Table 13-20 Year 2020 Existing Traffic Levels of Service – Weekday and Saturday Peak Hours 13-75
Table 13-21 Year 2020 Existing Traffic Levels of Service – Sunday Peak Hour 13-81
Table 13-22 Existing Subway Station Levels of Service 13-87
Table 13-23 Existing Subway Line-Haul Analysis 13-88
Table 13-24 Existing Local Bus Analysis 13-89
Table 13-25 Year 2020 Existing Pedestrian Levels of Service Summary 13-96
Table 13-26 Year 2020 Existing Pedestrian Levels of Service – Sidewalks (Weekday/Saturday Peak Hours) 13-97
Table 13-27 Year 2020 Existing Pedestrian Levels of Service – Crosswalks (Weekday/Saturday Peak Hours) 13-98
Table 13-28 Year 2020 Existing Pedestrian Levels of Service – Corners (Weekday/Saturday Peak Hours) 13-99
Table 13-29 Year 2020 Existing Pedestrian Levels of Service – Sidewalks (Sunday Peak Hour) 13-99
Table 13-30 Year 2020 Existing Pedestrian Levels of Service – Crosswalks (Sunday Peak Hour) 13-100
Table 13-31 Year 2020 Existing Pedestrian Levels of Service – Corners (Sunday Peak Hour) 13-100
Table 13-32 Background Development Projects 13-101
Table 13-33 Year 2031 No-Action Traffic Level of Service Summary – Overall Intersections 13-112
Table 13-34 Year 2031 No-Action Traffic Level of Service Summary – Traffic Movements 13-113

Table 13-35 Year 2031 No-Action Traffic Levels of Service – Weekday and Saturday Peak Hours 13-114
Table 13-36 Year 2031 No-Action Traffic Levels of Service – Sunday Peak Hour 13-120
Table 13-37 No-Action Subway Station Levels of Service 13-125
Table 13-38 No-Action Subway Line-Haul Analysis 13-126
Table 13-39 No-Action Bus Analysis 13-127
Table 13-40 Year 2031 No-Action Pedestrian Levels of Service Summary 13-134
Table 13-41 Year 2031 No-Action Pedestrian Levels of Service – Sidewalks (Weekday/Saturday Peak Hours) 13-135
Table 13-42 Year 2031 No-Action Pedestrian Levels of Service – Crosswalks (Weekday/Saturday Peak Hours) 13-136
Table 13-43 Year 2031 No-Action Pedestrian Levels of Service – Corners (Weekday/Saturday Peak Hours) 13-137
Table 13-44 Year 2031 No-Action Pedestrian Levels of Service – Sidewalks (Sunday Peak Hour) 13-138
Table 13-45 Year 2031 No-Action Pedestrian Levels of Service – Crosswalks (Sunday Peak Hour) 13-138
Table 13-46 Year 2031 No-Action Pedestrian Levels of Service – Corners (Sunday Peak Hour) 13-138
Table 13-47 Year 2031 With-Action Traffic Level of Service Summary – Overall Intersections 13-154
Table 13-48 Year 2031 With-Action Traffic Level of Service Summary – Traffic Movements 13-155
Table 13-49 Year 2031 No-Action vs With-Action Traffic Levels of Service – Weekday AM Peak Hour 13-156
Table 13-50 Year 2031 No-Action vs With-Action Traffic Levels of Service – Weekday Midday Peak Hour 13-161
Table 13-51 Year 2031 No-Action vs With-Action Traffic Levels of Service – Weekday PM Peak Hour 13-166
Table 13-52 Year 2031 No-Action vs With-Action Traffic Levels of Service – Saturday Peak Hour 13-171
Table 13-53 Year 2031 No-Action vs With-Action Traffic Levels of Service – Sunday Peak Hour 13-176
Table 13-54 Projected Weekday Parking Demand 13-183
Table 13-55 Projected Saturday Parking Demand 13-184
Table 13-56 Projected Sunday Parking Demand 13-185

