
Table of Contents

Foreword.....	F-1
Executive Summary	S-1
1: Project Description	1-1
A. Project Identification	1-1
B. Purpose and Need.....	1-2
Purpose of the Proposed Actions.....	1-2
Goals of the Proposed Actions	1-2
C. Planning Process	1-3
History of the Site and Planning Background.....	1-3
Requests for Proposals	1-4
Public Outreach.....	1-4
D. Description of the Proposed Actions.....	1-5
Development Site	1-5
Additional Housing Sites	1-7
E. Development Program	1-9
Overview	1-9
Development Site	1-10
Additional Housing Sites	1-13
F. Construction Sequencing	1-15
Development Site	1-15
Additional Housing Sites	1-16
G. Project Approvals and Actions.....	1-16
Development Site	1-16
Additional Housing Sites	1-17
2: Framework for Analysis	2-1
A. Introduction	2-1
B. Environmental Review Process.....	2-1
Legislative Applicability	2-1
Process Overview	2-1
Coordination With Other Review Processes	2-4
C. Framework for Environmental Analysis of the Proposed Actions.....	2-5
Scope of Environmental Analysis	2-5
Analysis Years.....	2-5
Definition of Study Areas	2-6
Defining Baseline Conditions	2-7
Defining the Action for Environmental Analysis.....	2-18
Generic Analysis for Relocation of DSNY Facilities.....	2-21

Western Rail Yard

Mitigation	2-21
Alternatives.....	2-22
3: Land Use, Zoning, and Public Policy	3-1
A. Introduction	3-1
Principal Conclusions	3-1
B. Methodology.....	3-2
Study Areas.....	3-2
Analysis Years.....	3-3
C. Existing Conditions	3-4
Land Use.....	3-4
Zoning.....	3-16
Public Policy.....	3-27
D. The Future Without the Proposed Actions	3-30
Land Use.....	3-30
Zoning.....	3-35
Public Policy.....	3-35
E. Probable Impacts of the Proposed Actions—2019	3-35
Land Use—Development Site and Its Study Area	3-36
Zoning.....	3-41
Public Policy.....	3-43
F. Probable Impacts of the Proposed Actions—2017	3-48
4: Socioeconomic Conditions.....	4-1
A. Introduction	4-1
Principal Conclusions	4-1
B. Methodology.....	4-4
CEQR Overview	4-4
Determining Whether A Socioeconomic Assessment Is Appropriate	4-5
Analysis Format.....	4-5
Study Area Delineation.....	4-7
Data Sources	4-8
C. Preliminary Assessment	4-9
Direct Residential Displacement	4-9
Direct Business and Institutional Displacement	4-10
Indirect Residential Displacement	4-12
Indirect Business and Institutional Displacement.....	4-18
Potential Effects On Specific Industries	4-34
D. Detailed Analysis of Indirect Residential Displacement	4-37
Existing Conditions	4-38
The Future Without the Proposed Actions	4-48
Probable Impacts of the Proposed Actions—2019	4-48
Probable Impacts of the Proposed Actions—2017	4-51
5: Community Facilities and Services	5-1
A. Introduction	5-1
Principal Conclusions	5-2
B. Screening Level Assessment	5-5

Table of Contents

Public Schools	5-5
Libraries	5-6
Health Care Facilities (Outpatient).....	5-6
Child Care Facilities.....	5-6
Police Protection Services.....	5-7
Fire Protection and Emergency Medical Services.....	5-7
C. Public Schools.....	5-7
Existing Conditions	5-8
The Future Without the Proposed Actions—2019	5-10
Probable Impacts of the Proposed Actions—2019.....	5-14
The Future Without the Proposed Actions—2017	5-17
Probable Impacts of the Proposed Actions—2017.....	5-17
D. Libraries	5-21
Existing Conditions	5-21
The Future Without the Proposed Actions—2019	5-22
Probable Impacts of the Proposed Actions—2019.....	5-23
The Future Without the Proposed Actions—2017	5-24
Probable Impacts of the Proposed Actions—2017.....	5-25
E. Child Care Centers	5-25
Methodology	5-26
Existing Conditions	5-27
The Future Without the Proposed Actions—2019	5-27
Probable Impacts of the Proposed Actions—2019.....	5-27
The Future Without the Proposed Actions—2017	5-28
Probable Impacts of the Proposed Actions—2017.....	5-29
F. Health Care Facilities (Outpatient)	5-29
Methodology	5-29
Existing Conditions	5-30
The Future Without the Proposed Actions—2019	5-33
Probable Impacts of the Proposed Actions—2019.....	5-34
G. Police Protection Services.....	5-34
Existing Conditions	5-34
The Future Without the Proposed Actions—2019	5-35
Probable Impacts of the Proposed Actions—2019.....	5-36
H. Fire Protection and Emergency Medical Services	5-36
Methodology	5-36
Existing Conditions	5-36
The Future Without the Proposed Actions—2019	5-37
Probable Impacts of the Proposed Actions—2019.....	5-37
6: Open Space.....	6-1
A. Introduction	6-1
Principal Conclusions.....	6-1
B. Methodology	6-3
Direct Effects Analysis.....	6-3
Indirect Effects Analysis	6-4
C. Development Site Analysis	6-8
Existing Conditions	6-8

Western Rail Yard

The Future Without the Proposed Actions	6-13
Probable Impacts of the Proposed Actions—2019	6-17
Probable Impacts of the Proposed Actions— 2017	6-23
D. Additional Housing Sites Analysis.....	6-26
Existing Conditions	6-26
The Future Without the Proposed Actions	6-31
Probable Impacts of the Proposed Actions—2019	6-33
Probable Impacts of the Proposed Actions—2017	6-35
7: Shadows	7-1
A. Introduction	7-1
Principal Conclusions	7-1
B. Methodology.....	7-2
Framework for Analysis	7-3
Determination of Impact Significance	7-4
C. Screening Analysis	7-4
Development Site.....	7-5
Additional Housing Sites	7-5
D. Analysis of Incremental Shadows	7-5
Development Site.....	7-5
Additional Housing Sites	7-11
8: Historic Resources	8-1
A. Introduction	8-1
Principal Conclusions	8-1
B. Methodology.....	8-2
Archaeological Resources	8-2
Architectural Resources.....	8-3
C. Existing Conditions	8-5
Development Site.....	8-5
Tenth Avenue Site	8-10
Ninth Avenue Site.....	8-10
D. The Future Without the Proposed Actions	8-12
Development Site.....	8-13
Tenth Avenue Site	8-14
Ninth Avenue Site.....	8-15
E. Probable Impacts of the Proposed Actions—2019	8-15
Development Site.....	8-15
Study Area	8-18
Tenth Avenue Site	8-19
Ninth Avenue Site.....	8-19
F. Probable Impacts of the Proposed Actions—2017	8-20
9: Urban Design and Visual Resources	9-1
A. Introduction	9-1
Principal Conclusions	9-1
B. Methodology.....	9-4
C. Existing Conditions	9-6

Table of Contents

Development Site	9-6
Study Area.....	9-7
Tenth Avenue Site	9-13
Ninth Avenue Site	9-15
D. The Future Without the Proposed Actions	9-17
Development Site	9-17
Tenth Avenue Site	9-20
Ninth Avenue Site	9-21
E. Probable Impacts of the Proposed Actions—2019.....	9-21
Development Site	9-21
Study Area.....	9-30
Tenth Avenue Site	9-33
Ninth Avenue Site	9-35
F. Probable Impacts of the Proposed Actions—2017.....	9-36
10: Neighborhood Character	10-1
A. Introduction	10-1
Principal Conclusions.....	10-1
B. Methodology	10-3
C. Existing Conditions.....	10-4
Development Site	10-5
Development Site Study Area.....	10-5
Tenth Avenue Site	10-15
Tenth Avenue Site Study Area.....	10-16
Ninth Avenue Site	10-16
Ninth Avenue Site Study Area	10-16
D. The Future Without the Proposed Actions	10-17
Development Site	10-17
Development Site Study Area	10-18
Tenth Avenue Site	10-24
Tenth Avenue Site Study Area.....	10-24
Ninth Avenue Site	10-25
Ninth Avenue Site Study Area	10-25
E. Probable Impacts of the Proposed Actions—2019.....	10-25
Development Site	10-25
Development Site Study Area	10-29
Tenth Avenue Site	10-35
Tenth Avenue Site Study Area.....	10-35
Ninth Avenue Site	10-36
Ninth Avenue Site Study Area	10-36
F. Probable Impacts of the Proposed Actions—2017.....	10-37
11: Natural Resources.....	11-1
A. Introduction	11-1
Principal Conclusions.....	11-2
B. Methodology	11-4
Study Area.....	11-4
Assessment of Existing and Future Without the Proposed Actions Conditions.....	11-5

Western Rail Yard

Assessment of Impacts On Natural Resources	11-6
Regulatory Context.....	11-6
C. Existing Conditions	11-8
Site Description	11-8
Groundwater	11-9
Wetlands	11-10
Floodplains	11-11
Terrestrial Resources	11-11
Aquatic Resources	11-14
Threatened, Endangered, and Special Concern Species	11-19
Significant Coastal Fish and Wildlife Habitat	11-20
D. The Future Without the Proposed Actions	11-21
Floodplain, Groundwater, and Terrestrial Resources	11-21
E. Probable Impacts of the Proposed Actions—2019	11-25
Groundwater	11-25
Wetlands	11-27
Floodplains	11-27
Terrestrial Resources	11-29
Water Quality and Aquatic Biota.....	11-32
Threatened, Endangered, and Special Concern Species	11-34
Significant Coastal Fish and Wildlife Habitat	11-35
F. Probable Impacts of the Proposed Actions—2017	11-35
12: Hazardous Materials	12-1
A. Introduction	12-1
Principal Conclusions	12-2
B. Methodology.....	12-3
Phase I ESA	12-3
Phase II ESI and Remedial Investigations	12-4
Regulations and Guidelines	12-5
C. Existing Conditions	12-8
Development Site.....	12-8
Ninth Avenue Site.....	12-11
Tenth Avenue Site	12-13
D. The Future Without the Proposed Actions	12-13
E. Probable Impacts of the Proposed Actions	12-14
F. Summary of Management Measures	12-15
Further Investigations	12-15
Existing Structures.....	12-16
Subsurface Disturbance	12-16
13: Waterfront Revitalization Program	13-1
A. Introduction	13-1
Principal Conclusions	13-2
B. Methodology.....	13-4
C. Existing Conditions	13-4
D. The Future Without the Proposed Actions	13-4
E. Probable Impacts of the Proposed Actions	13-5

