APPENDIX C

REVISED TRAFFIC STUDY

Traffic Impact Study

NEW JERSEY DEPARTMENT OF TRANSPORTATION
MAJOR ACCESS PERMIT APPLICATION

VOLUME 1 of 5
T.I.S. REPORT / APPENDICES A - F

NEW MEADOWLANDS STADIUM AND ANCILLARY DEVELOPMENT

EAST RUTHERFORD, NEW JERSEY

Prepared for:

NEW MEADOWLANDS STADIUM DEVELOPMENT COMPANY

Revised January 31, 2007
June 30, 2006

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VOLLMER

TABLE OF CONTENTS

Section 1.0 – Executive Summary
1.1 Background..... I-1
1.2 Previous Studies in the Meadowlands Area..... I-5
1.3 Access Plan..... I-5
1.4 Study Locations..... I-6
1.5 Conformity with LOS Standards Set Forth in NJAC for Urban Areas..... I-9
1.6 Fair Share Analysis..... I-10
1.7 Summary..... I-11

Section 2.0 – Methodology and Scope of Study
2.1 Study Methodology..... II-1
2.2 Previous Studies..... II-1
2.3 Study Area..... II-2
2.4 Analysis Years..... II-3
2.5 Study Hours..... II-3
2.6 2010 and 2013 No-Build Baseline Traffic Volumes..... II-3
2.7 Site Generated Trips..... II-3
2.8 Pass-By Trips..... II-4
2.9 2010 and 2013 Build Traffic Volumes..... II-4
2.10 Traffic Impact Study Locations..... II-4
2.11 Level of Service Impact Analyses..... II-4
2.12 Fair Share Analysis..... II-4

Section 3.0 – Proposed Development III-1

Section 4.0 – Existing and Future Transportation System
4.1 Existing Highway System..... IV-1
4.2 Existing / Future Geometric Conditions – TRC/Xanadu Study Locations..... IV-2
4.3 Existing / Future Geometric Conditions – E&K Study Locations..... IV-2
4.4 Existing / Future Geometric Conditions – Vollmer Study Locations..... IV-2
4.5 Future Transportation Improvements..... IV-8
4.6 Number of Lanes..... IV-9
4.7 Implementation Schedule..... IV-9
4.8 Recommended Additional Transportation Improvements IV-9

Section 5.0 – Trip Generation and Distribution
5.1 Trip Generation Estimates..... V-1
5.2 Trip Generation by Land Use..... V-1
5.3 Pass-By Trip Adjustments..... V-8
5.4 Trip Distribution..... V-9
5.5 New Trips Entering and Leaving the Study Area..... V-9
5.6 Trip Assignment..... V-11

Section 6.0 – Impacted Study Locations
6.1 Traffic Impact Study Location Criteria..... VI-1
6.2 Traffic Impact Study Locations..... VI-1

Section 7 – Traffic Volumes
7.1 Baseline Traffic Source Data..... VII-1
7.2 Development by Others Included in the 2010 and 2013 Baseline Traffic Volumes..... VII-2
7.3 2010 and 2013 No-Build Baseline Traffic Volumes..... VII-3
7.4 2010 and 2013 Site Generated Traffic Volumes..... VII-4
7.5 2010 and 2013 Build Traffic Volumes..... VII-4

Section 8 – Capacity Analyses
8.1 Methodology..... VIII-1
8.2 Analysis..... VIII-1
8.3 Level-of-Service Analysis..... VIII-5

Section 9 – LOS Impacts and Fair Share Analysis
9.1 Level-of-Service Impacts..... IX-1
9.2 Applicable LOS Standards for Urban Areas (NJAC 16:47 4.24-4.29)..... IX-1
9.3 Level-of-Service Impact Test..... IX-1
9.4 Impacted Study Locations Exceeding the LOS Standards IX-2
9.5 Fair Share Analyses..... IX-2

APPENDIX

Volume 1 Appendices

Appendix A – Transportation Improvement (Drawings)

Appendix B – Construction Staging (Preliminary)

Appendix C – Traffic Assignment Diagrams

Appendix D – No-Build Baseline Traffic Volumes, 2010 and 2013

Appendix E – Site Generated Traffic Volumes, 2010 and 2013

Appendix F – Build Traffic Volume Diagrams, 2010 and 2013

Volume 2 (Appendix G)

Study Scope Submitted to NJDOT

Volume 3 (Appendix H)

HCS Capacity Analysis – Weekday PM Peak Highway Hour

Volume 4 (Appendix I)

HCS Capacity Analysis – Weekday PM Peak Continental Airlines Arena Event Hour

Volume 5 (Appendix J)

HCS Capacity Analysis – Saturday PM Peak Continental Airlines Arena Event Hour

LIST OF TABLES

Table I-1 Transportation Improvements
Table II-1 Traffic Impact Study Locations (100 or more trip criteria)
Table III-1 Proposed Development
Table IV-1 Geometric Conditions – Xanadu Study Locations
Table IV-2 Geometric Conditions – E&K Study Locations
Table IV-3 Geometric Conditions – Vollmer Study Locations
Table IV-4 Transportation Improvements
Table V-1 Site Generated Trips – Weekday PM Peak Highway Hour
Table V-2 Site Generated Trips – Weekday PM Peak Arena Event Hour
Table V-3 Site Generated Trips – Saturday Peak Arena Event Hour
Table V-4 Allocation of Pass-by Credit
Table V-5 Trip Distributions
Table V-6 New Trips Entering/Leaving the Study Area
Table VI-1 Study Locations
Table VI-2 External Study Locations Meeting 100-Trip Criteria
Table VIII-1 LOS Criteria for Weaving Segments
Table VIII-2 LOS Average Control Delay Criteria
Table VIII-3 LOS Criteria for Merges and Diverges
Table VIII-4 LOS F Criteria for Ramp Capacity
Table VIII-5 2010 and 2013 Ramp Capacity Analysis – Weekday PM Peak Highway Hour
Table VIII-6 2010 and 2013 Ramp Capacity Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table VIII-7 2010 and 2013 Ramp Capacity Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table VIII-8 2010 and 2013 Ramp Junction Level of Service Analysis – Weekday PM Peak Highway Hour
Table VIII-9 2010 and 2013 Ramp Junction Level of Service Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table VIII-10 2010 and 2013 Ramp Junction Level of Service Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table VIII-11 2010 and 2013 Weaving Segment Level of Service Analysis – Weekday PM Peak Highway Hour
Table VIII-12 2010 and 2013 Weaving Segment Level of Service Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table VIII-13 2010 and 2013 Weaving Segment Level of Service Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table VIII-14 2010 Signalized Intersection Level of Service Analysis – Weekday PM Peak Highway Hour
Table VIII-15 2013 Signalized Intersection Level of Service Analysis – Weekday PM Peak Highway Hour

LIST OF TABLES – (continued)

Table VIII-16 2010 Signalized Intersection Level of Service Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table VIII-17 2013 Signalized Intersection Level of Service Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table VIII-18 2010 Signalized Intersection Level of Service Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table VIII-19 2013 Signalized Intersection Level of Service Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table VIII-20 2010 Unsignalized Intersection Level of Service Analysis – Weekday PM Peak Highway Hour
Table VIII-21 2013 Unsignalized Intersection Level of Service Analysis – Weekday PM Peak Highway Hour
Table VIII-22 2010 Unsignalized Intersection Level of Service Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table VIII-23 2013 Unsignalized Intersection Level of Service Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table VIII-24 2010 Unsignalized Intersection Level of Service Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table VIII-25 2013 Unsignalized Intersection Level of Service Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table IX-1 Significant Impact Test Summary
Table IX-2 2013 Ramp Junction LOS Significant Impact Analysis – Weekday PM Peak Highway Hour
Table IX-3 2013 Weaving Segment LOS Significant Impact Analysis – Weekday PM Peak Highway Hour
Table IX-4 2013 Ramp Junction LOS Significant Impact Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table IX-5 2013 Weaving Segment LOS Significant Impact Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table IX-6 2013 Ramp Junction LOS Significant Impact Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table IX-7 2013 Weaving Segment LOS Significant Impact Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table IX-8 2013 Signalized Intersection LOS Significant Impact Analysis – Weekday PM Peak Highway Hour
Table IX-9 2013 Unsignalized Intersection LOS Impact Analysis – Weekday PM Peak Highway Hour
Table IX-10 2013 Signalized Intersection LOS Impact Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table IX-11 2013 Unsignalized Intersection LOS Impact Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table IX-12 2013 Signalized Intersection LOS Impact Analysis – Saturday Peak Continental Airlines Arena Event Hour

LIST OF TABLES – (continued)

Table IX-13 2013 Unsignalized Intersection LOS Impact Analysis – Saturday Peak Continental Airlines Arena Event Hour
Table IX-14 Significant Impact Mitigation Analysis – Weekday PM Peak Highway Hour
Table IX-15 Significant Impact Mitigation Analysis – Weekday PM Peak Continental Airlines Arena Event Hour
Table IX-16 Significant Impact Mitigation Analysis – Saturday Peak Continental Airlines Arena Event Hour

LIST OF EXHIBITS

Exhibit I-1 Location Map
Exhibit I-2 Study Locations
Exhibit III-1 Site Plan (w/Ancillary Development)
Exhibit IV-1 Number of Lanes at Critical Locations - Existing and Future

SECTION 1.0 – EXECUTIVE SUMMARY

1.1 Background

- Development Location and Description

The proposed development is located wholly within the Meadowlands Sports Complex in East Rutherford, New Jersey. The New Jersey Sports and Exposition Authority (NJSEA) owns the site and is the applicant for a Major Access Permit.

The site is bounded by NJ Route 3 to the south, NJ Route 120 to the east, Paterson Plank Road (NJ Route 120) to the north, and Berry's Creek to the west. (See Location Map – Exhibit I-1.)

The project consists of 1.165 million square feet of ancillary development in conjunction with the construction of a new stadium at the Meadowlands Sports Complex replacing the existing Giants Stadium. A significant portion of the proposed development, about 340,000 square feet, will replace existing facilities and, therefore, will not generate additional trips. The replacement facilities include a training facility, indoor practice fields, and stadium offices. The remaining development would consist largely of mixed use, a banquet hall, a medical clinic, and sponsor areas. The project is to be constructed in two phases. Phase I would be completed in 2010 and Phase II would be completed in 2013.

Phase I – 2010 (645,000 SF)

Training District
- Training Facility (190,000 SF - replacement facility)
- Office/Sponsorship/Clinic (50,000 SF)
- Indoor Practice Field (120,000 SF - replacement facility)

Stadium District
- Mixed Use (65,000 SF)
- Sponsor Areas (30,000 SF)
- Stadium Offices (30,000 SF - replacement facility)
- Hall of Fame Museum (40,000 SF)
- Banquet Hall (120,000 SF)

Phase II – 2013 (520,000 SF)

Ancillary Component Pod A
- Mixed Use (300,000 SF)

Ancillary Component Pod B
- Mixed Use (170,000 SF)
- Medical Clinic (50,000 SF)

■ Xanadu Development and Schedule

The NJSEA has sponsored the development of the Xanadu project adjacent to the proposed New Meadowlands Stadium ancillary development on the east side of NJ Route 120. NJDOT has issued a Major Access Permit for the Xanadu project in 2004. This project is now under construction and is expected to be completed in 2008.

There has been close coordination with NJSEA and the Xanadu project team regarding traffic, parking, and construction coordination. The development of the traffic analyses contained in this Traffic Impact Study includes the traffic generated by the Xanadu project as well as other proposed development in the Meadowlands area.

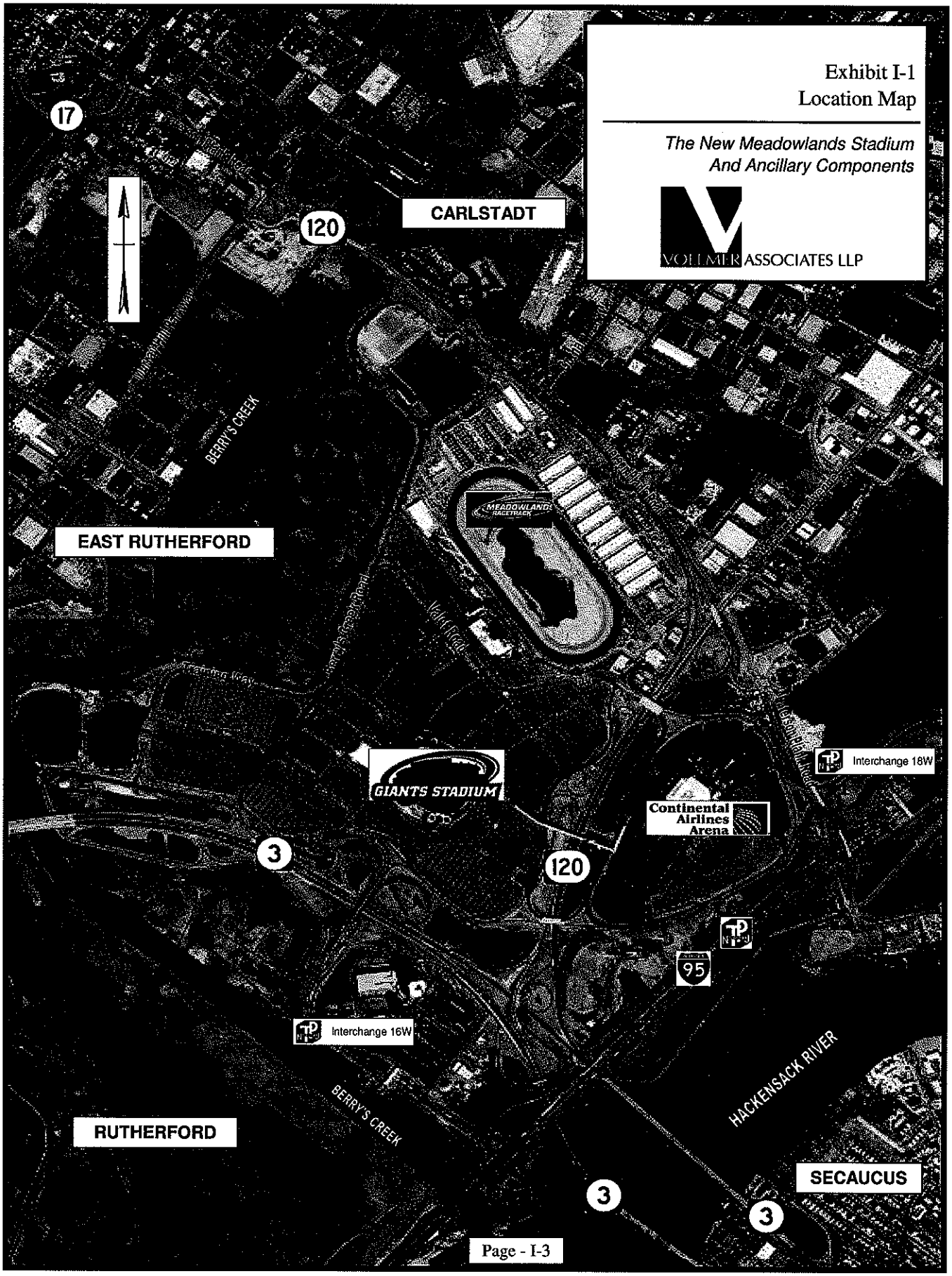


Exhibit I-1
Location Map
The New Meadowlands Stadium
And Ancillary Components
VOLLMER ASSOCIATES LLP
17
120
CARLSTADT
BERRY'S CREEK
EAST RUTHERFORD
MEADOWLANDS RACETRACK
Interchange 18W
GIANTS STADIUM
Continental Airlines Arena
3
120
95
Interchange 16W
HACKENSACK RIVER
BERRY'S CREEK
RUTHERFORD
SECAUCUS
3
3

- Infrastructure Improvements

The proposed New Meadowlands Stadium Ancillary Development assumes full implementation of transportation infrastructure improvement projects committed to by NJDOT, NJTPA, and the Xanadu developers. These transportation improvements will benefit the regional transportation system as well as improve access to the Meadowlands Sports Complex. See Table I-1.

The NJT rail project at the Meadowlands will improve access and reduce overall vehicle trips. In order to be conservative, no trip reduction credits are taken for rail.

No additional transportation improvements are proposed, except for minor signal timing changes.

Table I-1
Transportation Improvements

Route	Description	Project Sponsor	Scheduled Completion Date
Xanadu Improvements	New 2 lane flyover ramp from NJ Route 3 South Service Road; New 2 lane NB NJ Route 120 service road; additional lane on SB NJ Route 120; relocation of NJ Route 120 ramps; improved connections to NJTP 18W ramps; improved internal roadway system, signage / traffic management at Arena site.	NJDOT and Xanadu	2008
NJ Route 120 Project	New flyover from Southbound NJ Route 120 to Eastbound NJ Route 3; NJ Route 3 South Service Road improvements; ramp improvements.	NJDOT	2008
Interchange 16W Improvements	Interchange 16W/NJ Route 3 Ramp Improvements; elimination of weave at entrance to and exit from Route 3 westbound; ramp improvements.	NJTPA	2009
Interchange 18W	7day/24-hour operation	NJTPA	2009
Rail Station	New rail station at Sports Complex and rail service to Secaucus.	NJT	2009
Route 17 TSM Project	Widening from 4-lanes to 6-lanes between Berry's Creek bridge and NJ Route 17; signal improvements; intersection improvements.	NJDOT	2010

1.2 Previous Studies in the Meadowlands Area

There have been several previous studies in the Meadowlands that complement each other. The traffic analyses contained in this report rely on these previous studies as well as supplemental data collection and analyses performed by Vollmer.

- Traffic Impact Study for Meadowlands Xanadu - prepared for the Meadowlands Mills/Mack-Cali Limited Partnership, prepared by TRC Raymond Keyes Associates, dated January 28, 2004. Supplemental Analysis provided June 16, 2006.

- Meadowlands Regional Transportation Analysis - prepared for the New Jersey Sports and Exposition Authority (NJSEA) and the New Jersey Department of Transportation, prepared by Edwards and Kelcey (E&K), dated December 2004.

- NJ Turnpike Interchange 16W Improvement Project – prepared for the New Jersey Turnpike Authority by DMJM Harris, January 2006.

- NJ Route 120 (Paterson Plank Road) from NJ Route 17 to Gotham Parkway – prepared for the New Jersey Department of Transportation by HNTB, August 2006.

1.3 Access Plan

- Highway Access to Site

  Access to the site is presently provided by an extensive highway system including NJ Route 3, NJ Route 120, Paterson Plank Road (NJ Route 120), and the New Jersey Turnpike Interchanges 16W and 18W. In addition, local access is possible via Washington Avenue (CR 503). In general, the present access to the site will be maintained; however, infrastructure projects being undertaken by NJDOT, NJTPA, and the Xanadu developer will improve existing merge/diverge and weaving sections along the adjacent highways as well as several signalized intersections along Paterson Plank Road. In addition, future improvements by others will increase the number of lanes entering and exiting the Stadium site.

- Access Via NJ Turnpike Interchange 18W

  No new access to the site is proposed; however, the proposed ancillary development will require that Interchange 18W is operational on a 7-day/24-hour basis. (The Xanadu development also has this requirement.)

- Bus Service

  New Jersey Transit buses No. 164 and No. 703 provides daily service to the Meadowland Sports Complex site. Bus No. 164 provides limited service between New York City (Port Authority Bus Terminal) and Midland Park, while No. 703 provides service between East Rutherford and Haldon. New Jersey Transit bus No. 351 provides dedicated express bus service from the New York Port Authority Bus Terminal for special events at the Meadowlands Sports Complex. During large stadium events, the No. 164 will not serve the Meadowlands Sports Complex but will instead stop along Paterson Plank Road. It is anticipated that bus service would be expanded in the future due to the Xanadu development and the proposed Meadowlands Stadium ancillary development. In order to be conservative, no trip reduction credits are taken for improved bus service.

- Rail Service

  A future rail connection between Secaucus and the Meadowlands Sports Complex will improve access to the site; however, in order to be conservative no trip reduction credits are taken for rail transit service.

1.4 Study Locations

Vollmer examined a total of 44 study locations including 24 locations studied by TRC for the Xanadu Major Access Permit Application, 4 of the locations studied by E&K in the Meadowlands Regional Transportation Analysis along Paterson Plank Road, and 16 additional locations, referred to as Vollmer study locations. See Exhibit I-2 for showing the TRC, E&K, and Vollmer study locations.

In total, Vollmer examined 28 external study locations and 16 internal study locations. Some of these study locations were later dropped after initial screening because it was determined that there is no traffic impact due to the site-generated traffic during any of the three peak periods analyzed.

A few of the internal study locations would no longer exist or they have been reconfigured to accommodate future development. These study locations were replaced with a new study location reflecting the changed geometry.

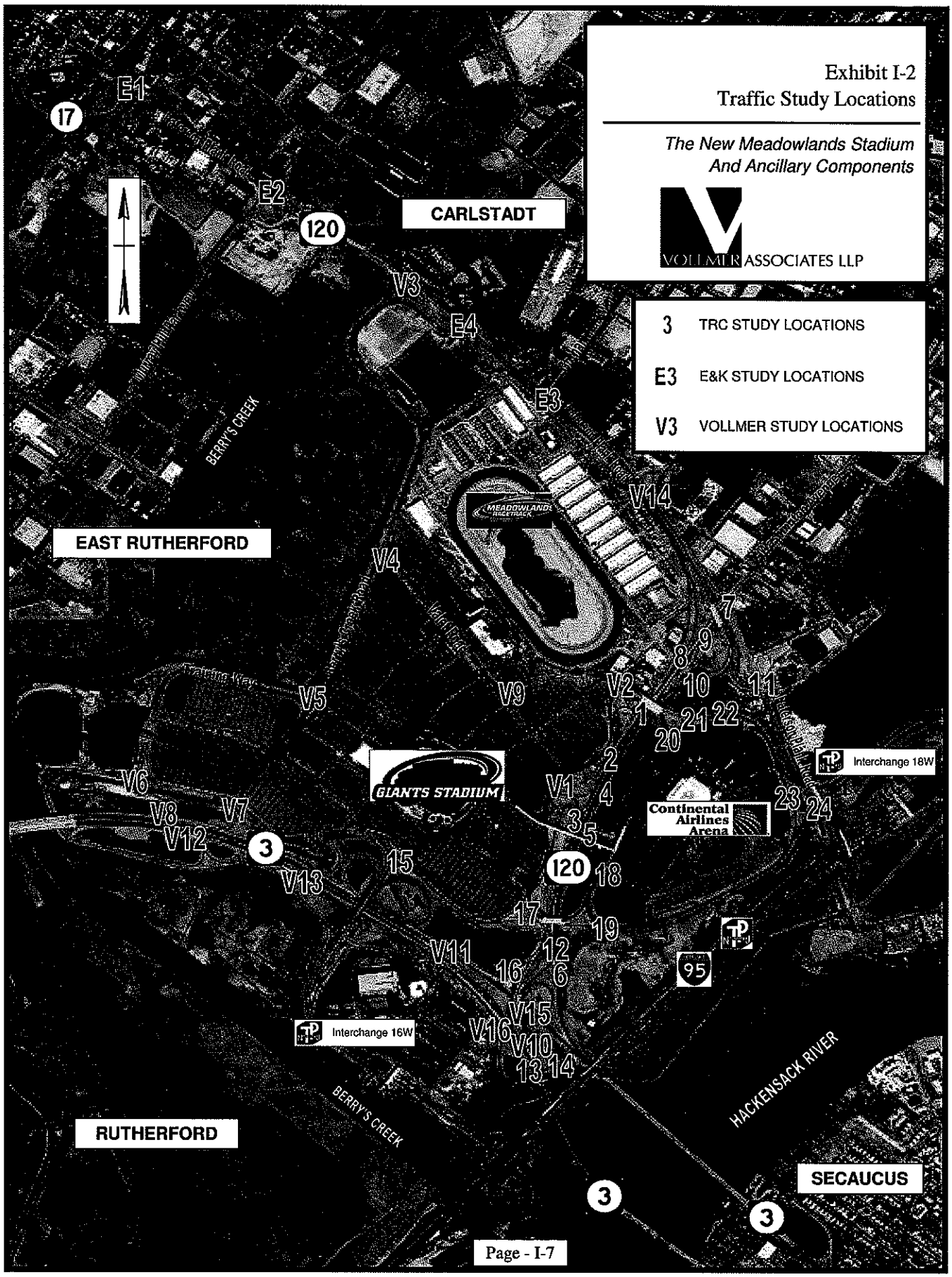


Exhibit I-2
Traffic Study Locations
The New Meadowlands Stadium
And Ancillary Components
VOLLMER ASSOCIATES LLP
3 TRC STUDY LOCATIONS
E3 E&K STUDY LOCATIONS
V3 VOLLMER STUDY LOCATIONS
CARLSTADT
EAST RUTHERFORD
RUTHERFORD
SECAUCUS
BERRY'S CREEK
HACKENSACK RIVER
MEADOWLANDS RACETRACK
GIANTS STADIUM
Continental Airlines Arena
Interchange 18W
Interchange 16W
E1
E2
E3
E4
V1
V2
V3
V4
V5
V6
V7
V8
V9
V10
V11
V12
V13
V14
V15
V16
17
120
3
95

- TRC / Xanadu Study Locations (24 locations)

1. Southbound NJ Route 120 between North Connector Road Entrance Ramp and West Peripheral Road (ex-Stadium Ring Road) Exit Ramp
2. Southbound NJ Route 120 between West Peripheral Road (ex-Stadium Ring Road) Entrance and Exit Ramps
3. Southbound NJ Route 120 merge with ramp from West Peripheral Road (ex-Stadium Ring Road)
4. Northbound NJ Route 120 between East Peripheral Road (ex-Arena Ring Road) Entrance Ramp and Northbound Washington Avenue (CR 501) Diverge
5. Northbound NJ Route 120 diverge to East Peripheral Road (ex-Arena Road)
6. Northbound NJ Route 120 diverge to NJ Route 120 Service Road
7. Northbound Washington Avenue (CR 501) at Paterson Plank Road
8. Southbound NJ Route 120 merge with Southbound Washington Avenue (CR 501)
9. Northbound Washington Avenue (CR 501) merge with Eastbound Paterson Plank Road
10. Northbound NJ Route 120 between Washington Avenue (CR 501) and ramp to North Connector Road
11. Paterson Plank Road at ramp to Westbound NJ Route 120
12. Northbound NJ Route 120 merge with Ramp M (NJ Route 3 South Service Road)
13. Eastbound NJ Route 3 merge with South Service Road / Southbound NJ Route 120 Flyover Ramp
14. Ramp M (NJ Route 3 South Service Road) diverge to South Connector Road
15. South Connector Road at NJ Turnpike Interchange 16W Access Road / Inner Loop Road
16. Ramp W (Southbound NJ Route 120 to Westbound NJ Route 3)
17. South Connector Road at West Peripheral Road
18. East Peripheral Road (ex-Arena Ring Road) between Deck A / Deck BCD driveways and South Connector Road
19. South Connector Road and ramp from Ramp M merge
20. East Peripheral Road (ex-Arena Ring Road) and North Connector Road/North Arena Road
21. North Connector Road diverge to East Peripheral Road (ex-Arena Ring Road)
22. North Connector Road at HOC Boulevard
23. North Connector Road at proposed North Arena Road / New Jersey Turnpike Interchange 18W Access Road
24. Ramp connecting North Connector Road to New Jersey Turnpike Interchange 18W

- E&K Study Locations (4 locations)

  E1 Paterson Plank Road (NJ Route 120) at Northbound NJ Route 17
  E2 Paterson Plank Road (NJ Route 120) at Murray Hill Road
  E3 Paterson Plank Road (NJ Route 120) at Gotham Parkway
  E4 Paterson Plank Road (NJ Route 120) at Berry's Creek Road (existing alignment)

- New Vollmer Study Locations (16 locations)

  V1 West Peripheral Road (ex-Stadium Ring Road) at Southbound NJ Route 120 Entrance/Exit Ramps
  V2 North Connector Road at West Peripheral Road (ex-Stadium Ring Road)
  V3 Paterson Plank Road at Berry's Creek Road (new alignment)
  V4 Berry's Creek Road at Valet Road
  V5 Berry's Creek Road at Training Way (Plaza J)
  V6 NJ Route 3 North Service Road at Training Way (Plaza J)
  V7 Berry's Creek Road at NJ Route 3 North Service Road
  V8 Westbound NJ Route 3 between Ramp G and Ramp X
  V9 Inner Loop Road at Valet Road
  V10 Southbound NJ Route 120 Flyover Ramp merge with NJ Route 3 South Service Road
  V11 Westbound NJ Route 3 between Ramp W (Southbound NJ Route 120) and Ramp ET (exit ramp to NJ Turnpike Interchange 16W Access Road)
  V12 Eastbound NJ Route 3 diverge to Ramp H (NJ Route 3 South Service Road)
  V13 Eastbound NJ Route 3 diverge to Ramp WT (exit ramp to NJ Turnpike Interchange 16W Access Road)
  V14 Paterson Plank Road at Jughandles (Hampton Inn)
  V15 Existing Southbound NJ Route 120 ramp to Eastbound NJ Route 3
  V16 Proposed Southbound NJ Route 120 Flyover Ramp to Eastbound NJ Route 3

1.5 Conformity with LOS Standards Set Forth in NJAC for Urban Areas

- Applicable LOS Standards (NJAC 16:47 4.24-4.29)

  For ramps (merge, diverge, and weaving sections), an increase in density of 25% of the difference between the no-build density and 35 pc/lane/mile shall be allowed. No deterioration shall be allowed when the no-build LOS is 'F'.

For signalized intersections, an increase in delay of 25% of the difference between the no build condition delay and the bottom of LOS E delay (60 seconds) shall be allowed for movements and approaches. No deterioration shall be allowed when the no-build LOS is F.

For unsignalized intersections, a 15-second maximum delay is allowed when the no-build LOS is A or B; a 5-second additional delay over the no-build is allowed, up to 45-seconds maximum delay, when the no build LOS is C, D, or E.

- Conformity with LOS Standards

  In general, the proposed New NFL Stadium development conforms with the LOS standards set forth in NJAC 16:47 4.24-4.29, provided that the transportation improvements committed to by NJDOT, NJTPA, and the Xanadu developer are implemented. The LOS standards are exceeded at one location during the Saturday Continental Airlines Arena Event Peak Hour (3:15-4:15 PM) at the intersection of Training Way and the North Service Road (designated as location V6). This is an unsignalized intersection. The deterioration in the level-of-service shall be mitigated by the use of traffic control agents at this location during the Saturday Peak Continental Airlines Arena Event period.

1.6 Fair Share Analysis

- In accordance with NJAC 16:47-4.34, applicants are responsible for financial contributions towards the costs of capacity improvements to the State highway system at those NJDOT study locations that exceed the Level of Service standards set forth in NJAC 16:47 4.24-4.29.

- Only one external study location (V6), at the intersection of Training Way and the NJ Route 3 North Service Road, has been identified as having an impact exceeding the LOS standards set forth in NJAC 16:47 4.24-4.29. The level-of-service impact occurs only during the Saturday Continental Airlines Arena Event PM Peak Period. The traffic impact will be mitigated by the use of traffic control agent(s) during this period. The applicant shall bear the costs associated with the proposed mitigation.

1.7 Summary

- It is the professional opinion of Vollmer Associates, LLP that the proposed New Meadowlands Stadium ancillary development can be accommodated by the future highway system. The 2013 Build level-of-service will be within the standards set forth in the NJAC 16:47 4.24-4.29, provided the improvements committed to by State Agencies and the Xanadu developer are implemented. Ongoing coordination will be maintained to ensure that all projects work together as planning, design, and construction progresses.

- The transportation improvements committed to by State Agencies and Xanadu are underway and are expected to be completed in a timely manner.

- One external study location, the intersection of Training Way and the Route 3 North Service, exceeds the NJAC level-of-service standard during the Saturday Peak Continental Airlines Arena Period. This impact will be mitigated by the use of a traffic control agent that will be provided by NJSEA.

- The future internal roadway system will be improved to accommodate the additional site-generated traffic. In general, the improved internal roadway system will operate at a satisfactory level of service. Under worst case assumptions, two locations were identified that will require a traffic control agent during a Peak Continental Airlines Arena Event period to direct and manage traffic. One location was identified that will be remedied by a signal timing change.

- Construction of the new passenger rail line connecting the Meadowlands Sports Complex with mainline rail service at Secaucus is expected to begin in 2007 and is expected to be operational by 2009. This new facility will result in a reduction of the projected trips generated by the proposed New Stadium development as well as a reduction in the base traffic volumes, which includes the Xanadu development and other proposed development in the Meadowlands area. In order to be conservative, the analyses contained in this Traffic Impact Study do not include any trip reduction credits resulting from the new rail service.

SECTION 2.0 – METHODOLOGY AND SCOPE OF STUDY

2.1 Study Methodology

The study methodology is based on the guidelines contained in the New Jersey Access Code 16:47, Section 4. Vollmer prepared a Scope of Study and submitted it to NJDOT for review on November 7, 2006. This document detailed the trip generation, trip distribution, and the study locations to be analyzed as well as the analysis years and study hours.

2.2 Previous Studies

There are four previous studies recently completed by others in the Meadowlands area that document the existing conditions and provide projections of future traffic. This study utilizes these previous studies as a base to determine the traffic impacts of the proposed New Meadowlands Stadium and Ancillary Components. Vollmer performed additional counts and analyses to supplement the previous studies where necessary.

- TRC/Xanadu Traffic Impact Study

  The TRC study projects 2009 traffic volumes incorporating the site generated trips by the Xanadu development as well as the Encap development. The baseline 2010 and 2013 traffic volumes were developed by applying a 1% growth rate for NJ Route 3 and a 2% growth rate for NJ Route 120 to factor the 2009 TRC traffic volumes. (These are the same background growth rates used by TRC/Xanadu.) The TRC/Xanadu study did not provide any traffic data for Paterson Plank Road.

- HNTB Paterson Plank Road Study – prepared for NJDOT

  This study focuses on Paterson Plank Road and fills a gap in the TRC/Xanadu study. The 2015 projections of traffic were 'scaled back' to 2013 and 2010 by assuming a 1% growth per year. This is conservative since the NJAC growth rate along Paterson Plank Road is 2%.