Table 13-57 With-Action Parking Demand and Supply 13-186
Table 13-58 No-Action vs. With-Action Subway Station Levels of Service 13-187
Table 13-59 With-Action Subway Line-Haul Analysis 13-188
Table 13-60 With-Action Bus Analysis 13-189
Table 13-61 Year 2031 With-Action Pedestrian Levels of Service Summary 13-197
Table 13-62 Year 2031 No-Action vs With-Action Pedestrian Levels of Service – Sidewalks (Weekday/Saturday Peak Hours) 13-198
Table 13-63 Year 2031 No-Action vs With-Action Pedestrian Levels of Service – Crosswalks (Weekday/Saturday Peak Hours) 13-200
Table 13-64 Year 2031 No-Action vs With-Action Pedestrian Levels of Service – Corners (Weekday/Saturday Peak Hours) 13-201
Table 13-65 Year 2031 No-Action vs With-Action Pedestrian Levels of Service – Sidewalks (Sunday Peak Hour) 13-202
Table 13-66 Year 2031 No-Action vs With-Action Pedestrian Levels of Service – Crosswalks (Sunday Peak Hour) 13-202
Table 13-67 Year 2031 No-Action vs With-Action Pedestrian Levels of Service – Corners (Weekday/Saturday Peak Hours) 13-203
Table 13-68 Vehicle and Pedestrian Crash Summary 13-204
Table 14-1 National and New York Ambient Air Quality Standards 14-6
Table 14-2 Background Concentrations 14-10
Table 14-3 Existing Monitored Concentrations (2018-2020) 14-15
Table 14-4 Weekday Signalized Intersections Project-Generated Trips Screening 14-16
Table 14-5 Weekend Signalized Intersections Project- Generated Trips Screening 14-17
Table 14-6 Highest 1-Hour and 8-Hour CO Concentrations for No-Action and With Action Conditions in 2031 (ppm) 14-18
Table 14-7 Highest 24-Hour $PM_{2.5}$ Concentrations for No-Action and With Action Conditions in 2031 ($\mu g/m^3$) 14-19
Table 14-8 Highest Annual $PM_{2.5}$ Concentrations for No-Action and With-Action Conditions in 2031 ($\mu g/m^3$) 14-19
Table 14-9 Highest 24-Hour PM_{10} Concentrations for With Action Conditions in 2031 ($\mu g/m^3$) 14-20
Table 14-10 Hourly In and Out Volumes for the Accessory Garage Under Buildings 3 and 4 14-23
Table 14-11 Hourly In and Out Volumes for the Public Parking Garage 14-24
Table 14-12 Highest Concentrations from Parking Garages 14-25

Table 14-13 Proposed Building Sizes and Heights 14-26
Table 14-14 HVAC and Hot Water Systems Emission Rates (for each Boiler) 14-26
Table 14-15 HVAC and Hot Water Systems Exhaust Stack Parameters (for each Stack) 14-27
Table 14-16 Maximum NO_2 and $PM_{2.5}$ Concentrations from Each Building ($\mu g/m^3$) 14-27
Table 14-17 Maximum Cumulative NO_2 and $PM_{2.5}$ Concentrations ($\mu g/m^3$) 14-28
Table 15-1 Global Warming Potential for Primary Greenhouse Gases 15-4
Table 15-2 GHG Emissions from Natural Gas-Fired HVAC Systems 15-10
Table 15-3 GHG Emissions from Electricity Generation 15-10
Table 15-4 GHG Emissions from Mobile Sources 15-11
Table 15-5 GHG Limits of the Proposed Project's Largest Building 15-12
Table 16-1 Common Indoor and Outdoor Sound Levels 16-5
Table 16-2 Mobile Source Noise Analysis at Intersections for Existing Receptors 16-8
Table 16-3 Noise Exposure Guidelines for Use in City Environmental Impact Review 16-11
Table 16-4 Sound Level Measurement Results 16-12
Table 16-5 Sound Level Measurement Results for Sunday AM 16-13
Table 16-6 Mobile Source Noise Analysis at Roadway Segments for New Receptors 16-16
Table 16-7 Adjusted Existing Sound Levels 16-18
Table 16-8 No-Action Sound Levels 16-19
Table 16-9 With-Action Sound Levels 16-20
Table 16-10 Modeled Sound Level Results for Street A 16-21
Table 16-11 Modeled Sound Level Results for Street A 16-22
Table 16-12 With-Action Sound Level at 1 Vandalia Avenue 16-23
Table 16-13 With-Action Sound Level at 1180 Pennsylvania Avenue 16-23
Table 16-14 With-Action Sound Levels at Building 4 Recreational Area 16-24
Table 16-15 With-Action Sound Levels at Building 9/10 Recreational Area 16-24
Table 16-16 Sound Level Acceptability, dBA 16-26
Table 16-17 Required Attenuation Values 16-27
Table 19-1 Average Number of Daily Construction Workers and Trucks by Quarter 19-15
Table 19-2 Average Number of Daily Number of Construction PCE Trips by Quarter 19-17
Table 19-3 Construction Vehicle Trips by Hour (Q4 2025) 19-18