Table of Contents

F. Consistency of the Proposed Actions With the WRP	13-5
14: Infrastructure.....	14-1
A. Introduction	14-1
Principal Conclusions.....	14-1
B. Methodology	14-3
Water Supply.....	14-3
Wastewater	14-3
Stormwater	14-4
C. Existing Conditions.....	14-5
Water Supply.....	14-5
Wastewater and Stormwater.....	14-7
D. The Future Without the Proposed Actions	14-12
Water Supply.....	14-13
Wastewater and Stormwater.....	14-13
E. Probable Impacts of the Proposed Actions—2019.....	14-15
Water Supply.....	14-15
Wastewater and Stormwater.....	14-17
Best Management Practices and PlaNYC	14-23
F. Probable Impacts of the Proposed Actions—2017.....	14-25
15: Solid Waste and Sanitation Services	15-1
A. Introduction	15-1
Principal Conclusions.....	15-1
B. Methodology	15-2
C. Existing Conditions	15-2
Solid Waste Generation.....	15-4
D. The Future Without the Proposed Actions	15-5
E. Probable Impacts of the Proposed Actions—2019.....	15-6
F. Probable Impacts of the Proposed Actions—2017.....	15-8
G. Generic Analysis of DSNY Facilities Relocation	15-9
Analyses	15-10
Mitigation	15-17
16: Energy.....	16-1
A. Introduction	16-1
Principal Conclusions.....	16-1
B. Methodology	16-2
C. Existing Conditions	16-2
Electricity	16-2
Natural Gas.....	16-4
Steam.....	16-4
D. The Future Without the Proposed Actions	16-5
E. Probable Impacts of the Proposed Actions—2019.....	16-6
F. Probable Impacts of the Proposed Actions—2017.....	16-10
17: Traffic and Parking.....	17-1
A. Introduction	17-1

Western Rail Yard

Principal Conclusions	17-1
B. Methodology.....	17-4
Study Area	17-5
Peak Hours for Analysis	17-5
Capacity Analysis	17-5
Transportation Planning Factors.....	17-6
Vehicle Trip Generation	17-10
Impact Criteria.....	17-10
C. Existing Conditions	17-18
Study Area Roadway Network	17-18
Traffic Control.....	17-22
Traffic Volumes.....	17-22
Intersection Capacity Analysis	17-23
Parking Supply and Utilization.....	17-31
Study Area Accident Patterns	17-31
D. The Future Without the Proposed Actions	17-34
Roadway Modifications.....	17-34
Traffic Volumes.....	17-36
Intersection Capacity Analysis	17-37
Parking Conditions	17-45
E. Probable Impacts of the Proposed Actions.....	17-46
Development Site Characteristics.....	17-46
Traffic Volumes.....	17-47
Intersection Capacity Analysis	17-47
Significant Adverse Traffic Impacts.....	17-49
Parking Conditions	17-50
Traffic Safety	17-71
18: Transit and Pedestrians.....	18-1
A. Introduction	18-1
Principal Conclusions	18-1
Transit	18-2
B. Methodology.....	18-4
Analysis Hours.....	18-4
Study Areas.....	18-5
Capacity Analysis	18-6
Trip Generation.....	18-9
Impact Criteria.....	18-13
C. Data Collection.....	18-14
Transit Network	18-14
Pedestrian Elements.....	18-15
D. Existing Conditions	18-15
Transit.....	18-15
Pedestrian Elements.....	18-23
E. The Future Without the Proposed Actions—2019	18-25
Conditions for Analysis	18-25
Transit Network	18-27
Pedestrian Elements.....	18-31

Table of Contents

Bicycle Facilities.....	18-43
The Future Without the Proposed Actions—2017	18-43
F. Probable Impacts of the Proposed Actions—2019.....	18-45
Conditions for Analysis.....	18-45
Rezoning and Related Land Use Actions.....	18-46
Transit Network.....	18-46
Pedestrian Elements	18-50
Bicycle Facilities	18-54
Probable Impacts of the Proposed Actions—2017.....	18-54
19: Air Quality and Greenhouse Gas Emissions	19-1
A. Air Quality	19-1
Introduction	19-1
Principal Conclusions.....	19-1
Applicable Pollutants	19-2
Air Quality Standards and Regulations	19-4
Existing Conditions and Regulatory Setting	19-7
Mobile Source Intersection Analysis	19-9
Analysis of Parking Facilities	19-15
Building HVAC Analysis.....	19-15
Analysis of Diesel Emissions	19-27
Air Toxics Analysis.....	19-28
B. Greenhouse Gas Analysis	19-34
Introduction	19-34
Principal Conclusions.....	19-34
Background	19-35
Methodology	19-39
Probable Emissions from the Proposed Actions	19-44
Project Elements That Would Reduce GHG Emissions.....	19-49
Conclusion.....	19-50
C. Consistency With PlaNYC	19-51
20: Noise.....	20-1
A. Introduction	20-1
Principal Conclusions.....	20-1
B. Background	20-2
Introduction	20-2
Sensitive Land Uses	20-2
Noise Assessment Standards and Guidelines	20-2
Applicable Noise Codes and Impact Criteria	20-3
C. Methodology	20-6
Mobile Source Assessment	20-6
Stationary Noise Sources	20-7
D. Existing Conditions	20-9
Monitoring Sites.....	20-9
Monitoring Program.....	20-9
Measured Noise Levels	20-10
Existing Noise Exposure Classifications.....	20-13

Western Rail Yard

E. The Future Without the Proposed Actions	20-15
F. Probable Impacts of the Proposed Actions.....	20-16
Mobile Source Assessment.....	20-16
Mechanical Systems	20-18
Cumulative Noise Impact Assessment	20-18
Additional Housing Sites: Window Wall Attenuation Requirements	20-20
21: Construction Impacts	21-1
A. Introduction	21-1
Development Site.....	21-1
Additional Housing Sites.....	21-2
Principal Conclusions	21-2
B. Methodology.....	21-5
C. Construction Scenario.....	21-6
Overview	21-6
Site Preparation.....	21-14
Demolition	21-15
Excavation	21-17
Construction.....	21-20
D. The Future Without the Proposed Actions	21-29
E. Probable Impacts of the Proposed Actions.....	21-30
Land Use.....	21-30
Neighborhood Character.....	21-31
Socioeconomic Conditions	21-31
Community Facilities.....	21-32
Open Space	21-32
Historic Resources	21-33
Traffic	21-34
Transit and Pedestrians	21-38
Air Quality	21-39
Noise	21-47
Vibration	21-57
Natural Resources	21-60
Infrastructure	21-62
Hazardous Materials	21-62
22: Public Health	22-1
A. Introduction	22-1
Principal Conclusions	22-1
B. Methodology.....	22-1
C. Summary of Air and Noise Pollution Sources from the Proposed Actions	22-2
Construction.....	22-2
Project Operations	22-3
D. Air Quality Pollutants of Concern and Related Health Effects	22-3
Particulate Matter.....	22-3
Health Effects Related to Asthma.....	22-5
E. Air Quality and Noise Regulations and Standards	22-7
Air Quality	22-7

Table of Contents

Noise	22-8
F. Determining the Significance of Public Health Impacts	22-8
Air Quality.....	22-8
Noise	22-9
G. Probable Impacts of the Proposed Actions	22-10
Air Quality.....	22-10
Noise	22-11
Hazardous Materials.....	22-12
23: Environmental Justice.....	23-1
A. Introduction	23-1
Overview	23-1
Principal Conclusions.....	23-1
B. Methodology	23-2
Delineation of Study Area.....	23-2
Identify Potential Environmental Justice Areas	23-2
C. Identification of Potential Environmental Justice Areas Within the Study Area	23-3
D. Analysis of Existing Environmental Burdens in the Study Area	23-4
E. Analysis of the Potential for Significant Adverse Impacts in the Study Area	23-5
Community Facilities	23-5
Open Space.....	23-6
Shadows	23-7
Traffic.....	23-8
Transit and Pedestrians.....	23-10
Construction Impacts.....	23-13
F. Summary of Potential Benefits of the Proposed Actions	23-14
G. Conclusions on Environmental Justice	23-15
H. Public Participation	23-15
Mitigation	24-1
A. Introduction	24-1
B. Community Facilities	24-1
Elementary Schools—Scenario Without the PS/IS School 2017.....	24-1
Child Care	24-1
C. Open Space	24-2
Overview	24-2
Mitigation for Shadows on Open Space.....	24-2
Indirect Effects Mitigation	24-3
D. Shadows	24-3
E. Traffic.....	24-3
F. Transit and Pedestrians	24-6
The Future With the Proposed Actions—2019	24-6
The Future With the Proposed Actions—2017	24-12
G. Traffic and Parking Tables.....	24-16
H. Transit and Pedestrian Tables	24-98
25: Alternatives	25-1
A. Introduction	25-1