  The HNTB study provided traffic counts and projected traffic volumes at the following locations:

  - Paterson Plank Road (NJ Route 120) at Murray Hill Parkway
  - Paterson Plank Road (NJ Route 120) at Gotham Parkway
  - Paterson Plank Road (NJ Route 120) at NJ Route 17

- DMJM Harris Study - prepared for the New Jersey Turnpike Authority

  The DMJM Harris study focuses on NJ Route 3 and the ramps leading to and from NJ Turnpike Interchange 16W as well as the NJ Route 3 North and South Service Roads. This study supports the NJTPA's planned infrastructure improvements at the Interchange 16W.

  The DMJM Harris study provided traffic counts at the following locations:

  - NJ Route 3 Eastbound
  - NJ Route 3 Westbound
  - NJ Route 3 North Service Road
  - NJ Route 3 South Service Road
  - Ramps W, TW, ET, X, G, H, BT, TA, and M

  The DMJM Harris projections of 2010 traffic volumes incorporated the Xanadu project as well as other planned developments in the Meadowlands area. These projections were used to supplement the traffic projections made by TRC/Xanadu in developing the no-build 2010 and 2013 baseline traffic volumes for this study. A 1% background growth factor was used along NJ Route 3 and a 2% growth factor was used along NJ Route 120.

- Meadowlands Regional Transportation Analysis – prepared by Edwards & Kelcey for NJSEA and NJDOT

  The E&K study relies on the results of a regional traffic model to simulate future traffic conditions over a broad area and complements various site-specific studies in the Meadowlands area. The traffic model was used to develop and test alternative transportation improvements. The current infrastructure improvement program is largely based upon the E&K Regional Transportation Study.

2.3 Study Area

The Study Area for the proposed Stadium site development is consistent with the TRC/Xanadu TIS study area. The study area is bounded by NJ Route 3 to the south, New Jersey Turnpike to the east, Paterson Plank Road (NJ Route 120) to the north, and Berry's Creek to the west. Vollmer also examined several intersections along Paterson Plank Road (NJ Route 120), between Washington Avenue (CR 503) and NJ Route 17 that were not included in the TRC/Xanadu TIS Study.

2.4 Analysis Years

The analysis years for the New Meadowlands Stadium and Ancillary Component development are 2010 and 2013, corresponding to the Phase-I and Phase-II build-out years.

2.5 Study Hours

Three critical time periods are studied in this report in accordance with the approved Study Scope.

- Weekday PM Peak Highway Hour (4:30-5:30 PM)
- Weekday PM Peak Continental Airlines Arena Event Hour (7:15-8:15 PM)
- Saturday Peak Continental Airlines Arena Event Hour (3:15-4:15 PM)

NJAC 16:47-4.30 does not require the analysis of a time period if the site generated traffic is less than or equal to 50% of the maximum peak hour site generated traffic. Since the site-generated trips during the Weekday AM Peak Hour are below 50% of the maximum peak hour generated traffic, the analysis of this time period is not required.

2.6 2010 and 2013 No-Build Baseline Traffic Volumes

To a large extent, Vollmer has relied on recent studies and traffic projections by others to establish the 2010 and 2013 no-build baseline traffic volumes. The no-build baseline traffic volumes include the Xanadu development and other major developments proposed in the Meadowlands area. Supplemental traffic counts and analyses were conducted by Vollmer, as needed, to fill in any gaps.

2.7 Site Generated Trips

Site generated trips were estimated for each of three analysis peak hours described in Section 2.4 for both Phase-I and Phase-II development. The site-generated trips were distributed to the external roadway system based on the distributions in the TRC/Xanadu TIS. Site-generated trips were assigned to the internal roadway system based on the trip distributions from each specific development on the site.

2.8 Pass-By Trips

A 25% pass-by trip credit was taken for the 'mixed-use' land use component. The traffic volumes on the external roadway system were adjusted to account for pass-by trips since these trips are already on the highway system. The 25% pass-by credit is based on the TRC/Xanadu TIS that referenced patron surveys at other similar sites.

2.9 2010 and 2013 Build Traffic Volumes

The 2010 and 2013 build traffic volumes were developed for each of the three analysis peak hours by adding the site generated trips described in Section 2.6 to the 2010 and 2013 no-build traffic volumes. Pass-by trip adjustments were made to the external roadway system consistent with the TRC/Xanadu TIS.

2.10 Traffic Impact Study Locations

The traffic impact study locations were determined in accordance with the NJAC 16:47-4.36 guidelines using the 100-trip peak hour threshold. The application of these criteria resulted in the identification of a total of nine traffic impact study locations on the State highway system as shown in Table II-1.

2.11 Level of Service Impact Analyses

LOS Impact Analyses were performed at the nine traffic impact locations to determine whether the LOS standards have been exceeded in accordance with NJAC 16:47-4.24 to 4.29.

2.12 Fair Share Analysis

A fair-share analysis has been performed in accordance with NJAC 16:47-4.34 to determine the applicant's financial responsibility to mitigate any violations of the LOS standards.

Table II-1

Traffic Impact Study Locations
(NJDOT Scope of Study Locations Meeting 100-Trip Criteria)

Study Loc.	Scope Report Ref. #	Description	Study Type	100-Trip Threshold		
				PM Hwy	PM Arena Event	SAT Arena Event
1	G	Southbound NJ Route 120 Between North Connector Road Entrance Ramp and West Peripheral Road Exit Ramp	Weave	No	No	No
2	F	Southbound NJ Route 120 Between West Peripheral Road Entrance Ramp and West Peripheral Road Exit Ramp	Weave	No	No	No
3	**E**	**Southbound NJ Route 120 Merge from West Peripheral Road**	**Ramp Merge**	**Yes**	**Yes**	**Yes**
4	H	Northbound NJ Route 120 Between East Peripheral Road Entrance Ramp and Washington Avenue	Weave	No	No	No
6	**C**	**Northbound NJ Route 120 Diverge to Northbound Route 120 Service Road (to East Peripheral Road)**	**Diverge**	**Yes**	**Yes**	**Yes**
8	I	Southbound NJ Route 120 Merge with Washington Avenue	Ramp Merge	No	No	No
10	J	Northbound NJ Route 120 Between Washington Avenue and East Peripheral Road Exit Ramp	Weave	No	No	No
12	D	Northbound NJ Route 120 Merge with Ramp M	Ramp Merge	No	No	No
14	R	Ramp M Diverge with Ramp to Arena	Merge	No	No	No
13	**S**	**Eastbound NJ Route 3 Merge with South Service Road/ Southbound NJ Route 120**	**Merge**	**Yes**	**Yes**	**Yes**
E2	**N**	**Paterson Plank Road (NJ Route 120) & Murray Hill Parkway**	**Signalized Intersection**	**Yes**	**Yes**	**Yes**
E3	L	Paterson Plank Road (NJ Route 120) & Gotham Parkway	Signalized Intersection	No	No	No
E4	**M**	**Paterson Plank Road (NJ Route 120) & Berry's Creek Road**	**Signalized Intersection**	**Yes**	**Yes**	**Yes**
V6*	**-**	**NJ Route 3 North Service Road & Training Way**	**Unsignalized Intersection**	**Yes**	**Yes**	**Yes**
V8	**A**	**Westbound NJ Route 3 Between Ramp G and Ramp X**	**Weave**	**Yes**	**Yes**	**Yes**
V10	**Q**	**NJ Route 3 South Service Road Merge with Southbound NJ Route 120 Flyover Ramp**	**Ramp Merge**	**Yes**	**Yes**	**Yes**
V11	B	Westbound NJ Route 3 Between Ramp W (SB NJ Route 120) and Ramp T (NJ Turnpike 16W Access Road Entrance)	Weave	No	No	No
V12	**O**	**Eastbound NJ Route 3 Diverge to NJ Route 3 South Service Road (Ramp H)**	**Ramp Diverge**	**Yes**	**Yes**	**Yes**
V13	P	Eastbound NJ Route 3 Diverge to New Jersey Turnpike Interchange 16W Access Road (Ramp WT)	Ramp Diverge	No	No	No
V14	K	Paterson Plank Road (NJ Route 120) & Jughandles (Hampton Inn))	Signalized Intersection	No	No	No

*- This intersection is an additional intersection to the Scope of Study Report.

SECTION 3.0 – DESCRIPTION OF PROPOSED DEVELOPMENT

The New Meadowlands Stadium Corporation (STADCO) proposes to develop 1,165,000 square feet of development in conjunction with the construction of a replacement NFL stadium to be used jointly by the New York Giants and the New York Jets at the Meadowlands Sports Complex located in the Borough of East Rutherford, Bergen County, New Jersey. Exhibit III-1 illustrates the general layout of the site and the location of the various ancillary development components within the stadium site.

This project is being advanced in concert with the New Jersey Sports and Exposition Authority (NJSEA) the owner of the site. The project is being coordinated closely with the construction of the adjacent Xanadu project which is scheduled to be completed in 2008 as well as the various transportation improvements committed to by State agencies and the Xanadu developer.

A portion of the proposed Stadium site development, about 340,000 square feet, would replace the existing training facility, practice fields, and corporate offices. The remaining development, about 825,000 square feet, would be new development.

The proposed development would be implemented in two phases with a partial build-out in 2010 and full build-out in 2013. See Table III-1.

Phase I – 2010 (645,000 square feet)

Phase I is scheduled to be implemented in 2010 in conjunction with the construction of the New Meadowlands Stadium and relocation of the existing training facilities. It would include a total of 645,000 square feet of development of which over 50%, 340,000 square feet would replace existing facilities. New development in Phase I would include 65,000 square feet of mixed-use retail space, 50,000 square feet of offices, and 120,000 square feet of banquet space incorporated into the design of the New Meadowlands Stadium and related facilities. In addition, the Phase I development would include 30,000 square feet for sponsorship areas and 40,000 square feet for a Hall of Fame museum. These latter two uses would not generate many trips during the peak analysis periods.

Phase I development would be located within the footprint of the new stadium and the relocated training facility.

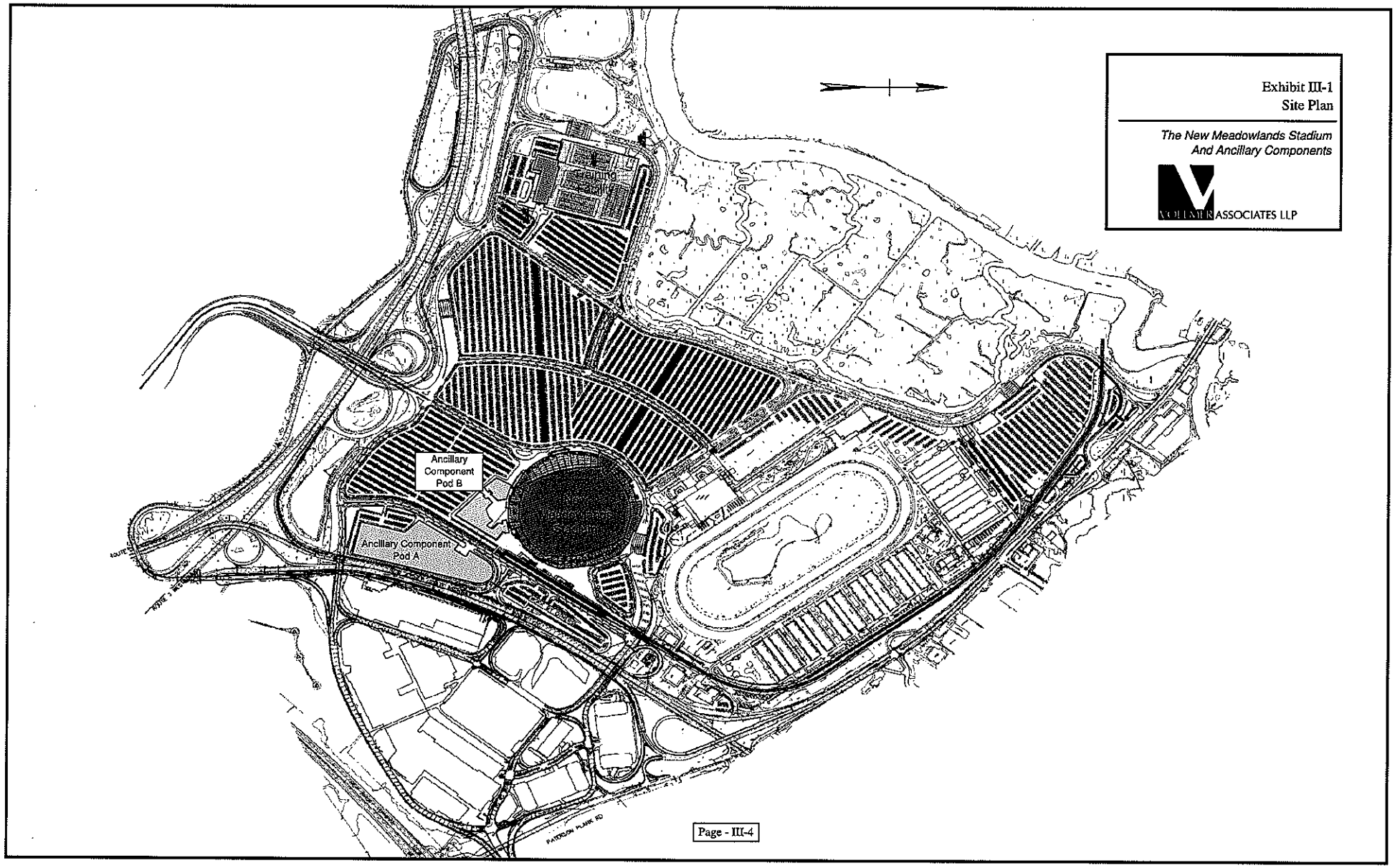
Phase II – 2013 (520,000 square feet)

Phase II would be implemented by 2013, subject to market demand, after completion of the New Meadowlands Stadium and the completion of planned transportation improvements by State agencies and the Xanadu developer. The Phase II development would consist of a total of 470,000 square feet of mixed-use retail activities identified as Ancillary Component Pod A and Ancillary Component Pod B and 50,000 square feet of space for a medical clinic.

The Ancillary Component development would be located in the southeastern portion of the site along the West Peripheral Road.

Table III-1
Proposed Development

LAND USE	LGA Sq. Ft.	ITE Land Use
Training Facility (Phase I - 2010)	**360,000**	
Training Facility (*Replacement*)	190,000	
Office/Sponsorship/Clinic	50,000	630
Indoor Practice Field (*Replacement*)	120,000	
New Stadium (Phase I - 2010)	**285,000**	
Mixed Use	65,000	820
Sponsor Areas	30,000	
Stadium Offices (*Replacement*)	30,000	714
Hall of Fame Museum	40,000	
Banquet Hall	120,000	
Ancillary Component POD A (Phase II - 2013)	**300,000**	
Mixed Use	300,000	820
Ancillary Component POD B (Phase II - 2013)	**220,000**	
Mixed Use	170,000	820
Medical Clinic	50,000	720
Replacement Facilities	**340,000**	
Phase I	340,000	
Phase II	0	
New Development	**825,000**	
Phase I	305,000	
Phase II	520,000	
TOTAL PHASE I and II	**1,165,000**	



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12/14/2006

SECTION 4.0 – EXISTING AND FUTURE TRANSPORTATION SYSTEM

4.1 Existing Highway System

The Meadowlands Sports Complex is well served by several regional highways adjacent to the site. The major highways serving the site are described below:

NJ Route 3, a six-lane divided highway, runs along the southern site boundary providing east/west access and connections to NJ Turnpike Interchange 16W, NJ Route 120, and NJ Route 17. Access to the Stadium site is available via ramp connections to the NJ Route 3 North and South Service Roads.

The New Jersey Turnpike Western Extension provides a direct connection to the Stadium site at Interchange 16W via ramp connections to Stadium Ring Road. At present, these ramps are open only during major events at the Sports Complex. New Jersey Turnpike Interchange 18W also provides access to the site; however, it also operates only during major sports events at the present time.

NJ Route 120 is a six-lane divided highway running north-south between the Stadium site and the adjacent Xanadu site. Ramp connections provide access to both sites. Two bridges over NJ Route 120, the north connector bridge and the south connector bridge, allow both sites to share the internal roadway system and access the regional highway system.

Paterson Plank Road (NJ Route 120) is immediately adjacent to the site along the northern site boundary providing a connection to NJ Route 17. This roadway has two lanes in each direction with signalized intersections and is classified as a Principal Arterial. Paterson Plank Road provides direct access to the site via an intersection at Berry's Creek Road.

Washington Avenue (CR 503) is a north-south arterial connecting directly into NJ Route 120. This roadway provides local access to the site from Carlstadt and Moonachie.

4.2 Existing / Future Geometric Conditions – TRC/Xanadu Study Locations

The existing and future geometric conditions described in Table IV-1 are based on the TRC/Xanadu study. Study locations, 7 through 24, correspond to the 18 'Voluntary Study Locations' referenced in that study. Locations 7-16 are on the State highway system. Locations 17 - 24 are internal study locations within the Stadium or Xanadu site.

4.3 Existing / Future Geometric Conditions – E&K Study Locations

The existing and future geometric conditions at the signalized intersections along Paterson Plank Road, shown in Table IV-2, are based on the E&K Study and the recent HNTB TSM Study conducted for NJDOT.

4.4 Existing / Future Geometric Conditions – Vollmer Study Locations

Vollmer examined 16 additional study locations not previously identified in other studies –10 external and 6 internal. Existing and future geometric conditions at the Vollmer external study locations are based on the recently completed DMJM Harris Study for the New Jersey Turnpike Authority, the HNTB Paterson Plank Road TSM Study, and the NJ Route 120 Xanadu Improvements. The internal study location geometric conditions are based on the Meadowlands Master Plan. Table IV-3 describes the existing and future geometric conditions at the Vollmer study locations.

Table IV-1
Existing/Future Geometric Conditions
TRC/Xanadu Study Locations

(Source: TRC/Xanadu Study)

Study Location	Major Street/ Movement	Minor Street/ Movement	Existing/Future Geometric Condition
1	NJ Route 120 Southbound	Entrance Ramp from Westbound North Connector Road (merge)	3 lanes on southbound NJ Route 120 mainline; 1 lane on-ramp from North Connector Road; Right-hand merge w/ 310 foot acceleration lane.
2	NJ Route 120 Southbound	Entrance / Exit Ramps from W. Peripheral Rd. (ex-Stadium Ring Rd.) (weave)	3 lanes on southbound NJ Route 120 mainline; 1 lane ramp from Stadium Ring Road; 1 lane ramp to Stadium Ring Road; 725 foot weaving section.
3	NJ Route 120 Southbound	Entrance Ramp from West Peripheral Road (ex-Stadium Ring Rd.) (merge)	3 lanes on SB NJ Route 120 mainline; 2 lane ramp merges into 1 lane; Right-hand merge w/ 285 foot acceleration lane.
4	NJ Route 120 Northbound	Entrance Ramp from East Peripheral Road (ex-Arena Ring Road) (merge)	3 lanes on NB NJ Route 120 mainline; 1 lane ramp from Arena Ring Road; Right-hand merge w/ 280 foot acceleration lane; Xanadu will increase acceleration lane such that the ramp lane will be a lane add.
5*	NJ Route 120 Northbound	Exit Ramp to East Peripheral Road (ex-Arena Ring Road) (diverge)	3 lanes on northbound NJ Route 120 mainline; 1 lane ramp to Arena Ring Road; Right-hand diverge w/ 475 foot deceleration lane; Xanadu will relocate this ramp to the north.
6	NJ Route 120 Northbound	Southern Exit Ramp to Arena Ring Road (diverge)	3 lanes on NB NJ Route 120 mainline; 1 lane ramp to South Connector Road; Right-hand diverge with 380 feet deceleration lane; Xanadu will construct a new 2 lane service road connecting to Arena Ring Road.
7	Washington Avenue (CR 501)	Intersection with Paterson Plank Road (unsignalized)	Unsignalized T-intersection; 2 lanes on NB Washington Avenue approach; 1 lane on WB Paterson Plank Road approach.
8	NJ Route 120 Southbound	Washington Avenue Southbound (merge)	2 lanes on southbound NJ Route 120 mainline; 2 lanes on SB Washington Avenue approach; 4 lanes merge into 3 lanes.
9	Washington Avenue Northbound	On-ramp from Paterson Plank Road Eastbound (merge)	2 lanes on NB Washington Avenue mainline; 1 lane on EB Paterson Plank Road approach; Right-hand merge and short acceleration lane.
10	NJ Route 120 Northbound	Washington Avenue (diverge)	3 lanes on northbound NJ Route 120 mainline; Diverge with 2 lanes to WB Paterson Plank Road and 2 lanes to northbound Washington Avenue; Xanadu will add a third lane to Paterson Plank Road ramp, new lane will diverge as a new ramp to North Connector Road.
11	Paterson Plank Road	Intersection with Ramp to Route 120 WB (unsignalized)	Unsignalized T-intersection; 1 lane on both Paterson Plank Rd approaches; 1 lane ramp to NJ Route 120 Westbound.
12	NJ Route 120 Northbound	Ramp from NJ Route 3 Service Rd (Ramp M) (merge)	3 lanes on northbound NJ Route 120 mainline; 1 lane ramp from South Service Road; Left-hand merge with 250 foot acceleration lane.
13 (New VA)	NJ Route 3 Westbound	Entrance Ramp from NJ Route 3 South Service Road / NJ Route 120 SB (merge)	4 lanes on westbound NJ Route 3 mainline; 1 lane ramp from South Service Road / Southbound NJ Route 120; Right-hand merge w/ 1,100 foot acceleration lane.

* - This study location exists today but will not exist in the 2010 & 2013 No-Build Baseline conditions.
** - This study location does not exist today but will exist in the 2010 & 2013 No-Build Baseline conditions.
***- This study location was analyzed by TRC but was not analyzed by Vollmer because the New Meadowlands Stadium project will not add any new trips to this location.

Table IV-1 (continued)
Existing/Future Geometric Conditions
TRC/Xanadu Study Locations

(Source: TRC/Xanadu Study)

Study Location	Major Street/ Movement	Minor Street/ Movement	Existing/Future Geometric Conditions
14**	Ramp M	Future Ramp to Meadowlands Sports Complex (diverge)	2 lane ramp from eastbound NJ Route 3 South Service Road to northbound NJ Route 120 and westbound NJ Route 3; Future configuration will have a new 2 lane diverge to a new northbound NJ Route 120 Service Road and South Connector Road.
15	North Connector Road (ex-Stadium Ring Road)	Entrance Ramp from New Jersey Turnpike Interchange 16W Access Road (merge)	2 lanes on Stadium Ring Road; 1 lane ramp from Interchange 16W Access Road; New Meadowlands Stadium will create a 4-way signalized intersection with 2 lanes on each approach.
16	Ramp W (NJ Route 120 SB)	Ramp to NJ Route 3 EB (capacity)	1 lane ramp from southbound NJ Route 120 to westbound NJ Route 3; Xanadu will add a second lane on this ramp.
17 (internal)	West Peripheral Road (ex-Stadium Ring Road)	Ramp from South Connector Road (merge)	2 lanes on northbound Stadium Ring Road; 2 lane ramp from South Connector Road; 4 lanes merge to 3 lanes.
18 (internal)	East Peripheral Road (ex-Arena Ring Road)	Between Ramp from NJ Route 120 NB and North Connector Road (capacity)	3 lanes on Arena Ring Road mainline; Xanadu will add a fourth lane on Arena Ring Road.
19 (internal)	South Connector Road	Entrance Ramp from NJ Route 120 Northbound (merge)	2 lanes on South Connector Road mainline; 1 lane from northbound NJ Route 120; Right-hand merge with 150 foot acceleration lane; Xanadu will lengthen the acceleration lane to 300 feet.
20 (internal)	North Connector Road	East Peripheral Road (ex-Arena Ring Road) (merge)	4 lanes on North Connector Road mainline; 2 lanes on Arena Ring Road approach; 6 lanes merge to 4 lanes; Xanadu will construct a new 1 lane westbound approach and will install a traffic signal.
21 (internal)	North Connector Road	East Peripheral Road (ex-Arena Ring Road) (major diverge)	3 lanes on North Connector Road mainline; 2 lanes diverge to Arena Ring Road; 2 lanes continue on North Connector Road.
22** (internal)	North Connector Road (ex-Arena Ring Road)	Hotel/Office Complex Road (future signalized)	Future signalized 4-way intersection; 4 lanes on Arena Ring Road approach; 2 lanes on each HOC Boulevard approaches.
23*** (internal)	North Connector Road (ex-Arena Ring Road)	North Arena Road/ NJ Turnpike Interchange 18W (future signalized)	Future signalized 4-way intersection; 4 lanes on NB North Connector Road approach; 2 lanes on SB North Connector Road approach; 2 lanes on EB North Arena Road approach; 2 lanes on Interchange 18W approach.
24 (internal)	Entrance Ramp to NJ Turnpike Interchange 18W	From Arena Ring Road (capacity)	2 lanes on ramp to NJ Turnpike Interchange 18W; Ramp is closed on non-event days; Xanadu (and Stadium site ancillary development) will require the ramp to be open all the time.

* - This study location exists today but will not exist in the 2010 & 2013 No-Build Baseline conditions.
** - This study location does not exist today but will exist in the 2010 & 2013 No-Build Baseline conditions.
***- This study location does not exist today but will exist in the 2010 & 2013 No-Build Baseline conditions. It was analyzed by TRC but was not analyzed by Vollmer because the New Meadowlands Stadium project will not add any new trips to this location.

Table IV-2
Existing/Future Geometric Conditions
E&K Study Locations

(Source: E&K Meadowlands Regional Transportation Study and HNTB Paterson Plank Road TSM Study)

Study Location	Major Street/ Movement	Minor Street/ Movement	Existing/Future Geometric Conditions
E1	Paterson Plank Road (NJ Route 120)	Intersection with Northbound NJ Route 17 Ramps (signalized)	Signalized 4-way intersection; 2 lanes on both Paterson Plank Road approaches; 2 lanes on northbound NJ Route 17 off-ramp approach; 1 lane to northbound NJ Route 17 from westbound Paterson Plank Road; An exclusive right-turn lane on westbound Paterson Plank Road approach will be added by NJDOT.
E2	Paterson Plank Road (NJ Route 120)	Intersection with Murray Hill Parkway (signalized)	Signalized 4-way intersection; 2 lanes on both Paterson Plank Road approaches; 2 lanes on northbound Murray Hill Parkway approach; 1 lane on southbound Murray Hill Parkway approach; An additional lane will be added to the eastbound, westbound and southbound approaches by NJDOT.
E3	Paterson Plank Road (NJ Route 120)	Intersection with Gotham Parkway (signalized)	Signalized T- intersection; 2 lanes on both Paterson Plank Road approaches; 2 lanes on southbound Gotham Parkway approach; A new exclusive westbound Paterson Plank Road right-turn lane will be added by NJDOT.
E4	Paterson Plank Road (NJ Route 120)	Intersection with Berry's Creek Road (signalized)	Signalized 4-way intersection; 2 lanes on both Paterson Plank Road approaches; 2 lanes on southbound Berry's Creek Road approach; 1 left-turn only lane from westbound Paterson Plank Road jughandle approach; Berry's Creek Road will be relocated to the west while the existing jughandles will remain.

* - This study location exists today but will not exist in the 2010 & 2013 No-Build Baseline conditions.
** - This study location does not exist today but will exist in the 2010 & 2013 No-Build Baseline conditions.
***- This study location was analyzed by TRC but was not analyzed by Vollmer because the New Meadowlands Stadium project will not add any new trips to this location.

Table IV-3
Existing/Future Geometric Conditions
Vollmer Study Locations

Study Location	Major Street/ Movement	Minor Street/ Movement	Existing/Future Geometric Conditions
V1 (internal)	West Peripheral Road (ex-Stadium Ring Road)	NJ Route 120 Southbound Entering and Exiting Ramps (merge/diverge)	4 northbound lanes on Stadium Ring Road; 1 lane diverge to southbound NJ Route 120 without deceleration lane; 1 lane merge from southbound NJ Route 120 without acceleration lane. New Meadowlands Stadium will reconfigure the ramps to/from southbound NJ Route 120 to create an unsignalized intersection and West Peripheral Road (ex-Stadium Ring Road) will have two southbound lanes.
V2 (internal)	North Connector Road	Intersection with West Peripheral Road (ex-Stadium Ring Road) (unsignalized)	Unsignalized T-Intersection; 2 lanes on both North Connector Road approaches; 2 lanes on Stadium Ring Road on norhtbound approach. New Meadowlands Stadium will reconfigure the intersection channelizing the exclusive right-turn lane, adding a eastbound exclusive right turn lane, adding 1 additional thru lane on the westbound approach, and West Peripheral Road (ex- Stadium Ring Road) would become a two-way road with 2 lanes in the southbound direction.
V3**	Paterson Plank Road (NJ Route 120)	Ramp to Berry's Creek Road (diverge)	2 lanes on both Paterson Plank Road approaches; 1 lane diverges to Berry's Creek Road with a deceleration lane on Paterson Plank Road. NJT will construct a new Berry's Creek Road signalized intersection at this location with 2 exclusive left-turn lanes and 1 exclusive right-turn lane on the northbound approach.
V4 (internal)	Berry's Creek Road	Intersection with Valet Road (unsignalized)	Unsignalized T-intersection; 2 lanes on both Berry's Creek Road approaches; 2 lanes on Valet Road on westbound approach.
V5 (internal)	Berry's Creek Road	Intersection with Training Way (Plaza J) (unsignalized)	Unsignalized T-intersection; 2 lanes on both Berry's Creek Road approaches; 2 lanes on Training Way eastbound approach. New Meadowlands Stadium will reconfigure the intersection with a new two lane westbound approach and northbound left-turns will be allowed.
V6	NJ Route 3 North Service Road	Intersection with Training Way (Plaza J) (unsignalized)	Unsignalized T-intersection; 1 lane on both NJ Route 3 Service Road approaches; 1 lane on Training Way for left-turns and exclusive channelized right-turn lane. NJTPA will add an additional lane in each direction on the NJ Route 3 North Service Road.
V7 (internal)	Berry's Creek Road / North Connector Road	Intersection with NJ Route 3 North Service Road and NJ Route 3 Westbound Entrance/Exit Ramps (unsignalized)	2 lanes on Berry's Creek Road approach; 2 lanes on North Connector Road approach; 1 lane on Route 3 North Service Road approach; 1 lane on-ramp to Plaza J. New Meadowlands Stadium will eliminate the ramp to Plaza J and access to westbound NJ Route 3; Access to westbound NJ Route 3 from Berry's Creek Road will be permitted except only on Stadium Event days.
V8	NJ Route 3 Westbound	NJ Route 3 North Service Road Entrance Ramp (Ramp G) (merge)	4 lanes on Westbound NJ Route 3 mainline; 1 lane entrance ramp from North Service Road; NJTPA will relocate Ramp X to the west of the Ramp G, which will create a weaving segment.

* - This study location exists today but will not exist in the 2010 & 2013 No-Build Baseline conditions.
** - This study location does not exist today but will exist in the 2010 & 2013 No-Build Baseline conditions.
***- This study location was analyzed by TRC but was not analyzed by Vollmer because the New Meadowlands Stadium project will not add any new trips to this location.

Table IV-3 (continued)
Existing/Future Geometric Conditions
Vollmer Study Locations

Study Location	Major Street/ Movement	Minor Street/ Movement	Existing/Future Geometric Conditions
V9** (internal)	Inner Loop Road	Intersection with Valet Road (future unsignalized)	2 lanes on Valet Road connecting Berry's Creek Road and North Connector Road; Not an intersection in the existing condition; New Meadowlands Stadium will create an unsignalized T-intersection with Valet Road intersecting new Inner Loop Road; 2 lanes on both Inner Loop Road approaches; 2 lanes on Valet Road eastbound approach.
V10	NJ Route 120 Southbound Flyover Ramp	NJ Route 3 South Service Road (future merge)	1 lane on NJ Route 120 Flyover Ramp will be constructed by NJTPA/Xanadu; 1 lane on NJ Route 3 South Service Road will be relocated by NJTPA/Xanadu; Right-hand merge with 400 foot acceleration lane.
V11**	NJ Route 3 Westbound	NJ Route 120 Southbound Ramp (Ramp W) (major merge)	3 lanes on westbound NJ Route 3 mainline; 1 lane on southbound NJ Route 120 Ramp; 4 lanes on continue on westbound NJ Route 3; NJTPA/Xanadu will eliminate the existing Ramp TW and add a second lane to Ramp W; Ramp ET would become a major diverge with 4 mainline lanes continuing west; A weaving segment between Ramp W and Ramp ET will be created on westbound NJ Route 3.
V12	NJ Route 3 Westbound	NJ Route 3 South Service Road (Ramp H) (diverge)	3 lane on eastbound NJ Route 3 mainline; 1 lane Exit Ramp to South Service Road; Right-hand diverge with a 500 foot deceleration lane; NJTPA/Xanadu will add an additional lane on the exit ramp with a second 475 foot' deceleration lane.
V13	NJ Route 3 Westbound	NJ Turnpike Interchange 16W Access Road (Ramp WT) (major diverge)	4 lanes on westbound NJ Route 3 mainline; 1 lane on Exit Ramp to NJ Turnpike Interchange 16W; Right-hand is a major diverge with 3 mainline lanes continuing east.
V14	Paterson Plank Road (NJ Route 120)	Jughandles (Hampton Inn) (signalized)	Signalized 4-way intersection; 2 lanes on both Paterson Plank Road approaches; 2 lanes on southbound Jughandle (Hampton Inn driveway) approach; 1 lane on northbound Jughandle.
V15	NJ Route 120 Southbound	Existing Ramp to EB NJ Route 3 (capacity)	2 lanes ramp from southbound NJ Route 120 to westbound NJ Route 3 which merges into 1 lane.
V16**	NJ Route 120 Southbound	Flyover Ramp to EB NJ Route 3 (capacity)	1 lane from southbound NJ Route 120 to NJ Route 3 South Service Road over proposed westbound NJ Route 3 Flyover Ramp.