Table 19-4 Construction Vehicle Trips by Hour (Q1 2030) 19-19
Table 19-5 Vehicle Trips Comparison – Construction Peak Quarters vs. Proposed Project 19-20
Table 19-6 Year 2020 Existing Traffic Level of Service 19-22
Table 19-7 Year 2030 No-Action Traffic Level of Service 19-27
Table 19-8 Year 2030 No-Action vs. With-Action vs Mitigation Traffic Levels of Service – AM Construction Peak Hour 19-33
Table 19-9 Year 2030 No-Action vs. With-Action vs Mitigation Traffic Levels of Service – PM Construction Peak Hour 19-37
Table 19-10 Highest Predicted Total Concentrations for Construction Activities 19-54
Table 19-11 Construction Mobile Source Analysis 19-60
Table 19-12 Construction Equipment by Month of Analysis 19-62
Table 19-13 Construction Noise Receptor Locations and Land Use Descriptions 19-64
Table 19-14 Ambient Sound Level Measurements 19-65
Table 19-15 Phase 1A – Foundation Construction Noise Levels: Months 1 through 4 19-66
Table 19-16 Phase 1A – Foundation/Superstructure/Fit-Out Construction Noise Levels: Months 5 through 12 19-68
Table 19-17 Phase 1A – Fit-Out Construction Noise Levels: Months 13 through 17 19-70
Table 19-18 Phase 1A – Fit-Out Construction Noise Levels: Months 18 through 23 19-72
Table 19-19 Phase 1B – Foundation Construction Noise Levels: Months 25 through 28 19-74
Table 19-20 Phase 1B – Foundation/Superstructure/Fit-Out Construction Noise Levels: Months 29 through 36 19-76
Table 19-21 Phase 1B – Superstructure/Fit-Out Construction Noise Levels: Months 37 through 43 19-78
Table 19-22 Phase 1B – Fit-Out Construction Noise Levels: Months 44 through 47 19-80
Table 19-23 Phase 2A – Foundation/Superstructure Construction Noise Levels: Months 49 through 55 19-82
Table 19-24 Phase 2A – Foundation/Superstructure/Fit-Out Construction Noise Levels: Months 56 through 61 19-85
Table 19-25 Phase 2A – Superstructure/Fit-Out Construction Noise Levels: Months 62 through 66 19-89
Table 19-26 Phase 2A – Fit-Out Construction Noise Levels: Months 67 through 72 19-92
Table 19-27 Phase 2B/2C – Foundation/Superstructure Construction Noise Levels: Months 73 through 78 19-95