Western Rail Yard

Historical Summary of Alternatives Considered	25-1
Principal Conclusions	25-3
B. No Action Alternative	25-6
Description.....	25-6
Ability to Meet Goals and Objectives of the Proposed Actions	25-7
No Action Alternative Compared With the Proposed Actions	25-7
C. No Unmitigated Significant Adverse Impact Alternative.....	25-18
Description.....	25-18
No Unmitigated Significant Adverse Impact Alternative Compared With the Proposed Actions	25-19
D. Reduced Density Alternative.....	25-21
Description.....	25-21
Ability to Meet Goals and Objectives of the Proposed Actions	25-25
Reduced Density Alternative Compared With the Proposed Actions	25-26
E. Tri-Generation Energy Supply Alternative	25-44
Description.....	25-44
Tri-Generation Energy Supply Alternative Compared With the Proposed Actions	25-46
26: Unavoidable Significant Adverse Impacts	26-1
A. Elementary Schools	26-1
B. Open Space	26-1
C. Shadows.....	26-2
D. Traffic	26-2
E. Transit.....	26-3
F. Pedestrian Conditions	26-3
G. Construction Traffic	26-3
27: Irreversible and Irretrievable Commitments of Resources	27-1
28: Growth-Inducing Aspects of the Proposed Actions	28-1
A. Introduction	28-1
B. Potential Growth in Off-Site Uses.....	28-1
29: Response to Comments on the DEIS	29-1
A. List of Organizations and Individuals Who Commented on the Draft Environmental Impact Statement	29-1
B. Comments and Responses	29-3

APPENDICES (CD-only)

Appendix A	Proposed Zoning Text
Appendix B.....	Community Facilities
B1 Community Facilities – Correspondence	
B2 Hudson Yards FGEIS Updated Public School And Day Care Analysis For 2010 And 2013 Updated On Mitigation Implementation For 2010 Impact On Public Schools And Child Care	

Table of Contents

Appendix C.....	Historic Resources – Correspondence
Appendix D.....	Natural Resources
D1	Natural Resources – References
D2	Natural Resources – Correspondence
Appendix E.....	Transportation Technical Memos And Analyses
E1	Western Rail Yard Development Plan EIS Transportation Planning Factors
E2	Western Rail Yard 2019 No Build Assumptions: Hudson Yards Transit And Pedestrian Mitigation Measures
E3	Utility Of The Hudson Yards Traffic Mitigation Measures Proposed At Western Rail Yard Study Area Intersections
E4	Western Rail Yard EIS Traffic Assignment Assumptions
E5	Traffic Tables
E6	2017 Traffic Volumes
E7	Transit And Pedestrian Analyses
E8	Green Light for Midtown Project
E9	Comparison of Western Rail Yard DEIS and Hudson Yards FGEIS Mitigation Measures
Appendix F	Air Quality
Appendix G.....	Noise
Appendix H.....	Construction
H1	Construction – Traffic
H2	Construction – Air Quality
H3	Construction – Noise
Appendix I	Alternatives
I1	Alternatives – Traffic
I2	Alternatives – Platform Stair Analysis
I3	Alternatives – Air Quality
I4	Tri-Generation Feasibility Study
Appendix J.....	Mitigation – Traffic
Appendix K.....	Pedestrian Wind Assessment
Appendix L	Con Edison Correspondence
Appendix M	Infrastructure
M1	Technical Memorandum Impact of the Proposed Western Rail Yard Development on Combined-Sewer Discharges
M2	DEP Correspondence Regarding Hudson Yards Infrastructure Upgrade

List of Tables

1-1	Anticipated Building Sequencing: Development Site	1-15
2-1	Development Under Construction or Proposed Within ½-Mile of the Development Site Expected to Be Completed in the Future Without the Proposed Actions By 2019	2-9
2-2	Development Under Construction or Proposed Within ½-Mile of the Additional Housing Sites Expected to Be Completed in the Future Without the Proposed Actions by 2019	2-15
2-3	Reasonable Worst-Case Development Scenarios for the Development Site: 2017	2-19
2-4	Reasonable Worst-Case Development Scenarios for the Development Site: 2019	2-20
2-5	Development Scenario: Additional Housing Sites	2-20
2-6	Reasonable Worst-Case Development Scenarios for the Proposed Actions	2-21
3-1	Maximum Permitted Floor Area Ratio Within Special Hudson Yards Subdistrict A ...	3-19
3-2	Maximum Permitted Floor Area Ratio Within Special Hudson Yards Subdistricts B Through E	3-20
3-3	Zoning Districts Located in the Chelsea Subarea.....	3-25
4-1	Reasonable Worst-Case Development Scenarios for the Development Site: 2019 ...	4-7
4-2	Additional Housing Sites: Proposed Program.....	4-7
4-3	Development Site Study Area Employment by Industry in 2000	4-19
4-4	Estimated Commercial Space in Development Site Study Area (Square Feet)	4-25
4-5	Current Asking Rents in Development Site Study Area	4-26
4-6	Citywide Apparel Manufacturing (NAICS 315)	4-35
4-7	Change in Fashion-Related Employment, 2000-2005.....	4-35
4-8	Population Trends in Development Site Study Area.....	4-39
4-9	Household and Income Characteristics	4-40
4-10	Housing Characteristics: Occupancy and Tenure.....	4-41
4-11	Housing Characteristics: Rooms and Rent.....	4-41
4-12	Residential Developments in Development Site Study Area After 2000.....	4-42
4-13	Single Room Occupancy (SRO) Units in Development Site Study Area	4-44
4-14	Unprotected Units in the Development Site Study Area.....	4-46

List of Tables

4-15	Median Household Income for Housing Units by Size of Building Manhattan Community Districts 4 and 5	4-47
4-16	Development Site Study Area Residential Development to be Completed By 2019.....	4-49
5-1	Preliminary Screening Analysis Criteria.....	5-5
5-2	Public Elementary and Intermediate/Middle School Enrollment, Capacity, and Utilization	5-8
5-3	High School Enrollment, Capacity, and Utilization.....	5-9
5-4	Under Construction and Planned Residential Development by 2019 in Schools Study Area.....	5-11
5-5	2019 Future Without the Proposed Actions: Estimated Number of Students Introduced Under Construction and Planned Residential Development.....	5-12
5-6	Planned Capacity Increases Within the Study Area and CSD 2	5-12
5-7	2019 Future Without the Proposed Actions: Projected Enrollment in Public Schools.....	5-13
5-8	2019 Future Without the Proposed Actions: Projected Enrollment in Public High Schools.....	5-14
5-9	2019 Future With the Proposed Actions: Estimated Number of Students Introduced By the Maximum Residential Scenario	5-15
5-10	2019 Future With the Proposed Actions: Estimated Public Elementary/Middle School Enrollment, Capacity, and Utilization ...	5-15
5-11	2019 Future With the Proposed Actions: Projected Enrollment in Public High Schools.....	5-16
5-12	2017 Future With the Proposed Actions: Estimated Number of Students Introduced By the Maximum Residential Scenario	5-18
5-13	2017 Future With the Proposed Actions: Projected Enrollment in Public Schools.....	5-19
5-14	2017 Future With the Proposed Actions – Scenario Without the PS/IS School Projected Enrollment in Public Schools.....	5-20
5-15	Library Services	5-22
5-16	Publicly Funded Child Care Facilities in Study Area	5-27
5-17	Hospital and Emergency Rooms Visits	5-30
5-18	Summary of Outpatient Health Care Facilities Facility Type: Clinic	5-31
5-19	Summary of Outpatient Health Care Facilities Facility Type: Freestanding Health Center.....	5-31
5-20	Summary of Outpatient Health Care Facilities Facility Type: Hospital Attended Health Center	5-31
5-21	Summary of Outpatient Health Care Facilities Facility Type: Intermediate Care Facility.....	5-32

Western Rail Yard

5-22	Summary of Outpatient Health Care Facilities: Facility Type: Medically Supervised Chemical Dependency Outpatient Service	5-32
5-23	Summary of Outpatient Health Care Facilities Facility Type: Miscellaneous	5-33
5-24	Police Protection Services	5-34
5-25	Fire Protection Services.....	5-36
6-1	Development Site Study Areas Summary Open Space Ratios, 2017 and 2019	6-3
6-2	Existing Resident and Worker Populations Non-Residential ($\frac{1}{4}$ -Mile) Study Area ..	6-8
6-3	Existing Resident and Worker Populations Residential ($\frac{1}{2}$ -Mile) Study Area	6-9
6-4	Age Distribution of Study Areas	6-9
6-5	Existing Open Space Inventory	6-10
6-6	Existing Conditions: Open Space Ratios and Guidelines.....	6-12
6-7	Future Without the Proposed Actions: New Open Space Resources	6-14
6-8	Future Without the Proposed Actions—2019: Open Space Ratios and Guidelines....	6-16
6-9	Future With the Proposed Actions—2019: Open Space Ratios and Guidelines.....	6-20
6-10	Future With the Proposed Actions—2017: Open Space Ratios and Guidelines	6-25
6-11	Existing Resident and Daytime Populations—AHS Study Area	6-27
6-12	Age Distribution of AHS Study Area.....	6-28
6-13	Existing Open Space Inventory AHS Study Area.....	6-28
6-14	Existing Conditions: AHS Study Area Open Space Ratios and Guidelines.....	6-31
6-15	AHA Study Area Future Without the Proposed Actions—2019: Open Space Ratios and Guidelines.....	6-32
6-16	Future With the Proposed Actions—2019: Open Space Ratios and Guidelines	6-34
6-17	Future With the Proposed Actions—2017: Open Space Ratios and Guidelines	6-36
7-1	Height of Proposed Buildings Analyzed	7-4
8-1	Architectural Resources Within the Development Site Study Area.....	8-6
8-2	Architectural Resources Within the Ninth Avenue Site Study Area.....	8-10
11-1	DEP Water Quality Data for the West 42nd Street Sampling Station (2003–2007).11-16	
11-2	Finfish Species with the Potential to Occur in the Hudson River in the Vicinity of the Development Site	11-17
12-1	RCRA Toxicity Characteristic Regulatory Limits	12-6
14-1	Development Site: Existing Water Consumption and Sanitary Sewage	14-7
14-2	Development Site: Existing Site Drainage - Composite Runoff Coefficient	14-10
14-3	Additional Housing Sites: Existing Site Drainage - Composite Runoff Coefficient ...	14-11
14-4	Development Site: Existing Stormwater and Sanitary Sewage Flow Volumes	14-11