* - This study location exists today but will not exist in the 2010 & 2013 No-Build Baseline conditions.
** - This study location does not exist today but will exist in the 2010 & 2013 No-Build Baseline conditions.
***- This study location was analyzed by TRC but was not analyzed by Vollmer because the New Meadowlands Stadium project will not add any new trips to this location.

4.5 Future Transportation Improvements

NJDOT, NJTPA, New Jersey Transit, and Xanadu have committed to future improvements to the transportation system. These improvements will enhance the regional transportation system as well as provide improved access to both the Xanadu and the New Meadowlands Stadium site.

The transportation improvements are currently in the detailed design stage. The construction program will begin in 2007 and is scheduled to be completed in 2010. Table IV-4 describes the transportation improvements and the scheduled completion dates. See Appendix A for plans of the future highway improvements.

Table IV-4
Transportation Improvements

Route	Description	Project Sponsor	Scheduled Completion Date
Xanadu Improvements	New 2-lane flyover ramp from NJ Route 3 South Service Road; New 2-lane northbound NJ Route 120 service road; additional lane on southbound NJ Route 120; relocation of NJ Route 120 ramps; improved connections to NJ Turnpike Interchange 18W ramps; improved internal roadway system, signage / traffic management at Arena site.	NJDOT and Xanadu	2008
NJ Route 120 Project	New flyover from southbound NJ Route 120 to eastbound NJ Route 3; NJ Route 3 South Service Road improvements; ramp improvements.	NJDOT	2008
Interchange 16W Improvements	Interchange 16W / NJ Route 3 Ramp Improvements; elimination of weave at entrance to and exit from westbound NJ Route 3; ramp improvements.	NJTPA	2009
Interchange 18W	Operate 7day / 24-hour	NJTPA	2009
Rail Station	New rail station at Meadowlands Sports Complex and rail service to Secaucus/Hoboken.	NJT	2009
NJ Route 17 TSM Project	Widening from 4 lanes to 6 lanes between Berry's Creek bridge and NJ Route 17; signal improvements; intersection improvements.	NJDOT	2010

4.6 Number of Lanes

The number of lanes at several locations will change as a result of the transportation improvements currently underway. Exhibit IV-1 shows the existing and future number of lanes at critical locations.

4.7 Implementation Schedule

The implementation schedule of planned transportation improvements is consistent with the Phase I (2010) and Phase II (2013) build-out years of the proposed Stadium site development. Since the proposed Phase I build-out in 2010 will add a relatively small amount of new trips, it would not be adversely affected by a delay in the implementation of the transportation improvements. However, the Phase II full build-out would require that the transportation improvement program be fully implemented by 2013.

4.8 Recommended Additional Transportation Improvements

No additional regional transportation improvements are required to support the proposed ancillary development at the Stadium site beyond those that have been committed to by State agencies and Xanadu.

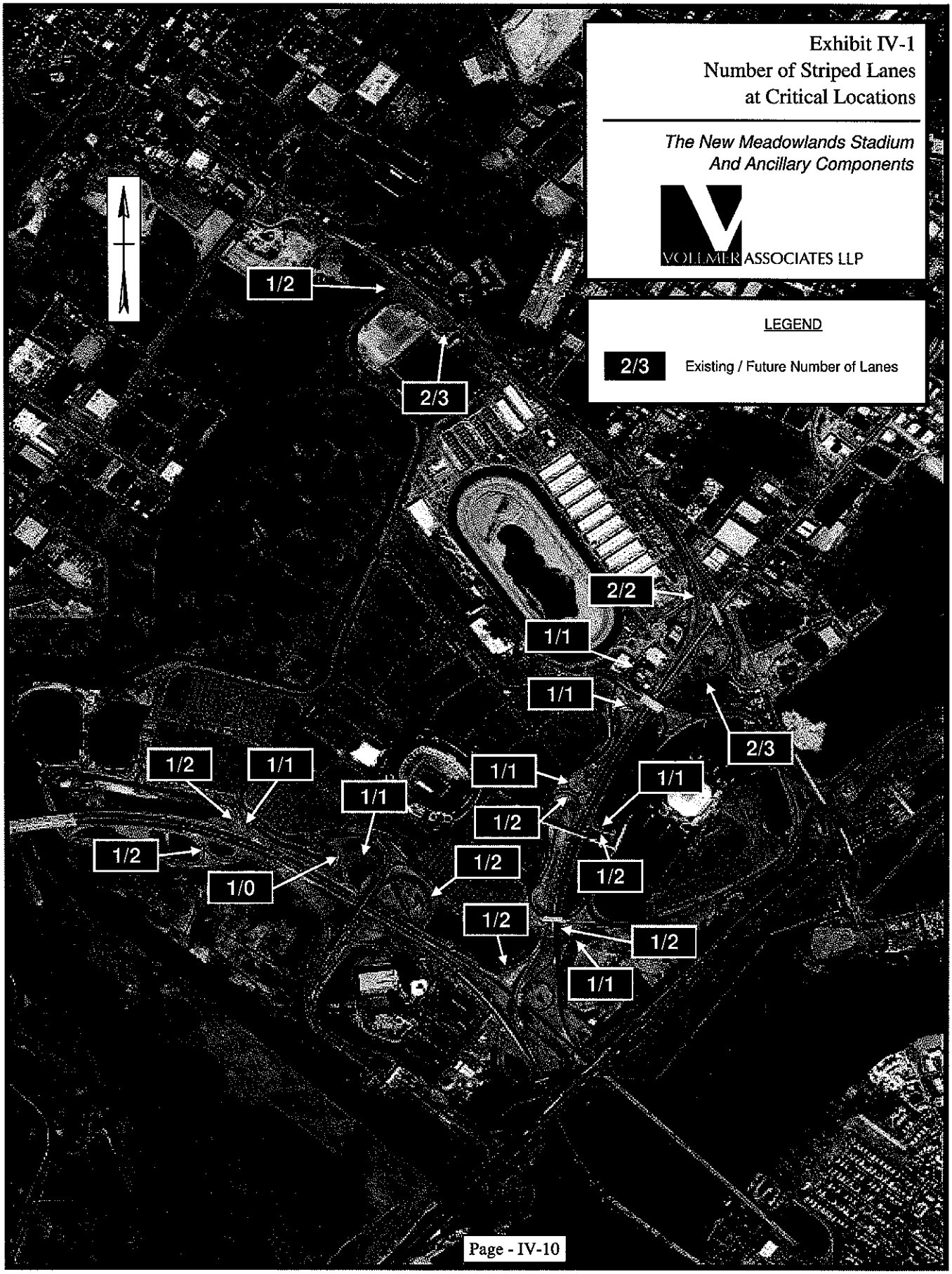
Exhibit IV-1
Number of Striped Lanes
at Critical Locations
The New Meadowlands Stadium
And Ancillary Components
VOLLMER ASSOCIATES LLP
LEGEND
2/3 Existing / Future Number of Lanes
1/2
2/3
2/2
1/1
1/1
2/3
1/2
1/1
1/1
1/1
1/1
1/2
1/2
1/2
1/0
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SECTION 5.0 – TRAFFIC

5.1 Trip Generation Estimates

As required by NJAC 16:47-4.30(d), the Institute of Transportation Engineers (ITE) Trip Generation Manual, 7th Edition, was the primary reference source for estimating trip generations. The NJDOT's HAPS System was also used when the ITE trip generation was not available or was believed to be not representative. Trip generation estimates were not available from either the ITE Manual or the NJDOT HAPS System for the proposed 40,000 square feet Hall of Fame museum and, therefore, estimates of trip generation for this land use were made based on operational characteristics and professional judgement.

Tables V-1, V-2, and V-3 show the trips generated by each land use during the three analysis periods – Weekday PM Peak Highway Hour, Weekday PM Peak Continental Airlines Arena Event Hour, and Saturday Peak Continental Airlines Arena Event Hour.

5.2 Trip Generation by Land Use

A description of how the trip generation estimates for the various components of the site were calculated follows:

Mixed-Use Component (Stadium, Pod "A", Pod "B" - 535,000 square feet)

The 'mixed-use' component of the proposed ancillary development comprises a major portion of the proposed new development at the New Meadowlands Stadium site. The exact composition of this development is unknown at this time. Therefore, the standard ITE shopping center rate (Land Use Code 820) using the fitted logarithmic curve is used to estimate trips. This is a conservative approach and trip generation is likely to be lower.

During the Weekday PM Peak Highway Hour, the mixed-use development would generate a total of 1894 trips – 909 entering and 985 leaving.

During the Evening PM Peak Continental Airlines Arena Event Hour, the mixed-use development would generate a total of 1558 trips – 850 entering and 708 leaving.

During the Saturday Peak Continental Airlines Arena Event Hour, the mixed-use development would generate a total of 2575 trips – 1339 entering and 1236 leaving.

In order to be conservative, no trip reductions were taken for expected linked trips between the Xanadu site and the development at the New Meadowlands Stadium site, although some are likely to occur. However, a 25% pass-by credit was taken to account for trips already on the adjacent highway system. The pass-by credit taken is the same as that previously approved by NJDOT for the Xanadu project.

Meeting/Banquet Facility (Stadium District – 120,000 square feet)

The Banquet Hall would have a maximum seating capacity of 2500 guests. The trip generation rate is based on NJDOT's HAPS System. No trip reduction credits are taken for banquet hall trips.

Peak trip generation for banquet hall land use is expected to occur on Saturdays with a total of 825 new trips (330 entering and 495 exiting) during the Saturday Peak Continental Airlines Arena Event Hour.

During the Weekday PM Peak Highway Hour, the banquet facility would generate a total of 750 new trips (330 entering and 450 exiting.)

The NJDOT HAPS System does not provide a trip generation rate for banquets during the Weekday PM Peak Continental Airlines Arena Event Hour. Therefore, the Weekday PM Peak Highway Hour trip generation rate was used.

It is anticipated that scheduling of large banquets would be coordinated with other events at the Meadowlands Sports Complex. In order to be conservative, the traffic analysis assumes that banquet hall events would fill to maximum capacity and would not be coordinated with Continental Airlines Arena events.

Medical Clinic (Pod "B" – 50,000 square feet)

ITE Land Use Code 720 (Medical/Dental Office) was used to estimate trip generation. A total of 166 external trips are estimated to be generated by this facility during the Weekday PM Peak Highway Hour of which 45 vehicles would be entering and 121 vehicles would be exiting.

The medical facility would not be open during the evening hours and, therefore, would not generate any trips during the Weekday PM Peak Continental Airlines Arena Event Hour.

During the Saturday Peak Continental Airlines Arena Event Hour, this facility would generate a total of 182 trips (104 entering and 78 exiting.)

No credit has been taken for pass-by trips. However a 25% credit was applied for internal site trips by users of the facility who are already at the stadium (i.e. athletes and employees).

Stadium Offices (Stadium District – 30,000 square feet)

The Stadium Offices will replace current office facilities in the existing stadium (e.g. NJSEA offices) and are not anticipated to add new trips to the roadway network.

Giants Training Facility (Training District – 190,000 square feet)

The Giants Training Facility would accommodate players, coaches, and support staff. Since this activity is already taking place at the existing Giants Stadium site, it is assumed that no new trips would be generated.

Giants Training Facility Expansion (Training District – 50,000 square feet)

For purposes of analysis, it is assumed that this facility will be used as medical office/clinic (ITE Code 630).

During the Weekday PM Peak Highway Hour, the medical office/clinic would generate a total of 259 trips (130 entering and 129 exiting).

This facility would not be open during evenings and weekends and, therefore, no trips would be generated during the Weekday PM Peak Continental Airlines Arena Event Hour or during the Saturday Peak Continental Airlines Arena Event Hour.

Indoor Practice Field (Training District – 120,000 square feet)

The Indoor Practice Field would accommodate players, coaches, and support staff. Since this activity is already taking place at the New Meadowlands Stadium site, it is assumed that no new trips would be generated.

Sponsor Areas (Stadium District – 30,000 square feet)

The Sponsor Areas would be utilized only during Stadium events. Therefore, it is assumed that no trips would be generated during the three analysis periods.

Hall of Fame Museum

ITE does not have a trip generation rate for a Hall of Fame museum-type use. The NJDOT HAPS System also does not have an applicable trip generation rate for this land use. Therefore, an alternative method was used to estimate trips.

New Meadowlands Stadium officials estimated that approximately 135,000 people would visit the Hall of Fame annually. Approximately 40,000 visitors are expected to visit the museum during the home NFL football games.

For the purpose of this study, 60% of the 95,000 non-game day visitors are expected to visit the museum on either a Saturday or Sunday under the assumption that is when most families and individuals have the most "leisure" time to visit the museum. The remaining 40% of the non-game day visitors would be spread out over the remaining weekdays of the year. Subsequently, an average of 146 visitors is expected to visit the museum each weekday. For this study, 10% of the visitors are assumed to arrive during the Weekday PM Peak Highway Hour and the Saturday Peak Continental Airlines Arena Event Hour while 20% are assumed to leave during the same periods. The Hall of Fame is assumed to be closed during the Weekday PM Peak Continental Airlines Arena Event.

Since most of the museum trips are likely to be combined with event-related trips or other activities at the Meadowlands Sports Complex, this facility is expected to have a minimal impact on the total trips generated.

TABLE V-1
TRIP GENERATION TABLE
WEEKDAY PM PEAK HIGHWAY HOUR
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Land Use	L.G.A. Sq. Ft.	ITE Land Use	Utilization	4:30 PM - 5:30 PM Enter	Exit	Notes
Training Facility (Phase I - 2010)	*360,000*					
Training Facility	190,000		-	-	-	See Note 1; Replaces existing facilities (No new trips)
Office (Sponsorship / Clinic)	50,000	630	259	130	129	PM Peak of Adjacent Street; Average Rate used (Small sample size warning)
Indoor Practice Field	120,000		-	-	-	See Note 1; Replaces existing facilities (No new trips)
10% Internal Site Trips			-26	-13	-13	
Primary Trips			**233**	**117**	**116**	
New Stadium (Phase I - 2010)	*285,000*					
Mixed Use	65,000	820	230	110	120	See Note 2
Sponsor Areas	30,000		-	-	-	No trips generated on a non-event day
Stadium Offices	30,000	714	-	-	-	Replaces existing facilities (No new trips)
25% Pass-By Trips			-58	-29	-29	Same pass-by credit used by TRC's Xanadu Study
Hall of Fame (Museum)	40,000		44	15	29	See Note 3
Banquet Hall	120,000		750	300	450	See Note 4; Assumed 2500 seats.
Primary Trips			**966**	**396**	**570**	
Ancillary Component POD A (Phase II - 2013)	*300,000*					
Mixed Use	300,000	820	1,062	510	552	See Note 2
25% Pass-By Trips			-266	-133	-133	Same pass-by credit used by TRC's Xanadu Study
Primary Trips			**796**	**377**	**419**	
Ancillary Component POD B (Phase II - 2013)	*220,000*					
Mixed Use	170,000	820	602	289	313	See Note 2
25% Pass-By Trips			-150	-75	-75	Same pass-by credit used by TRC's Xanadu Study
Medical Clinic	50,000	720	166	45	121	PM Peak of Adjacent Street; Fitted Curve
25% Internal Site Trips			-42	-11	-31	
Primary Trips			**576**	**248**	**328**	

	Pass By Trips	474	237	237	Trips that currently pass through the area and divert into or out of site.
TRIPS GENERATED	New Site Generated Trips	2,571	1,138	1,433	Trips that do not currently pass through the study area.
	TOTAL TRIPS	**3,045**	**1,375**	**1,670**	

NOTES:

1- Assumes indoor practice and training occurring simultaneously.

2- For the purpose of this study, the Mixed Use area was analyzed using the fitted curve equation of ITE's trip generation rate for a Shopping Center (Land Use 820) during the PM Peak of the Adjacent Street. The total square footage dedicated for Mixed Use in the proposed development was used to calculate the trip generation rate. The calculated number of trips were then distributed proportionally based on the percentage of Mixed Use square footage in each development area. The total Mixed Use square footage is 535,000sf (65,000sf + 300,000sf + 170,000sf). The Mixed Use distribution is 12.15% (65,000sf) within the New Stadium, 56.07% (300,000sf) in Ancillary Componant POD A, and 31.78% (170,000sf) in Ancillary Componant POD B. 535,000sf generates 1,894 trips of which 230 trips (12.15%) were assigned to the New Stadium, 1,062 trips (56.07%) were assigned to Ancillary Component POD A, and 602 trips (31.78%) were assigned to Ancillary Component POD B.

3- The Hall of Fame is expected to have 135,000 annual visitors of which 40,000 are expected to visit on game days. For the purpose of this study, all games are assumed to occur on a Sunday. It was assumed that 60% of the remaining visitors would come on a Saturday or non-game Sunday since that is when families and individuals would have the most "free" time to visit. Thus, the remaining 40% (38,000) visitors would be spread out across the weekdays (260 days form 5 days/week for 52 weeks), averaging 146 visitors per weekday. If 10% of visitors arrive during the PM Peak Hour, then 15 visitors would arrive during this time period. It was assumed that 20% of the daily total for an average weekday would leave during the PM peak hour.

4- The Banquet Hall trip generation rate was based on NJDOT's HAPS System.

TABLE V-2
TRIP GENERATION TABLE
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Land Use	L.G.A. Sq. Ft.	ITE Land Use	Utilization	7:15 PM - 8:15 PM Enter	Exit	Notes
Training Facility (Phase I - 2010)	*360,000*					
Training Facility	190,000		-	-	-	See Note 1; Replaces existing facilities (No new trips)
Office (Sponsorship / Clinic)	50,000	630	0	0	0	The Clinic is closed during this time period
Indoor Practice Field	120,000		-	-	-	See Note 1; Replaces existing facilities (No new trips)
10% Internal Site Trips			0	0	0	
Primary Trips			**0**	**0**	**0**	
New Stadium (Phase I - 2010)	*285,000*					
Mixed Use	65,000	820	190	104	86	See Note 2
Sponsor Areas	30,000		-	-	-	No trips generated on a non-event day
Stadium Offices	30,000	714	-	-	-	Replaces existing facilities (No new trips)
25% Pass-By Trips			-48	-24	-24	Same pass-by credit used by TRC's Xanadu Study
Hall of Fame (Museum)	40,000		0	0	0	The Hall of Fame is closed during this time period.
Banquet Hall	120,000		750	300	450	See Note 3; Assumed 2500 seats.
Primary Trips			**892**	**380**	**512**	
Ancillary Component POD A (Phase II - 2013)	*300,000*					
Mixed Use	300,000	820	873	476	397	See Note 2
25% Pass-By Trips			-218	-109	-109	Same pass-by credit used by TRC's Xanadu Study
Primary Trips			**655**	**367**	**288**	
Ancillary Component POD B (Phase II - 2013)	*220,000*					
Mixed Use	170,000	820	495	270	225	See Note 2
25% Pass-By Trips			-124	-62	-62	Same pass-by credit used by TRC's Xanadu Study
Medical Clinic	50,000	720	0	0	0	Offices are closed during this time period.
25% Internal Site Trips			0	0	0	
Primary Trips			**371**	**208**	**163**	

	Pass By Trips	390	195	195	Trips that currently pass through the area and divert into or out of site.
TRIPS GENERATED	Site Generated Trips	1,918	955	963	Trips that do not currently pass through the study area.
	TOTAL TRIPS	**2,308**	**1,150**	**1,158**	

NOTES:

1- Assumes indoor practice and training occurring simultaneously.

2- For the purpose of this study, the Mixed Use area was analyzed using the fitted curve equation of ITE's trip generation rate for a Shopping Center (Land Use 820) during the PM Peak of the Adjacent Street. The total square footage dedicated for Mixed Use in the proposed development was used to calculate the trip generation rate. The calculated number of trips were then distributed proportionally based on the percentage of Mixed Use square footage in each development area. The total Mixed Use square footage is 535,000sf (65,000sf + 300,000sf + 170,000sf). The Mixed Use distribution is 12.15% (65,000sf) within the New Stadium, 56.07% (300,000sf) in Ancillary Componant POD A, and 31.78% (170,000sf) in Ancillary Componant POD B. 535,000sf generates 1,894 trips of which 230 trips (12.15%) were assigned to the New Stadium, 1,062 trips (56.07%) were assigned to Ancillary Component POD A, and 602 trips (31.78%) were assigned to Ancillary Component POD B.

3- The Banquet Hall trip generation rate was based on NJDOT's HAPS System.

TABLE V-3
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR
TRIP GENERATION TABLE
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Land Use	L.G.A. Sq. Ft.	ITE Land Use	Utilization	3:15 PM - 4:15 PM Enter	Exit	Notes
Training Facility (Phase I - 2010)	*360,000*					
Training Facility	190,000		-	-	-	See Note 1; Replaces existing facilities (No new trips)
Office (Sponsorship / Clinic)	50,000	630	0	0	0	The Clinic is closed during this time period
Indoor Practice Field	120,000		-	-	-	See Note 1; Replaces existing facilities (No new trips)
10% Internal Site Trips			0	0	0	
Primary Trips			**0**	**0**	**0**	
New Stadium (Phase I - 2010)	*285,000*					
Mixed Use	65,000	820	313	163	150	See Note 2
Sponsor Areas	30,000		-	-	-	No trips generated on a non-event day
Stadium Offices	30,000	714	-	-	-	Replaces existing facilities (No new trips)
25% Pass-By Trips			-78	-39	-39	Same pass-by credit used by TRC's Xanadu Study
Hall of Fame (Museum)	40,000		197	66	131	The Hall of Fame is closed during this time period.
Banquet Hall	120,000		825	330	495	See Note 3; Assumed 2500 seats.
Primary Trips			**1,257**	**520**	**737**	
Ancillary Component POD A (Phase II - 2013)	*300,000*					
Mixed Use	300,000	820	1,444	751	693	See Note 2
25% Pass-By Trips			-362	-181	-181	Same pass-by credit used by TRC's Xanadu Study
Primary Trips			**1,082**	**570**	**512**	
Ancillary Component POD B (Phase II - 2013)	*220,000*					
Mixed Use	170,000	820	818	425	393	See Note 2
25% Pass-By Trips			-204	-102	-102	Same pass-by credit used by TRC's Xanadu Study
Medical Clinic	50,000	720	182	104	78	Saturday peak hour; Average rate
25% Internal Site Trips			-46	-26	-20	
Primary Trips			**750**	**401**	**349**	

	Pass By Trips	644	322	322	Trips that currently pass through the area and divert into or out of site.
TRIPS GENERATED	Site Generated Trips	3,089	1,491	1,598	Trips that do not currently pass through the study area.
	TOTAL TRIPS	**3,733**	**1,813**	**1,920**	

NOTES:

1- Assumes indoor practice and training occurring simultaneously.

2- For the purpose of this study, the Mixed Use area was analyzed using the fitted curve equation of ITE's trip generation rate for a Shopping Center (Land Use 820) during the PM Peak of the Adjacent Street. The total square footage dedicated for Mixed Use in the proposed development was used to calculate the trip generation rate. The calculated number of trips were then distributed proportionally based on the percentage of Mixed Use square footage in each development area. The total Mixed Use square footage is 535,000sf (65,000sf + 300,000sf + 170,000sf). The Mixed Use distribution is 12.15% (65,000sf) within the New Stadium, 56.07% (300,000sf) in Ancillary Componant POD A, and 31.78% (170,000sf) in Ancillary Componant POD B. 535,000sf generates 1,894 trips of which 230 trips (12.15%) were assigned to the New Stadium, 1,062 trips (56.07%) were assigned to Ancillary Component POD A, and 602 trips (31.78%) were assigned to Ancillary Component POD B.

3- The Banquet Hall trip generation rate was based on NJDOT's HAPS System.

5.3 Pass-By Trip Adjustments

Pass-by trip adjustments were made for the site-generated trips produced by the 535,000 square feet of mixed-use development proposed at the Stadium site. A 25% total trip reduction credit was applied to the total trips generated by this land use.

The 25% pass-by trip reduction is based the TRC/Xanadu TIS which referenced weekday patron surveys done at their Arundel Mills and Potomac Mills sites. Those surveys indicated a pass-by factor ranging from 37% to 43%. Therefore, the 25% pass-by factor used in the TIS is considered to be conservative.

Table V-4 shows the allocation of the pass-by credit by each roadway used to access the site. The pass-by allocation is the same as the allocation adopted by TRC/Xanadu for their Major Access Permit TIS.

The pass-by allocation assumes that NJ Route 3 will be a major source for pass-by trips, accounting for about one-half of the total pass-by trips. NJ Route 120 and the New Jersey Turnpike would also produce pass-by trips, but to a lesser extent, with each roadway accounting for about 25% of the total pass-by trips.

Table V-4
Allocation of Pass-by Credit by Roadway
(Source: TRC/Xanadu TIS)

Roadway	Assumed Pass-By Allocation
NJ Route 120 Northbound	3.0%
NJ Route 120 Southbound	3.0%
New Jersey Turnpike – Interchange 16W	3.0%
New Jersey Turnpike – Interchange 18W	3.0%
NJ Route 3 Eastbound	5.5%
NJ Route 3 Westbound	7.5%
TOTAL	**25.0%**

5.4 Trip Distribution

Trip distributions used are shown in Table V-5. These distributions are based on the TRC/Xanadu Traffic Impact Study submitted to NJDOT in 2004. A review by Vollmer of the 2000 census data confirmed that these distributions are reasonable and applicable to the New Meadowlands Stadium site.

Table V-5
Trip Distribution Percentages
(Source: TRC/Xanadu TIS)

Approach	Percent
NJ Route 3 To/From the East	21%
NJ Route 3 To/From the West	18%
New Jersey Turnpike Interchange 16W	16%
New Jersey Turnpike Interchange 18W	28%
Paterson Plank Road (NJ Route 120)	16%
Washington Avenue (CR 503)	1%
TOTAL	**100%**

5.5 New Trips Entering and Leaving the Study Area

Table V-6 shows the new trips entering and leaving the Study Area for both the Xanadu and NFL Stadium Ancillary developments. The Xanadu trips are based on the TRC/Xanadu TIS. Pass-by trips are not included since these trips are already on the highway system.

Table V-6

Trip Distribution
New Trips Entering and Leaving Study Area
Via Regional Highways*

External Roadway	Entering/ Exiting	PM Highway		PM Arena Event		Sat Arena Event	
		Xanadu	Stadium	Xanadu	Stadium	Xanadu	Stadium
NJ Route 3 To/From the East	Entering	381	239	444	201	822	313
	Exiting	661	301	373	202	845	336
NJ Route 3 To/From the West	Entering	492	205	554	172	750	268
	Exiting	713	258	281	173	648	287
NJ Turnpike Interchange 16W	Entering	404	182	446	153	671	239
	Exiting	186	229	171	154	369	256
NJ Turnpike Interchange 18W	Entering	614	318	696	266	1135	417
	Exiting	1739	402	928	270	1454	447
Paterson Plank Road (NJ Route 120)	Entering	329	182	362	153	662	239
	Exiting	672	229	322	154	666	256
Washington Avenue (CR 503)	Entering	18	12	21	10	39	15
	Exiting	43	14	13	10	40	16
	Total Entering	**2238**	**1138**	**2523**	**955**	**4079**	**1491**
	Total Exiting	**4014**	**1433**	**2088**	**963**	**4022**	**1598**
	Total	**6252**	**2571**	**4611**	**1918**	**8101**	**3089**

*Pass-by trips not included

5.6 Trip Assignment

Trips to the internal and external roadway systems are assigned from each specific development location based on the site generated traffic and trip distributions described in Section 5.3. The traffic assignment takes into account the proximity to highway entrances and exits and to some degree the level of congestion. Multiple paths are assigned (and trips apportioned accordingly) when there are more than one reasonable way to access the development site.

The detailed traffic assignment diagrams are shown in Appendix C for each development.

SECTION 6.0 – TRAFFIC IMPACT STUDY LOCATIONS

6.1 Traffic Impact Study Location Criteria

NJDOT requires a traffic impact analysis at those study locations on the State highway system that exceed the site generated traffic thresholds set forth NJAC 16:47-4.36. Internal study locations do not require a traffic impact analysis.

The NJAC provides the following two criteria for determining whether a traffic impact analysis is required.

1. Locations that exceed 100 half-trips in any of the peak analysis hours
2. Locations that exceed 10% of the anticipated daily site traffic

The first criteria, based on the 100-trip threshold criteria, was used to determine the traffic impact locations since this criteria would also include locations that would be affected by the 10% rule. The 10% rule was applied to the external study locations identified in the Scope of Study report submitted to NJDOT dated November 7, 2006.

6.2 Traffic Impact Study Locations

Trips generated to/from each of the development sites at the New Meadowlands Stadium and Ancillary Components were assigned to the roadway network to determine whether the additional traffic volume exceeds the 100-trip threshold criteria at any of the external scope of study locations.

There are nine locations, shown in Table VI-1 that meets the traffic impact study location criteria. These locations are further analyzed in Section 9 to determine whether the future traffic conditions are within the NJDOT Level-of-Service standards as prescribed in NJAC 16:47-4.24 to 4.29. External scope of study locations that did not meet the 100-trip threshold criteria was not analyzed further.

Table VI-1
Traffic Impact Study Locations

Study Location	Scope Report Ref. #	Description	Study Type
3	E	Southbound NJ Route 120 Merge from West Peripheral Road	Ramp Merge
6	C	Northbound NJ Route 120 Diverge to Northbound Route 120 Service Road (to East Peripheral Road)	Diverge
13	S	Eastbound NJ Route 3 Merge with South Service Road/ Southbound NJ Route 120	Merge
E2	N	Paterson Plank Road (NJ Route 120) & Murray Hill Parkway	Signalized Intersection
E4	M	Paterson Plank Road (NJ Route 120) & Berry's Creek Road	Signalized Intersection
V6*	-	NJ Route 3 North Service Road & Training Way	Unsignalized Intersection
V8	A	Westbound NJ Route 3 Between Ramp G and Ramp X	Weave
V10	Q	NJ Route 3 South Service Road Merge with Southbound NJ Route 120 Flyover Ramp	Ramp Merge
V12	O	Eastbound NJ Route 3 Diverge to NJ Route 3 South Service Road (Ramp H)	Ramp Diverge

*- This intersection is an additional intersection to the Scope of Study Report.

SECTION 7.0 – TRAFFIC VOLUMES

7.1 Baseline Traffic Source Data

The no-build baseline 2010 and 2013 traffic volumes for this Traffic Impact Study are based primarily on two previous studies prepared for the Meadowlands area. TRC Raymond Keyes (TRC) performed the first study in 2003 for the Mills-Xanadu project at the Continental Airlines Arena site.[1] Edwards & Kelcey, Inc. (E&K) performed the second study in 2004 for the NJSEA and the New Jersey Department of Transportation (NJDOT).[2] The two studies are complementary. The TRC study focuses on the internal roadway system and direct access to the east side of the Meadowlands Complex while the E&K study is a regional study that takes into consideration a wide range of proposed development and transportation improvements in the surrounding Meadowlands area.

TRC and E&K analyzed build conditions in 2009 and 2010, respectively, and included the site-generated traffic from the Xanadu project and the EnCap project. The E&K study also included site-generated traffic from 8 additional proposed developments. Vollmer developed the 2010 and 2013 no-build baseline conditions by using a combination the TRC and E&K growth rates. For our study, 1% per year was added to NJ Route 3 and Paterson Plank Road (NJ Route 120) and 2% per year for all other roads as background growth to obtain the 2010 and 2013 estimates. The E&K study was also used primarily to establish the 2010 and 2013 baseline signal timing patterns.

Two other studies were utilized to supplement the TRC and the E&K studies to develop the 2010 and 2013 baseline conditions.

The first study, by DMJM Harris, was prepared in January 2006 for the New Jersey Turnpike Authority.[3] This traffic study was done in support of the NJ Turnpike Authority's plans to implement operational improvements at Interchange 16W. As part of this study, traffic counts were collected at 13 locations along NJ Route 3 and the ramps connecting to it. The study projected future 2010 traffic volumes during the AM and PM peak hours taking into account the trips generated by the Xanadu development and other proposed developments in the Meadowlands Area.

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[1] Traffic Impact Study for Meadowlands Xanadu - prepared for the Meadowlands Mills/Mack-Cali Limited Partnership, prepared by TRC Raymond Keyes Associates, dated January 28, 2004, Supplemental Analysis provided June 16, 2006

[2] Meadowlands Regional Transportation Analysis - prepared for the New Jersey Sports and Exposition Authority (NJSEA) and the New Jersey Department of Transportation, prepared by Edwards and Kelcey, dated December 2004.

[3] Interchange 16W/Route 3 Ramps Improvements – prepared for the New Jersey Turnpike Authority by DMJM Harris dated January 2006.

The second study, by HNTB, was prepared for NJDOT in August 2006 in support of the Department's plans to improve Paterson Plank Road (NJ Route 120) between Gotham Parkway and NJ Route 17.[4] This study included recent turning movement counts along Paterson Plank Road that were used to help establish the future baseline conditions.

7.2 Development by Others Included in the 2010 and 2013 Baseline Traffic Volumes

The TRC/Xanadu TIS included traffic generated by the Xanadu development and the EnCap development. The E&K regional study included development at eight additional sites. See table VII-1 for a list of development explicitly included in the future traffic estimates.

The 2010 and 2013 base traffic volumes presented by Vollmer incorporate the Xanadu and EnCap developments at the TRC/Xanadu study locations. The base traffic volumes at the E&K study locations include the trips generated by the additional development identified in the E&K study.

[4] Feasibility Assessment Report – Route 120 (Paterson Plank Road) from Route 17 to Gotham Parkway – prepared for the New Jersey Department of Transportation dated August 2006.