Table 19-28 Phase 2B/2C – Foundation/Superstructure/Fit-Out Construction Noise Levels: Months 79 through 85 19-98
Table 19-29 Phase 2B/2C – Superstructure/Fit-Out Construction Noise Levels: Months 86 through 89 19-101
Table 19-30 Phase 2B/2C – Fit-Out Construction Noise Levels: Months 90 through 96 19-104
Table 20-1 Traffic Impact Mitigation Summary 20-12
Table 20-2 Summary of Significantly Impacted Traffic Movements 20-13
Table 20-3 Year 2031 No-Action vs. With-Action vs Mitigation Traffic Levels of Service – Weekday AM Peak Hour 20-15
Table 20-4 Year 2031 No-Action vs. With-Action vs Mitigation Traffic Levels of Service – Weekday Midday Peak Hour 20-22
Table 20-5 Year 2031 No-Action vs. With-Action vs Mitigation Traffic Levels of Service – Weekday PM Peak Hour 20-28
Table 20-6 Year 2031 No-Action vs. With-Action vs Mitigation Traffic Levels of Service – Saturday Peak Hour 20-35
Table 20-7 Year 2031 No-Action vs. With-Action vs Mitigation Traffic Levels of Service – Sunday Peak Hour 20-42
Table 20-8 With-Action with Mitigation Bus Analysis 20-50
Table 20-9 Summary of Elements with Significant Adverse Pedestrian Impacts 20-51
Table 20-10 Sidewalk Impact Mitigation Summary 20-52
Table 20-11 Crosswalk Impact Mitigation Summary 20-53
Table 20-12 Corners Impact Mitigation Summary 20-56

List of Figures

Figure No.	Title	Page

Figure 1 Site Location Map 5
Figure 2 Innovative Urban Living Site Axonometric Diagram 16
Figure 3 Innovative Urban Living Program Site Plan 17
Figure 1-1 Site Location Map 1-6
Figure 1-2 Innovative Urban Village Site Axonometric Diagram 1-16
Figure 1-3 Innovative Urban Village Program Site Plan 1-17
Figure 2-1 Land Use Map 2-7

Figure 2-2 Existing Zoning Map 2-8
Figure 2-3 Proposed Zoning Map 2-16
Figure 3-1 Socioeconomic Study Area 3-6
Figure 4-1 Public Schools District 19, Subdistrict 3 4-10
Figure 4-2 Libraries Study Area 4-19
Figure 5-1 Half-Mile Open Space Study Area Map 5-5
Figure 5-2 Walk to a Park Service Area 5-8
Figure 5-3 Open Space Inventory 5-15
Figure 5-4 Illustrative Diagram of Proposed With-Action Active and Passive Open Space 5-18
Figure 6-1 With-Action Site Axonometric with Proposed Land Uses 6-2
Figure 6-2 Tier 1 and Tier 2 Screening 6-8
Figure 6-3 Tier 3 Screening December 21 Analysis Day 6-10
Figure 6-4 Tier 3 Screening March 21/September 21 Analysis Day 6-11
Figure 6-5 Tier 3 Screening May 6/August 6 Analysis Day 6-12
Figure 6-6 Tier 3 Screening June 21 Analysis Day 6-13
Figure 7-1 Architectural Resources Study Area 7-4
Figure 8-1 Urban Design Photo Key 8-6
Figure 8-2 Development Site Street Access Plan 8-21
Figure 8-3 Development Site Axonometric Diagram 8-24
Figure 8-4 No-Action/With-Action Comparative Views Photo Key 8-25
Figure 8-5 With-Action Condition (R3 – Illustrative Rendering) 8-29
Figure 8-6 R4 – Illustrative Rendering: View facing west from Pennsylvania Avenue 8-31
Figure 8-7 Proposed Parking Garage 8-33
Figure 8-8 With-Action Condition (R5 – Illustrative Rendering) 8-35
Figure 8-9 Open Space Elements of the Proposed Project 8-42
Figure 11-1 26th Ward WWTP Collection System 11-6
Figure 13-1 Project Location 13-2
Figure 13-2 Site Plan 13-3
Figure 13-3 Project-Generated Pedestrian Trips – Weekday AM Peak Hour 13-25
Figure 13-4 Project-Generated Pedestrian Trips – Weekday Midday Peak Hour 13-26
Figure 13-5 Project-Generated Pedestrian Trips – Weekday PM Peak Hour 13-27
Figure 13-6 Project-Generated Pedestrian Trips – Saturday Peak Hour 13-28