List of Tables

14-5	Additional Housing Sites: Existing Stormwater and Sanitary Sewage Flow Volumes	14-12
14-6	Development Site: Proposed Water and Sewage Demand	14-16
14-7	Additional Housing Sites: Proposed Water and Sewage Demands	14-16
14-8	Development Site: Proposed Runoff Coefficient.....	14-18
14-9	Development Site: Proposed Stormwater and Sanitary Sewage Flow Volumes ...	14-19
14-10	Additional Housing Sites: Proposed Stormwater and Sanitary Sewage Flow Volumes	14-19
14-11	Development Site: Outfalls with Increased CSO Volumes/Events	14-22
15-1	DSNY-Managed Solid Wastes (Tons per Day)	15-5
15-2	Development Site: Generated Solid Waste – Full Build (Pounds per Week).....	15-6
15-3	Additional Housing Sites: Generated Solid Waste – Full Build (Pounds per Week)	15-7
16-1	Development Site: Annual Operational Energy Consumption (BTU/Yr)	16-7
16-2	Additional Housing Sites: Annual Operational Energy Consumption (BTU/Yr)..	16-7
16-3	Development Site: Peak Electrical Seasonal Demand Load.....	16-8
16-4	Development Site: Peak Natural Gas Seasonal Demand Load.....	16-9
17-1	Roadway Level of Service (LOS) Criteria.....	17-6
17-2	Reasonable Worst-Case Development Scenarios for the Development Site	17-6
17-3	Transportation Planning Assumptions	17-8
17-4	Vehicle Trips Generated By Maximum Residential Scenario (Office Option) - 2019	17-11
17-5	Vehicle Trips Generated By Maximum Residential Scenario (Hotel Option) – 2019	17-12
17-6	Vehicle Trips Generated By Maximum Commercial Scenario – 2019	17-13
17-7	Vehicle Trips Generated By Additional Housing Sites	17-14
17-8	Vehicle Trips Generated By Maximum Residential Scenario (Office Option) – 2017.....	17-15
17-9	Vehicle Trips Generated By Maximum Residential Scenario (Hotel Option) – 2017	17-16
17-10	Vehicle Trips Generated By Maximum Commercial Scenario – 2017	17-17
17-11	Comparison of Peak Hour Vehicle Trips for Development Site Reasonable Worst-Case Development Scenarios.....	17-18
17-12	Number of Intersection Approach Movements at Mid-LOS D, LOS E, or LOS F	17-23
17-13	Existing Conditions Intersection Approach Movements Operating at LOS Mid-D, E, or F	17-29

Western Rail Yard

17-14	2008 Existing Off-Street Parking Utilization	17-32
17-15	2006 to 2008 Accident History	17-33
17-16	2019 Future Without the Proposed Actions Number of Intersection Approach Movements at Mid-LOS D, LOS E, or LOS F	17-37
17-17	2017 Future Without the Proposed Actions Number of Intersection Approach Movements at Mid- LOS D, LOS E, or LOS F	17-38
17-18	2019 Future Without the Proposed Actions Intersection Approach Movements Operating At LOS Mid-D, E, or F.....	17-38
17-19	2017 Future Without the Proposed Actions Intersection Approach Movements Operations at LOS Mid-D, E or F.....	17-42
17-20	2019 Future Without the Proposed Actions: Off-Street Parking Utilization.....	17-46
17-21	2017 Future Without the Proposed Actions: Off-Street Parking Utilization.....	17-46
17-22	2019 Future With the Proposed Actions: Number of Intersection Approach Movements at Mid- LOS D, LOS E or LOS F	17-48
17-23	2017 Future With the Proposed Actions: Number of Intersection Approach Movements at Mid- LOS D, LOS E or LOS F	17-49
17-24	2017 and 2019 Future With the Proposed Actions: Number of Significantly Impacted Approach Movements.....	17-50
17-25a	2019 Future With the Proposed Actions: Weekday AM Peak Hour Intersection Approach Movements Operation at LOS Mid-D, E, or F	17-51
17-25b	2019 Future With the Proposed Actions: Weekday Midday Peak Hour Intersection Approach Movements Operating at LOS Mid-D, E, or F	17-53
17-25c	2019 Future With the Proposed Actions: Weekday PM Peak Hour Intersection Approach Movements Operating at LOS Mid-D, E, or F	17-56
17-25d	2019 Future With the Proposed Actions: Saturday Midday Peak Hour Intersection Approach Movements Operating at LOS Mid-D, E, or F	17-59
17-26a	2017 Future With the Proposed Actions: Weekday AM Peak Hour Intersection Approach Movements Operating at LOS Mid-D, E, or F	17-61
17-26b	2017 Future With the Proposed Actions: Weekday Midday Peak Hour Intersection Approach Movements Operating at LOS Mid-D, E, or F	17-63
17-26c	2017 Future With the Proposed Actions: Weekday PM Peak Hour Intersection Approach Movements Operating at LOS Mid-D, E, or F	17-66
17-26d	2017 Future With the Proposed Actions: Saturday Midday Peak Hour Intersection Approach Movements Operating at LOS Mid-D, E, or F	17-69
17-27	2019 Future With the Proposed Actions: Off-Street Parking Utilization.....	17-70
18-1	LOS Criteria for Stairways.....	18-7
18-2	Escalator Capacity.....	18-7
18-3	Subway Car Guideline Capacity	18-8

List of Tables

18-4	LOS for Criteria for Sidewalk, Crosswalk, and Corner Area Conditions.....	18-9
18-5	2019 Future Peak Hour Person Trips – Generated By Development Site	18-10
18-6	Subway and Railroad Trip Assignment	18-11
18-7	Bus Trip Assignment	18-11
18-8	2019 Future Peak Hour Person Trips – Generated by Ninth Avenue Site.....	18-12
18-9	2019 Future Peak Hour Person Trips – Generated by Tenth Avenue Site.....	18-12
18-10	Existing Subway Line Haul Conditions (Flushing Line)	18-16
18-11	Existing Conditions: Subway Station Elements Operating Above Capacity	18-17
18-12	Existing Conditions: Subway Station Stairways Operating at LOS D or Worse... 18-17	
18-13	Existing Bus Operating Conditions.....	18-22
18-14	Existing Sidewalk Conditions – LOS D or Worse.....	18-22
18-15	Existing Crosswalk Conditions – LOS D or Worse.....	18-24
18-16	Existing Corner Conditions – LOS D or Worse	18-24
18-17	2019 Future Without the Proposed Actions: Line Haul Conditions: AM Peak Hour (Manhattan-Bound) (Flushing Line).....	18-28
18-20	2019 Future Without the Proposed Actions: Bus Operating Conditions	18-31
18-21	2019 Future Without the Proposed Actions: Pedestrian Conditions – LOS D or Worse	18-32
18-22	2019 Future Without the Proposed Actions: Sidewalk Conditions – LOS D or Worse	18-33
18-23	2019 Future Without the Proposed Actions: Crosswalk Conditions – LOS D or Worse	18-36
18-24	2019 Future Without the Proposed Actions: Corner Conditions – LOS D or Worse	18-40
18-25a	2019 and 2017 Pedestrian LOS Comparison Future Without the Proposed Actions Sidewalk LOS	18-45
18-25b	Future Without the Proposed Actions Crosswalk LOS.....	18-45
18-25c	Future Without the Proposed Actions Corner LOS	18-45
18-26	2019 Future With the Proposed Actions: Subway Line Haul Conditions (Flushing Line)	18-47
18-27	2019 Future With the Proposed Actions: Affected Subway Station Elements	18-48
18-28	2019 Future With the Proposed Actions: Bus Operating Conditions	18-50
18-29	2019 Future With the Proposed Actions: Number of Locations With Significant Adverse Impacts	18-51
18-30	2019 Future With the Proposed Actions: Sidewalks Conditions: Locations With Significant Adverse Impacts	18-51

Western Rail Yard

18-31	2019 Future With the Proposed Actions: Crosswalk Conditions: Locations With Significant Adverse Impacts	18-52
18-32	2019 Future With the Proposed Actions: Corner Conditions: Locations With Significant Adverse Impacts	18-53
18-33	2019 and 2017 Pedestrian Impact Comparison Number of Locations With Significant Adverse Impacts	18-55
18-34	2017 Future With the Proposed Actions: Sidewalks Conditions: Locations With Significant Adverse Impacts.....	18-55
18-35	2017 Future With the Proposed Actions: Crosswalk Conditions: Locations With Significant Adverse Impacts.....	18-56
18-36	2017 Future With the Proposed Actions: Corner Conditions: Locations With Significant Adverse Impacts.....	18-57
19-1	Applicable National and State Ambient Air Quality Standards and State and Local Significant Threshold Values (STVs).....	19-5
19-2	Representative Ambient Air Quality Data (2007).....	19-8
19-3	Background Concentrations	19-8
19-4	Carbon Monoxide Analysis Sites	19-9
19-5	2008 Existing Conditions Maximum Estimated Pollutant Levels.....	19-12
19-6	2019 Future Without the Proposed Actions Maximum Estimated Pollutant Levels ...	19-13
19-7	2019 Future With and Without the Proposed Actions Maximum Estimated Pollutant Levels	19-14
19-8	2019 Future With the Proposed Actions Maximum Estimated PM _{2.5} Increments ($\mu\text{g}/\text{M}^3$).....	19-14
19-9	Buildings Heights and Sizes Under Each Development Scenario	19-17
19-10	Pollutant Emission Rates (Grams/Sec) With Fuel Oil and Natural Gas.....	19-19
19-11	Stack Locations and Restrictions	19-21
19-12	Maximum Estimated Building-On-Building HVAC Increments and Concentrations ($\mu\text{g}/\text{M}^3$)	19-21
19-13	Maximum Estimated Building-On-Building HVAC Increments for PM _{2.5} ($\mu\text{g}/\text{M}^3$)...	19-22
19-14	Maximum Estimated HVAC Increments ($\mu\text{g}/\text{M}^3$) on Existing and Future No Build Land Uses.....	19-23
19-15	Maximum Estimated HVAC Increments for PM _{2.5} ($\mu\text{g}/\text{M}^3$) on Existing and Future No Build Land Uses.....	19-23
19-16	Stack, Building Parameters, and Pollutant Emission Rates of Future No Build Developments	19-25
19-17	Maximum Estimated Increments ($\mu\text{g}/\text{M}^3$) of Existing and Future No Build Buildings on the Proposed Development Site Buildings	19-26