Table VII-1
Planned Area Developments from TRC and E&K Studies

TRC/Xanadu TIS		E&K Regional Study	
Location	Description of Proposed Development	Location	Description of Proposed Development
Xanadu	2.2 million GLA Family Entertainment and ancillary retail uses; 1.76 million sf office space, and 520 room hotel	Xanadu	Same as TRC Study
EnCap	Office, hotel, conference center, condominiums, townhouses, age-restricted dwellings (square footage not detailed in TRC report)	EnCap	Phase I – Mixed Use 1,980 dwelling units, 750,000 sf office, two hotels totaling 750 rooms, 100,000 sf ancillary retail space
		Highland Cross	920,000 sf office space 216 room hotel
		Demasse Cadillac site	350 residential units
		Paterson Plank Road Redevelopment District	285,000 sf office space, 845,000 sf commercial/retail space, 1.4 million sf light industrial warehouse
		Baker Housing	Approx. 225 residential units
		Route 3 Redevelopment	630 high-rise condominiums units
		Lowes Development	Lowes Home Improvement Store 172,697 sf
		Allied Junction	1,000,000 sf office space
		Chubb Avenue site	140,000 sf office space

7.3 2010 and 2013 No-Build Baseline Traffic Volumes

As described previously, the 2010 and 2013 no-build baseline traffic volumes are derived from previous study projections that already include planned site development, including Xanadu and EnCap. These traffic projections were adjusted to account for background traffic growth. The no-build baseline 2010 and 2013 traffic volumes are shown in Appendix D, Exhibits D-1 through D-6, for the Weekday PM Peak Highway Hour, the Weekday PM Peak Continental Airlines Arena Hour, and the Saturday Peak Continental Airlines Arena Event Hour.

7.4 2010 and 2013 Site Generated Traffic Volumes

The site generated traffic volumes were derived from the generation, distribution, and assignment of trips at each specific development location within the site. The site generated traffic volumes are shown in Appendix E, Exhibits E-1 through E-27, for the Weekday PM Peak Highway Hour the Weekday PM Peak Continental Airlines Arena Hour, and the Saturday Peak Continental Airlines Arena Event Hour.

7.5 2010 and 2013 Build Traffic Volumes

The 2010 and 2013 build traffic volumes are derived from adding the site generated traffic volumes to the base 2010 and 2013 traffic volumes. The 2010 and 2013 build traffic volumes are shown in Appendix F, Exhibits F-1 through F-6, for the Weekday PM Peak Highway Hour, the Weekday PM Peak Continental Airlines Arena Hour, and the Saturday Peak Continental Airlines Arena Event Hour.

SECTION 8.0 – CAPACITY ANALYSES

8.1 Methodology

A capacity analysis is required for all scope of study locations on the external highway system that meet the traffic threshold criteria described in NJAC 16:47-4.36. In order to be comprehensive, the internal study locations are also analyzed to evaluate the adequacy of the internal roadway system.

8.2 Analysis

Capacity analysis, a procedure used to estimate the traffic-carrying ability of roadway facilities over a range of defined operating conditions, was performed using the 2000 Highway Capacity Manual and Highway Capacity Software Version 5.2 (HCS). Synchro Version 6.0, a traffic simulation software program, based on the calculations found in the 2000 Highway Capacity Manual, was also used at selected intersections.

8.2.1 Weaving Segment

Weaving segment analyses were performed at various weaves along NJ Route 3 and NJ Route 120 within the study area. The analyses were performed using HCS. The level-of-service for freeway, multilane, and collector-distributor weave influence areas is determined by the density of the total flow in the weaving segment (LOS A - LOS E). LOS F describes the breakdown condition of the flow rate through the weaving segment. Non-weaving vehicles may achieve higher quality operations than weaving vehicles. Assuming there are no breakdowns within the influence area, Table VIII-1 exhibits the values for each level-of-service.

Table VIII-1
LOS Criteria for Weaving Segments

LOS	Density (passenger cars/mile/lane)	
	Freeway Weaving Segment	Multilane and Collector-Distributor Weaving Segments
A	≤ 10.0	≤ 12.0
B	> 10.0 - 20.0	> 12.0 - 24.0
C	> 20.0 - 28.0	> 24.0 - 32.0
D	> 28.0 - 35.0	> 32.0 - 36.0
E	> 35.0 - 43.0	> 36.0 - 40.0
F	> 43.0	> 40.0

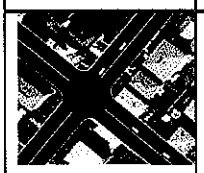
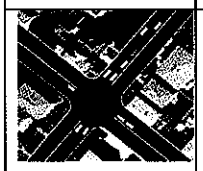
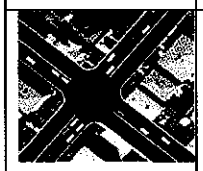
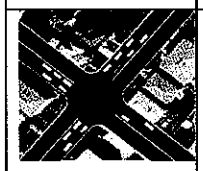
Source: 2000 Highway Capacity Manual (Exhibit 24-2)

8.2.2 Signalized and Unsignalized Intersections

For a signalized intersection, level-of-service (LOS) A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 80 seconds per vehicle.

For an unsignalized intersection, LOS A indicates operations with delay less than 10 seconds per vehicle, while LOS F describes operations with delay in excess of 50 seconds per vehicle (see TABLE G). It should be noted that HCS cannot calculate densities that are LOS F and, therefore, the density will be represented by a value of '99'.

Table VIII-2
LOS Average Control Delay Criteria

	LOS	Signalized Delay Range (average control delay, sec/veh)	Unsignalized Delay Range (average control delay in sec/veh)
	A	≤ 10	≤ 10
	B	>10 and ≤ 20	>10 and ≤ 15
	C	>20 and ≤ 35	>15 and ≤ 25
	D	>35 and ≤ 55	>25 and ≤ 35
	E	>55 and ≤ 80	>35 and ≤ 50
	F	>80	>50

Source: 2000 Highway Capacity Manual (Exhibits 16-2 and 17-2)

8.2.3 Ramp Junctions

Capacity analyses were performed on NJ Route 3 and NJ Route 120 merges and diverges at the locations analyzed in the Xanadu/TRC TIS Report. The analyses were performed using HCS. The level-of-service of the influence area of merging and diverging ramps is determined by the density for all cases of stable operation (LOS A - LOS E). When a LOS F exists, the total flow departing from the merge area exceeds the downstream capacity, no density for such a case will be calculated. Assuming there are no breakdowns within the influence area, Table VIII-3 exhibits the values for each level-of-service.

Table VIII-3
LOS Criteria for Merges and Diverges

LOS	Density (passenger cars/mile/lane)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 28
D	> 28 and ≤ 35
E	> 35
F	Demand exceeds capacity

Source: 2000 Highway Capacity Manual (Exhibit 25-4)

8.2.4 Ramp Capacity

Ramp capacity analyses were performed at the same locations analyzed in the Xanadu/TRC TIS Report. TRC provided Vollmer with their ramp capacity formula which calculates the flow rate and density based on the volume, speed, number of lanes, peak hour factor and heavy vehicle percentage of a ramp. The level-of-service of a ramp is determined by the density for all cases of stable operations (LOS A - LOS E). When a LOS F exists, the total volume on the ramp exceeds the capacity of the ramp, no density for such a case will be calculated. Assuming there are no breakdowns on the ramps, the same LOS criteria for merges and diverges as seen in Table VIII-3 exhibits the values for each level-of-service. Table VIII-4 exhibits the capacity threshold for a LOS F condition.

Table VIII-4
LOS F Criteria for Ramp Capacity

Free-Flow Speed of the Ramp	Capacity (pc/h)	
	Single-Lane Ramp	Two-Lane Ramp
> 50	2200	4400
> 40 - 50	2100	4100
> 30 - 40	2000	3800
≥ 20 - 30	1900	3500
< 20	1800	3200

Source: 2000 Highway Capacity Manual (Exhibit 25-3)

8.2.5 Synchro

TRC analyzed two study locations using Synchro Version 6.0 software. Synchro's formulas used to calculate intersection delay are based on the 2000 Highway Capacity Manual. TRC provided Vollmer with their Synchro files which modeled the roadways on the Arena side of the Meadowlands Sports Complex. Vollmer updated the volumes and used the Synchro HCM outputs to determine the level-of-service for these two intersections.

8.3 Level-of-Service Analysis

The study locations were analyzed for the three Non-Game Day time periods: the Weekday PM Peak Highway Hour, the Weekday PM Peak Continental Airlines Arena Event Hour, and the Saturday Peak Continental Airlines Arena Event Hour. The study locations were analyzed as follows:

- Study locations 16, 18, 24, V15, and V16 were analyzed as a Ramp Capacity analysis.
- Study locations 3, 6, 8, 9, 12, 13, 14, 17 (No-Build Baseline condition only), 19, V10, and V12 were analyzed as a Ramp Junction analysis.
- Study locations 1, 2, 4, 10, and V8 were analyzed as a Weaving Segment analysis.
- Study locations 15 (Build condition only), 17 (Build condition only), E1, E2, E3, E4, and V3 were analyzed as a Signalized Intersection analysis using the HCS Software.
- Study locations 20 and 22 were analyzed as a Signalized Intersection analysis using the Synchro Software.
- Study locations 7, 11, 15 (No-Build Baseline condition only), V1, V2, V4, V5, V6, V7, and V9 were analyzed as an Unsignalized Intersection analysis.

The results of the analyses can be found in Tables VIII-5 to VIII-25.

8.3.1 2010 No-Build Baseline Operating Conditions

The analyses indicate that all of the ramps, ramp junctions, weaving segments, and signalized and unsignalized intersections would operate at a LOS E or better during all of the Non-Game Day time periods.

8.3.2 2013 No-Build Baseline Operating Conditions

The analyses indicate that all of the ramps, ramp junctions, weaving segments, and signalized and unsignalized intersections would operate at a LOS E or better during all of the Non-Game Day time periods.

8.3.3 2010 Future Build (Phase I) Operating Conditions

The analyses indicate that all of the ramps, ramp junctions, weaving segments and unsignalized intersection would operate at a LOS E or better during all of the Non-Game Day time periods.

In the 2010 Phase I Build condition, one of the nine signalized intersections would have movements that operate at a LOS F. The following intersection has a failing movement:

Location 17 (internal):

- South Connector Road and West Peripheral Road (17) – the eastbound left-turn movement during the Weekday PM Peak Continental Airlines Arena Event Hour.

The level-of-service in 2010 will be improved by using traffic control agents to better manage the traffic flow. NJSEA or its agents will provide traffic control agents to manage and direct traffic.

8.3.4 2013 Future Build (Phases I & II) Operating Conditions

The analyses indicate that all of the ramps, ramp junctions and weaving segments would operate at a LOS E or better during all of the Non-Game Day time periods.

In the 2013-build condition, two of the nine signalized intersections would have a movement that operates at a LOS F.

The following two signalized intersections have failing movements:

Location 17 (Internal):

- South Connector Road and West Peripheral Road (17) – the eastbound left-turn movement during the Weekday PM Peak Continental Airlines Arena Event Hour;

Location 20 (internal):

- East Peripheral Road and North Connector Road/North Arena Road (20) – the southbound right-turn movement during the Weekday PM Peak Continental Airlines Arena Event Hour;
- East Peripheral Road and North Connector Road/North Arena Road (20) – the westbound through and the southbound right-turn movements during the Saturday Peak Continental Airlines Arena Event Hour.

Study Location 17, South Connector Road and West Peripheral Road, will require a traffic control agent during the Weekday PM Peak Continental Airlines Arena Event Hour. The traffic control agents will be provided by the NJSEA. The level-of-service at Study Location 20, East Peripheral Road and North Connector Road/North Arena Road, will be improved by optimizing the signal timing.

In the 2013 Phase I and II Build condition, two of the ten unsignalized intersections would have movements that operate at a LOS F. The following unsignalized intersections have a failing movement:

Location V6 (external):

- NJ Route 3 North Service Road and Training Way (V6) – the southbound left-turn movement during the Saturday Peak Continental Airlines Arena Event Hour.

Location V9 (internal):

- Inner Loop Road and Valet Road (V9) – the eastbound left-turn movement during the Weekday PM Peak Highway Hour and the Saturday Peak Continental Airlines Arena Event Hour.

Study Location V6 will require a traffic control agent during the Saturday Peak Continental Airlines Arena Event period in order to achieve an acceptable level-of-service. Study Location V9, Inner Loop Road and Valet Road, will require traffic control agents during the Weekday PM Peak Highway Hour and the Saturday Peak Continental Airlines Arena Event Hour. The NJSEA or its agents will provide traffic control agents to manage and direct traffic.

TABLE VIII-5
2010 & 2013 RAMP CAPACITY LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

2010 BASELINE CONDITION (XANADU BUILD W/ IMPROVEMENTS)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	1150	3	0.9	1316	29.23	D
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	365	3	0.9	418	13.93	B
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	293	3	0.9	335	11.16	B
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	1391	3	0.9	1592	31.84	D
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	927	3	0.9	1061	35.36	E

2010 PHASE I - PARTIAL BUILD OUT CONDITION (STADIUM AND TRAINING DISTRICTS ONLY)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	1162	3	0.9	1329	29.54	D
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	401	3	0.9	458	15.28	B
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	389	3	0.9	445	14.82	B
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	1446	3	0.9	1655	33.10	D
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	966	3	0.9	1106	36.85	E

2013 BASELINE CONDITION (XANADU BUILD W/ IMPROVEMENTS)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	1220	3	0.9	1396	31.03	D
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	388	3	0.9	444	14.79	B
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	311	3	0.9	355	11.85	B
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	1477	3	0.9	1690	33.81	D
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	984	3	0.9	1126	37.54	E

2013 PHASE II - ULTIMATE BUILD OUT CONDITION

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	1268	3	0.9	1451	32.24	D
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	516	3	0.9	590	19.67	B
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	512	3	0.9	585	19.51	B
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	1639	3	0.9	1876	37.51	E
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	1095	3	0.9	1253	41.77	E

Notes: 1. The Volume is expressed as vehicles per lane
2. The Density is expressed as flow rate per design speed
3. The classification of LOS is from HCM 2000
4. Improvement at Location No. 13 consists of a new slip ramp to Route 3 EB; thereby reducing volume on analysis Ramp
5. Improvement at Location No. 16 consists of additional ramp lane

TABLE VIII-6
2010 & 2013 RAMP CAPACITY LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

2010 BASELINE CONDITION (XANADU BUILD W/ IMPROVEMENTS)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	566	3	0.9	647	14.38	B
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	718	3	0.9	822	27.39	C
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	270	3	0.9	308	10.28	B
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	775	3	0.9	887	17.74	B
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	516	3	0.9	591	19.68	B

2010 PHASE I - PARTIAL BUILD OUT CONDITION (STADIUM AND TRAINING DISTRICTS ONLY)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	578	3	0.9	661	14.69	B
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	740	3	0.9	847	28.23	D
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	341	3	0.9	390	13.01	B
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	824	3	0.9	943	18.86	B
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	550	3	0.9	629	20.98	C

2013 BASELINE CONDITION (XANADU BUILD W/ IMPROVEMENTS)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	621	3	0.9	711	15.79	B
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	760	3	0.9	869	28.97	D
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	281	3	0.9	321	10.70	B
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	851	3	0.9	974	19.48	B
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	567	3	0.9	649	21.63	C

2013 PHASE II - ULTIMATE BUILD OUT CONDITION

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	655	3	0.9	749	16.65	B
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	857	3	0.9	980	32.67	D
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	416	3	0.9	476	15.85	B
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	966	3	0.9	1106	22.11	C
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	644	3	0.9	737	24.57	C

Notes: 1. The Volume is expressed as vehicles per lane
2. The Density is expressed as flow rate per design speed
3. The classification of LOS is from HCM 2000
4. Improvement at Location No. 13 consists of a new slip ramp to Route 3 EB; thereby reducing volume on analysis Ramp
5. Improvement at Location No. 16 consists of additional ramp lane

TABLE VIII-7
2010 & 2013 RAMP CAPACITY LEVEL-OF-SERVICE ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

2010 BASELINE CONDITION (XANADU BUILD W/ IMPROVEMENTS)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	722	3	0.9	826	18.35	B
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	570	3	0.9	653	21.75	C
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	550	3	0.9	629	20.96	C
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	967	3	0.9	1107	22.13	C
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	645	3	0.9	738	24.61	C

2010 PHASE I - PARTIAL BUILD OUT CONDITION (STADIUM AND TRAINING DISTRICTS ONLY)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	734	3	0.9	839	18.65	B
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	605	3	0.9	692	23.08	C
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	653	3	0.9	747	24.89	C
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	1035	3	0.9	1185	23.69	C
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	693	3	0.9	793	26.44	C

2013 BASELINE CONDITION (XANADU BUILD W/ IMPROVEMENTS)

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	764	3	0.9	874	19.43	B
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	605	3	0.9	692	23.06	C
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	583	3	0.9	667	22.24	C
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	1025	3	0.9	1173	23.46	C
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	683	3	0.9	782	26.06	C

2013 PHASE II - ULTIMATE BUILD OUT CONDITION

Location	Ramp	Speed	Lanes	Volume	HV%	PHF	Flow Rate	Density	LOS
16	NJ Route 120 Southbound and Ramp to NJ Route 3 Westbound	45	2	816	3	0.9	934	20.75	C
18	East Peripheral Road adjacent to Deck A / Deck BCD	30	4	776	3	0.9	888	29.61	D
24	Ramp from South Connector Road to NJ Turnpike Interchange 18W	30	2	807	3	0.9	923	30.77	D
V15	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (Original Ramp)	50	1	1217	3	0.9	1393	27.86	C
V16	NJ Route 120 Southbound Ramp to NJ Route 3 Eastbound (New Flyover Ramp)	30	1	814	3	0.9	932	31.05	D

Notes: 1. The Volume is expressed as vehicles per lane
2. The Density is expressed as flow rate per design speed
3. The classification of LOS is from HCM 2000
4. Improvement at Location No. 13 consists of a new slip ramp to Route 3 EB; thereby reducing volume on analysis Ramp
5. Improvement at Location No. 16 consists of additional ramp lane

TABLE VIII-8
2010 & 2013 RAMP JUNCTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	Jurisdiction	2010 Baseline		2010 Build		2013 Baseline		2013 Build	
			Density	LOS	Density	LOS	Density	LOS	Density	LOS
3	Southbound NJ Route 120 Merge from West Peripheral Road	NJDOT	18.4	B	18.8	B	19.1	B	20.4	C
6	Northbound NJ Route 120 Diverge to Northbound Route 120 Service Road (to East Peripheral Road)	NJDOT	20.1	C	20.8	C	21.2	C	23.1	C
8	Southbound NJ Route 120 Merge with Washington Avenue	NJDOT	28.4	D	28.4	D	30.0	D	30.2	D
9	Northbound Washington Avenue Merge with EB Paterson Plank Road	NJDOT	16.7	B	16.7	B	17.3	B	17.5	B
12	Northbound NJ Route 120 Merge with Ramp M	NJDOT	19.8	B	19.8	B	20.8	C	20.6	C
13	Eastbound NJ Route 3 Merge with South Service Road/SB NJ Route 120	NJDOT	26.0	C	26.3	C	26.7	C	27.3	C
14	Eastbound Ramp M Diverge with Ramp to Arena	NJDOT	19.4	B	19.4	B	20.3	C	20.6	C
17*	Northbound West Peripheral Road Merge with WB South Connector Road	NJSEA	13.5	B	-	-	14.1	B	-	-
19	Eastbound South Connector Road Merge with Ramp from Ramp M	NJSEA	10.7	B	12.0	B	11.1	B	14.0	B
V10	Southbound NJ Route 120 Flyover Ramp Merge with NJ Route 3 South Service Road	NJDOT	18.5	B	19.4	B	19.5	B	21.4	C
V12	Eastbound NJ Route 3 Diverge to NJ Route 3 South Service Road (Ramp H)	NJDOT	17.9	B	18.6	B	18.9	B	20.6	C

*-Study location 17 will no longer be a merge but instead will be a signalized T-intersection under the 2010 and 2013 build conditions.

TABLE VIII-9
2010 & 2013 RAMP JUNCTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	Jurisdiction	2010 Baseline		2010 Build		2013 Baseline		2013 Build	
			Density	LOS	Density	LOS	Density	LOS	Density	LOS
3	Southbound NJ Route 120 Merge from West Peripheral Road	NJDOT	12.6	B	13.3	B	13.7	B	15.5	B
6	Northbound NJ Route 120 Diverge to NB Route 120 Service Road (to East Peripheral Road)	NJDOT	22.3	C	22.8	C	23.4	C	25.1	C
8	Southbound NJ Route 120 Merge with Washington Avenue	NJDOT	21.0	C	21.0	C	22.1	C	22.3	C
9	Northbound Washington Avenue Merge with EB Paterson Plank Road	NJDOT	11.9	B	11.9	B	12.4	B	12.5	B
12	Northbound NJ Route 120 Merge with Ramp M	NJDOT	13.8	B	13.8	B	14.4	B	14.2	B
13	Eastbound NJ Route 3 Merge with South Service Road/SB NJ Route 120	NJDOT	23.5	C	24.3	C	24.9	C	26.3	C
14	Eastbound Ramp M Diverge with Ramp to Arena	NJDOT	30.2	D	30.2	D	31.8	D	32.2	D
17*	Northbound West Peripheral Road Merge with WB South Connector Road	NJSEA	28.4	D	-	-	29.9	D	-	-
19	Eastbound South Connector Road Merge with Ramp from Ramp M	NJSEA	17.5	B	18.5	B	18.3	B	20.3	C
V10	Southbound NJ Route 120 Flyover Ramp Merge with NJ Route 3 South Service Road	NJDOT	11.5	B	12.2	B	12.3	B	13.5	B

*-Study location 17 will no longer be a merge but instead will be a signalized T-intersection under the 2010 and 2013 build conditions.

TABLE VIII-10
2010 & 2013 RAMP JUNCTION LEVEL-OF-SERVICE ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	Jurisdiction	2010 Baseline		2010 Build		2013 Baseline		2013 Build	
			Density	LOS	Density	LOS	Density	LOS	Density	LOS
3	Southbound NJ Route 120 Merge from West Peripheral Road	NJDOT	16.2	B	17.1	B	16.9	B	19.8	B
6	Northbound NJ Route 120 Diverge to NB Route 120 Service Road (to East Peripheral Road)	NJDOT	15.3	B	16.1	B	16.1	B	19.0	B
8	Southbound NJ Route 120 Merge with Washington Avenue	NJDOT	16.2	B	16.2	B	17.0	B	17.3	B
9	Northbound Washington Avenue Merge with EB Paterson Plank Road	NJDOT	11.7	B	11.8	B	12.1	B	12.3	B
12	Northbound NJ Route 120 Merge with Ramp M	NJDOT	11.6	B	11.6	B	12.1	B	11.7	B
13	Eastbound NJ Route 3 Merge with South Service Road/SB NJ Route 120	NJDOT	22.9	C	23.4	C	23.6	C	24.5	C
14	Eastbound Ramp M Diverge with Ramp to Arena	NJDOT	16.9	B	16.8	B	17.6	B	18.2	B
17*	Northbound West Peripheral Road Merge with WB South Connector Road	NJSEA	16.6	B	-	-	17.3	B	-	-
19	Eastbound South Connector Road Merge with Ramp from Ramp M	NJSEA	13.1	B	14.5	B	13.7	B	16.7	B
V10	Southbound NJ Route 120 Flyover Ramp Merge with NJ Route 3 South Service Road	NJDOT	15.2	B	16.1	B	15.9	B	18.0	B

*-Study location 17 will no longer be a merge but instead will be a signalized T-intersection under the 2010 and 2013 build conditions.

TABLE VIII-11
2010 & 2013 WEAVING SEGMENT LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENTS TIS

Location	Description	Weave Type	Jurisdiction	2010 Baseline		2010 Build		2013 Baseline		2013 Build	
				Density	LOS	Density	LOS	Density	LOS	Density	LOS
1	Southbound NJ Route 120 Between North Connector Road Entrance Ramp and West Peripheral Road Exit Ramp	Multilane /C-D	NJDOT	31.82	C	31.88	C	34.20	D	34.65	D
2	Southbound NJ Route 120 Between West Peripheral Road Entrance Ramp and West Peripheral Road Exit Ramp	Freeway	NJDOT	21.63	C	21.66	C	23.27	C	23.57	C
4	Northbound NJ Route 120 Between East Peripheral Road Entrance Ramp and Washington Avenue	Multilane /C-D	NJDOT	24.49	C	24.58	C	26.39	C	26.68	C
10	Northbound NJ Route 120 Between Washington Avenue and East Peripheral Road Exit Ramp	Multilane /C-D	NJDOT	21.91	B	21.88	B	23.69	B	23.71	B
V8	Westbound NJ Route 3 Between Ramp G Entrance Ramp and Ramp X Exit Ramp	Freeway	NJDOT	28.45	D	29.82	D	29.78	D	32.43	D

LOS Criteria for Weaving Segments

LOS	Density (passenger cars/mile/lane)	
	Freeway Weaving Segment	Multilane and Collector-Distributor Weaving Segments
A	≤ 10.0	≤ 12.0
B	> 10.0 - 20.0	> 12.0 - 24.0
C	> 20.0 - 28.0	> 24.0 - 32.0
D	> 28.0 - 35.0	> 32.0 - 36.0
E	> 35.0 - 43.0	> 36.0 - 40.0
F	> 43.0	> 40.0

Source: 2000 Highway Capacity Manual (Exhibit 24-2)

TABLE VIII-12
2010 & 2013 WEAVING SEGMENT LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENTS TIS

Location	Description	Weave Type	Jurisdiction	2010 Baseline		2010 Build		2013 Baseline		2013 Build	
				Density	LOS	Density	LOS	Density	LOS	Density	LOS
1	Southbound NJ Route 120 Between North Connector Road Entrance Ramp and West Peripheral Road Exit Ramp	Multilane /C-D	NJDOT	23.75	B	23.76	B	25.54	C	25.92	C
2	Southbound NJ Route 120 Between West Peripheral Road Entrance Ramp and West Peripheral Road Exit Ramp	Freeway	NJDOT	17.63	B	17.66	B	19.00	B	19.38	B
4	Northbound NJ Route 120 Between East Peripheral Road Entrance Ramp and Washington Avenue	Multilane /C-D	NJDOT	15.03	B	15.09	B	16.18	B	16.33	B
10	Northbound NJ Route 120 Between Washington Avenue and East Peripheral Road Exit Ramp	Multilane /C-D	NJDOT	21.60	B	21.58	B	23.32	B	23.34	B
V8	Westbound NJ Route 3 Between Ramp G Entrance Ramp and Ramp X Exit Ramp	Freeway	NJDOT	17.38	B	18.03	B	20.82	C	22.43	C

LOS Criteria for Weaving Segments

LOS	Density (passenger cars/mile/lane)	
	Freeway Weaving Segment	Multilane and Collector-Distributor Weaving Segments
A	≤ 10.0	≤ 12.0
B	> 10.0 - 20.0	> 12.0 - 24.0
C	> 20.0 - 28.0	> 24.0 - 32.0
D	> 28.0 - 35.0	> 32.0 - 36.0
E	> 35.0 - 43.0	> 36.0 - 40.0
F	> 43.0	> 40.0

Source: 2000 Highway Capacity Manual (Exhibit 24-2)

TABLE VIII-13
2010 & 2013 WEAVING SEGMENT LEVEL-OF-SERVICE ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENTS TIS

Location	Description	Weave Type	Jurisdiction	2010 Baseline		2010 Build		2013 Baseline		2013 Build	
				Density	LOS	Density	LOS	Density	LOS	Density	LOS
1	Southbound NJ Route 120 Between North Connector Road Entrance Ramp and West Peripheral Road Exit Ramp	Multilane /C-D	NJDOT	17.23	B	17.27	B	18.50	B	19.07	B
2	Southbound NJ Route 120 Between West Peripheral Road Entrance Ramp and West Peripheral Road Exit Ramp	Freeway	NJDOT	12.73	B	12.77	B	13.67	B	14.08	B
4	Northbound NJ Route 120 Between East Peripheral Road Entrance Ramp and Washington Avenue	Multilane /C-D	NJDOT	12.92	B	13.00	B	13.86	B	14.13	B
10	Northbound NJ Route 120 Between Washington Avenue and East Peripheral Road Exit Ramp	Multilane /C-D	NJDOT	18.77	B	18.74	B	20.27	B	20.38	B
V8	Westbound NJ Route 3 Between Ramp G Entrance Ramp and Ramp X Exit Ramp	Freeway	NJDOT	22.62	C	23.86	C	23.82	C	26.50	C

LOS Criteria for Weaving Segments

LOS	Density (passenger cars/mile/lane)	
	Freeway Weaving Segment	Multilane and Collector-Distributor Weaving Segments
A	≤ 10.0	≤ 12.0
B	> 10.0 - 20.0	> 12.0 - 24.0
C	> 20.0 - 28.0	> 24.0 - 32.0
D	> 28.0 - 35.0	> 32.0 - 36.0
E	> 35.0 - 43.0	> 36.0 - 40.0
F	> 43.0	> 40.0

Source: 2000 Highway Capacity Manual (Exhibit 24-2)

TABLE VIII-14
2010 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2010 No Build Baseline						2010 Build (Phase 1)					
			Volume	Movement v/c Ratio	Movement Delay (sec)	Movement LOS	Approach Delay (sec)	Approach LOS	Volume	Movement v/c Ratio	Movement Delay (sec)	Movement LOS	Approach Delay (sec)	Approach LOS
15	New Jersey Turnpike Interchange 16W Access Road & South Connector Road	EB-L	*This study location is an unsignalized T-instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*						68	0.35	32.6	C	32.6	C
		EB-T							48	0.35	32.6	C		
		EB-R							133	0.35	32.6	C		
		WB-L							0	0.15	30.8	C	30.8	C
		WB-T							28	0.15	30.8	C		
		WB-R							74	0.15	30.8	C		
		NB-L							70	0.39	8.0	A	8.0	A
		NB-T							337	0.39	8.0	A		
		NB-R							293	0.39	8.0	A		
		SB-L							149	0.38	9.9	A	8.2	A
		SB-T							215	0.38	7.3	A		
		SB-R							94	0.28	7.3	A		
		Intersection							1,509	-	13.0	B	13.0	B
17	South Connector Road & West Peripheral Road	EB-L	*This study location is a ramp merge in the baseline condition and would become a signalized T-intersection under the build condition.*						148	0.26	6.0	A	4.2	A
		EB-T							342	0.26	3.4	A		
		WB-T							102	0.64	21.1	C	21.1	C
		WB-R							987	0.64	21.1	C		
		SB-L							0	0.00	38.7	D	0.0	A
		SB-R							0	0.00	38.7	D		
		Intersection							1,579	-	5.1	A	5.1	A
20	East Peripheral Road & North Arena Road / North Connector Road	WB-L	269	0.62	28.6	C	26.7	C	269	0.63	30.0	C	29.4	C
		WB-T	348	0.40	25.2	C			365	0.43	27.9	C		
		NB-L	641	0.58	22.8	C	22.8	C	641	0.60	23.9	C	23.9	C
		SB-R	328	0.64	39.9	D	39.9	D	378	0.67	39.5	D	39.5	D
		Intersection	1,586	-	27.8	C	27.8	C	1,653	-	29.6	C	29.6	C
22	North Connector Road & HOC Boulevard	EB-T	210	0.62	31.9	C	34.0	C	210	0.62	31.9	C	34.0	C
		EB-R	491	0.72	37.8	D			491	0.72	37.8	D		
		WB-L	455	0.78	46.3	D	46.3	D	455	0.78	46.3	D	46.3	D
		WB-T	0	0.78	46.2	D			0	0.78	46.2	D		
		SB-L	96	0.38	23.5	C	23.5	C	96	0.46	24.5	C	24.5	C
		SB-T	491	0.38	23.5	C			636	0.46	24.5	C		
		SB-R	152	0.38	23.5	C			152	0.46	24.5	C		
		Intersection	1,895	-	32.8	C	32.8	C	2,040	-	32.6	C	32.6	C
E1	Paterson Plank Road (NJ Route 120) & NB NJ Route 17 Ramp	EB-T	961	0.35	15.4	B	15.4	B	1,043	0.38	15.8	B	15.8	B
		WB-T	1,675	0.82	25.9	C	17	B	1,675	0.82	25.9	C	16.5	B
		WB-R	1,020	0.55	0.4	A			1,130	0.62	0.7	A		
		NB-L	305	0.55	32.5	C	31.4	C	305	0.55	32.5	C	31.4	C
		NB-R	219	0.37	29.5	C			219	0.37	29.5	C		
		Intersection	4,180	-	18.5	B	18.5	B	4,372	-	18.1	B	18.1	B
E2	Paterson Plank Road (NJ Route 120) & Murray Hill Road	EB-T	1,192	0.45	13.6	B	13.6	B	1,274	0.48	14.0	B	14.0	B
		EB-R	39	0.45	13.6	B			39	0.48	14.0	B		
		WB-T	2,348	0.86	21.1	C	21.1	C	2,458	0.91	22.9	C	22.9	C
		NB-L	176	0.48	29.2	C	34.3	C	176	0.48	29.2	C	34.3	C
		NB-T	58	0.74	36.7	D			58	0.74	36.7	D		
		NB-R	347	0.74	36.7	D			347	0.74	36.7	D		
		SB-L	95	0.57	33.7	C	29.1	C	95	0.57	33.7	C	29.1	C
		SB-T	178	0.33	26.9	C			178	0.33	26.9	C		
		SB-R	21	0.33	26.9	C			21	0.33	26.9	C		
		Intersection	4,454	-	21.2	C	21.2	C	4,646	-	22.1	C	22.1	C
E3	Paterson Plank Road (NJ Route 120) & Gotham Parkway	EB-T	1,257	0.80	22.6	C	22.6	C	1,254	0.80	22.5	C	22.5	C
		WB-T	1,662	1.06	67.2	E	62.5	E	1,659	1.06	66.4	E	54.8	D
		WB-R	296	0.25	17.5	B			296	0.25	17.5	B		
		SB-L	465	0.64	27.6	C	25.9	C	465	0.64	27.6	C	26.1	C
		SB-R	286	0.44	23.0	C			286	0.44	23.0	C		
		Intersection	3,966	-	42.3	D	42.3	D	3,960	-	41.9	D	41.9	D
E4	Paterson Plank Road (NJ Route 120) & Existing Jughandles	EB-T	1,236	0.11	38.6	D	38.6	D	1,233	0.11	38.6	D	38.6	D
		WB-T	1,927	0.07	37.8	D	37.8	D	1,924	0.07	37.8	D	37.8	D
		NB-L	30	0.50	14.0	B	14.0	B	30	0.50	14.1	B	14.1	B
		SB-L	21	0.79	15.8	B	15.8	B	21	0.79	15.8	B	15.8	B
		Intersection	3,214	-	15.5	B	15.5	B	3,208	-	15.5	B	15.5	B
V3	Paterson Plank Road (NJ Route 120) & Berry's Creek Road	EB-T	1,202	0.57	5.5	A	5.5	A	1,199	0.57	5.5	A	5.5	A
		WB-T	1,957	0.92	7.1	A	7.1	A	1,954	0.92	7.0	A	7.0	A
		NB-L	415	0.47	33.4	C	33.4	C	528	0.60	35.6	D	35.6	D
		Intersection	3,574	-	9.6	A	9.6	A	3,681	-	10.6	B	10.6	B