Figure 13-7 Project-Generated Pedestrian Trips – Sunday Peak Hour 13-29
Figure 13-8 Project-Generated Vehicle Trips – Weekday AM Peak Hour (North Study Area) 13-32
Figure 13-9 Project-Generated Vehicle Trips – Weekday AM Peak Hour (South Study Area) 13-33
Figure 13-10 Project-Generated Vehicle Trips – Weekday AM Peak Hour (Project Area) 13-34
Figure 13-11 Project-Generated Vehicle Trips – Weekday Midday Peak Hour (North Study Area) 13-35
Figure 13-12 Project-Generated Vehicle Trips – Weekday Midday Peak Hour (South Study Area) 13-36
Figure 13-13 Project-Generated Vehicle Trips – Weekday Midday Peak Hour (Project Area) 13-37
Figure 13-14 Project-Generated Vehicle Trips – Weekday PM Peak Hour (North Study Area) 13-38
Figure 13-15 Project-Generated Vehicle Trips – Weekday PM Peak Hour (South Study Area) 13-39
Figure 13-16 Project-Generated Vehicle Trips – Weekday PM Peak Hour (Project Area) 13-40
Figure 13-17 Project-Generated Vehicle Trips – Saturday Peak Hour (North Study Area) 13-41
Figure 13-18 Project-Generated Vehicle Trips – Saturday Peak Hour (South Study Area) 13-42
Figure 13-19 Project-Generated Vehicle Trips – Saturday Peak Hour (Project Area) 13-43
Figure 13-20 Project-Generated Vehicle Trips – Sunday Peak Hour (North Study Area) 13-44
Figure 13-21 Project-Generated Vehicle Trips – Sunday Peak Hour (South Study Area) 13-45
Figure 13-22 Project-Generated Vehicle Trips – Sunday Peak Hour (Project Area) 13-46
Figure 13-23 Traffic Analysis Locations 13-48
Figure 13-24 Transit Study Area 13-50
Figure 13-25 Pedestrian Analysis Locations 13-52
Figure 13-26 Existing Traffic Volumes – Weekday AM Peak Hour (North Study Area) 13-65
Figure 13-27 Existing Traffic Volumes – Weekday AM Peak Hour (South Study Area) 13-66
Figure 13-28 Existing Traffic Volumes – Weekday Midday Peak Hour (North Study Area) 13-67
Figure 13-29 Existing Traffic Volumes – Weekday Midday Peak Hour (South Study Area) 13-68
Figure 13-30 Existing Traffic Volumes – Weekday PM Peak Hour (North Study Area) 13-69
Figure 13-31 Existing Traffic Volumes – Weekday PM Peak Hour (South Study Area) 13-70
Figure 13-32 Existing Traffic Volumes – Saturday Peak Hour (North Study Area) 13-71
Figure 13-33 Existing Traffic Volumes – Saturday Peak Hour (South Study Area) 13-72
Figure 13-34 Existing Traffic Volumes – Sunday Peak Hour 13-73
Figure 13-35 Existing Pedestrian Volumes – Weekday AM Peak Hour 13-91
Figure 13-36 Existing Pedestrian Volumes – Weekday Midday Peak Hour 13-92