List of Tables

19-18	Maximum Estimated Increments for PM _{2.5} ($\mu\text{g}/\text{M}^3$) of Existing and Future No Build Land Uses On the Proposed Development Site Buildings.....	19-26
19-19	Analysis of the Non-Carcinogenic Toxic Pollutants at Development Site and Additional Housing Sites.....	19-33
19-20	Analysis of the Carcinogenic Toxic Pollutants at Additional Housing Sites.....	19-33
19b-1	Global Warming Potential (GWP) for Major GHGs	19-39
19b-2	GHG Emissions from HVAC Systems Development Site Maximum Commercial Scenario: 2019	19-44
19b-3	GHG Emissions from HVAC Systems Additional Housing Sites: 2019.....	19-45
19b-4	Off-Site GHG Emissions from Electricity Development Site Maximum Commercial Scenario: 2019	19-45
19b-5	GHG Emissions from Electricity Additional Housing Sites: 2019.....	19-45
19b-6	Off-Site GHG Emissions from Vehicle Use Development Site Maximum Commercial Scenario: 2019	19-46
19b-7	GHG Emissions from Vehicle Use Additional Housing Sites: 2019.....	19-46
19b-8	Off-Site GHG Emissions from Solid Waste Development Site Maximum Commercial Scenario: 2019	19-46
19b-9	Off-Site GHG Emissions from Solid Waste Additional Housing Sites: 2019.....	19-47
19b-10	GHG Emissions from Construction Activity Development Site Maximum Commercial Scenario: 2011-2019.....	19-47
19b-11	GHG Emissions from the Manufacture of Steel and Concrete	19-47
19b-12	Summary of Annual GHG Emissions (Metric Tons CO _{2e} per Year).....	19-48
20-1	Average Ability to Perceive Changes in Noise Levels	20-3
20-2	ISO Community Response to Increases in Noise Levels	20-3
20-3	New York City Noise Codes.....	20-4
20-4	Noise Exposure Guidelines for Use in City Environmental Impact Quality Review	20-5
20-5	CEQR Exterior Noise Standards and Attenuation Values	20-5
20-6	Noise Monitoring Locations and Adjacent Land Use.....	20-10
20-7	Measured Hourly Noise Levels (L _{eq}) in dBA and Highest Hour L _{eq}	20-11
20-8	Measured Hourly Noise Levels (L ₁₀) in dBA and Highest L ₁₀	20-11
20-9	Measured Hourly Percentile and L _{eq} Noise Levels in dBA	20-12
20-10	Measured Twenty-Four Hour Noise Percentile and L _{eq} Levels in dBA at Site 7 ..	20-13
20-11	Existing Noise Exposure at Noise Receptor Locations.....	20-14
20-12	2019 Future Noise Levels Without the Proposed Actions (in dBA).....	20-15
20-13	2019 Future Noise Levels With the Proposed Action (in dBA)	20-17

Western Rail Yard

20-14	Development Site: Building Window Wall Attenuation Specifications in Compliance With CEQR Interior Space Requirements for 2019 (in dBA)	20-19
20-15	Additional Housing Sites: Building Attenuation Requirements.....	20-20
21-1	Construction Sequencing Details – Development Site.....	21-13
21-2	Construction Details – Development Site Preparation	21-17
21-3	Construction Details – At Grade Excavation South of Platform.....	21-19
21-4	Construction Details – Ninth Avenue Site Excavation	21-20
21-5	Construction Details – Tenth Avenue Site Excavation	21-20
21-6	Construction Details – Platform Construction	21-22
21-7	Construction Details – WR-2 Construction.....	21-24
21-8	Construction Details – WC-1 Construction.....	21-24
21-9	Construction Details – WR-3 Construction.....	21-25
21-10	Construction Details – WR-1 Construction.....	21-25
21-11	Construction Details – WR-6 Construction.....	21-26
21-12	Construction Details – WR-7 Construction.....	21-26
21-13	Construction Details – WR-4 Construction.....	21-27
21-14	Construction Details – WR-5 Construction.....	21-27
21-15	Construction Details – Ninth Avenue Site Construction.....	21-28
21-16	Construction Details – Tenth Avenue Site Construction	21-29
21-17	Development Site: Peak Construction Trip Projections—Fourth Quarter of 2016.....	21-35
21-18	Lane and Sidewalk Closures for Development Site and Proximate Projects	21-36
21-19	2016 Construction Year Summary of Movements Intersections With Significant Adverse Impacts	21-37
21-20	Development Site: Peak Construction Parking Projections— Third Quarter of 2016.....	21-38
21-21	Annual Emissions from Construction Equipment and Activities (Future With the Proposed Actions).....	21-43
21-22	Maximum Predicted On-Site Increments—Development Site	21-43
21-23	Maximum Predicted Off-Site Increments	21-44
21-24	Maximum Predicted Increments and Total Concentrations— Development Site On-Site and Off-Site Sources	21-45
21-25	Maximum Predicted Increments and Total Concentrations— Cumulative Effects of Development Site and Adjacent Sites: On-Site and Off-Site Sources	21-46
21-26	Construction Equipment Noise Emission Levels (dBA).....	21-48

List of Tables

21-27	Construction Noise Receptor Description.....	21-51
21-28	Ambient Noise Measurements	21-52
21-29	On-Site Construction Noise Results	21-55
21-30	TNM Mobile Noise Results	21-55
21-31	Vibration Source Levels for Construction Equipment.....	21-58
21-32	Construction Equipment Vibration Critical Distances for High Line.....	21-59
22-1	1997 and 2005 Hospitalization Rates Per 1,000 Persons (Aged 0 to 14 Years)	22-7
23-1	Study Area Population and Economic Characteristics.....	23-4
24-1	2019 Future With the Proposed Actions: Summary of Movements/Intersections With Significant Adverse Impacts	24-16
24-2	2017 Future With the Proposed Actions: Summary of Movements/Intersections With Significant Adverse Impacts	24-16
24-3	2016 Construction Conditions: Summary of Movements/Intersections With Significant Adverse Impacts	24-16
24-4a	2019 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday AM Peak Hour) Signalized Intersections	24-17
24-4b	2019 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday AM Peak Hour) Unsigned Intersections	24-21
24-5a	2019 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday Midday Peak Hour) Signalized Intersections	24-27
24-5b	2019 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday Midday Peak Hour) Unsigned Intersections	24-31
24-5c	2019 Future With the Proposed Actions: Proposed Mitigation Measures (Weekday Midday Peak Hour)	24-31
24-6a	2019 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday PM Peak Hour) Signalized Intersections	24-35
24-6b	2019 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday PM Peak Hour) Unsigned Intersections	24-42
24-6c	2019 Future With the Proposed Actions: Proposed Mitigation Measures (Weekday PM Peak Hour)	24-42
24-7a	2019 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Saturday Midday Peak Hour) Signalized Intersections	24-47

Western Rail Yard

24-7b	2019 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Saturday Midday Peak Hour) Unsignalized Intersections	24-51
24-7c	2019 Future With the Proposed Actions: Proposed Mitigation Measures (Saturday Midday Peak Hour).....	24-51
24-8a	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday AM Peak Hour) Signalized Intersections.....	24-55
24-8b	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday AM Peak Hour) Unsignalized Intersections	24-60
24-8c	2017 Future With the Proposed Actions: Proposed Mitigation Measures (Weekday AM Peak Hour).....	24-60
24-9a	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday Midday Peak Hour) Signalized Intersections.....	24-64
24-9a	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday Midday Peak Hour) Signalized Intersections.....	24-68
24-9b	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday Midday Peak Hour) Unsignalized Intersections	24-68
24-9c	2017 Future With the Proposed Actions: Proposed Mitigation Measures (Weekday Midday Peak Hour).....	24-69
24-10a	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday PM Peak Hour) Signalized Intersections	24-73
24-10b	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Weekday PM Peak Hour) Unsignalized Intersections	24-79
24-10c	2017 Future With the Proposed Actions: Proposed Mitigation Measures (Weekday PM Peak Hour).....	24-79
24-11a	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Saturday Midday Peak Hour) Signalized Intersections	24-84
24-11b	2017 Future With the Proposed Actions: Approach Movement Operations With and Without Proposed Mitigation (Saturday Midday Peak Hour) Unsignalized Intersections	24-88
24-11c	2017 Future With the Proposed Actions: Proposed Mitigation Measures (Saturday Midday Peak Hour).....	24-88