TABLE VIII-15
2013 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 No Build Baseline						2013 Build (Phase 1 & 2)					
			Movement				Approach		Movement				Approach	
			Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS	Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS
15	New Jersey Turnpike Interchange 16W Access Road & South Connector Road	EB-L	*This study location is an unsignalized T-instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*						76	0.69	38.7	D	38.7	D
		EB-T							183	0.69	38.7	D		
		EB-R							141	0.69	38.7	D		
		WB-L							99	0.69	39.1	D	39.1	D
		WB-T							162	0.69	39.1	D		
		WB-R							74	0.69	39.1	D		
		NB-L							73	0.49	9.0	A	9.0	A
		NB-T							393	0.49	9.0	A		
		NB-R							397	0.49	9.0	A		
		SB-L							157	0.50	13.5	B	9.6	A
		SB-T							267	0.35	8.0	A		
		SB-R							120	0.35	8.0	A		
		Intersection							2,142	-	18.9	B	18.9	B
17	South Connector Road & West Peripheral Road	EB-L	*This study location is a ramp merge in the baseline condition and would become a signalized T-intersection under the build condition.*						352	0.88	45.4	D	26.3	C
		EB-T							420	0.27	3.4	A		
		WB-T							275	0.90	31.7	C	31.7	C
		WB-R							1,189	0.90	31.7	C		
		SB-L							119	0.61	46.8	D	46.1	D
		SB-R							98	0.56	45.3	D		
		Intersection							2,453	-	31.2	C	31.2	C
20	East Peripheral Road & North Arena Road / North Connector Road	WB-L	286	0.61	28.3	C	26.4	C	286	0.63	33.4	C	32.8	C
		WB-T	367	0.39	24.9	C			494	0.55	31.0	C		
		NB-L	680	0.67	25.5	C	25.5	C	680	0.75	30.7	C	30.7	C
		SB-R	349	0.65	39.8	D	39.8	D	483	0.71	37.4	D	37.4	D
		Intersection	1,682	-	28.8	C	28.8	C	1,943	-	32.8	C	32.8	C
22	North Connector Road & HOC Boulevard	EB-T	223	0.61	31.0	C	33.4	C	223	0.61	31.0	C	33.4	C
		EB-R	521	0.74	37.7	D			521	0.74	37.7	D		
		WB-L	483	0.81	48.1	D	48.1	D	483	0.81	48.1	D	48.1	D
		WB-T	0	0.81	48.1	D			0	0.81	48.1	D		
		SB-L	102	0.42	25.0	C	25.0	C	102	0.61	27.8	C	27.8	C
		SB-T	520	0.42	25.0	C			852	0.61	27.8	C		
		SB-R	161	0.42	25.0	C			161	0.61	27.8	C		
		Intersection	2,010		33.7	C	33.7	C	2,342	-	33.8	C	33.8	C
E1	Paterson Plank Road (NJ Route 120) & NB NJ Route 17 Ramp	EB-T	990	0.36	15.5	B	15.5	B	1,172	0.43	16.4	B	16.4	B
		WB-T	1,725	0.85	27.1	C	17.8	B	1,725	0.85	27.1	C	16.8	B
		WB-R	1,051	0.57	0.5	A			1,280	0.71	1.4	A		
		NB-L	314	0.57	32.8	C	31.7	C	314	0.57	32.8	C	31.7	C
		NB-R	226	0.38	29.7	C			226	0.38	29.7	C		
		Intersection	4,306	-	19.1	B	19.1	B	4,717	-	18.4	B	18.4	B
E2	Paterson Plank Road (NJ Route 120) & Murray Hill Road	EB-T	1,228	0.47	13.8	B	13.8	B	1,410	0.54	14.7	B	14.7	B
		EB-R	41	0.47	13.8	B			41	0.54	14.7	B		
		WB-T	2,419	0.89	22.2	C	22.2	C	2,648	0.97	29.0	C	29.0	C
		NB-L	181	0.50	29.5	C	35.2	D	181	0.50	29.5	C	35.3	D
		NB-T	59	0.76	38.0	D			59	0.76	38.0	D		
		NB-R	358	0.76	38.0	D			358	0.76	38.0	D		
		SB-L	98	0.63	37.1	D	30.4	C	98	0.63	37.1	D	30.4	C
		SB-T	183	0.34	27.0	C			183	0.34	27.0	C		
		SB-R	22	0.34	27.0	C			22	0.34	27.0	C		
		Intersection	4,589	-	22.0	C	22	C	5,000	-	25.7	C	25.7	C
E3	Paterson Plank Road (NJ Route 120) & Gotham Parkway	EB-T	1,294	0.82	23.5	C	23.5	C	1,297	0.83	23.5	C	23.5	C
		WB-T	1,712	1.09	78.8	E	72.9	E	1,694	1.08	74.4	E	68.9	E
		WB-R	305	0.26	17.7	B			305	0.26	17.7	B		
		SB-L	479	0.66	28.3	C	26.4	C	479	0.66	28.3	C	26.4	C
		SB-R	294	0.45	23.2	C			294	0.45	23.2	C		
		Intersection	4,084	-	47.7	D	47.7	D	4,069	-	45.7	D	45.7	D
E4	Paterson Plank Road (NJ Route 120) & Existing Jughandles	EB-T	1,273	0.11	38.6	D	38.6	D	1,276	0.11	38.6	D	38.6	D
		WB-T	1,985	0.07	37.8	D	37.8	D	1,967	0.07	37.8	D	37.8	D
		NB-L	31	0.52	13.9	B	13.9	B	31	0.52	13.9	B	13.9	B
		SB-L	21	0.81	16.4	B	16.4	B	21	0.80	16.2	B	16.2	B
		Intersection	3,310	-	15.8	B	15.8	B	3,295	-	15.6	B	15.6	B
V3	Paterson Plank Road (NJ Route 120) & Berry's Creek Road	EB-T	1,238	0.58	5.6	A	5.6	A	1,241	0.58	5.6	A	5.6	A
		WB-T	2,016	0.95	9.1	A	9.1	A	1,998	0.94	8.4	A	8.4	A
		NB-L	428	0.49	33.6	C	33.6	C	675	0.77	40.4	D	40.4	D
		Intersection	3,682	-	10.8	B	10.8	B	3,914	-	13.0	B	13.0	B

TABLE VIII-16
2010 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2010 No Build Baseline						2010 Build (Phase 1)					
			Movement				Approach		Movement				Approach	
			Volume	V/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS	Volume	V/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS
15	New Jersey Turnpike Interchange 16W Access Road & South Connector Road	EB-L	*This study location is an unsignalized T-instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*						76	0.51	34.9	C	34.9	C
		EB-T							21	0.51	34.9	C		
		EB-R							53	0.51	34.9	C		
		WB-L							0	0.17	31.1	C	31.1	C
		WB-T							3	0.17	31.1	C		
		WB-R							57	0.17	31.1	C		
		NB-L							51	0.65	11.4	B	11.4	B
		NB-T							218	0.65	11.4	B		
		NB-R							900	0.65	11.4	B		
		SB-L							134	0.68	25.9	C	14.0	B
		SB-T							139	0.20	6.7	A		
		SB-R							80	0.20	6.7	A		
		Intersection							1,732	-	14.6	B	14.6	B
17*	South Connector Road & West Peripheral Road	EB-L	*This study location is a ramp merge in the baseline condition and would become a signalized T-intersection under the build condition.*						739	1.17	110.2	F	78.2	E
		EB-T							316	0.24	3.3	A		
		WB-T							60	0.53	18.8	B	18.8	B
		WB-R							2,164	0.53	18.8	B		
		SB-L							0	0.00	38.7	D	-	-
		SB-R							0	0.00	38.7	D		
		Intersection							3,279	-	54.1	D	54.1	D
20	East Peripheral Road & North Arena Road / North Connector Road	WB-L	214	0.63	40.0	D	37.4	D	214	0.63	41.5	D	38.8	D
		WB-T	218	0.32	34.7	C			218	0.32	36.2	D		
		NB-L	765	0.86	34.5	C	34.5	C	765	0.86	34.5	C	34.5	C
		SB-R	786	0.89	38.4	D	38.4	D	823	0.93	43.6	D	43.6	D
		Intersection	1983	-	36.6	D	36.6	D	2,020	-	39.1	D	39.1	D
22	North Connector Road & HOC Boulevard	EB-T	36	0.32	37.1	D	37.7	D	36	0.32	37.1	D	37.7	D
		EB-R	112	0.42	38.7	D		A	112	0.42	38.7	D		A
		WB-L	182	0.48	36.3	D	36.3	D	182	0.48	36.3	D	36.3	D
		WB-T	0	0.48	36.3	D			0	0.48	36.3	D		
		SB-L	75	0.41	9.5	A	9.5	A	75	0.45	9.8	A	9.8	A
		SB-T	684	0.41	9.5	A			791	0.45	9.8	A		
		SB-R	515	0.41	9.5	A			515	0.45	9.8	A		
		Intersection	1604	-	15.0	B	15.0	B	1,711	-	15.0	B	15.0	B
E1	Paterson Plank Road (NJ Route 120) & NB NJ Route 17 Ramp	EB-T	945	0.34	15.3	B	15.3	B	1,006	0.37	15.6	B	15.6	B
		WB-T	432	0.21	14.0	B	5.1	A	432	0.21	14.0	B	4.9	A
		WB-R	911	0.48	0.2	A			993	0.53	0.3	A		
		NB-L	290	0.52	31.8	C	31.1	C	290	0.52	31.8	C	31.1	C
		NB-R	77	0.08	26.2	C			77	0.08	26.2	C		
		Intersection	2,655	-	12.6	B	12.6	B	2,798	-	12.4	B	12.4	B
E2	Paterson Plank Road (NJ Route 120) & Murray Hill Road	EB-T	989	0.38	12.7	B	12.7	B	1,050	0.40	12.7	B	12.7	B
		EB-R	45	0.38	12.7	B			45	0.40	12.7	B		
		WB-T	1,296	0.48	13.6	B	13.6	B	1,378	0.51	13.7	B	13.7	B
		NB-L	44	0.10	24.5	C	24.3	C	44	0.10	24.6	C	24.4	C
		NB-T	2	0.04	23.9	C			2	0.04	24.0	C		
		NB-R	52	0.04	23.9	C			52	0.04	24.0	C		
		SB-L	27	0.06	24.1	C	24.0	C	27	0.06	24.2	C	24.1	C
		SB-T	23	0.04	23.9	C			23	0.04	24.0	C		
		SB-R	6	0.04	23.9	C			6	0.04	24.0	C		
		Intersection	2,484	-	13.7	B	13.7	B	2,627	-	13.8	B	13.8	B
E3	Paterson Plank Road (NJ Route 120) & Gotham Parkway	EB-T	*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*						*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*					
		WB-T												
		WB-R												
		SB-L												
		SB-R												
		Intersection												
E4	Paterson Plank Road (NJ Route 120) & Existing Jughandles	EB-T	*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*						*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*					
		WB-T												
		NB-L												
		SB-L												
		Intersection												
V3	Paterson Plank Road (NJ Route 120) & Berry's Creek Road	EB-T	876	0.43	11.0	B	11.0	B	873	0.43	11.0	B	11.0	B
		WB-T	1174	0.57	13.0	B	13.0	B	1171	0.57	13.0	B	13.0	B
		NB-L	132	0.16	32.0	C	32.0	C	217	0.27	33.0	C	33.0	C
		Intersection	2182	-	13.4	B	13.4	B	2261	-	14.2	B	14.2	B

* - This intersection has a failing movement in the build condition. Because this intersection is greatly affected by events at the Continental Airlines Arena, it is anticipated that traffic control agents will be used to manage the intersection.

TABLE VIII-17
2013 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 No Build Baseline						2013 Build (Phase 1 & 2)					
			Volume	Movement v/c Ratio	Movement Delay (sec)	Movement LOS	Approach Delay (sec)	Approach LOS	Volume	Movement v/c Ratio	Movement Delay (sec)	Movement LOS	Approach Delay (sec)	Approach LOS
15	New Jersey Turnpike Interchange 16W Access Road & South Connector Road	EB-L	*This study location is an unsignalized T-instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*						83	0.45	33.6	C	33.6	C
		EB-T							135	0.45	33.6	C		
		EB-R							56	0.45	33.6	C		
		WB-L							68	0.41	33.2	C	33.2	C
		WB-T							92	0.41	33.2	C		
		WB-R							57	0.41	33.2	C		
		NB-L							54	0.75	13.8	B	13.8	B
		NB-T							259	0.75	13.8	B		
		NB-R							1,036	0.75	13.8	B		
		SB-L							141	0.96	77.4	E	31.5	C
		SB-T							168	0.24	7.0	A		
		SB-R							95	0.24	7.0	A		
		Intersection							2,244	-	21.1	C	21.1	C
17*	South Connector Road & West Peripheral Road	EB-L	*This study location is a ramp merge in the baseline condition and would become a signalized T-intersection under the build condition.*						939	1.53	406.4	F	293.4	F
		EB-T							366	0.28	3.5	A		
		WB-T							192	0.77	24.6	C	24.6	C
		WB-R							2,383	0.77	24.6	C		
		SB-L							80	0.41	42.0	D	42.0	D
		SB-R							70	0.40	42.1	D		
		Intersection							4,030	-	164.3	F	164.3	F
20**	East Peripheral Road & North Arena Road / North Connector Road	WB-L	227	0.66	41.2	D	38.3	D	227	0.64	43.7	D	41.0	D
		WB-T	218	0.31	35.2	D			290	0.41	38.8	D		
		NB-L	812	0.90	36.6	D	36.6	D	812	0.90	36.9	D	36.9	D
		SB-R	835	0.97	52.0	D	52	D	931	1.10	89.2	F	89.2	F
		Intersection	2,092	-	43.1	D	43.1	D	2,260	-	59.4	E	59.4	E
22	North Connector Road & HOC Boulevard	EB-T	38	0.30	35.8	D	36.3	D	38	0.30	35.8	D	36.3	D
		EB-R	118	0.39	37.2	D			118	0.39	37.2	D		
		WB-L	193	0.49	36.1	D	36.0	D	193	0.49	36.1	D	36.0	D
		WB-T	0	0.49	36.0	D			0	0.49	36.0	D		
		SB-L	80	0.44	10.6	B	10.6	B	80	0.54	11.6	B	11.6	B
		SB-T	713	0.44	10.6	B			986	0.54	11.6	B		
		SB-R	`	0.44	10.6	B			547	0.54	11.6	B		
		Intersection	1,142	-	15.9	B	15.9	B	1,962	-	16.0	B	16.0	B
E1	Paterson Plank Road (NJ Route 120) & NB NJ Route 17 Ramp	EB-T	974	0.36	15.4	B	15.4	B	1,127	0.41	16.1	B	16.1	B
		WB-T	445	0.22	14.0	B	5.1	A	445	0.22	14.0	B	14.0	B
		WB-R	939	0.50	0.2	A			1,093	0.59	0.6	A		
		NB-L	299	0.54	32.2	C	31.4	C	299	0.54	32.2	C	32.2	C
		NB-R	79	0.09	26.2	C			79	0.09	26.2	C		
		Intersection	2,736	-	12.7	B	12.7	B	3,043	-	12.5	B	12.5	B
E2	Paterson Plank Road (NJ Route 120) & Murray Hill Road	EB-T	1,019	0.39	12.9	B	12.9	B	1,172	0.45	13.5	B	13.5	B
		EB-R	47	0.39	12.9	B			47	0.45	13.5	B		
		WB-T	1,335	0.49	13.7	B	13.7	B	1,489	0.55	14.5	B	14.5	B
		NB-L	46	0.11	24.5	C	24.4	C	46	0.11	24.5	C	24.4	C
		NB-T	2	0.04	23.9	C			2	0.04	23.9	C		
		NB-R	53	0.04	23.9	C			53	0.04	23.9	C		
		SB-L	28	0.06	24.1	C	24.0	C	28	0.06	24.1	C	24.0	C
		SB-T	24	0.04	23.9	C			24	0.04	23.9	C		
		SB-R	6	0.04	23.9	C			6	0.04	23.9	C		
		Intersection	2,560	-	13.9	B	13.9	B	2,867	-	14.5	B	14.5	B
E3	Paterson Plank Road (NJ Route 120) & Gotham Parkway	EB-T	*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*						*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*					
		WB-T												
		WB-R												
		SB-L												
		SB-R												
		Intersection												
E4	Paterson Plank Road (NJ Route 120) & Existing Jughandles	EB-T	*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*						*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*					
		WB-T												
		NB-L												
		SB-L												
		Intersection												
V3	Paterson Plank Road (NJ Route 120) & Berry's Creek Road	EB-T	902	0.44	11.2	B	11.2	B	908	0.44	11.2	B	11.2	B
		WB-T	1209	0.59	13.3	B	13.3	B	1193	0.58	13.2	B	13.2	B
		NB-L	136	0.33	33.8	C	33.8	C	306	0.38	34.1	C	34.1	C
		Intersection	2247	-	13.7	B	13.7	B	2407	-	15.1	B	15.1	B

* - This intersection has a failing movement in the Build condition. Because this intersection is greatly affected by events at the Continental Airlines Arena, it is anticipated that traffic control agents will be used to manage the intersection.

** - This intersection has a failing movement in the Build condition. Signal optimization would result in all of the intersection movements opperating at an acceptable LOS.

TABLE VIII-18
2010 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2010 No Build Baseline						2010 Build (Phase 1)					
			Movement				Approach		Movement				Approach	
			Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS	Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS
15	New Jersey Turnpike Interchange 16W Access Road & South Connector Road	EB-L	*This study location is an unsignalized T-intersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*						94	0.89	66.2	E	66.2	E
		EB-T							31	0.89	66.2	E		
		EB-R							101	0.89	66.2	E		
		WB-L							0	0.29	32.2	C	32.2	C
		WB-T							4	0.29	32.2	C		
		WB-R							97	0.29	32.2	C		
		NB-L							41	0.45	8.6	A	8.6	A
		NB-T							252	0.45	8.6	A		
		NB-R							510	0.45	8.6	A		
		SB-L							189	0.56	14.6	B	10.8	B
		SB-T							428	0.49	9.5	A		
		SB-R							117	0.49	9.5	A		
		Intersection							1,864	-	17.7	B	17.7	B
17	South Connector Road & West Peripheral Road	EB-L	*This study location is a ramp merge in the baseline condition and would become a signalized T-intersection under the build condition.*						190	0.34	6.9	A	4.8	A
		EB-T							540	0.41	4.1	A		
		WB-T							101	0.66	21.6	C	21.6	C
		WB-R							1,320	0.66	21.6	C		
		SB-L							0	0.00	38.7	D	-	-
		SB-R							0	0.00	38.7	D		
		Intersection							2,151	-	14.1	B	14.1	B
20	East Peripheral Road & North Arena Road / North Connector Road	WB-L	94	0.42	41.3	D	47.3	D	94	0.42	43.2	D	49.2	D
		WB-T	365	0.81	48.9	D			365	0.81	50.8	D		
		NB-L	1,210	0.90	23.8	C	23.8	C	1,210	0.92	25.6	C	25.6	C
		SB-R	580	0.88	43.7	D	43.7	D	634	0.93	49.4	D	49.4	D
		Intersection	2,249	-	33.8	C	33.8	C	2,303	-	36.8	D	36.8	D
22	North Connector Road & HOC Boulevard	EB-T	9	0.24	36.6	D	37.6	D	9	0.24	36.6	D	37.6	D
		EB-R	114	0.42	38.8	D			114	0.42	38.8	D		
		WB-L	170	0.46	34.7	C	34.7	C	170	0.46	34.7	C	34.7	C
		WB-T	0	0.46	34.7	C			0	0.46	34.7	C		
		SB-L	113	0.31	8.4	A	8.4	A	113	0.35	8.7	A	8.7	A
		SB-T	748	0.31	8.4	A			895	0.35	8.7	A		
		SB-R	98	0.31	8.4	A			98	0.35	8.7	A		
		Intersection	1,252	-	14.8	B	14.8	B	1,399	-	14.4	B	14.4	B
E1	Paterson Plank Road (NJ Route 120) & NB NJ Route 17 Ramp	EB-T	1,224	0.45	16.6	B	16.6	B	1,308	0.48	17.0	B	17.0	B
		WB-T	493	0.24	14.3	B	5.2	A	493	0.24	14.3	B	5.4	A
		WB-R	1,209	0.67	1.0	A			1,327	0.74	1.8	A		
		NB-L	402	0.73	38.3	D	36.9	D	402	0.73	38.3	D	36.9	D
		NB-R	68	0.11	26.4	C			68	0.11	26.4	C		
		Intersection	3,396	-	14.1	B	14.1	B	3,598	-	14.1	B	14.1	B
E2	Paterson Plank Road (NJ Route 120) & Murray Hill Road	EB-T	1,222	0.46	13.7	B	13.7	B	1,306	0.49	14.1	B	14.1	B
		EB-R	34	0.46	13.7	B			34	0.49	14.1	B		
		WB-T	1,610	0.59	15.1	B	15.1	B	1,728	0.64	15.8	B	15.8	B
		NB-L	73	0.17	25.2	C	24.8	C	73	0.17	25.2	C	24.8	C
		NB-T	6	0.06	24.1	C			6	0.06	24.1	C		
		NB-R	47	0.06	24.1	C			47	0.06	24.1	C		
		SB-L	37	0.08	24.4	C	24.2	C	37	0.08	24.4	C	24.2	C
		SB-T	22	0.04	23.9	C			22	0.04	23.9	C		
		SB-R	11	0.04	23.9	C			11	0.04	23.9	C		
		Intersection	3,062	-	15.0	B	15.0	B	3,264	-	15.5	B	15.5	B
E3	Paterson Plank Road (NJ Route 120) & Gotham Parkway	EB-T	*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*						*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*					
		WB-T												
		WB-R												
		SB-L												
		SB-R												
		Intersection												
E4	Paterson Plank Road (NJ Route 120) & Existing Jughandles	EB-T	*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*						*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*					
		WB-T												
		NB-T												
		SB-T												
		Intersection												
V3	Paterson Plank Road (NJ Route 120) & Berry's Creek Road	EB-T	1,143	0.56	12.8	B	12.8	B	1,138	0.56	12.7	B	12.7	B
		WB-T	1,377	0.67	14.9	B	14.9	B	1,372	0.67	14.8	B	14.8	B
		NB-L	244	0.30	33.3	C	33.3	C	367	0.46	35.0	D	35.0	D
		Intersection	2,764	-	15.6	B	15.6	B	2,877	-	16.6	B	16.6	B

TABLE VIII-19
2013 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 No Build Baseline Movement Volume	v/c Ratio	Delay (sec)	LOS	Approach Delay (sec)	LOS	2013 Build (Phase 1 & 2) Movement Volume	v/c Ratio	Delay (sec)	LOS	Approach Delay (sec)	LOS
15	New Jersey Turnpike Interchange 16W Access Road & South Connector Road	EB-L	*This study location is an unsignalized T-instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*						103	0.78	43.5	D	43.5	D
		EB-T							214	0.78	43.5	D		
		EB-R							107	0.78	43.5	D		
		WB-L							122	0.81	46.3	D	46.3	D
		WB-T							157	0.81	46.3	D		
		WB-R							97	0.81	46.3	D		
		NB-L							43	0.59	10.3	B	10.3	B
		NB-T							324	0.59	10.3	B		
		NB-R							669	0.59	10.3	B		
		SB-L							199	0.82	36.3	D	16.9	B
		SB-T							497	0.58	11.0	B		
		SB-R							147	0.58	11.0	B		
		Intersection							2,679	-	22.3	C	22.3	C
17	South Connector Road & West Peripheral Road	EB-L	*This study location is a ramp merge in the baseline condition and would become a signalized T-intersection under the build condition.*						455	0.98	65.5	E	30.0	C
		EB-T							634	0.49	4.5	A		
		WB-T							349	1.03	56.6	E	56.6	E
		WB-R							1,580	1.03	56.6	E		
		SB-L							116	0.61	46.8	D	51.0	D
		SB-R							123	0.72	55.0	D		
		Intersection							3,257	-	45.6	D	45.6	D
20**	East Peripheral Road & North Arena Road / North Connector Road	WB-L	100	0.45	42.6	D	53.2	D	100	0.45	46.2	D	116.6	F
		WB-T	384	0.87	56.0	E			506	1.15	130.7	F		
		NB-L	1,284	0.95	29.2	C	29.2	C	1,284	0.95	29.2	C	29.2	C
		SB-R	616	0.93	50.9	D	50.9	D	811	1.23	147.6	F	147.6	F
		Intersection	2,384	-	39.7	D	39.7	D	2,701	-	84.4	F	84.4	F
22	North Connector Road & HOC Boulevard	EB-T	9	0.25	36.5	D	37.6	D	9	0.25	36.5	D	37.6	D
		EB-R	120	0.44	38.8	D			120	0.44	38.8	D		
		WB-L	180	0.48	35.1	D	35.1	D	180	0.48	35.1	D	35.1	D
		WB-T	0	0.48	35.1	D			0	0.48	35.1	D		
		SB-L	120	0.33	8.7	A	8.7	A	120	0.47	9.9	A	9.9	A
		SB-T	791	0.33	8.7	A			1,225	0.47	9.9	A		
		SB-R	104	0.33	8.7	A			104	0.47	9.9	A		
		Intersection	1,324	-	15.1	B	15.1	B	1,758	-	14.5	B	14.5	B
E1	Paterson Plank Road (NJ Route 120) & NB NJ Route 17 Ramp	EB-T	1,261	0.46	16.8	B	16.8	B	1,500	0.55	18.1	B	18.1	B
		WB-T	508	0.25	14.4	B	5.3	A	508	0.25	14.4	B	7.0	A
		WB-R	1,246	0.69	1.2	A			1,502	0.85	4.2	A		
		NB-L	414	0.75	39.3	D	37.8	D	414	0.75	39.3	D	37.8	D
		NB-R	70	0.11	26.5	C			70	0.11	26.5	C		
		Intersection	3,499	-	14.4	B	14.4	B	3,994	-	15.2	B	15.2	B
E2	Paterson Plank Road (NJ Route 120) & Murray Hill Road	EB-T	1,259	0.48	13.9	B	13.9	B	1,498	0.57	15.1	B	15.1	B
		EB-R	35	0.48	13.9	B			35	0.57	15.1	B		
		WB-T	1,659	0.61	15.4	B	15.4	B	1,915	0.71	17.0	B	17.0	B
		NB-L	75	0.17	25.2	C	24.9	C	75	0.17	25.2	C	24.9	C
		NB-T	6	0.06	24.1	C			6	0.06	24.1	C		
		NB-R	48	0.06	24.1	C			48	0.06	24.1	C		
		SB-L	37	0.08	25.4	C	24.2	C	37	0.08	24.4	C	24.2	C
		SB-T	23	0.04	23.9	C			23	0.04	23.9	C		
		SB-R	11	0.04	23.9	C			11	0.04	23.9	C		
		Intersection	3,153	-	15.2	B	15.2	B	3,648	-	16.6	B	16.6	B
E3	Paterson Plank Road (NJ Route 120) & Gotham Parkway	EB-T	*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*						*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*					
		WB-T												
		WB-R												
		SB-L												
		SB-R												
		Intersection												
E4	Paterson Plank Road (NJ Route 120) & Existing Jughandles	EB-T	*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*						*This intersection is not a traffic impact location because it does not meet the 100-trip threshold criteria set forth in the NJDOT Access Code.*					
		WB-T												
		NB-T												
		SB-T												
		Intersection												
V3	Paterson Plank Road (NJ Route 120) & Berry's Creek Road	EB-T	1,177	0.57	13.0	B	13.0	B	1,184	0.58	13.1	B	13.1	B
		WB-T	1,419	0.69	15.3	B	15.3	B	1,395	0.68	15.1	B	15.1	B
		NB-L	251	0.31	33.4	C	33.4	C	531	0.66	38.6	D	38.6	D
		Intersection	2,847	-	16.0	B	16.0	B	3,110	-	18.3	B	18.3	B

** - This intersection has a failing movement in the Build condition. Signal optimization would result in all of the intersection movements opperating at an acceptable LOS.