Figure 13-37 Existing Pedestrian Volumes – Weekday PM Peak Hour 13-93
Figure 13-38 Existing Pedestrian Volumes – Saturday Peak Hour 13-94
Figure 13-39 Existing Pedestrian Volumes – Sunday Peak Hour 13-95
Figure 13-40 No-Action Traffic Volumes – Weekday AM Peak Hour (North Study Area) 13-102
Figure 13-41 No-Action Traffic Volumes – Weekday AM Peak Hour (South Study Area) 13-103
Figure 13-42 No-Action Traffic Volumes – Weekday Midday Peak Hour (North Study Area) ... 13-104
Figure 13-43 No-Action Traffic Volumes – Weekday Midday Peak Hour (South Study Area) ... 13-105
Figure 13-44 No-Action Traffic Volumes – Weekday PM Peak Hour (North Study Area) 13-106
Figure 13-45 No-Action Traffic Volumes – Weekday PM Peak Hour (South Study Area) 13-107
Figure 13-46 No-Action Traffic Volumes – Saturday Peak Hour (North Study Area) 13-108
Figure 13-47 No-Action Traffic Volumes – Saturday Peak Hour (South Study Area) 13-109
Figure 13-48 No-Action Traffic Volumes – Sunday Peak Hour 13-110
Figure 13-49 No-Action Pedestrian Volumes – Weekday AM Peak Hour 13-129
Figure 13-50 No-Action Pedestrian Volumes – Weekday Midday Peak Hour 13-130
Figure 13-51 No-Action Pedestrian Volumes – Weekday PM Peak Hour 13-131
Figure 13-52 No-Action Pedestrian Volumes – Saturday Peak Hour 13-132
Figure 13-53 No-Action Pedestrian Volumes – Sunday Peak Hour 13-133
Figure 13-54 With-Action Traffic Volumes – Weekday AM Peak Hour (North Study Area) 13-140
Figure 13-55 With-Action Traffic Volumes – Weekday AM Peak Hour (South Study Area) 13-141
Figure 13-56 With-Action Traffic Volumes – Weekday AM Peak Hour (Project Area) 13-142
Figure 13-57 With-Action Traffic Volumes – Weekday Midday Peak Hour (North Study Area) 13-143
Figure 13-58 With-Action Traffic Volumes – Weekday Midday Peak Hour (South Study Area) 13-144
Figure 13-59 With-Action Traffic Volumes – Weekday Midday Peak Hour (Project Area) 13-145
Figure 13-60 With-Action Traffic Volumes – Weekday PM Peak Hour (North Study Area) 13-146
Figure 13-61 With-Action Traffic Volumes – Weekday PM Peak Hour (South Study Area) 13-147
Figure 13-62 With-Action Traffic Volumes – Weekday PM Peak Hour (Project Area) 13-148
Figure 13-63 With-Action Traffic Volumes – Saturday Peak Hour (North Study Area) 13-149
Figure 13-64 With-Action Traffic Volumes – Saturday Peak Hour (South Study Area) 13-150
Figure 13-65 With-Action Traffic Volumes – Saturday Peak Hour (Project Area) 13-151
Figure 13-66 With-Action Traffic Volumes – Sunday Peak Hour (Study Area) 13-152

Figure 13-67 With-Action Traffic Volumes – Sunday Peak Hour (Project Area) 13-153
Figure 13-68 With-Action Pedestrian Volumes – Weekday AM Peak Hour 13-191
Figure 13-69 With-Action Pedestrian Volumes – Weekday Midday Peak Hour 13-192
Figure 13-70 With-Action Pedestrian Volumes – Weekday PM Peak Hour 13-193
Figure 13-71 With-Action Pedestrian Volumes – Saturday Peak Hour 13-194
Figure 13-72 With-Action Pedestrian Volumes – Sunday Peak Hour 13-195
Figure 14-1 Innovative Urban Village Site Axonometric Diagram 14-4
Figure 14-2 Proposed Parking Garages 14-22
Figure 15-1 Three Scopes of GHG Emissions 15-9
Figure 15-2 Embodied Carbon of a Building 15-12
Figure 16-1 Noise Monitoring Locations 16-14
Figure 16-2 Composite Window/Wall Sound Attenuation Requirements 16-29
Figure 19-1 Anticipated Construction Schedule 19-12
Figure 19-2 Projected Peak Daily $PM_{2.5}$ Construction Emissions Profile 19-49
Figure 19-3 Projected Annual Average Daily $PM_{2.5}$ Construction Emissions Profile 19-50
Figure 19-4 Cumulative Sound Emissions from Stationary Equipment during Each Month 19-61
Figure 19-5 Construction Noise Receptor Locations 19-63
Figure 19-6 Construction Noise Assessment Results 19-111
Figure 19-7 Construction Noise Contours – Phase 1A, Foundation Installation 19-117
Figure 19-8 Construction Noise Contours – Phase 1B, Foundation Installation 19-118
Figure 19-9 Construction Noise Contours – Phase 2A, Foundation Installation 19-119
Figure 19-10 Construction Noise Contours – Phase 2B/2C, Foundation Installation 19-120