List of Tables

24-12a	2016 Construction Condition: Approach Movement Operations With and Without Proposed Mitigation (Weekday AM Peak Hour)	24-92
24-12b	2016 Construction Condition: Proposed Mitigation Measures (Weekday AM Peak Hour)	24-93
24-13a	2016 Construction Condition: Approach Movement Operations With and Without Proposed Mitigation (Weekday Midday Peak Hour)	24-94
24-13b	2016 Construction Condition: Proposed Mitigation Measures (Weekday Midday Peak Hour)	24-95
24-14a	2016 Construction Condition: Approach Movement Operations With and Without Proposed Mitigation (Weekday PM Peak Hour).....	24-96
24-14b	2016 Construction Condition: Proposed Mitigation Measures (Weekday PM Peak Hour)	24-97
24-15	2019 Future With the Proposed Actions: Bus Operating Conditions	24-98
24-16	2019 Future With the Proposed Actions: Summary of Pedestrian Element Locations With Significant Adverse Impacts	24-98
24-17	2019 Future With the Proposed Actions: Sidewalk Conditions – Locations With Significant Adverse Impacts With Mitigation.....	24-99
24-18	2019 Future With the Proposed Actions: Crosswalk Conditions – Locations With Significant Adverse Impacts With Mitigation.....	24-100
24-19	2019 Future With the Proposed Actions: Corner Conditions – Locations With Significant Adverse Impacts With Mitigation.....	24-102
24-20	Additional Buses Needed for Proposed Actions: 2017 and 2019	24-105
24-21	2017 Future With the Proposed Actions: Summary of Pedestrian Element Locations With Significant Adverse Impacts	24-106
24-22	2017 Future With the Proposed Actions: Sidewalk Conditions – Locations With Significant Adverse Impacts With Mitigation.....	24-106
24-24	2017 Future With the Proposed Actions: Corner Conditions – Locations With Significant Adverse Impacts With Mitigation.....	24-108
25-1	Comparison of Estimated Public Elementary/Middle School Utilization, 2019 No Action Alternative and Proposed Actions	25-10
25-2	Comparison of Adequacy of Open Space Resources No Action Alternative and Proposed Actions, 2019	25-11
25-3	2019 No Action Alternative and Proposed Actions Number of Intersection Approach Movements At Mid-LOS D, LOS E or LOS F.....	25-15
25-4	2019 Off-Street Parking Utilization No Action Alternative and Proposed Actions (Maximum Residential Scenario-Hotel Option).....	25-15
25-5	Additional Buses Needed for the Proposed Actions	25-16
25-6	2019 Future With the Proposed Actions: Number of Pedestrian Element Locations With Significant Adverse Impacts	25-17

Western Rail Yard

25-7	Development Site Maximum Residential Scenario: Comparison of the Reduced Density Alternative and the Proposed Actions	25-23
25-8	Development Site Maximum Commercial Scenario: Comparison of the Reduced Density Alternative and the Proposed Actions	25-23
25-9	Development Site Approximate Building Heights: Comparison of the Reduced Density Alternative and the Proposed Actions	25-24
25-10	Comparison of Estimated Public Elementary/Middle School Utilization, 2019 Reduced Density Alternative and Proposed Actions.....	25-29
25-11	Comparison of Adequacy of Open Space Resources Reduced Density Alternative Compared With the Proposed Actions, 2019	25-30
25-12	Vehicle Trip Generation Comparison— Reduced Density Alternative vs. The Proposed Actions, 2019.....	25-37
25-13	Number of Intersections and Approaches With Significant Adverse Traffic Impacts Comparison of Reduced Density Alternative and Proposed Actions, 2019.....	25-37
25-14	Off-Street Parking Requirements, 2019 Reduced Density Alternative Compared to the Proposed Actions	25-38
25-15	Additional Buses Needed to Meet Demands, Reduced Density Alternative Compared to the Proposed Actions in 2019	25-39
25-16	Number of Locations With Unmitigated Significant Adverse Pedestrian Impacts, Reduced Density Alternative Compared to the Proposed Actions.....	25-39
25-17	Reduced Density Alternative: Buildings Heights and Sizes Assumed for Each Development Scenario	25-40
25-18	Reduced Density Alternative: Pollutant Emission Rates With Fuel Oil and Natural Gas.....	25-41
25-19	Maximum Estimated Building-on-Building HVAC Increments and Concentrations ($\mu\text{g}/\text{M}^3$) for the Reduced Density Alternative	25-42
25-20	Maximum Estimated Building-on-Building HVAC Increments for $\text{PM}_{2.5}$ ($\mu\text{g}/\text{M}^3$) for the Reduced Density Alternative.....	25-42
25-21	Tri-Generation Alternative: PM_{10} , SO_2 , and NO_2 Emission Rates Under (Grams/Sec).....	25-48
25-22	Tri-Generation Alternative: $\text{PM}_{2.5}$ Emission Rates Estimated for Each Proposed Building (Grams/Sec)	25-49
25-23	Maximum Estimated Building-On-Building HVAC Increments and Concentrations ($\mu\text{g}/\text{M}^3$) for the Tri-Generation Alternative.....	25-50
25-24	Maximum Estimated Building-On-Building HVAC Increments for $\text{PM}_{2.5}$ ($\mu\text{g}/\text{M}^3$) for the Tri-Generation Alternative.....	25-50
25-25	Maximum Estimated HVAC Increments ($\mu\text{g}/\text{M}^3$) on Existing and Future No Build Land Uses for the Tri-Generation Alternative.....	25-51

List of Tables

25-26	Maximum Estimated HVAC Increments for PM _{2.5} ($\mu\text{g}/\text{M}^3$) on Existing and Future No Build Land Uses	25-51
-------	---	-------

List of Figures

	<i>following page</i>	
S-1	Location of Proposed Actions	S-2
S-2	Development Site Existing Zoning	S-6
S-3	Development Site Proposed Zoning.....	S-6
S-4	Additional Housing Sites Existing Special Clinton District.....	S-8
S-5	Tenth Avenue Site Proposed Special Clinton District	S-8
S-6	Ninth Avenue Site Proposed Zoning.....	S-8
S-7	Open Space Connections.....	S-10
S-8	Development Site Illustrative Site Plan.....	S-10
S-9	Illustrative Massing Diagram of Development Site	S-10
S-10	Development Site: 2019 Proposed Open Space and Access	S-10
S-11	Tenth Avenue Site Massing Model - Looking North	S-12
S-12	Ninth Avenue Site Massing Model - Looking South	S-12
1-1	Location of Proposed Actions	1-2
1-2	Project Site Locations.....	1-6
1-3	Development Site Existing Zoning	1-6
1-4	Open Space Connections.....	1-6
1-5	Development Site Proposed Zoning.....	1-6
1-6	Additional Housing Sites Existing Special Clinton District.....	1-8
1-7	Tenth Avenue Site Proposed Special Clinton District	1-8
1-8	Ninth Avenue Site Proposed Zoning.....	1-8
1-9	Development Site Illustrative Site Plan.....	1-12
1-10	Illustrative Massing Diagram of Development Site	1-12
1-11	Development Site: 2019 Proposed Open Space and Access	1-12
1-12	Tenth Avenue Site Massing Model - Looking North	1-14
1-13	Ninth Avenue Site Massing Model - Looking South	1-14
1-14	Development Site: Interim Build Open Space	1-16
2-1	No Build Projects in Development Site Study Area	2-8

List of Figures

2-2	No Build Projects in Additional Housing Sites Study Area	2-8
3-1	Development Site: Land Use Study Area	3-2
3-2	Additional Housing Sites: Land Use Study Area.....	3-4
3-3	Development Site Existing Land Use	3-4
3-4	Tenth Avenue Site Existing Land Use.....	3-14
3-5	Ninth Avenue Site Existing Land Use	3-16
3-6	Development Site Existing Zoning	3-18
3-7	Special Hudson Yards District: Subdistricts	3-18
3-8	Special Hudson Yards District: Subareas	3-18
3-9	Tenth Avenue Site Existing Zoning.....	3-26
3-10	Ninth Avenue Site Existing Zoning	3-28
3-11	No Build Projects in Development Site Study Area.....	3-30
3-12	Tenth Avenue Site Existing Special Clinton District.....	3-44
3-13	Tenth Avenue Site Proposed Special Clinton District.....	3-44
3-14	Ninth Avenue Site Proposed Zoning	3-44
4-1	Socioeconomic Study Area.....	4-8
4-2	Midtown Overall Average Asking Rent (Class A) and Vacancy Rate Inflation adjusted to 2007 Dollars	on 4-24
5-1	Public Schools.....	5-8
5-2	Public Library Locations.....	5-22
5-3	Public Child Care and Head Start Facilities.....	5-28
5-4	Hospital Facilities	5-30
5-5	Outpatient Health Care Facilities	5-30
5-6	Police and Fire Services.....	5-34
6-1	Open Space Study Areas.....	6-4
6-2	Additional Housing Sites Open Space Study Area.....	6-6
6-3	Development Site Study Area Existing Conditions Open Space Resources	6-10
6-4	Development Site Study Area 2019 Future Without the Proposed Actions Open Space Resources	6-14
6-5	Development Site: 2019 Proposed Open Space.....	6-20
6-6	Open Space Connections	6-22
6-7	Development Site: Interim Build Open Space	6-24
6-8	Additional Housing Sites Open Space Resources.....	6-28

Western Rail Yard

7-1	Preliminary Screening Analysis	7-12
7-2	Shadows March 21 / Sept. 21 - 9:00 AM EDT	7-12
7-3	Shadows March 21 / Sept. 21 - 12:00 PM EDT	7-12
7-4	Shadows May 6 / August 6 - 9:00 AM EDT	7-12
7-5	Shadows May 6 / August 6 - 12:00 PM EDT.....	7-12
7-6	Shadows June 21 - 9:00 AM EDT.....	7-12
7-7	Shadows June 21 - 12:00 PM EDT	7-12
7-8	Shadows December 21 - 9:00 AM EST	7-12
7-9	Shadows December 21 - 12:00 PM EST	7-12
7-10	Shadows December 21 - 2:15 PM EST.....	7-12
7-11	Shadows March 21 / Sept. 21 - 4:00 PM EDT	7-12
7-12	Shadows March 21 / Sept. 21 - 5:00 PM EDT	7-12
7-13	Shadows May 6 / August 6 - 4:00 PM EDT.....	7-12
7-14	Shadows May 6 / August 6 - 5:00 PM EDT.....	7-12
7-15	Shadows May 6 / August 6 - 6:00 PM EDT.....	7-12
7-16	Shadows June 21 - 4:00 PM EDT	7-12
7-17	Shadows June 21 - 5:00 PM EDT	7-12
7-18	Shadows June 21 - 6:00 PM EDT	7-12
7-19	Shadows March 21 / Sept. 21 - 2:30 PM EDT	7-12
7-20	Shadows March 21 / Sept. 21 - 4:00 PM EDT	7-12
7-21	Shadows March 21 / Sept. 21 - 5:00 PM EDT	7-12
7-22	Shadows May 6 / August 6 - 2:30 PM EDT.....	7-12
7-23	Shadows May 6 / August 6 - 4:00 PM EDT.....	7-12
7-24	Shadows May 6 / August 6 - 5:00 PM EDT.....	7-12
7-25	Shadows June 21 - 2:30 PM EDT	7-12
7-26	Shadows June 21 - 4:00 PM EDT	7-12
7-27	Shadows June 21 - 5:00 PM EDT	7-12
7-28	Shadows December 21 - 2:30 PM EDT	7-12
8-1	Development Site Historic Resources	8-6
8-2	Views of High Line	8-6
8-3	Views of High Line	8-6
8-4	Views of High Line	8-6
8-5	Designated Architectural Resources in the Study Area.....	8-8