TABLE VIII-20
2010 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2010 No Build Baseline						2010 Build (Phase 1)					
			Movement				Approach		Movement				Approach	
			Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS	Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS
7	Washington Avenue (CR 501) & Paterson Plank Road	WB-R	52	0.15	15.7	C	15.7	C	51	0.14	15.8	C	15.8	C
		NB-T	1,231	-	-	-	-	-	1,239	-	-	-	-	-
		NB-R	186	-	-	-	-	-	186	-	-	-	-	-
		Intersection	1,469	-	-	-	-	-	1,476	-	-	-	-	-
11	Paterson Plank Road & WB Route 120 Ramp	EB-T	122	-	-	-	-	-	122	-	-	-	-	-
		EB-R	77	-	-	-	-	-	77	-	-	-	-	-
		WB-L	171	0.14	8.1	A	-	-	171	0.14	8.1	A	-	-
		WB-T	33	-	-	-	-	-	32	-	-	-	-	-
		Intersection	403	-	-	-	-	-	402	-	-	-	-	-
15	South Connector Road & New Jersey Turnpike Interchange 16W	EB-T	0	0.00	14.5	B	-	-	*This study location is an unsignalized T-intersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*					
		NB-L	321	-	-	-	-	-						
		NB-R	293	-	-	-	-	-						
		Intersection	614	-	-	-	-	-						
V1	West Peripheral Road & SB NJ Route 120 Entrance/Exit Ramps	WB-L	0	0.00	8.8	A	-	-	0	0.00	10.1	B	-	-
		WB-R	494						501					
		NB-T	0	-	-	-	-	-	0	-	-	-	-	-
		NB-R	890	-	-	-	-	-	933	-	-	-	-	-
		SB-L	20	0.01	7.2	A	-	-	101	0.07	7.4	A	-	-
		SB-T	0	-	-	-	-	-	0	-	-	-	-	-
		Intersection	1,404	-	-	-	-	-	1,535	-	-	-	-	-
V2	North Connector Road & West Perpherial Road	EB-T	33	-	-	-	-	-	84	-	-	-	-	-
		EB-R	20	-	-	-	-	-	101	-	-	-	-	-
		WB-L	0	0.00	7.3	A	-	-	0	0.00	7.6	A	-	-
		WB-T	72	-	-	-	-	-	202	-	-	-	-	-
		NB-L	96	0.11	9.5	A	9.5	A	104	0.16	11.0	B	11.0	B
		NB-R	295	-	-	-			294	-	-	-		
		Intersection	516	-	-	-	-	-	785	-	-	-	-	-
V4	Berry's Creek Road & Valet Road	WB-L	117	0.39	22.8	C	17.6	C	134	0.38	20.3	C	14.2	B
		WB-R	82	0.11	10.1	B			422	0.48	12.3	B		
		NB-T	397	-	-	-	-	-	170	-	-	-	-	-
		NB-R	49	-	-	-	-	-	58	-	-	-	-	-
		SB-L	64	0.06	8.4	A	-	-	113	0.09	7.8	A	-	-
		SB-T	331				-	-	367				-	-
		Intersection	1,040	-	-	-	-	-	1,264	-	-	-	-	-
V5	Berry's Creek Road & Training Way	EB-L	36	0.09	13.7	B	13.7	B	36	0.10	14.8	B	14.7	B
		EB-T	0	0.00	15.3	C			5	0.01	14.4	B		
		EB-R	6	-	-	-			6	-	-	-		
		WB-L	0	-	-	-	-	-	25	0.09	14.5	B	12.6	B
		WB-T	0	-	-	-	-	-	19	-	-	-		
		WB-R	0	-	-	-	-	-	24	0.05	10.6	B		
		NB-L	11	0.01	7.8	A	-	-	87	0.07	7.7	A	-	-
		NB-T	411	-	-	-	-	-	169	-	-	-	-	-
		NB-R	0	-	-	-	-	-	24	-	-	-	-	-
		SB-L	0	0.00	8.2	A	-	-	17	0.01	7.7	A	-	-
		SB-T	233	-	-	-	-	-	144	-	-	-	-	-
		SB-R	182	-	-	-	-	-	187	-	-	-	-	-
		Intersection	879	-	-	-	-	-	743	-	-	-	-	-
V6	North Service Road & Training Way	EB-L	20	0.01	7.2	A	-	-	46	0.03	7.3	A	-	-
		EB-T	89	-	-	-	-	-	194	-	-	-	-	-
		WB-T	0	-	-	-	-	-	19	-	-	-	-	-
		WB-R	0	-	-	-	-	-	5	-	-	-	-	-
		SB-L	127	0.16	9.8	A	9.5	A	230	0.35	12.6	B	11.5	B
		SB-R	46	0.05	8.5	A			88	0.09	8.7	A		
		Intersection	282	-	-	-	-	-	582	-	-	-	-	-
V7	Berry's Creek Road / South Connector Road & North Service Road	EB-T	239	-	-	-	-	-	181	-	-	-	-	-
		EB-R	0	-	-	-	-	-	1	-	-	-	-	-
		WB-L	0	0.00	7.8	A	-	-	23	0.02	7.7	A	-	-
		WB-T	321	-	-	-			169	-	-	-		
		NB-L	81	0.16	12.8	B	12.8	B	118	0.28	12.0	B	12.0	B
		NB-R	0	-	-	-			68	-	-	-		
		Intersection	641	-	-	-	-	-	560	-	-	-	-	-
V9	Inner Loop Road & Valet Road	EB-L	*This intersection does not existing under the no-build baseline condition and would become an unsignalized T-Intersection under the build condition.*						62	0.42	43.2	E	19.2	C
		EB-R							169	0.22	10.4	B		
		NB-L							340	0.30	9.2	A	-	-
		NB-T							123	-	-	-	-	-
		SB-T							121	-	-	-	-	-
		SB-R							185	-	-	-	-	-
		Intersection							1,000	-	-	-	-	-

TABLE VIII-21
2013 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 No Build Baseline						2013 Build (Phase I & 2)					
			Volume	Movement v/c Ratio	Movement Delay (sec)	Movement LOS	Approach Delay (sec)	Approach LOS	Volume	Movement v/c Ratio	Movement Delay (sec)	Movement LOS	Approach Delay (sec)	Approach LOS
7	Washington Avenue (CR 501) & Paterson Plank Road	WB-R	54	0.16	16.6	C	16.6	C	47	0.14	16.5	C	16.5	C
		NB-T	1,296	-	-	-	-	-	1,317	-	-	-	-	-
		NB-R	197	-	-	-	-	-	197	-	-	-	-	-
		Intersection	1,547	-	-	-	-	-	1,561	-	-	-	-	-
11	Paterson Plank Road & WB Route 120 Ramp	EB-T	129	-	-	-	-	-	129	-	-	-	-	-
		EB-R	88	-	-	-	-	-	88	-	-	-	-	-
		WB-L	182	0.15	8.2	A	-	-	175	0.15	8.2	A	-	-
		WB-T	35	-	-	-	-	-	28	-	-	-	-	-
		Intersection	434	-	-	-	-	-	420	-	-	-	-	-
15	South Connector Road & New Jersey Turnpike Interchange 16W	EB-T	0	0.00	15.0	C	-	-	*This study location is an unsignalized T-instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*					
		NB-L	341	-	-	-	-	-						
		NB-R	311	-	-	-	-	-						
		Intersection	652	-	-	-	-	-						
V1	West Peripheral Road & SB NJ Route 120 Entrance/Exit Ramps	WB-L	0	0.00	8.8	A	-	-	55	0.12	13.0	B	13.0	B
		WB-R	524						526					
		NB-T	0	-	-	-	-	-	122	-	-	-	-	-
		NB-R	944	-	-	-	-	-	1,272	-	-	-	-	-
		SB-L	22	0.01	7.3	A	-	-	108	0.08	7.7	A	-	-
		SB-T	0	-	-	-	-	-	117	-	-	-	-	-
		Intersection	1,490	-	-	-	-	-	2,200	-	-	-	-	-
V2	North Connector Road & West Perpherial Road	EB-T	35	-	-	-	-	-	104	-	-	-	-	-
		EB-R	22	-	-	-	-	-	156	-	-	-	-	-
		WB-L	0	0.00	7.3	A	-	-	69	0.06	8.0	A	-	-
		WB-T	77	-	-	-	-	-	227	-	-	-	-	-
		NB-L	102	0.12	9.6	A	9.6	A	161	0.35	16.2	C	16.2	C
		NB-R	314	-	-	-			379	-	-	-		
		Intersection	550	-	-	-	-	-	1,096	-	-	-	-	-
V4	Berry's Creek Road & Valet Road	WB-L	120	0.42	24.6	C	19.1	C	137	0.61	40.5	E	20.5	C
		WB-R	76	0.11	10.2	B			517	0.62	15.2	C		
		NB-T	418	-	-	-	-	-	224	-	-	-	-	-
		NB-R	51	-	-	-	-	-	60	-	-	-	-	-
		SB-L	66	0.06	8.5	A	-	-	192	0.16	8.2	A	-	-
		SB-T	341				-	-	394					
		Intersection	1,072	-	-	-	-	-	1,524	-	-	-	-	-
V5	Berry's Creek Road & Training Way	EB-L	38	0.10	14.2	B	14.2	B	38	0.17	22.5	C	22.4	C
		EB-T	0	0.00	15.9	C			5	0.01	19.9	C		
		EB-R	6	-	-	-			6	-	-	-		
		WB-L	0	-	-	-	-	-	25	0.15	21.8	C	17.2	C
		WB-T	0	-	-	-	-	-	19	-	-	-		
		WB-R	0	-	-	-	-	-	24	0.07	12.5	B		
		NB-L	11	0.01	7.8	A	-	-	177	0.14	8.0	A	-	-
		NB-T	436	-	-	-	-	-	227	-	-	-	-	-
		NB-R	0	-	-	-	-	-	24	-	-	-	-	-
		SB-L	0	0.00	8.3	A	-	-	17	0.01	7.8	A	-	-
		SB-T	248	-	-	-	-	-	169	-	-	-	-	-
		SB-R	193	-	-	-	-	-	198	-	-	-	-	-
		Intersection	932	-	-	-	-	-	929	-	-	-	-	-
V6	North Service Road & Training Way	EB-L	22	0.01	7.3	A	-	-	48	0.03	7.4	A	-	-
		EB-T	94	-	-	-	-	-	325	-	-	-	-	-
		WB-T	0	-	-	-	-	-	39	-	-	-	-	-
		WB-R	0	-	-	-	-	-	5	-	-	-	-	-
		SB-L	135	0.17	9.9	A	9.5	A	328	0.57	18.2	C	16.2	C
		SB-R	49	0.05	8.5	A			91	0.09	8.8	A		
		Intersection	300	-	-	-	-	-	836	-	-	-	-	-
V7	Berry's Creek Road / South Connector Road & North Service Road	EB-T	254	-	-	-	-	-	206	-	-	-	-	-
		EB-R	0	-	-	-	-	-	1	-	-	-	-	-
		WB-L	0	0.00	7.8	A	-	-	43	0.03	7.8	A	-	-
		WB-T	341	-	-	-			312	-	-	-		
		NB-L	86	0.18	13.3	B	13.3	B	123	0.50	15.3	C	15.3	C
		NB-R	0	-	-	-			194	-	-	-		
		Intersection	681	-	-	-	-	-	879	-	-	-	-	-
V9	Inner Loop Road & Valet Road	EB-L	*This intersection does not existing under the no-build baseline condition and would become an unsignalized T-intersection under the build condition.*						114	1.15	208.4	F	81.6	F
		EB-R							205	0.28	11.3	B		
		NB-L							393	0.38	10.1	B	-	-
		NB-T							146	-	-	-	-	-
		SB-T							144	-	-	-	-	-
		SB-R							244	-	-	-	-	-
		Intersection							1,246	-	-	-	-	-

TABLE VIII-22
2010 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2010 No Build Baseline						2010 Build (Phase 1)					
				Movement			Approach			Movement			Approach	
			Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS	Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS
7	Washington Avenue (CR 501) & Paterson Plank Road	WB-R	28	0.05	11.5	B	11.5	B	27	0.05	11.5	B	11.5	B
		NB-T	540	-	-	-	-	-	546	-	-	-	-	-
		NB-R	329	-	-	-	-	-	329	-	-	-	-	-
		Intersection	897	-	-	-	-	-	902	-	-	-	-	-
11	Paterson Plank Road & WB Route 120 Ramp	EB-T	205	-	-	-	-	-	205	-	-	-	-	-
		EB-R	24	-	-	-	-	-	24	-	-	-	-	-
		WB-L	39	0.03	7.8	A	-	-	39	0.03	7.8	A	-	-
		WB-T	33	-	-	-	-	-	32	-	-	-	-	-
		Intersection	301	-	-	-	-	-	300	-	-	-	-	-
15	South Connector Road & New Jersey Turnpike Interchange 16W	EB-T	0	0.00	24.5	C	-	-	*This study location is an unsignalized T-instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*					
		NB-L	205	-	-	-	-	-						
		NB-R	900	-	-	-	-	-						
		Intersection	1,105	-	-	-	-	-						
V1	West Peripheral Road & SB NJ Route 120 Entrance/Exit Ramps	WB-L	0	0.00	9.0	A	-	-	0	0.00	10.3	B	-	-
		WB-R	1146	-	-	-	-	-	1152	-	-	-	-	-
		NB-T	0	-	-	-	-	-	0	-	-	-	-	-
		NB-R	772	-	-	-	-	-	811	-	-	-	-	-
		SB-L	37	0.02	7.3	A	-	-	111	0.07	7.4	A	-	-
		SB-T	0	-	-	-	-	-	0	-	-	-	-	-
		Intersection	1955	-	-	-	-	-	2074	-	-	-	-	-
V2	North Connector Road & West Perpherial Road	EB-T	57	-	-	-	-	-	95	-	-	-	-	-
		EB-R	11	-	-	-	-	-	85	-	-	-	-	-
		WB-L	26	0.02	7.4	A	-	-	26	0.02	7.7	A	-	-
		WB-T	126	-	-	-	-	-	235	-	-	-	-	-
		NB-L	53	0.07	10.1	B	10.1	B	60	0.10	11.4	B	11.4	B
		NB-R	729	-	-	-			728	-	-	-		
		Intersection	1002	-	-	-	-	-	1229	-	-	-	-	-
V4	Berry's Creek Road & Valet Road	WB-L	52	0.11	12.7	B	11.2	B	52	0.13	14.4	B	11.0	B
		WB-R	36	0.04	9.0	A			99	0.11	9.2	A		
		NB-T	117	-	-	-	-	-	139	-	-	-	-	-
		NB-R	66	-	-	-	-	-	66	-	-	-	-	-
		SB-L	93	0.07	7.8	A	-	-	141	0.11	7.8	A	-	-
		SB-T	89	-	-	-	-	-	105	-	-	-	-	-
		Intersection	453	-	-	-	-	-	602	-	-	-	-	-
V5	Berry's Creek Road & Training Way	EB-L	43	0.08	11.6	B	11.6	B	43	0.10	13.1	B	13.1	B
		EB-T	0	0.00	13.4	B			4	0.00	13.6	B		
		EB-R	2	-	-	-			2	-	-	-		
		WB-L	0	-	-	-	-	-	22	0.07	14.0	B	12.3	B
		WB-T	0	-	-	-	-	-	18	-	-	-		
		WB-R	0	-	-	-	-	-	22	0.05	10.6	B		
		NB-L	0	0.00	7.4	A	-	-	64	0.04	7.4	A	-	-
		NB-T	418	-	-	-	-	-	264	-	-	-	-	-
		NB-R	0	-	-	-	-	-	23	-	-	-	-	-
		SB-L	0	0.00	8.3	A	-	-	16	0.01	7.9	A	-	-
		SB-T	105	-	-	-	-	-	51	-	-	-	-	-
		SB-R	90	-	-	-	-	-	90	-	-	-	-	-
		Intersection	658	-	-	-	-	-	619	-	-	-	-	-
V6	North Service Road & Training Way	EB-L	38	0.03	7.3	A	-	-	42	0.03	7.3	A	-	-
		EB-T	156	-	-	-	-	-	252	-	-	-	-	-
		WB-T	0	-	-	-	-	-	17	-	-	-	-	-
		WB-R	0	-	-	-	-	-	0	-	-	-	-	-
		SB-L	68	0.09	10.0	A	9.6	A	138	0.21	11.5	B	10.8	B
		SB-R	28	0.03	8.4	A			40	0.04	8.5	A		
		Intersection	290	-	-	-	-	-	489	-	-	-	-	-
V7	Berry's Creek Road / South Connector Road & North Service Road	EB-T	107	-	-	-	-	-	74	-	-	-	-	-
		EB-R	0	-	-	-	-	-	1	-	-	-	-	-
		WB-L	0	0.00	7.4	A	-	-	16	0.01	7.4	A	-	-
		WB-T	205	-	-	-	-	-	118	-	-	-	-	-
		NB-L	153	0.22	11.3	B	11.3	B	173	0.32	11.2	B	11.2	B
		NB-R	0						76					
		Intersection	465	-	-	-	-	-	458	-	-	-	-	-
V9	Inner Loop Road & Valet Road	EB-L	*This intersection does not existing under the no-build baseline condition and would become an unsignalized T-Intersection under the build condition.*						68	0.26	22.3	C	14.8	B
		EB-R							102	0.13	9.8	A		
		NB-L							217	0.19	8.6	A	-	-
		NB-T							112	-	-	-	-	-
		SB-T							116	-	-	-	-	-
		SB-R							179	-	-	-	-	-
		Intersection							794	-	-	-	-	-

TABLE VIII-23
2013 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 No Build Baseline						2013 Build (Phase 1 & 2)					
			Movement				Approach		Movement				Approach	
			Volume	V/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS	Volume	V/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS
7	Washington Avenue (CR 501) & Paterson Plank Road	WB-R	30	0.06	11.8	B	11.8	B	26	0.05	11.8	B	11.8	B
		NB-T	573	-	-	-	-	-	587	-	-	-	-	-
		NB-R	350	-	-	-	-	-	350	-	-	-	-	-
		Intersection	953	-	-	-	-	-	963	-	-	-	-	-
11	Paterson Plank Road & WB Route 120 Ramp	EB-T	217	-	-	-	-	-	217	-	-	-	-	-
		EB-R	45	-	-	-	-	-	45	-	-	-	-	-
		WB-L	41	0.04	7.9	A	-	-	38	0.03	7.9	A	-	-
		WB-T	35	-	-	-	-	-	31	-	-	-	-	-
		Intersection	338	-	-	-	-	-	331	-	-	-	-	-
15	South Connector Road & New Jersey Turnpike Interchange 16W	EB-T	0	0.00	26.6	D	-	-	*This study location is an unsignalized T-instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*					
		NB-L	217	-	-	-	-	-						
		NB-R	955	-	-	-	-	-						
		Intersection	1,172	-	-	-	-	-						
V1	West Peripheral Road & SB NJ Route 120 Entrance/Exit Ramps	WB-L	0	0.00	9.1	A	-	-	49	0.10	12.8	B	12.8	B
		WB-R	1217	-	-	-	-	-	1223	-	-	-	-	-
		NB-T	0	-	-	-	-	-	87	-	-	-	-	-
		NB-R	910	-	-	-	-	-	1138	-	-	-	-	-
		SB-L	39	0.03	7.3	A	-	-	117	0.08	7.6	A	-	-
		SB-T	0	-	-	-	-	-	136	-	-	-	-	-
		Intersection	2166	-	-	-	-	-	2750	-	-	-	-	-
V2	North Connector Road & West Perpherial Road	EB-T	61	-	-	-	-	-	106	-	-	-	-	-
		EB-R	12	-	-	-	-	-	135	-	-	-	-	-
		WB-L	27	0.02	7.4	A	-	-	118	0.10	8.1	A	-	-
		WB-T	134	-	-	-	-	-	260	-	-	-	-	-
		NB-L	56	0.08	10.2	B	10.2	B	98	0.27	17.3	C	17.3	C
		NB-R	774	-	-	-			825	-	-	-		
		Intersection	1064	-	-	-	-	-	1542	-	-	-	-	-
V4	Berry's Creek Road & Valet Road	WB-L	53	0.10	12.4	B	10.9	B	53	0.20	20.8	C	12.7	B
		WB-R	37	0.04	8.8	A			153	0.19	9.9	A		
		NB-T	121	-	-	-	-	-	175	-	-	-	-	-
		NB-R	68	-	-	-	-	-	68	-	-	-	-	-
		SB-L	96	0.07	7.7	A	-	-	213	0.18	8.4	A	-	-
		SB-T	92	-	-	-	-	-	122	-	-	-	-	-
		Intersection	467	-	-	-	-	-	784	-	-	-	-	-
V5	Berry's Creek Road & Training Way	EB-L	46	0.09	11.9	B	11.9	B	46	0.14	16.8	C	16.8	C
		EB-T	0	0.00	13.7	B			4	0.01	16.7	C		
		EB-R	2	-	-	-			2	-	-	-		
		WB-L	0	-	-	-	-	-	22	0.10	18.0	C	14.9	B
		WB-T	0	-	-	-	-	-	18	-	-	-		
		WB-R	0	-	-	-	-	-	22	0.06	11.7	B		
		NB-L	0	0.00	7.5	A	-	-	124	0.09	7.6	A	-	-
		NB-T	439	-	-	-	-	-	308	-	-	-	-	-
		NB-R	0	-	-	-	-	-	23	-	-	-	-	-
		SB-L	0	0.00	8.3	A	-	-	16	0.01	8.1	A	-	-
		SB-T	112	-	-	-	-	-	68	-	-	-	-	-
		SB-R	96	-	-	-	-	-	96	-	-	-	-	-
		Intersection	695	-	-	-	-	-	749	-	-	-	-	-
V6	North Service Road & Training Way	EB-L	41	0.03	7.3	A	-	-	45	0.03	7.3	A	-	-
		EB-T	165	-	-	-	-	-	368	-	-	-	-	-
		WB-T	0	-	-	-	-	-	29	-	-	-	-	-
		WB-R	0	-	-	-	-	-	0	-	-	-	-	-
		SB-L	73	0.10	10.2	B	9.7	A	203	0.35	13.9	B	13.0	B
		SB-R	29	0.03	8.4	A			41	0.04	8.5	A		
		Intersection	308	-	-	-	-	-	686	-	-	-	-	-
V7	Berry's Creek Road / South Connector Road & North Service Road	EB-T	114	-	-	-	-	-	91	-	-	-	-	-
		EB-R	0	-	-	-	-	-	1	-	-	-	-	-
		WB-L	0	0.00	7.5	A	-	-	28	0.02	7.5	A	-	-
		WB-T	217	-	-	-	-	-	213	-	-	-	-	-
		NB-L	162	0.24	11.5	B	11.5	B	182	0.49	13.5	B	13.5	B
		NB-R	0						183					
		Intersection	493	-	-	-	-	-	698	-	-	-	-	-
V9	Inner Loop Road & Valet Road	EB-L	*This intersection does not existing under the no-build baseline condition and would become an unsignalized T-intersection under the build condition.*						118	0.57	40.2	E	24.6	C
		EB-R							130	0.17	10.3	B		
		NB-L							246	0.23	9.0	A	-	-
		NB-T							123	-	-	-	-	-
		SB-T							135	-	-	-	-	-
		SB-R							223	-	-	-	-	-
		Intersection							975	-	-	-	-	-

TABLE VIII-24
2010 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2010 No Build Baseline						2010 Build (Phase 1)					
			Movement				Approach		Movement				Approach	
			Volume	V/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS	Volume	V/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS
7	Washington Avenue (CR 501) & Paterson Plank Road	WB-R	39	0.07	11.5	B	11.5	B	38	0.07	11.6	B	11.6	B
		NB-T	664	-	-	-	-	-	673	-	-	-	-	-
		NB-R	185	-	-	-	-	-	185	-	-	-	-	-
		Intersection	888	-	-	-	-	-	896	-	-	-	-	-
11	Paterson Plank Road & WB Route 120 Ramp	EB-T	163	-	-	-	-	-	163	-	-	-	-	-
		EB-R	15	-	-	-	-	-	15	-	-	-	-	-
		WB-L	18	0.01	7.7	A	-	-	17	0.01	7.7	A	-	-
		WB-T	38	-	-	-	-	-	37	-	-	-	-	-
		Intersection	234	-	-	-	-	-	232	-	-	-	-	-
15	South Connector Road & New Jersey Turnpike Interchange 16W	EB-T	0	0.00	16.0	C	-	-	*This study location is an unsignalized T-Instersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*					
		NB-L	205	-	-	-	-	-						
		NB-R	510	-	-	-	-	-						
		Intersection	715	-	-	-	-	-						
V1	West Peripheral Road & SB NJ Route 120 Entrance/Exit Ramps	WB-L	0	0.00	10.6	B	-	-	0	0.00	13.2	B	-	-
		WB-R	624	-	-	-	-	-	632	-	-	-	-	-
		NB-T	0	-	-	-	-	-	0	-	-	-	-	-
		NB-R	1,243	-	-	-	-	-	1,295	-	-	-	-	-
		SB-L	125	0.08	7.4	A	-	-	222	0.15	7.6	A	-	-
		SB-T	0	-	-	-	-	-	0	-	-	-	-	-
		Intersection	1,992	-	-	-	-	-	2,149	-	-	-	-	-
V2	North Connector Road & West Perpherial Road	EB-T	35	-	-	-	-	-	91	-	-	-	-	-
		EB-R	38	-	-	-	-	-	135	-	-	-	-	-
		WB-L	87	0.06	7.5	A	-	-	87	0.07	7.9	A	-	-
		WB-T	34	-	-	-	-	-	184	-	-	-	-	-
		NB-L	44	0.07	10.9	B	10.9	B	54	0.12	13.3	B	13.3	B
		NB-R	545	-	-	-			543	-	-	-		
		Intersection	783	-	-	-	-	-	1,094	-	-	-	-	-
V4	Berry's Creek Road & Valet Road	WB-L	79	0.16	13.3	B	11.3	B	79	0.23	17.7	C	12.4	B
		WB-R	81	0.10	9.3	A			173	0.21	10.1	B		
		NB-T	206	-	-	-	-	-	237	-	-	-	-	-
		NB-R	100	-	-	-	-	-	100	-	-	-	-	-
		SB-L	77	0.06	7.9	A	-	-	144	0.12	8.1	A	-	-
		SB-T	75	-	-	-	-	-	97	-	-	-	-	-
		Intersection	618	-	-	-	-	-	830	-	-	-	-	-
V5	Berry's Creek Road & Training Way	EB-L	87	0.29	20.3	C	20.3	C	87	0.30	19.8	C	19.5	C
		EB-T	0	0.00	19.3	C			18	0.03	16.4	C		
		EB-R	31	-	-	-			31	-	-	-		
		WB-L	0	0.00	17.5	C	-	-	32	0.11	18.6	C	16.0	C
		WB-T	0	-	-	-	-	-	39	-	-	-		
		WB-R	0	-	-	-	-	-	31	0.17	14.7	B		
		NB-L	11	0.01	8.1	A	-	-	101	0.07	7.5	A	-	-
		NB-T	510	-	-	-	-	-	346	-	-	-	-	-
		NB-R	0	-	-	-	-	-	13	-	-	-	-	-
		SB-L	0	0.00	8.6	A	-	-	22	0.02	8.2	A	-	-
		SB-T	360	-	-	-	-	-	55	-	-	-	-	-
		SB-R	140	-	-	-	-	-	140	-	-	-	-	-
		Intersection	1,139	-	-	-	-	-	915	-	-	-	-	-
V6	North Service Road & Training Way	EB-L	29	0.02	7.3	A	-	-	47	0.03	7.4	A	-	-
		EB-T	179	-	-	-	-	-	282	-	-	-	-	-
		WB-T	0	-	-	-	-	-	28	-	-	-	-	-
		WB-R	0	-	-	-	-	-	0	-	-	-	-	-
		SB-L	260	0.35	11.9	B	10.7	B	372	0.61	18.7	C	15.4	C
		SB-R	185	0.19	9.1	A			202	0.21	9.3	A		
		Intersection	653	-	-	-	-	-	931	-	-	-	-	-
V7	Berry's Creek Road / South Connector Road & North Service Road	EB-T	406	-	-	-	-	-	132	-	-	-	-	-
		EB-R	0	-	-	-	-	-	1	-	-	-	-	-
		WB-L	0	0.00	7.7	A	-	-	27	0.02	7.6	A	-	-
		WB-T	205	-	-	-	-	-	135	-	-	-	-	-
		NB-L	159	0.32	14.6	B	14.6	B	168	0.37	12.5	B	12.5	B
		NB-R	0						94					
		Intersection	770	-	-	-	-	-	557	-	-	-	-	-
V9	Inner Loop Road & Valet Road	EB-L	*This intersection does not existing under the no-build baseline condition and would become an unsignalized T-intersection under the build condition.*						73	0.34	27.9	D	14.8	B
		EB-R							372	0.45	12.2	B		
		NB-L							256	0.21	8.5	A	-	-
		NB-T							153	-	-	-	-	-
		SB-T							160	-	-	-	-	-
		SB-R							78	-	-	-	-	-
		Intersection							1,092	-	-	-	-	-

TABLE VIII-25
2013 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 No Build Baseline						2013 Build (Phase 1 & 2)					
			Movement				Approach		Movement				Approach	
			Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS	Volume	v/c Ratio	Delay (sec)	LOS	Delay (sec)	LOS
7	Washington Avenue (CR 501) & Paterson Plank Road	WB-R	41	0.08	11.8	B	11.8	B	33	0.06	11.8	B	11.8	B
		NB-T	697	-	-	-	-	-	721	-	-	-	-	-
		NB-R	196	-	-	-	-	-	196	-	-	-	-	-
		Intersection	934	-	-	-	-	-	950	-	-	-	-	-
11	Paterson Plank Road & WB Route 120 Ramp	EB-T	172	-	-	-	-	-	172	-	-	-	-	-
		EB-R	26	-	-	-	-	-	26	-	-	-	-	-
		WB-L	19	0.02	7.7	A	-	-	10	0.01	7.7	A	-	-
		WB-T	40	-	-	-	-	-	32	-	-	-	-	-
		Intersection	257	-	-	-	-	-	240	-	-	-	-	-
15	South Connector Road & New Jersey Turnpike Interchange 16W	EB-T	0	0.00	16.7	C	-	-	*This study location is an unsignalized T-intersection in the no-build baseline condition and would become a 4-way signalized intersection under the build condition.*					
		NB-L	217	-	-	-	-	-						
		NB-R	541	-	-	-	-	-						
		Intersection	758	-	-	-	-	-						
V1	West Peripheral Road & SB NJ Route 120 Entrance/Exit Ramps	WB-L	0	0.00	10.8	B	-	-	77	0.33	26.6	D	26.6	D
		WB-R	662	-	-	-	-	-	671	-	-	-	-	-
		NB-T	0	-	-	-	-	-	192	-	-	-	-	-
		NB-R	1,314	-	-	-	-	-	1,711	-	-	-	-	-
		SB-L	132	0.09	7.4	A	-	-	234	0.19	8.3	A	-	-
		SB-T	0	-	-	-	-	-	225	-	-	-	-	-
		Intersection	2,108	-	-	-	-	-	3,110	-	-	-	-	-
V2	North Connector Road & West Perpherial Road	EB-T	37	-	-	-	-	-	113	-	-	-	-	-
		EB-R	40	-	-	-	-	-	214	-	-	-	-	-
		WB-L	92	0.07	7.5	A	-	-	245	0.22	8.8	A	-	-
		WB-T	36	-	-	-	-	-	217	-	-	-	-	-
		NB-L	47	0.08	11.1	B	11.1	B	129	0.63	45.8	E	45.8	E
		NB-R	579	-	-	-			698	-	-	-		
		Intersection	831	-	-	-	-	-	1,616	-	-	-	-	-
V4	Berry's Creek Road & Valet Road	WB-L	82	0.17	13.5	B	11.4	B	82	0.45	37.2	E	17.3	C
		WB-R	84	0.10	9.4	A			283	0.36	11.5	B		
		NB-T	212	-	-	-	-	-	293	-	-	-	-	-
		NB-R	103	-	-	-	-	-	103	-	-	-	-	-
		SB-L	79	0.06	7.9	A	-	-	262	0.23	8.8	A	-	-
		SB-T	77	-	-	-	-	-	126	-	-	-	-	-
		Intersection	637	-	-	-	-	-	1,149	-	-	-	-	-
V5	Berry's Creek Road & Training Way	EB-L	89	0.31	21.8	C	21.8	C	89	0.58	49.7	E	47.8	E
		EB-T	0	0.00	20.4	C			18	0.05	25.2	D		
		EB-R	31	-	-	-			31	-	-	-		
		WB-L	0	-	-	-	-	-	32	0.33	36.5	E	26.9	D
		WB-T	0	-	-	-	-	-	39	-	-	-		
		WB-R	0	-	-	-	-	-	31	0.15	17.2	-		
		NB-L	11	0.01	8.2	A	-	-	210	0.15	7.8	A	-	-
		NB-T	532	-	-	-	-	-	408	-	-	-	-	-
		NB-R	0	-	-	-	-	-	13	-	-	-	-	-
		SB-L	0	0.00	8.6	A	-	-	22	0.02	8.3	A	-	-
		SB-T	385	-	-	-	-	-	88	-	-	-	-	-
		SB-R	167	-	-	-	-	-	167	-	-	-	-	-
		Intersection	1,215	-	-	-	-	-	1,148	-	-	-	-	-
V6	North Service Road & Training Way	EB-L	31	0.02	7.3	A	-	-	49	0.03	7.4	A	-	-
		EB-T	189	-	-	-	-	-	457	-	-	-	-	-
		WB-T	0	-	-	-	-	-	52	-	-	-	-	-
		WB-R	0	-	-	-	-	-	0	-	-	-	-	-
		SB-L	276	0.38	12.3	B	11.0	B	497	0.98	61.4	F	45.8	E
		SB-R	196	0.20	9.1	A			213	0.22	9.4	A		
		Intersection	692	-	-	-	-	-	1,268	-	-	-	-	-
V7	Berry's Creek Road / South Connector Road & North Service Road	EB-T	431	-	-	-	-	-	165	-	-	-	-	-
		EB-R	0	-	-	-	-	-	1	-	-	-	-	-
		WB-L	0	0.00	8.3	A	-	-	51	0.04	7.7	A	-	-
		WB-T	217	-	-	-	-	-	296	-	-	-	-	-
		NB-L	169	0.41	18.8	C	18.8	C	178	0.67	19.8	C	19.8	C
		NB-R	0						259					
		Intersection	817	-	-	-	-	-	950	-	-	-	-	-
V9	Inner Loop Road & Valet Road	EB-L	*This intersection does not existing under the no-build baseline condition and would become an unsignalized T-intersection under the build condition.*						149	1.01	132.1	F	44.9	E
		EB-R							435	0.57	15.1	C		
		NB-L							306	0.28	9.2	A	-	-
		NB-T							178	-	-	-	-	-
		SB-T							196	-	-	-	-	-
		SB-R							150	-	-	-	-	-
		Intersection							1,414	-	-	-	-	-

SECTION 9.0 – LEVEL-OF-SERVICE IMPACTS AND FAIR SHARE ANALYSIS

9.1 Level-of-Service Impacts

A traffic impact analysis has been performed for all external NJDOT scope of study locations that meet the 100-trip criteria within the study area under NJAC 16:47-4.36 to determine whether the LOS standards set forth in NJAC 16:47 4.24 to 4.29 are exceeded. The New Jersey Access Code (NJAC) requires the applicant to mitigate any traffic impacts exceeding the LOS standards resulting from site generated traffic.

9.2 Applicable LOS Standards for Urban Areas (NJAC 16:47 4.24-4.29)

For ramps (merge, diverge, and weaving sections), an increase in density of 25% of the difference between the no-build density and 35 passenger cars/lane/mile shall be allowed. No deterioration shall be allowed when the no-build LOS is 'F'.

For signalized intersections, an increase in delay of 25% of the difference between the no build condition delay and the bottom of LOS E delay (60-seconds) shall be allowed for movements and approaches. No deterioration shall be allowed when the no-build LOS is F.

For unsignalized intersections, a 15-second maximum delay is allowed when the no-build LOS is A or B; a 5-second additional delay over the no-build is allowed, up to 45 seconds maximum delay, when the no build LOS is C, D, or E.

9.3 Level-of-Service Impact Test

The Level-of-Service standards described in Section 9.1 were applied to the nine external NJDOT scope of study locations that meet the 100-trip criteria. A summary of the results can be seen in Table IX-1. The detailed level-of-service impact analyses can be seen in Tables IX-2 to IX-13.

Table IX-1
Level-of-Service Impact Analysis

Location	Analysis Type	Meets NJAC LOS Standard?		
		PM Highway	PM Arena Event	SAT Arena Event
3	Merge	Yes	Yes	Yes
6	Diverge	Yes	Yes	Yes
13	Merge	Yes	Yes	Yes
E2	Signalized	Yes	Yes	Yes
V3	Signalized	Yes	Yes	Yes
V6	Unsignalized	Yes	Yes	No
V8	Weave	Yes	Yes	Yes
V10	Merge	Yes	Yes	Yes
V12	Diverge	Yes	Yes	Yes

9.4 Impacted Study Locations Exceeding the LOS Standards

Of the nine locations identified as meeting the 100-trip criteria, only Study Location V6 would not meet the LOS standards as defined in the NJAC 16:47-4.24 to 4.29.

Study location V6 is the unsignalized intersection of Training Way and the NJ Route 3 North Service Road. An impact occurs only during the Saturday Peak Continental Airlines Arena Event Hour and will be mitigated by the use of a traffic control agent at this location. NJSEA or its agent will provide traffic control agents to manage and direct traffic.

9.5 Fair Share Analyses

The mitigation described in Section 9.3 is estimated to cost about $5,000 per year assuming a 3-hour tour of duty weekly, between 2:00 PM and 5:00 PM on Saturdays. The cost shall be borne by the operator of the Stadium site.