List of Photos

Figure No.	Title	Page

Photo 6-1 Southeast Corner of Breukelen Ballfields 6-15
Photo 8-1 Christian Cultural Center within the Development Site, looking Southeast from Flatlands Avenue 8-12
Photo 8-2 Christian Cultural Center within the Development Site, looking East from Louisiana Avenue 8-12
Photo 8-3 Development Site looking East from Louisiana Avenue 8-12

Photo 8-4 Development Site looking Southwest from Flatlands Avenue 8-12
Photo 8-5 Development Site looking Southeast from Flatlands Avenue 8-13
Photo 8-6 Development Site looking west from Pennsylvania Avenue 8-13
Photo 8-7 Intersection of Pennsylvania Avenue and Flatlands Avenue looking South 8-13
Photo 8-8 Vandalia Avenue and Bethel Loop looking Southwest 8-13
Photo 8-9 Flatlands Avenue looking East from Vermont Street 8-14
Photo 8-10 Intersection of Flatlands Avenue and Louisiana Avenue looking East 8-14
Photo 8-11 NYCHA Breukelen Houses looking North from Glenwood Road 8-14
Photo 8-12 NYCHA Linden Houses from the Intersection of Vermont Street and Cozine Avenue 8-14
Photo 8-13 Pennsylvania Avenue looking North from Twin Pines Drive East 8-15
Photo 8-14 Spring Creek Towers/Starrett City looking North from Louisiana Avenue 8-15
Photo 8-15 Spring Creek Towers/Starrett City looking East from Pennsylvania Avenue 8-15
Photo 8-16 Spring Creek Towers/Starrett City Looking Northwest from the Intersection of Vandalia Avenue and Bethel Loop 8-15
Photo 8-17 Cozine Avenue at Sheffield Avenue looking North 8-16
Photo 8-18 Alabama Avenue between Flatlands Avenue and Cozine Avenue looking North 8-16
Photo 8-19 Flatlands Avenue at Malta Street looking North 8-16
Photo 8-20 Intersection of Flatlands Avenue and Pennsylvania Avenue looking Northwest 8-16
Photo 8-21 Looking South at Shopping Center along Flatlands Avenue and Louisiana Avenue 8-17
Photo 8-22 Looking North at Shopping Center from Intersection of Cozine Avenue and Pennsylvania Avenue 8-17
Photo 8-23 Northwest Corner of Flatlands Avenue and Louisiana Avenue looking West 8-17
Photo 8-24 Breukelen Ballfields Bicycle and Pedestrian Paths looking East 8-17
Photo 8-25 Fresh Creek Nature Preserve looking Southwest towards Fresh Creek Basin 8-18
Photo 8-26 Fresh Creek Basin looking East towards Spring Creek Towers/Starrett City from E 108th Street 8-18
Photo 8-27 R1 – Illustrative Rendering: View facing southeast from Flatlands Avenue 8-26
Photo 8-28 R2 – Illustrative Rendering: View facing southeast across the quadrangle 8-27
Photo 8-29 CV1 – Comparative View facing west on Flatlands Avenue from its intersection with Pennsylvania Avenue 8-28
Photo 8-30 CV2 – Comparative View facing south on Flatlands Avenue from its intersection with Pennsylvania Avenue 8-30

Photo 8-31 CV3 – Comparative View facing south on Georgia Avenue 8-34

Photo 8-32 CV4 – Comparative View facing east along Flatlands Avenue from its intersection with Alabama Avenue 8-36

Photo 8-33 CV5 – Comparative View facing east along Flatlands Avenue from its intersection with Louisiana Avenue 8-38

Photo 8-34 CV6 – Comparative View facing north on Louisiana Avenue and Vandalia Avenue 8-39