List of Figures

8-6	Designated Architectural Resources in the Study Area	8-8
8-7	Designated Architectural Resources in the Study Area	8-8
8-8	Designated Architectural Resources in the Study Area	8-8
8-9	Designated Architectural Resources in the Study Area	8-10
8-10	Ninth Avenue Site Historic Resources.....	8-10
8-11	Ninth Avenue Site Designated Architectural Resources in the Study Area	8-12
8-12	Ninth Avenue Site Designated Architectural Resources in Study Area	8-12
8-13	Ninth Avenue Site Designated Architectural Resources in Study Area	8-12
8-14	Development Site Illustrative Site Plan	8-16
9-1	Development Site Urban Design and Visual Resources Study Area.....	9-6
9-2	Views of the Development Site Urban Design and Visual Resources.....	9-6
9-3	Views of the Development Site Urban Design and Visual Resources.....	9-6
9-4	Views of the High Line in the Study Area Urban Design and Visual Resources	9-8
9-5	Views of the Study Area Urban Design and Visual Resources	9-8
9-6	Views of the Study Area Urban Design and Visual Resources	9-8
9-7	Views of the Study Area Urban Design and Visual Resources	9-8
9-8	Views of the Study Area Urban Design and Visual Resources	9-10
9-9	Views of the Study Area Urban Design and Visual Resources	9-10
9-10	Views of the Study Area Urban Design and Visual Resources	9-12
9-11	Tenth Avenue Site Urban Design and Visual Resources Study Area.....	9-14
9-12	Views of the Project Site and Study Area Tenth Avenue Site.....	9-14
9-13	Views of the Project Site and Study Area Tenth Avenue Site	9-14
9-14	Views of the Project Site and Study Area Tenth Avenue Site	9-14
9-15	Ninth Avenue Site Urban Design and Visual Resources Study Area	9-16
9-16	Views of the Project Site and Study Area Ninth Avenue Site	9-16
9-17	Views of the Project Site and Study Area Ninth Avenue Site	9-16
9-18	Views of the Project Site and Study Area Ninth Avenue Site	9-16
9-19	Development Site Illustrative Site Plan	9-22
9-20	Illustrative Massing Diagram of Development Site.....	9-22
9-21	North-South Section of Development Site, View North.....	9-22
9-22	East-West Section of Development Site, View West	9-22
9-23	Wind Simulation Results: Full-Build Configuration Winds from the Northwest.....	9-24
9-24	Wind Simulation Results: Full-Build Configuration Winds from the West	9-24

Western Rail Yard

9-25	Wind Simulation Results: Full-Build Configuration Winds from the South	9-24
9-26	Twelfth Avenue Elevation of the Development Site, View East	9-26
9-27	East-West Section of Development Site, View West.....	9-26
9-28	Proposed Connections to the High Line from the Development Site, Sections View North.....	9-28
9-29	Tenth Avenue Site Massing Model - Looking North	9-34
9-30	Ninth Avenue Site Massing Model - Looking South	9-36
11-1	Development Site—NWI Wetlands	11-12
11-2	Development Site—NYSDEC Mapped Wetlands	11-12
11-3	Additional Housing Sites—NWI Wetlands.....	11-12
11-4	Additional Housing Sites—NYSDEC Mapped Tidal Wetlands	11-12
11-5	Development Site—Floodplain	11-12
11-6	Additional Housing Sites—Floodplain	11-12
11-7	Development Site—Natural Resources Photo Key	11-12
11-7a	Development Site—Existing Conditions Photographs	11-12
11-7b	Development Site—Existing Conditions Photographs	11-12
11-7c	Development Site—Existing Conditions Photographs	11-12
11-7d	Development Site—Existing Conditions Photographs	11-12
11-7e	Development Site—Existing Conditions Photographs	11-12
11-7f	Development Site—Existing Conditions Photographs	11-12
11-8	Ninth Avenue Additional Housing Site—Natural Resources Photo Key	11-14
11-8a	Ninth Avenue Additional Housing Site—Existing Conditions Photographs.....	11-14
11-8b	Ninth Avenue Additional Housing Site—Existing Conditions Photographs.....	11-14
11-8c	Ninth Avenue Additional Housing Site—Existing Conditions Photographs.....	11-14
11-8d	Ninth Avenue Additional Housing Site—Existing Conditions Photographs.....	11-14
11-9	Tenth Avenue Additional Housing Site—Natural Resources Photo Key	11-14
11-9a	Tenth Avenue Additional Housing Site—Existing Conditions Photographs.....	11-14
11-9b	Tenth Avenue Additional Housing Site—Existing Conditions Photographs.....	11-14
11-9c	Tenth Avenue Additional Housing Site—Existing Conditions Photographs.....	11-14
13-1	Waterfront Revitalization Program: Coastal Zone Boundary	13-2
17-1	Traffic Study Area.....	17-6
17-2	2008 Existing Traffic Volumes: Key Map (Weekday AM, Midday, PM Peak Hours)...	17-24
17-3	2008 Existing Traffic Volumes – Inset 1 (Weekday AM Peak Hour)	17-24

List of Figures

17-4	2008 Existing Traffic Volumes – Inset 2 (Weekday AM Peak Hour)	17-24
17-5	2008 Existing Traffic Volumes – Inset 3 (Weekday AM Peak Hour)	17-24
17-6	2008 Existing Traffic Volumes – Inset 4 (Weekday AM Peak Hour)	17-24
17-7	2008 Existing Traffic Volumes – Inset 1 (Weekday Midday Peak Hour)	17-24
17-8	2008 Existing Traffic Volumes – Inset 2 (Weekday Midday Peak Hour)	17-24
17-9	2008 Existing Traffic Volumes – Inset 3 (Weekday Midday Peak Hour)	17-24
17-10	2008 Existing Traffic Volumes – Inset 4 (Weekday Midday Peak Hour)	17-22
17-11	2008 Existing Traffic Volumes – Inset 1 (Weekday PM Peak Hour)	17-24
17-12	2008 Existing Traffic Volumes – Inset 2 (Weekday PM Peak Hour)	17-24
17-13	2008 Existing Traffic Volumes – Inset 3 (Weekday PM Peak Hour)	17-24
17-14	2008 Existing Traffic Volumes – Inset 4 (Weekday PM Peak Hour)	17-24
17-15	2008 Existing Traffic Volumes – Inset 1 (Saturday Midday Peak Hour)	17-24
17-16	2008 Existing Traffic Volumes – Inset 2 (Saturday Midday Peak Hour)	17-24
17-17	2008 Existing Traffic Volumes – Inset 3 (Saturday Midday Peak Hour)	17-24
17-18	2008 Existing Traffic Volumes – Inset 4 (Saturday Midday Peak Hour)	17-24
17-19	On-Street Parking Regulations	17-32
17-20	Off-Street Parking Facilities	17-28
17-21	2019 No Build Traffic Volumes – Inset 1 (Weekday AM Peak Hour)	17-36
17-22	2019 No Build Traffic Volumes – Inset 2 (Weekday AM Peak Hour)	17-36
17-23	2019 No Build Traffic Volumes – Inset 3 (Weekday AM Peak Hour)	17-36
17-24	2019 No Build Traffic Volumes – Inset 4 (Weekday AM Peak Hour)	17-36
17-25	2019 No Build Traffic Volumes – Inset 1 (Weekday Midday Peak Hour)	17-36
17-26	2019 No Build Traffic Volumes – Inset 2 (Weekday Midday Peak Hour)	17-36
17-27	2019 No Build Traffic Volumes – Inset 3 (Weekday Midday Peak Hour)	17-36
17-28	2019 No Build Traffic Volumes – Inset 4 (Weekday Midday Peak Hour)	17-36
17-29	2019 No Build Traffic Volumes – Inset 1 (Weekday PM Peak Hour)	17-36
17-30	2019 No Build Traffic Volumes – Inset 2 (Weekday PM Peak Hour)	17-36
17-31	2019 No Build Traffic Volumes – Inset 3 (Weekday PM Peak Hour)	17-36
17-32	2019 No Build Traffic Volumes – Inset 4 (Weekday PM Peak Hour)	17-36
17-33	2019 No Build Traffic Volumes – Inset 1 (Saturday Midday Peak Hour)	17-36
17-34	2019 No Build Traffic Volumes – Inset 2 (Saturday Midday Peak Hour)	17-36
17-35	2019 No Build Traffic Volumes – Inset 3 (Saturday Midday Peak Hour)	17-36
17-36	2019 No Build Traffic Volumes – Inset 4 (Saturday Midday Peak Hour)	17-36