TABLE IX-2
2013 RAMP JUNCTION LEVEL-OF-SERVICE IMPACT ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
		Density	LOS	Density	LOS	Delay to LOS F	Allowable Difference	Difference in Delay	Meets LOS Standard?
3	Southbound NJ Route 120 Merge from West Peripheral Road	19.1	B	20.4	C	15.9	3.98	1.3	yes
6	Northbound NJ Route 120 Diverge to NB Route 120 Service Road (to East Peripheral Road)	21.2	C	23.1	C	13.8	3.45	1.9	yes
13	Eastbound NJ Route 3 Merge with South Service Road/SB NJ Route 120	26.7	C	27.3	C	8.3	2.08	0.6	yes
V10	Southbound NJ Route 120 Flyover Ramp Merge with NJ Route 3 South Service Road	19.5	B	21.4	C	15.5	3.88	1.9	yes
V12	Eastbound NJ Route 3 Diverge to NJ Route 3 South Service Road (Ramp H)	18.9	B	20.6	C	16.1	4.03	1.7	yes

TABLE IX-3
2013 WEAVING SEGMENT LEVEL-OF-SERVICE IMPACT ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
		Density	LOS	Density	LOS	Density to LOS F	Allowable Difference	Difference in Density	Meets LOS Standard?
V8	Westbound NJ Route 3 Between Ramp G Entrance Ramp and Ramp X Exit Ramp	29.78	D	32.43	D	13.22	3.31	2.65	yes

TABLE IX-4
2013 RAMP JUNCTION LEVEL-OF-SERVICE IMPACT ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
		Density	LOS	Density	LOS	Delay to LOS F	Allowable Difference	Difference in Delay	Meets LOS Standard?
3	Southbound NJ Route 120 Merge from West Peripheral Road	13.7	B	15.5	B	21.3	5.3	1.8	yes
6	Northbound NJ Route 120 Diverge to NB Route 120 Service Road (to East Peripheral Road)	23.4	C	25.1	C	11.6	2.9	1.7	yes
13	Eastbound NJ Route 3 Merge with South Service Road/SB NJ Route 120	24.9	C	26.3	C	10.1	2.5	1.4	yes
V10	Southbound NJ Route 120 Flyover Ramp Merge with NJ Route 3 South Service Road	12.3	B	13.5	B	22.7	5.68	1.2	yes
V12	Eastbound NJ Route 3 Diverge to NJ Route 3 South Service Road (Ramp H)	N/A	N/A	N/A	N/A	-	-	-	-

TABLE IX-5
2013 WEAVING SEGMENT LEVEL-OF-SERVICE IMPACT ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
		Density	LOS	Density	LOS	Delay to LOS F	Allowable Difference	Difference in Delay	Meets LOS Standard?
V8	Westbound NJ Route 3 Between Ramp G Entrance Ramp and Ramp X Exit Ramp	20.82	C	22.43	C	22.18	5.55	1.61	yes

TABLE IX-6
2013 RAMP JUNCTION LEVEL-OF-SERVICE IMPACT ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
		Density	LOS	Density	LOS	Delay to LOS F	Allowable Difference	Difference in Delay	Meets LOS Standard?
3	Southbound NJ Route 120 Merge from West Peripheral Road	16.9	B	19.8	B	18.1	4.5	2.9	yes
6	Northbound NJ Route 120 Diverge to NB Route 120 Service Road (to East Peripheral Road)	16.1	B	19.0	B	18.9	4.7	2.9	yes
13	Eastbound NJ Route 3 Merge with South Service Road/SB NJ Route 120	23.6	C	24.5	C	11.4	2.9	0.9	yes
V10	Southbound NJ Route 120 Flyover Ramp Merge with NJ Route 3 South Service Road	15.9	B	18.0	B	19.1	4.78	2.1	yes
V12	Eastbound NJ Route 3 Diverge to NJ Route 3 South Service Road (Ramp H)	N/A	N/A	N/A	N/A	-	-	-	-

TABLE IX-7
2013 WEAVING SEGMENT LEVEL-OF-SERVICE IMPACT ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Description	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
		Density	LOS	Density	LOS	Delay to LOS F	Allowable Difference	Difference in Delay	Meets LOS Standard?
V8	Westbound NJ Route 3 Between Ramp G Entrance Ramp and Ramp X Exit Ramp	23.82	C	26.50	C	19.18	4.795	2.68	yes

TABLE IX-8
2013 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE IMPACT ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
			Delay (sec)	LOS	Delay (sec)	LOS	Delay to LOS F	Allowable Difference	Difference in Delay	Meets LOS Standard?
E2	Paterson Plank Road	EB	13.8	B	14.7	B	66.2	16.6	0.9	yes
	(NJ Route 120)	WB	22.2	C	29.0	C	57.8	14.5	6.8	yes
	&	NB	35.2	D	35.3	D	44.8	11.2	0.1	yes
	Murray Hill Parkway	SB	30.4	C	30.4	C	49.6	12.4	0.0	yes
		Intersection	22.0	C	25.7	C	58.0	14.5	3.7	yes
V3	Paterson Plank Road	EB	5.6	A	5.6	A	74.4	18.6	0.0	yes
	(NJ Route 120)	WB	9.1	A	8.4	A	70.9	17.7	-0.7	yes
	&	NB	33.6	C	40.4	D	46.4	11.6	6.8	yes
	Berry's Creek Road	Intersection	10.8	B	13.0	B	69.2	17.3	2.2	yes

TABLE IX-9
2013 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE IMPACT ANALYSIS
WEEKDAY PM PEAK HIGHWAY HOUR (4:30PM - 5:30PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT		
			Delay (sec)	LOS	Delay (sec)	LOS	Allowable Difference	Difference in Delay	Meets LOS Standard?
V6	NJ Route 3 North Service Rd	EB-L	7.3	A	7.4	A	15.0	0.1	yes
	&	SB-L	9.9	A	18.2	C	15.0	8.3	yes
	Training Way	SB-R	8.5	A	8.8	A	15.0	0.3	yes

TABLE IX-10
2013 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE IMPACT ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
			Delay (sec)	LOS	Delay (sec)	LOS	Delay to LOS F	Allowable Difference	Difference in Delay	Meets LOS Standard?
E2	Paterson Plank Road	EB	12.9	B	13.5	B	67.1	16.8	0.6	yes
	(NJ Route 120)	WB	13.7	B	14.5	B	66.3	16.6	0.8	yes
	&	NB	24.4	C	24.4	C	55.6	13.9	0.0	yes
	Murray Hill Parkway	SB	24	C	24	C	56.0	14.0	0.0	yes
		Intersection	13.9	B	14.5	B	66.1	16.5	0.6	yes
V3	Paterson Plank Road	EB	11.2	B	11.2	B	68.8	17.2	0.0	yes
	(NJ Route 120)	WB	13.3	B	13.2	B	66.7	16.7	-0.1	yes
	&	NB	33.8	C	34.1	C	46.2	11.6	0.3	yes
	Berry's Creek Road	Intersection	13.7	B	15.1	B	66.3	16.6	1.4	yes

TABLE IX-11
2013 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE IMPACT ANALYSIS
WEEKDAY PM PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (7:15PM - 8:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT		
			Delay (sec)	LOS	Delay (sec)	LOS	Allowable Difference	Difference in Delay	Meets LOS Standard?
V6	NJ Route 3 North Service Rd	NB-R	7.3	A	7.3	A	15.0	0.0	yes
	&	EB-L	10.2	B	13.9	B	15.0	3.7	yes
	Training Way	EB-T	8.4	A	8.5	A	15.0	0.1	yes

TABLE IX-12
2013 SIGNALIZED INTERSECTION LEVEL-OF-SERVICE IMPACT ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT			
			Delay (sec)	LOS	Delay (sec)	LOS	Delay to LOS F	Allowable Difference	Difference in Delay	Meets LOS Standard?
E2	Paterson Plank Road	EB	13.9	B	15.1	B	66.1	16.5	1.2	yes
	(NJ Route 120)	WB	15.4	B	17	B	64.6	16.2	1.6	yes
	&	NB	24.9	C	24.9	C	55.1	13.8	0.0	yes
	Murray Hill Parkway	SB	24.2	C	24.2	C	55.8	14.0	0.0	yes
		Intersection	15.2	B	16.6	B	64.8	16.2	1.4	yes
V3	Paterson Plank Road	EB	13.0	B	13.1	B	67.0	16.8	0.1	yes
	(NJ Route 120)	WB	15.3	B	15.1	B	64.7	16.2	-0.2	yes
	&	NB	33.4	C	38.6	D	46.6	11.7	5.2	yes
	Berry's Creek Road	Intersection	16.0	B	18.3	B	64.0	16.0	2.3	yes

TABLE IX-13
2013 UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE IMPACT ANALYSIS
SATURDAY PEAK CONTINENTAL AIRLINES ARENA EVENT HOUR (3:15PM - 4:15PM)
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENT

Location	Intersections	Lane Group	2013 Baseline		2013 Build		LEVEL OF SERVICE IMPACT		
			Delay (sec)	LOS	Delay (sec)	LOS	Allowable Difference	Difference in Delay	Meets LOS Standard?
V6	NJ Route 3 North Service Rd	EB-L	7.3	A	7.4	A	15.0	0.1	yes
	&	SB-L	12.3	B	**61.4**	**F**	**15.0**	**49.1**	**no**
	Training Way	SB-R	9.1	A	9.4	A	15.0	0.3	yes

APPENDIX A

TRANSPORTATION IMPROVEMENTS

LIST OF EXHIBITS

A-1 Regional Transportation Improvements
(E&K Aerial)

A-2 Route 120 Improvements
(Xanadu Improvements)

A-3 Route 3 Improvements
(NJ Turnpike 16W Interchange and Route 3 Ramps)

A-4 Paterson Plank Road Improvements
(HNTB Paterson Plank Road TSM Study)

Edwards and Kelcey
SCALE: N.T.S.
DATE: FEB. 2005

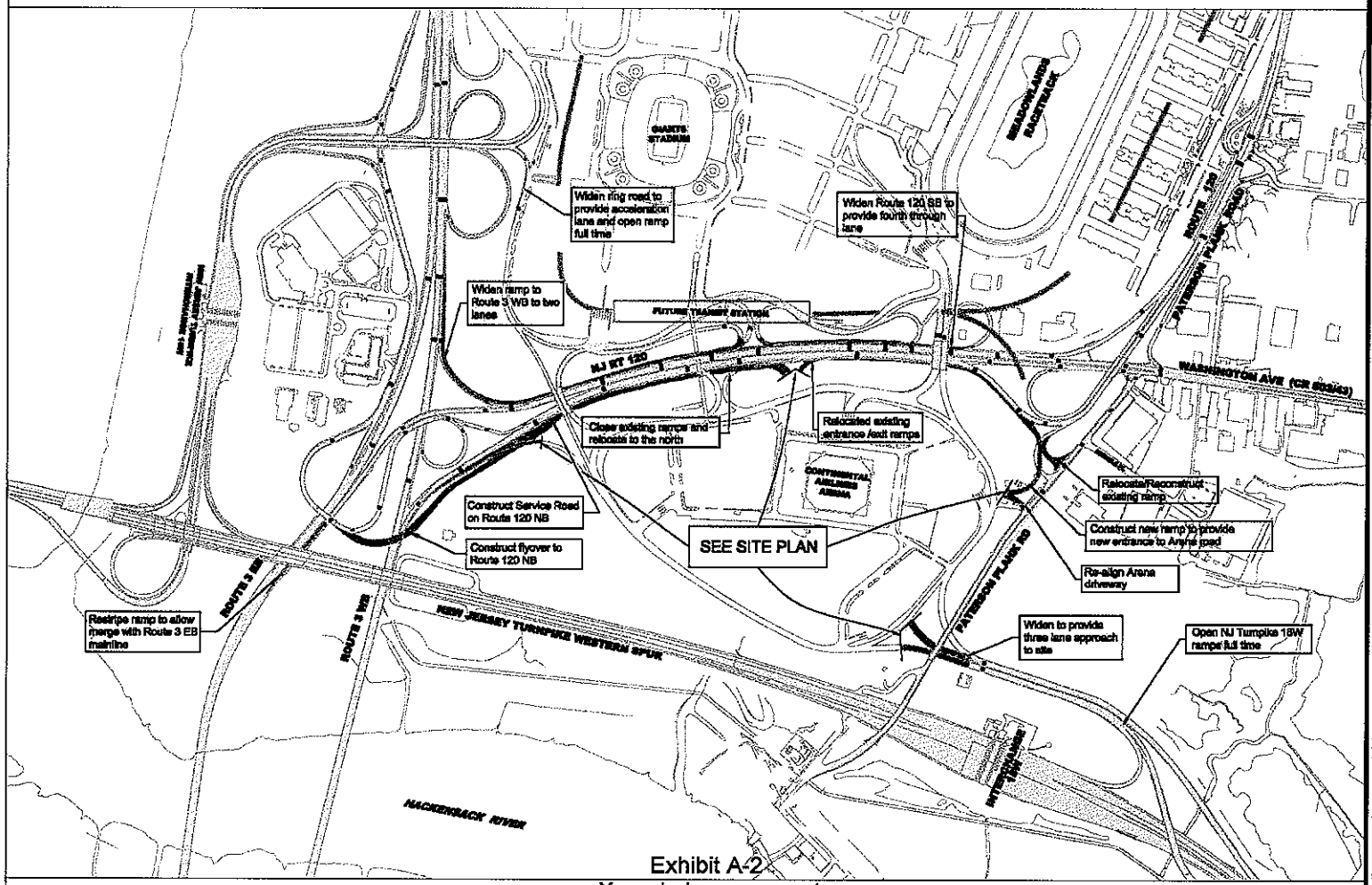
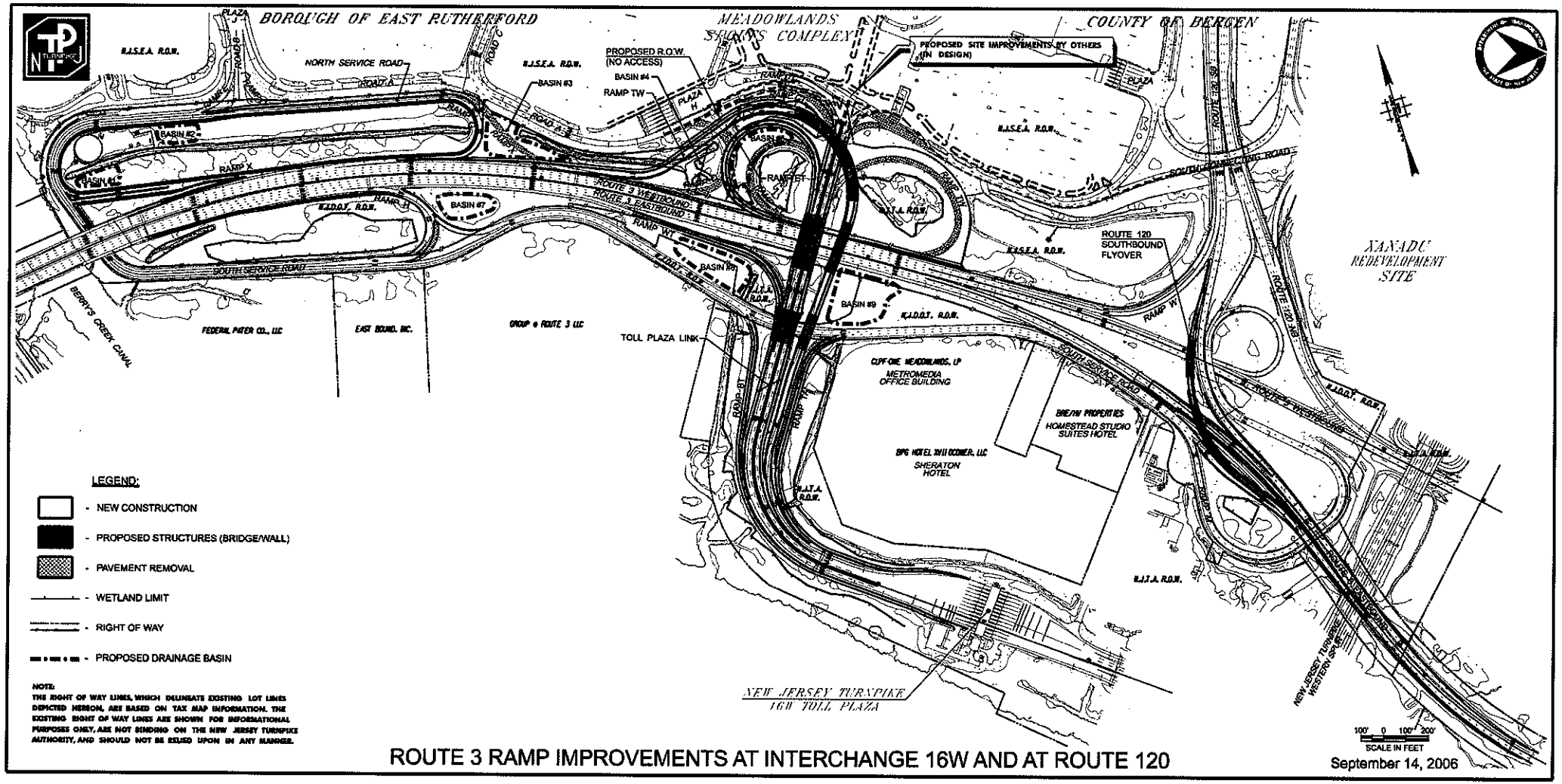
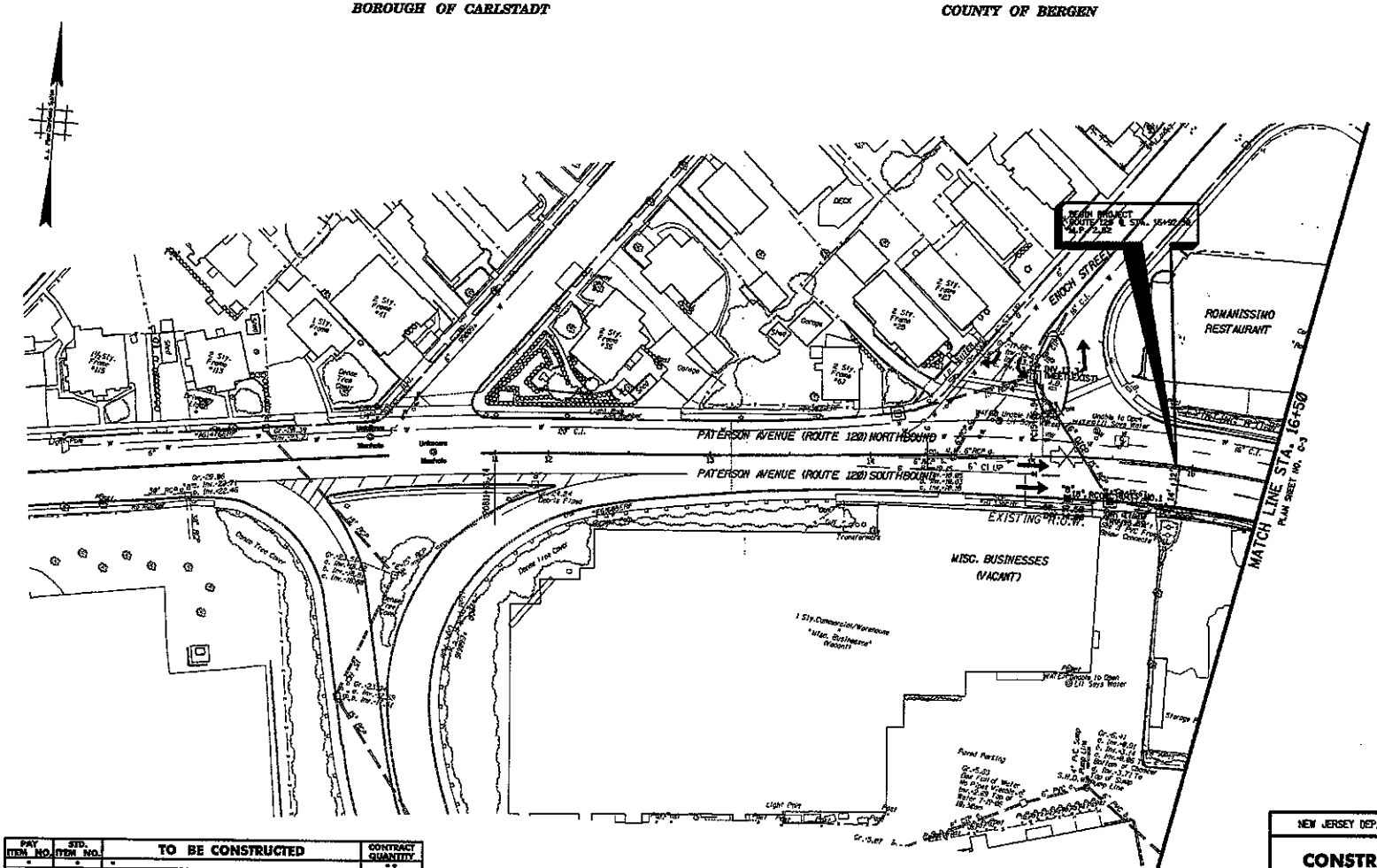


Exhibit A-2
Xanadu Improvements



ROUTE 3 RAMP IMPROVEMENTS AT INTERCHANGE 16W AND AT ROUTE 120

September 14, 2006



PAY ITEM NO.	STD. ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
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STATE N.J. | FEDERAL PROJECT NO.

C-2 / C-XX

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 120 REHABILITATION
BOROUGHS OF CARLSTADT AND EAST RUTHERFORD — COUNTY OF BERGEN

EARTH TECH

Certification of Authorization No. 24GA28042700

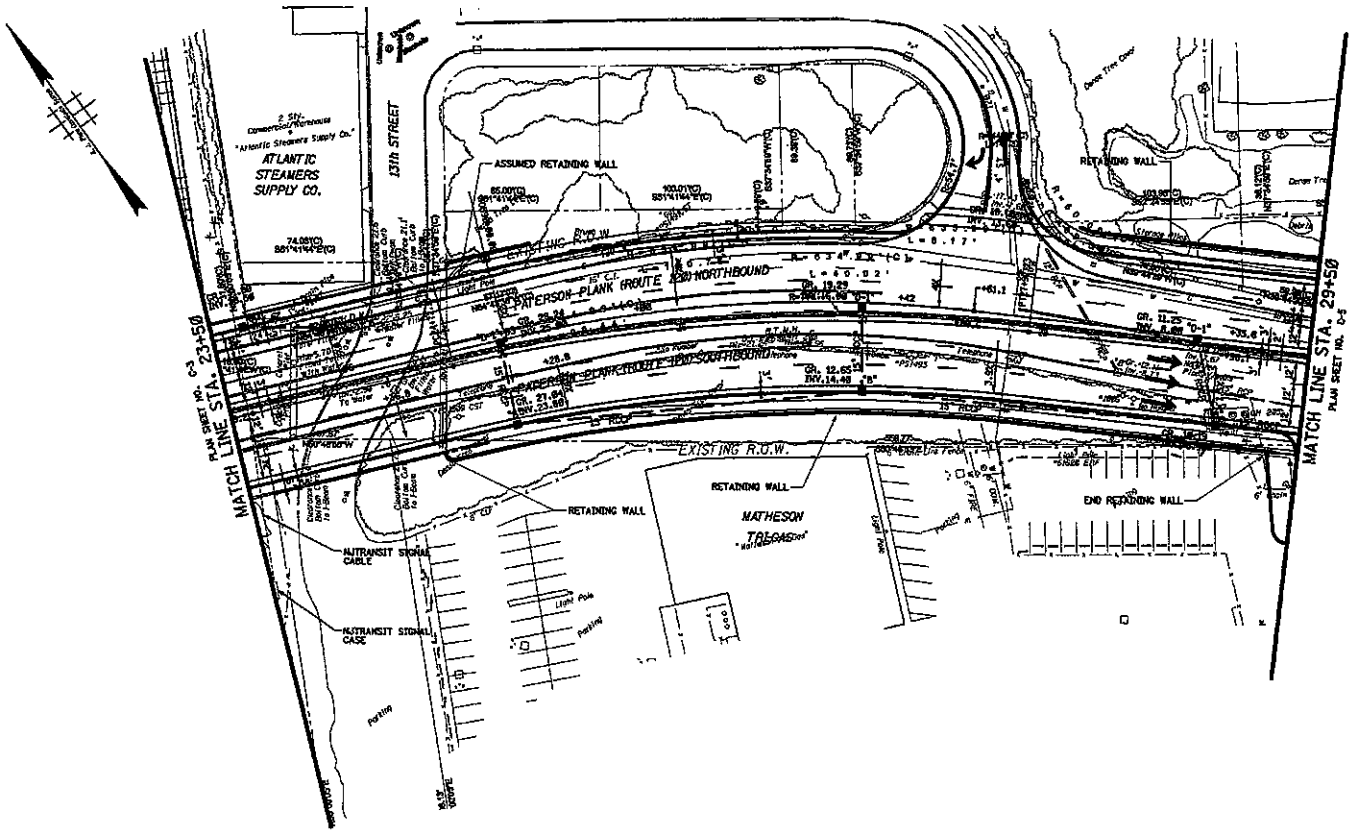
Frank A. Saragona
New Jersey Professional Engineer No. 29667

XX

EarthTech

STATE	FEDERAL PROJECT NO.
N.J.	

BOROUGH OF CARLSTADT **COUNTY OF BERGEN**



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C-4 / C-XX

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 120 REHABILITATION
BOROUGHS OF CARLSTADT AND EAST RUTHERFORD COUNTY OF BERGEN

EARTH TECH

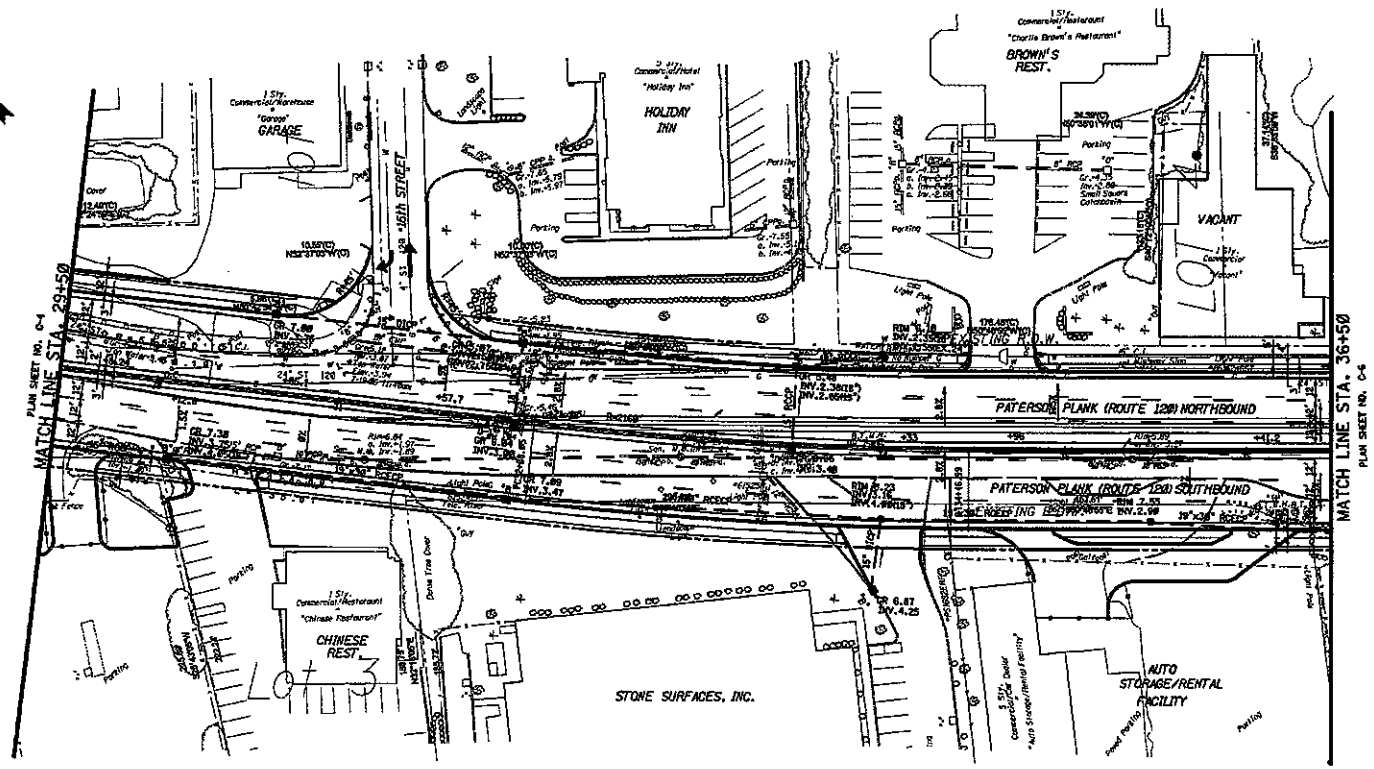
Certification of Authorization No. 24GA28042700

Frank A. Saragona
New Jersey Professional Engineer No. 29667

XX

EarthTech

STATE	FEDERAL PROJECT NO.
N.J.	



PAY ITEM NO.	STD. ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY

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C-5
C-XX

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 120 REHABILITATION
BOROUGHS OF CARLSTADT AND EAST RUTHERFORD
COUNTY OF BERGEN

EARTH TECH

Certification of Authorization No. 24GA28042100

Frank A. Baragona
New Jersey Professional Engineer No. 29667

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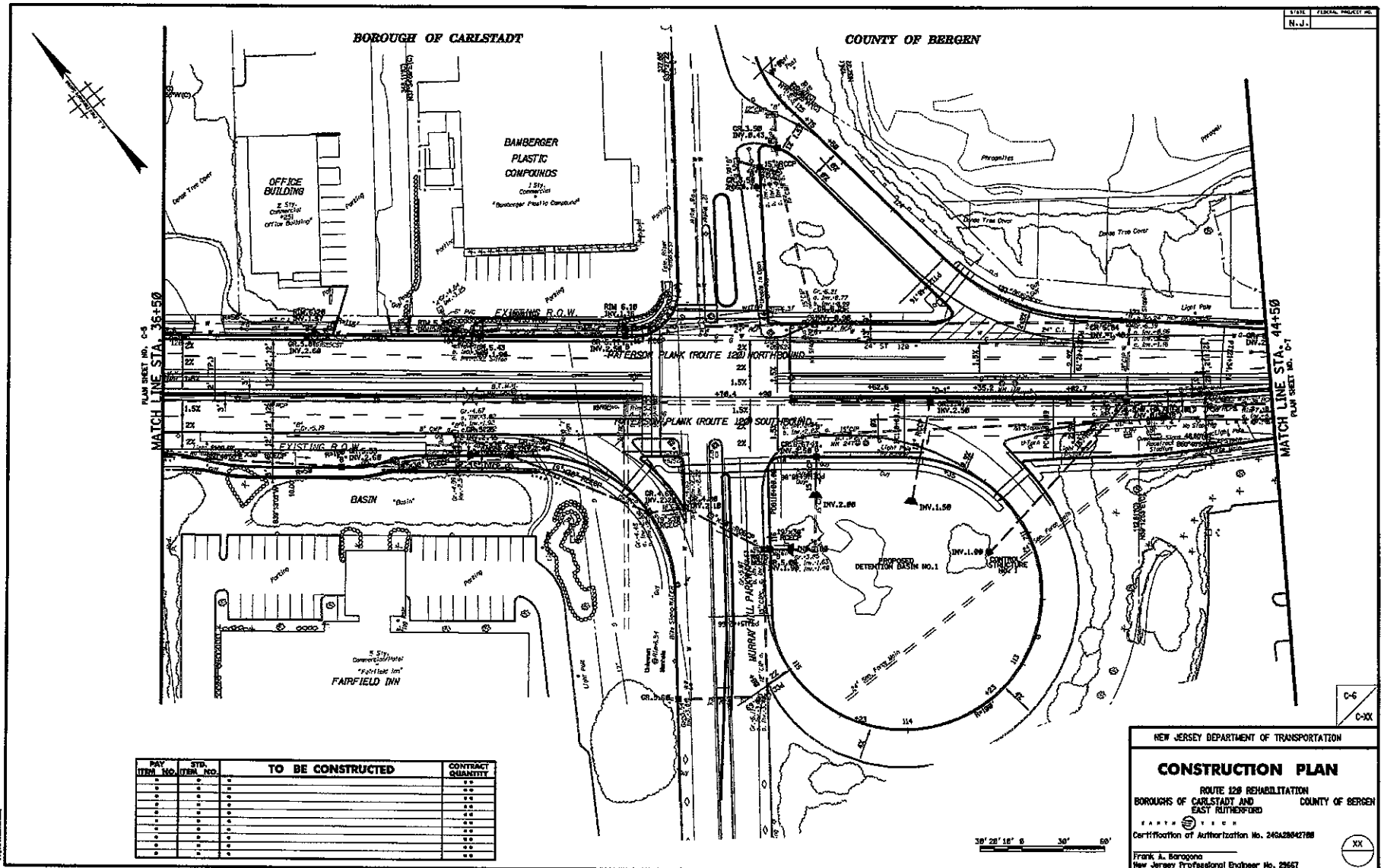
Earthtech



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STATE N.J. | FEDERAL PROJECT NO.