Western Rail Yard

17-37	2019 Build Increment Traffic Volumes – Inset 1 (Weekday AM Peak Hour).....	17-48
17-38	2019 Build Increment Traffic Volumes – Inset 2 (Weekday AM Peak Hour).....	17-48
17-39	2019 Build Increment Traffic Volumes – Inset 3 (Weekday AM Peak Hour).....	17-48
17-40	2019 Build Increment Traffic Volumes – Inset 4 (Weekday AM Peak Hour).....	17-48
17-41	2019 Build Increment Traffic Volumes – Inset 1 (Weekday Midday Peak Hour). .	17-48
17-42	2019 Build Increment Traffic Volumes – Inset 2 (Weekday Midday Peak Hour). .	17-48
17-43	2019 Build Increment Traffic Volumes – Inset 3 (Weekday Midday Peak Hour). .	17-48
17-44	2019 Build Increment Traffic Volumes – Inset 4 (Weekday Midday Peak Hour). .	17-48
17-45	2019 Build Increment Traffic Volumes – Inset 1 (Weekday PM Peak Hour)	17-48
17-46	2019 Build Increment Traffic Volumes – Inset 2 (Weekday PM Peak Hour)	17-48
17-47	2019 Build Increment Traffic Volumes – Inset 3 (Weekday PM Peak Hour)	17-48
17-48	2019 Build Increment Traffic Volumes – Inset 4 (Weekday PM Peak Hour)	17-48
17-49	2019 Build Increment Traffic Volumes – Inset 1 (Saturday Midday Peak Hour)..	17-48
17-50	2019 Build Increment Traffic Volumes – Inset 2 (Saturday Midday Peak Hour)..	17-48
17-51	2019 Build Increment Traffic Volumes – Inset 3 (Saturday Midday Peak Hour)..	17-48
17-52	2019 Build Increment Traffic Volumes – Inset 4 (Saturday Midday Peak Hour)..	17-48
17-53	2019 Build Traffic Volumes – Inset 1 (Weekday AM Peak Hour).....	17-48
17-54	2019 Build Traffic Volumes – Inset 2 (Weekday AM Peak Hour).....	17-48
17-55	2019 Build Traffic Volumes – Inset 3 (Weekday AM Peak Hour).....	17-48
17-56	2019 Build Traffic Volumes – Inset 4 (Weekday AM Peak Hour).....	17-48
17-57	2019 Build Traffic Volumes – Inset 1 (Weekday Midday Peak Hour).....	17-48
17-58	2019 Build Traffic Volumes – Inset 2 (Weekday Midday Peak Hour).....	17-48
17-59	2019 Build Traffic Volumes – Inset 3 (Weekday Midday Peak Hour).....	17-48
17-60	2019 Build Traffic Volumes – Inset 4 (Weekday Midday Peak Hour).....	17-48
17-61	2019 Build Traffic Volumes – Inset 1 (Weekday PM Peak Hour)	17-48
17-62	2019 Build Traffic Volumes – Inset 2 (Weekday PM Peak Hour)	17-48
17-63	2019 Build Traffic Volumes – Inset 3 (Weekday PM Peak Hour)	17-48
17-64	2019 Build Traffic Volumes – Inset 4 (Weekday PM Peak Hour)	17-48
17-65	2019 Build Traffic Volumes – Inset 1 (Saturday Midday Peak Hour).....	17-48
17-66	2019 Build Traffic Volumes – Inset 2 (Saturday Midday Peak Hour).....	17-48
17-67	2019 Build Traffic Volumes – Inset 3 (Saturday Midday Peak Hour).....	17-48
17-68	2019 Build Traffic Volumes – Inset 4 (Saturday Midday Peak Hour).....	17-48

List of Figures

17-69	2019 Future With Proposed Action: Intersections With Significant Adverse Impacts (Weekday AM Peak Hour).....	17-50
17-70	2019 Future With Proposed Action: Intersections With Significant Adverse Impacts (Weekday Midday Peak Hour)	17-50
17-71	2019 Future With Proposed Action: Intersections With Significant Adverse Impacts (Weekday PM Peak Hour)	17-50
17-72	2019 Future With Proposed Action: Intersections With Significant Adverse Impacts (Saturday Midday Peak Hour)	17-50
17-73	2017 Future With Proposed Action: Intersections With Significant Adverse Impacts (Weekday AM Peak Hour)	17-50
17-74	2017 Future With Proposed Action: Intersections With Significant Adverse Impacts (Weekday Midday Peak Hour)	17-50
17-75	2017 Future With Proposed Action: Intersections With Significant Adverse Impacts (Weekday PM Peak Hour)	17-50
17-76	2017 Future With Proposed Action: Intersections With Significant Adverse Impacts (Saturday Midday Peak Hour)	17-50
18-1	Subway Lines.....	18-6
18-2	Bus Routes	18-6
18-3	Pedestrian Analysis Locations	18-6
18-4	Sidewalk, Corner, and Crosswalk Location Key	18-6
18-5.1	Pedestrian LOS—2008 Existing Condition - AM Peak.....	18-24
18-5.2	Pedestrian LOS—2008 Existing Condition - AM Peak.....	18-24
18-6.1	Pedestrian LOS—2008 Existing Condition - Midday Peak.....	18-24
18-6.2	Pedestrian LOS—2008 Existing Condition - Midday Peak.....	18-24
18-7.1	Pedestrian LOS—2008 Existing Condition - PM Peak	18-24
18-7.2	Pedestrian LOS—2008 Existing Condition - PM Peak	18-24
18-8.1	Pedestrian LOS—2008 Existing Condition - Saturday Midday Peak.....	18-24
18-8.2	Pedestrian LOS—2008 Existing Condition - Saturday Midday Peak.....	18-24
18-9.1	Pedestrian LOS—2019 No Build Condition - AM Peak	18-32
18-9.2	Pedestrian LOS—2019 No Build Condition - AM Peak	18-32
18-10.1	Pedestrian LOS—2019 No Build Condition - Midday Peak	18-32
18-10.2	Pedestrian LOS—2019 No Build Condition - Midday Peak	18-32
18-11.1	Pedestrian LOS—2019 No Build Condition - PM Peak.....	18-32
18-11.2	Pedestrian LOS—2019 No Build Condition - PM Peak.....	18-32
18-12.1	Pedestrian LOS—2019 No Build Condition - Saturday Midday Peak	18-32

Western Rail Yard

18-12.2	Pedestrian LOS—2019 No Build Condition - Saturday Midday Peak	18-32
18-13.1	Pedestrian LOS—2019 Build Condition - AM Peak	18-50
18-13.2	Pedestrian LOS—2019 Build Condition - AM Peak	18-50
18-14.1	Pedestrian LOS—2019 Build Condition - Midday Peak.....	18-50
18-14.2	Pedestrian LOS—2019 Build Condition - Midday Peak.....	18-50
18-15.1	Pedestrian LOS—2019 Build Condition - PM Peak	18-50
18-15.2	Pedestrian LOS—2019 Build Condition - PM Peak	18-50
18-16.1	Pedestrian LOS—2019 Build Condition - Saturday Midday Peak	18-50
18-16.2	Pedestrian LOS—2019 Build Condition - Saturday Midday Peak	18-50
19-1	Mobile Source Analysis Sites.....	19-10
20-1	Sound Pressure and Sound Pressure Levels	20-2
20-2a	Noise Monitoring Locations: Development Site	20-10
20-2b	Noise Monitoring Locations: Additional Housing Sites	20-10
20-3	Window-Wall Noise Attenuation Requirements by Building Facade.....	20-18
21-1	Development Site—Illustrative Site Plan.....	21-14
21-2	Development Site—Construction Access Points - 2014 and Later	21-24
21-3	2016 Construction Conditions—(Weekday AM Peak Hour).....	21-38
21-4	2016 Construction Conditions—(Weekday Midday Peak Hour).....	21-38
21-5	2016 Construction Conditions—(Weekday PM Peak Hour)	21-38
21-6	Construction Noise Receptor Locations	21-50
21-7	CadnaA Model Input (typical)	21-54
21-8	CadnaA Model Output (typical).....	21-54
23-1	Environmental Justice Study Area	23-2
24-1	2019 Build Conditions With Mitigation (Weekday AM Peak Hour).....	24-6
24-2	2019 Build Conditions With Mitigation (Weekday Midday Peak Hour).....	24-6
24-3	2019 Build Conditions With Mitigation (Weekday PM Peak Hour)	24-6
24-4	2019 Build Conditions With Mitigation (Saturday Midday Peak Hour).....	24-6
24-5	2017 Build Conditions With Mitigation (Weekday AM Peak Hour).....	24-6
24-6	2017 Build Conditions With Mitigation (Weekday Midday Peak Hour).....	24-6
24-7	2017 Build Conditions With Mitigation (Weekday PM Peak Hour)	24-6
24-8	2017 Build Conditions With Mitigation (Saturday Midday Peak Hour).....	24-6
24-9	2016 Construction Conditions With Mitigation (Weekday AM Peak Hour)	24-6
24-10	2016 Construction Conditions With Mitigation (Weekday Midday Peak Hour)	24-6

List of Figures

24-11	2016 Construction Conditions With Mitigation (Weekday PM Peak Hour)	24-6
24-12.1	Pedestrian LOS—2019 Mitigation Condition - AM Peak	24-6
24-12.2	Pedestrian LOS—2019 Mitigation Condition - Midday Peak	24-6
24-13.1	Pedestrian LOS—2019 Mitigation Condition - AM Peak	24-6
24-13.2	Pedestrian LOS—2019 Mitigation Condition - Midday Peak	24-6
24-14.1	Pedestrian LOS—2019 Mitigation Condition - PM Peak.....	24-6
24-14.2	Pedestrian LOS—2019 Mitigation Condition - PM Peak.....	24-6
24-15.1	Pedestrian LOS—2019 Mitigation Condition - Saturday Midday Peak	24-6
24-15.2	Pedestrian LOS—2019 Mitigation Condition - Saturday Midday Peak	24-6
25-1	Traffic Mitigation Overview: Reduced Density Development Alternative—Primary Traffic Study Area (AM Peak Hour)	25-36
25-2	Traffic Mitigation Overview: Reduced Density Development Alternative—Primary Traffic Study Area (Midday Peak Hour)	25-36
25-3	Traffic Mitigation Overview: Reduced Density Development Alternative—Primary Traffic Study Area (PM Peak Hour)	25-36
25-4	Traffic Mitigation Overview: Reduced Density Development Alternative—Primary Traffic Study Area (Saturday Midday Peak Hour)	25-36

*