C-6 / C-XX

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 120 REHABILITATION

BOROUGHS OF CARLSTADT AND EAST RUTHERFORD — COUNTY OF BERGEN

EARTH TECH

Certification of Authorization No. 24GA28042700

Frank A. Baragona
New Jersey Professional Engineer No. 29667

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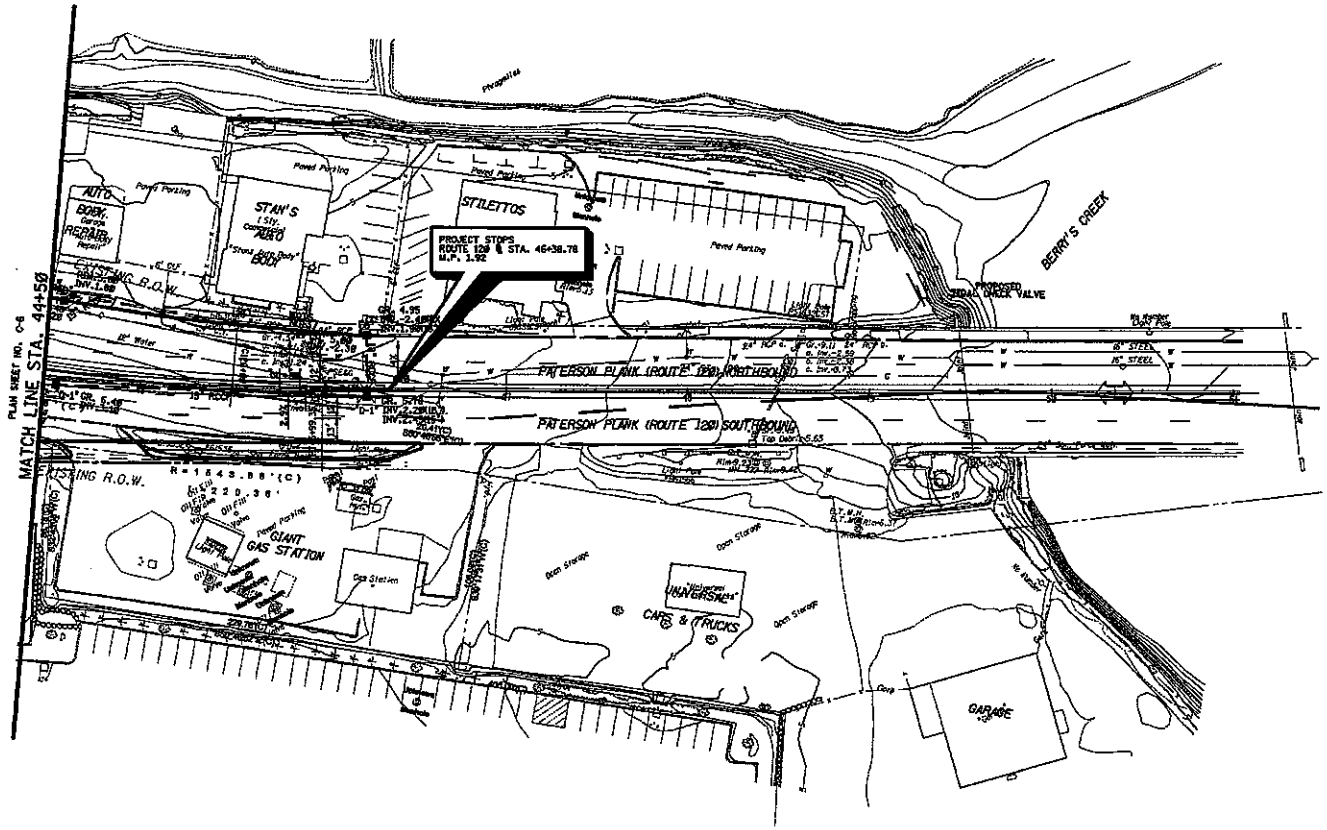
EarthTech

STATE	FEDERAL PROJECT NO.
N. J.	

BOROUGH OF CARLSTADT
BOROUGH OF EAST RUTHERFORD

COUNTY OF BERGEN



PAY ITEM NO.	STD. ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY

30' 20' 10' 0 30' 60'

C-7
C-XX

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PLAN

ROUTE 120 REHABILITATION
BOROUGHS OF CARLSTADT AND EAST RUTHERFORD
COUNTY OF BERGEN

EARTH TECH

Certification of Authorization No. 24GA28042700

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New Jersey Professional Engineer No. 25667

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Earth Tech
A Tyco International Company

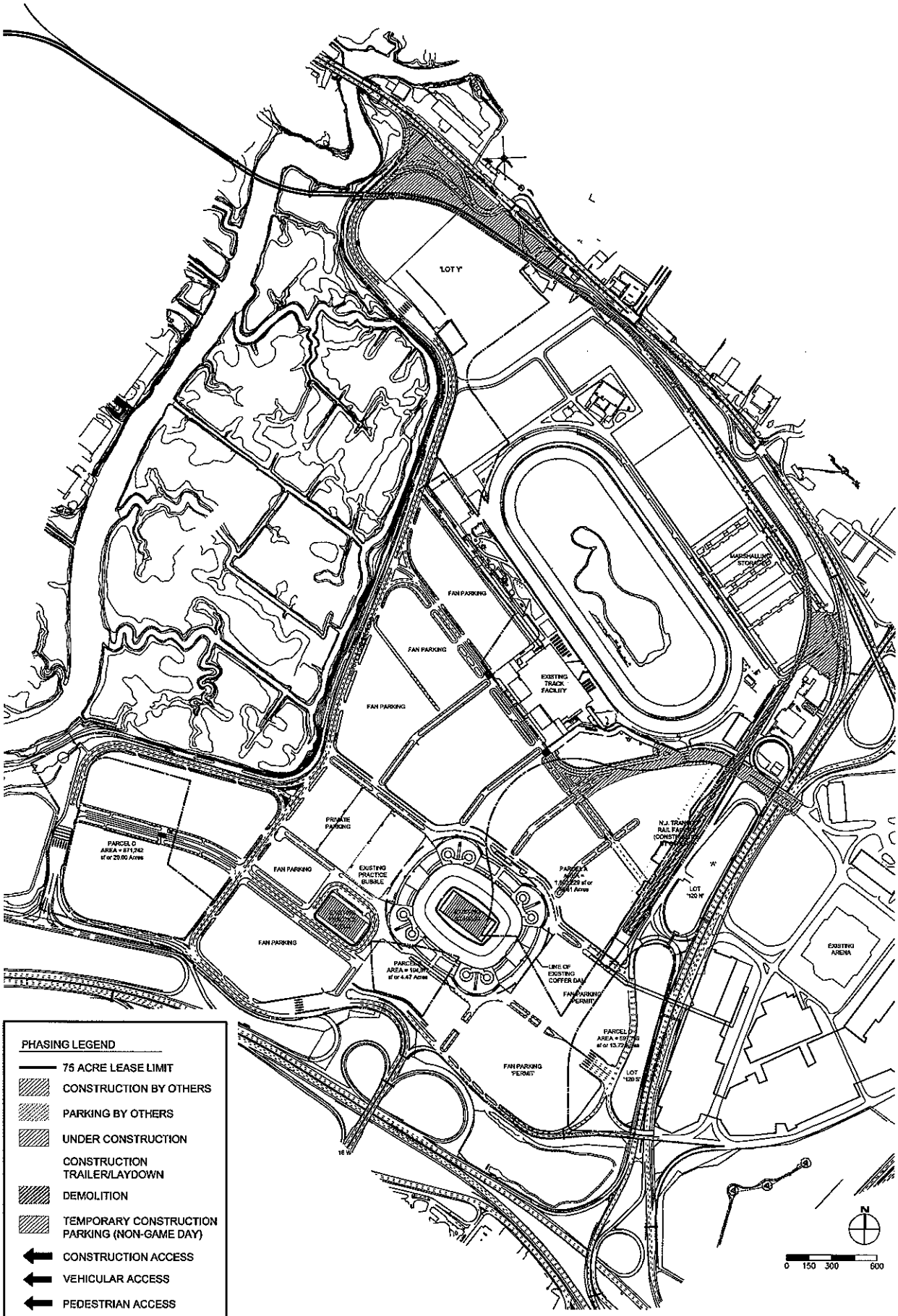
APPENDIX B

CONSTRUCTION STAGING

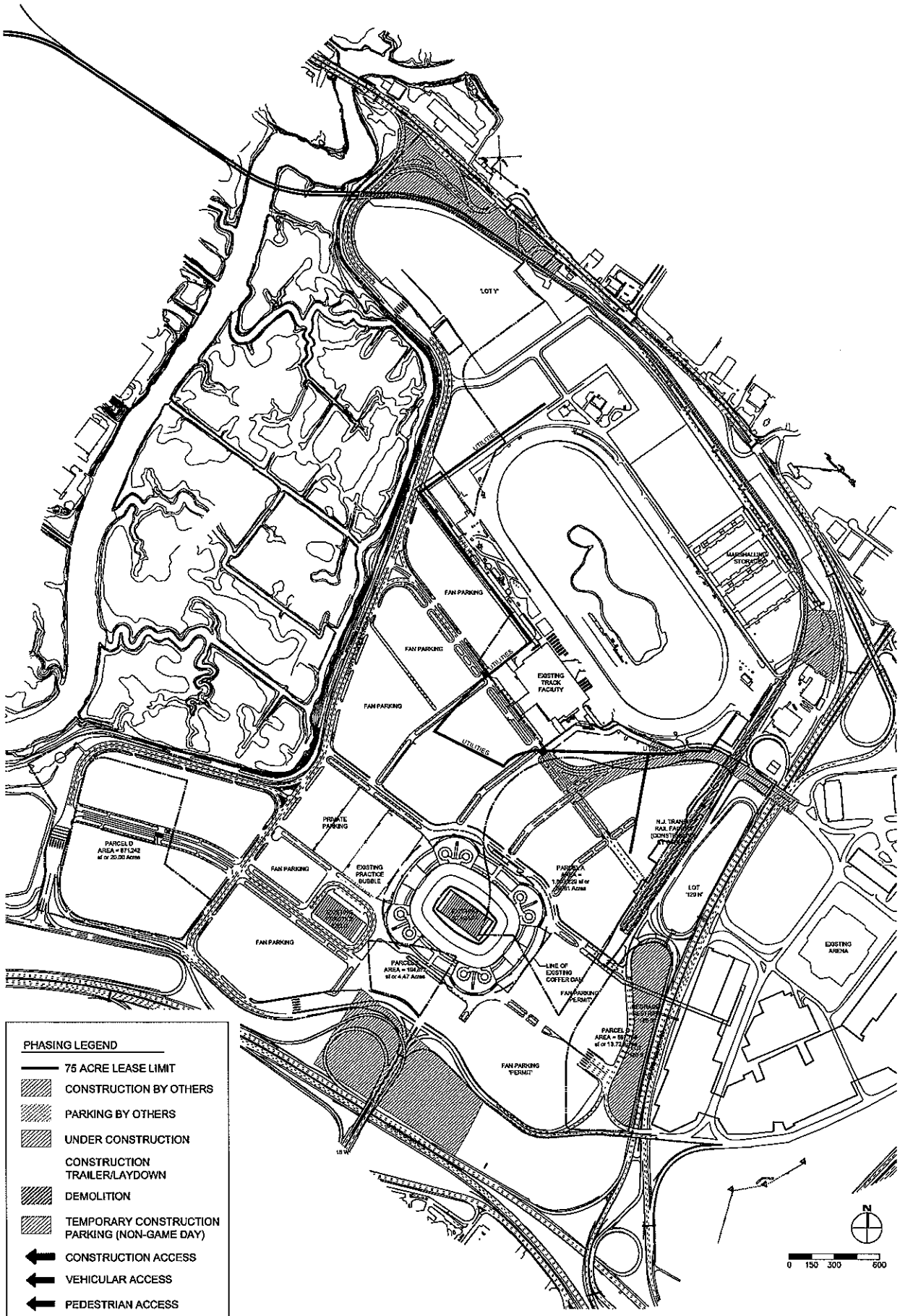
(Preliminary)

LIST OF EXHIBITS

B-1 Construction Phase 1 – Existing
B-2 Construction Phase 2
B-3 Construction Phase 3
B-4 Construction Phase 4 – Utility Relocation Completed (2008)
B-5 Construction Phase 5
B-6 Construction Phase 6 – Giants Training Facility Completed (2009)
B-7 Construction Phase 7
B-8 Construction Phase 8 – Demolition of Existing Stadium (2010)
B-9 Construction Phase 9 – New Stadium Completed (2010)
B-10 Construction Phase 10 – Ancillary Use Pod 'B' Completed (After 2010)
B-11 Construction Phase 11 – Ancillary Use Pod 'A' Completed (After 2010)

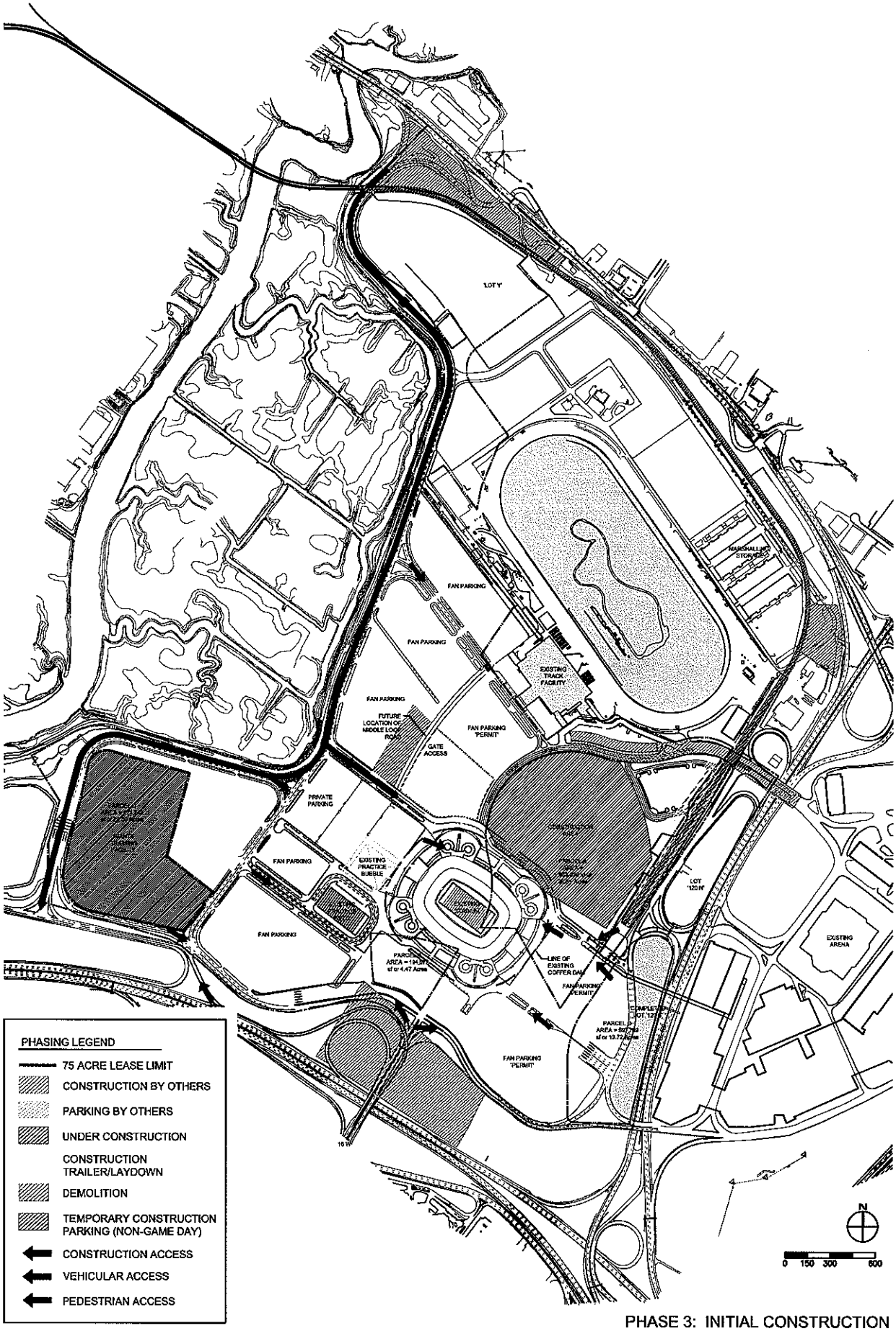


PHASE 1: EXISTING CONDITIONS

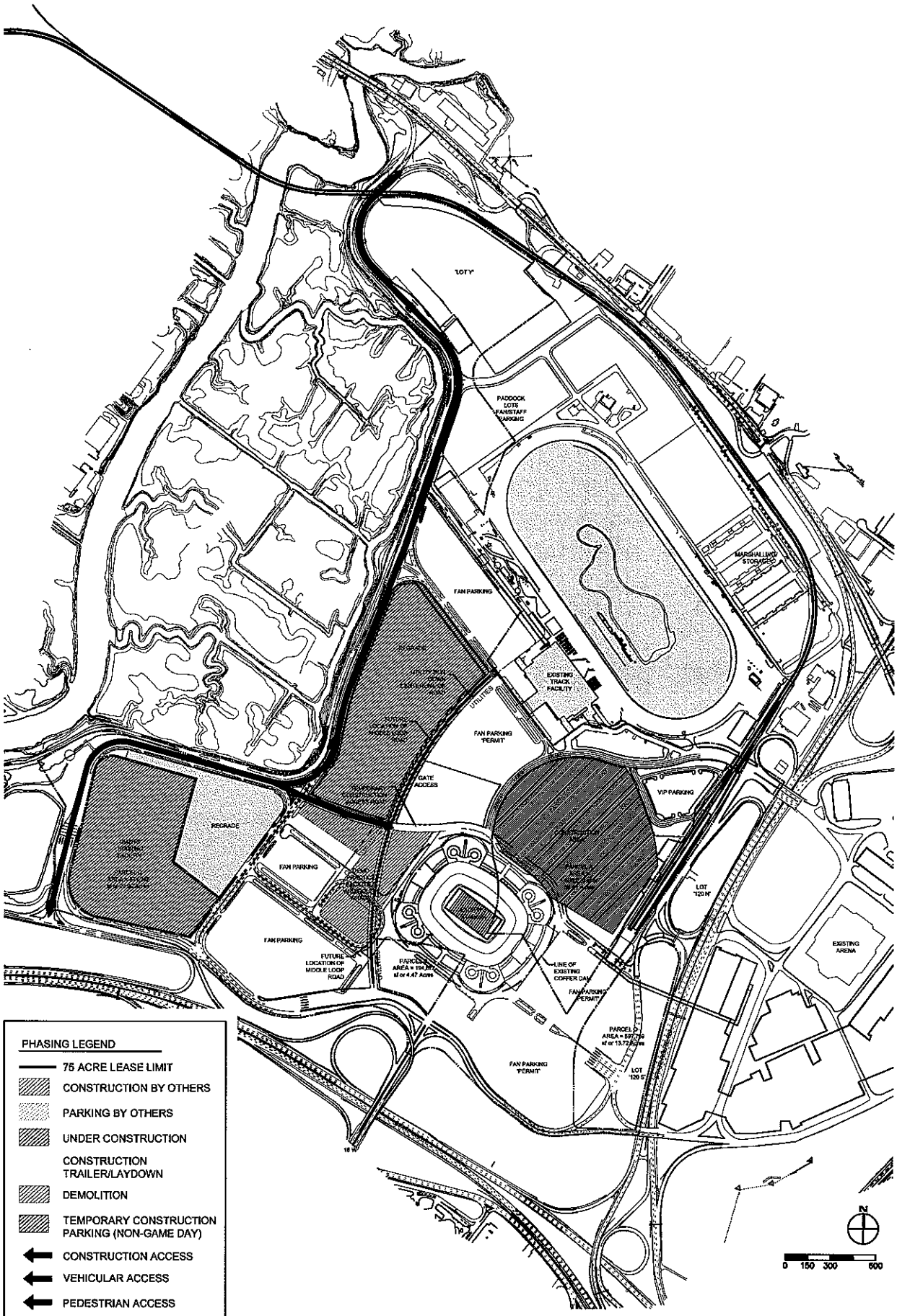


PHASE 2: UTILITY RELOCATION

APRIL '07 - JULY '07

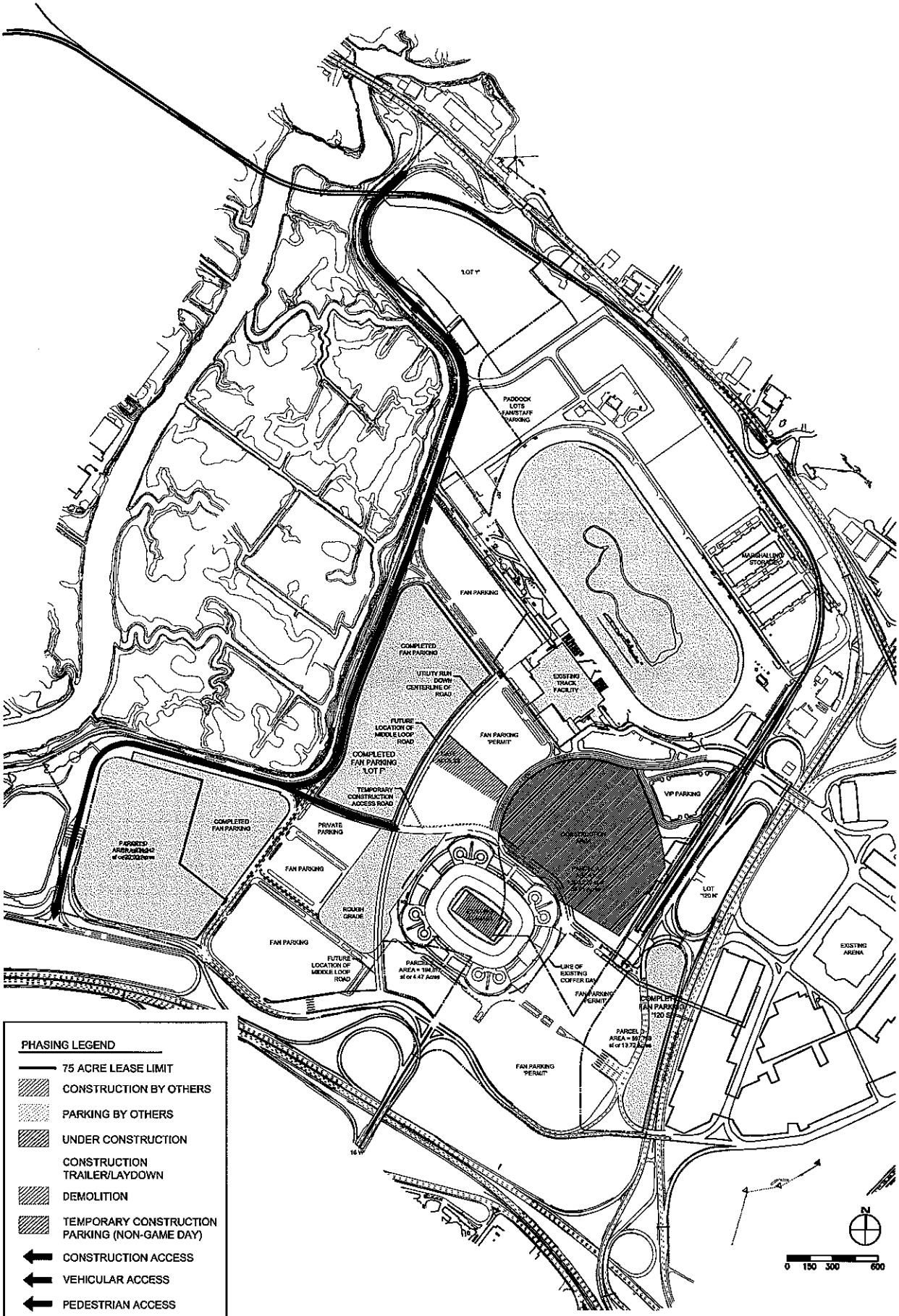


PHASE 3: INITIAL CONSTRUCTION
JULY '07- JAN '08



PHASE 4: INITIAL CONSTRUCTION

FEB '08- JULY '08

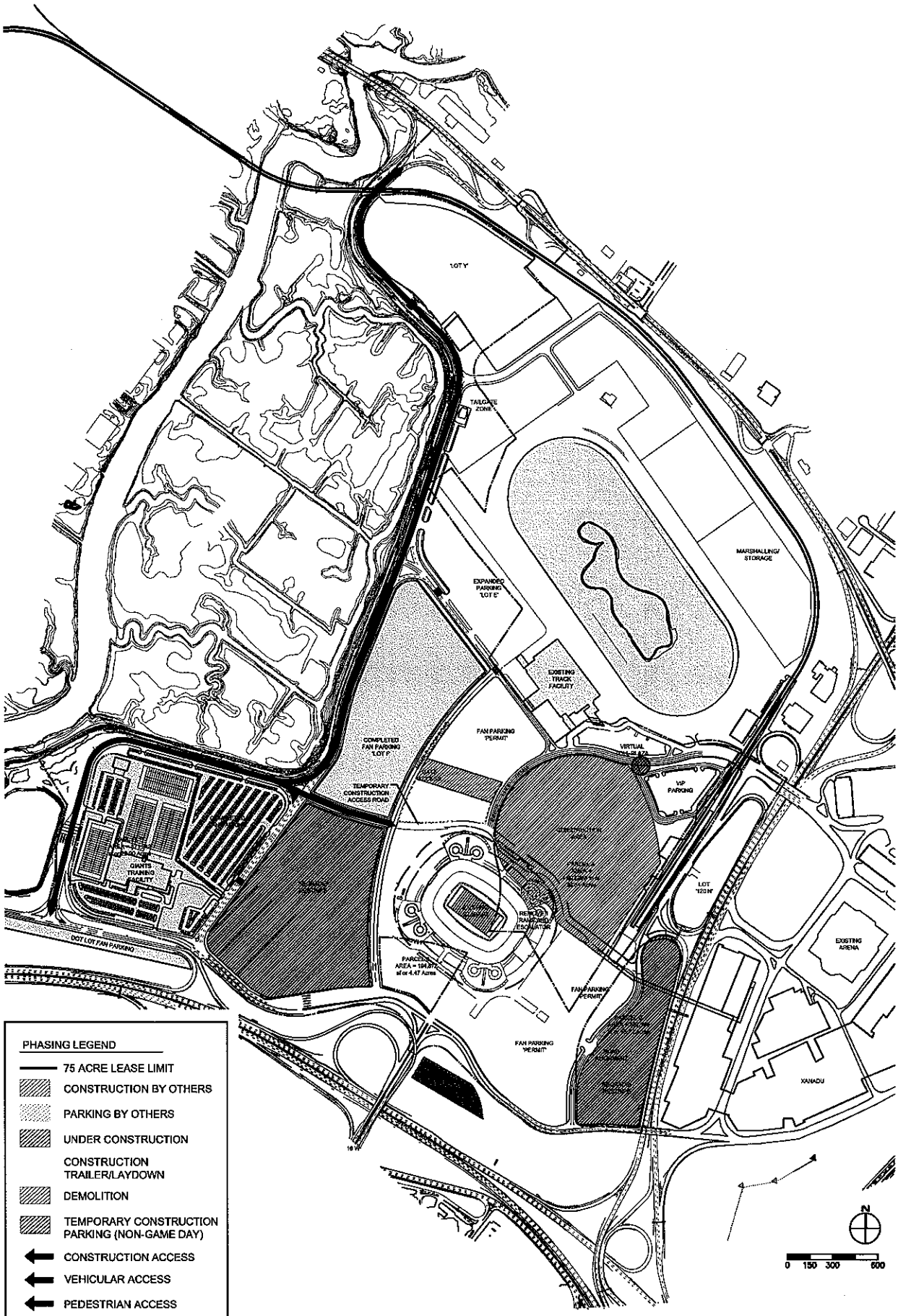


PHASING LEGEND

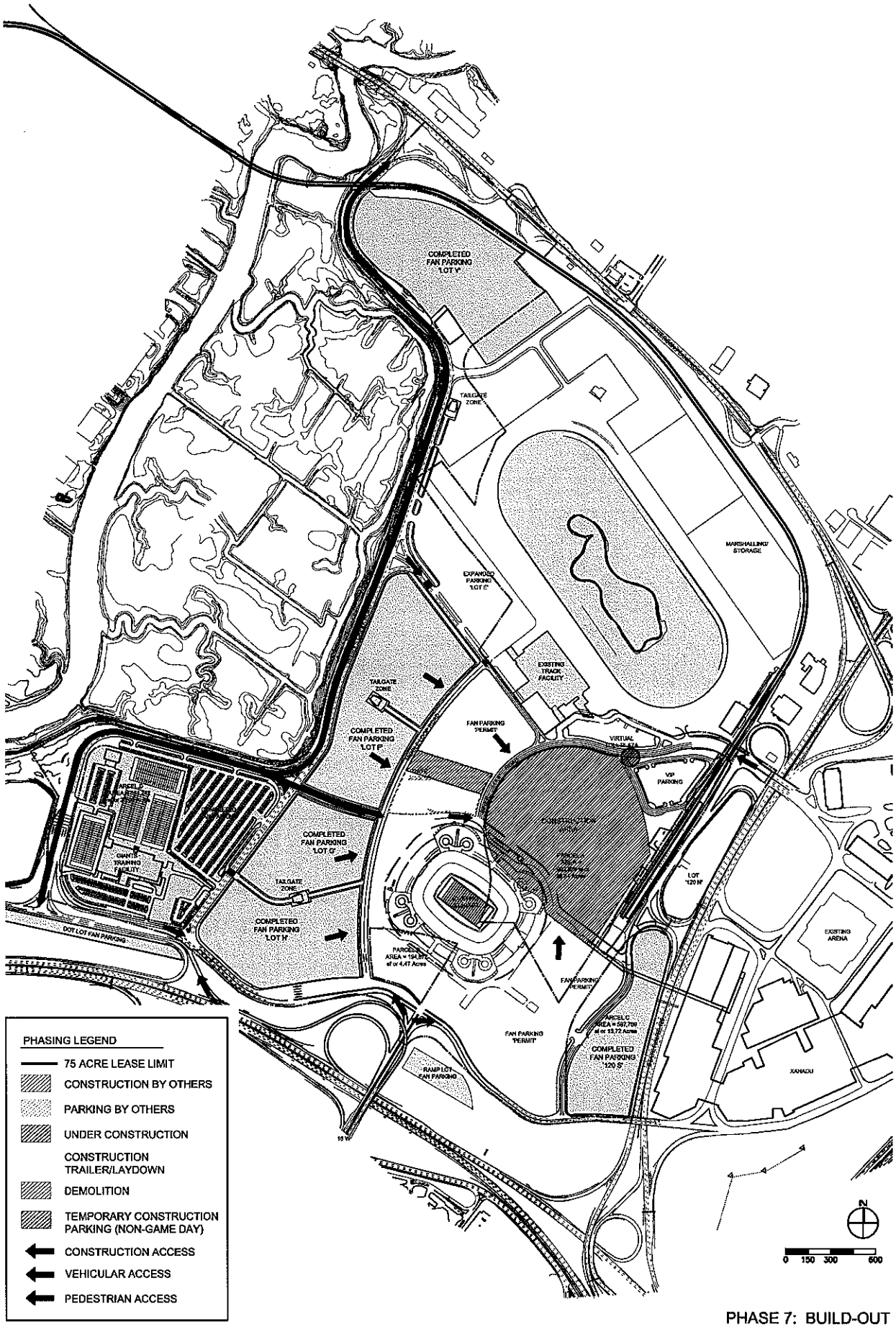
- 75 ACRE LEASE LIMIT
- CONSTRUCTION BY OTHERS
- PARKING BY OTHERS
- UNDER CONSTRUCTION
- CONSTRUCTION TRAILER/LAYDOWN
- DEMOLITION
- TEMPORARY CONSTRUCTION PARKING (NON-GAME DAY)
- CONSTRUCTION ACCESS
- VEHICULAR ACCESS
- PEDESTRIAN ACCESS

PHASE 5: INITIAL CONSTRUCTION

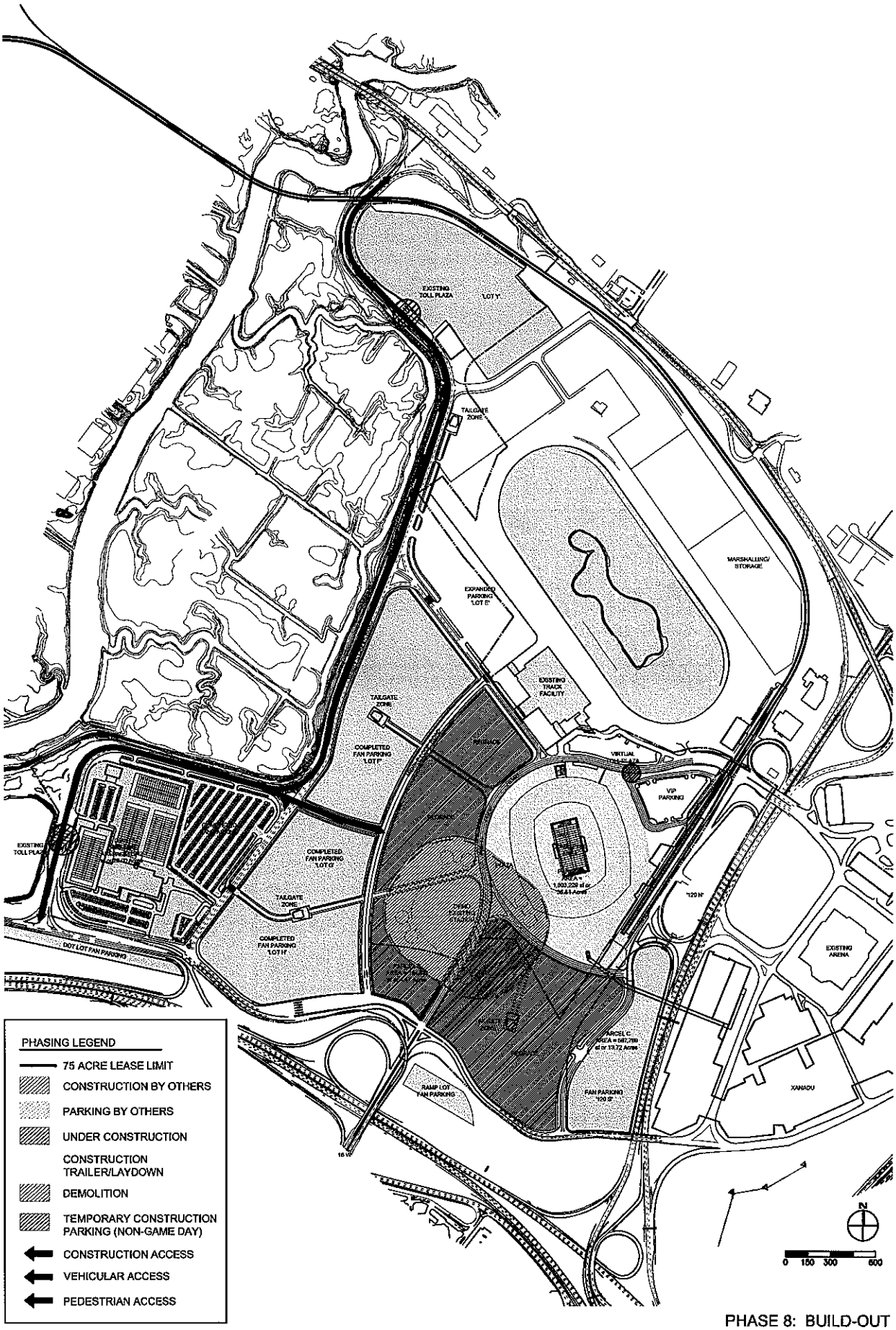
AUG '08- JAN '09



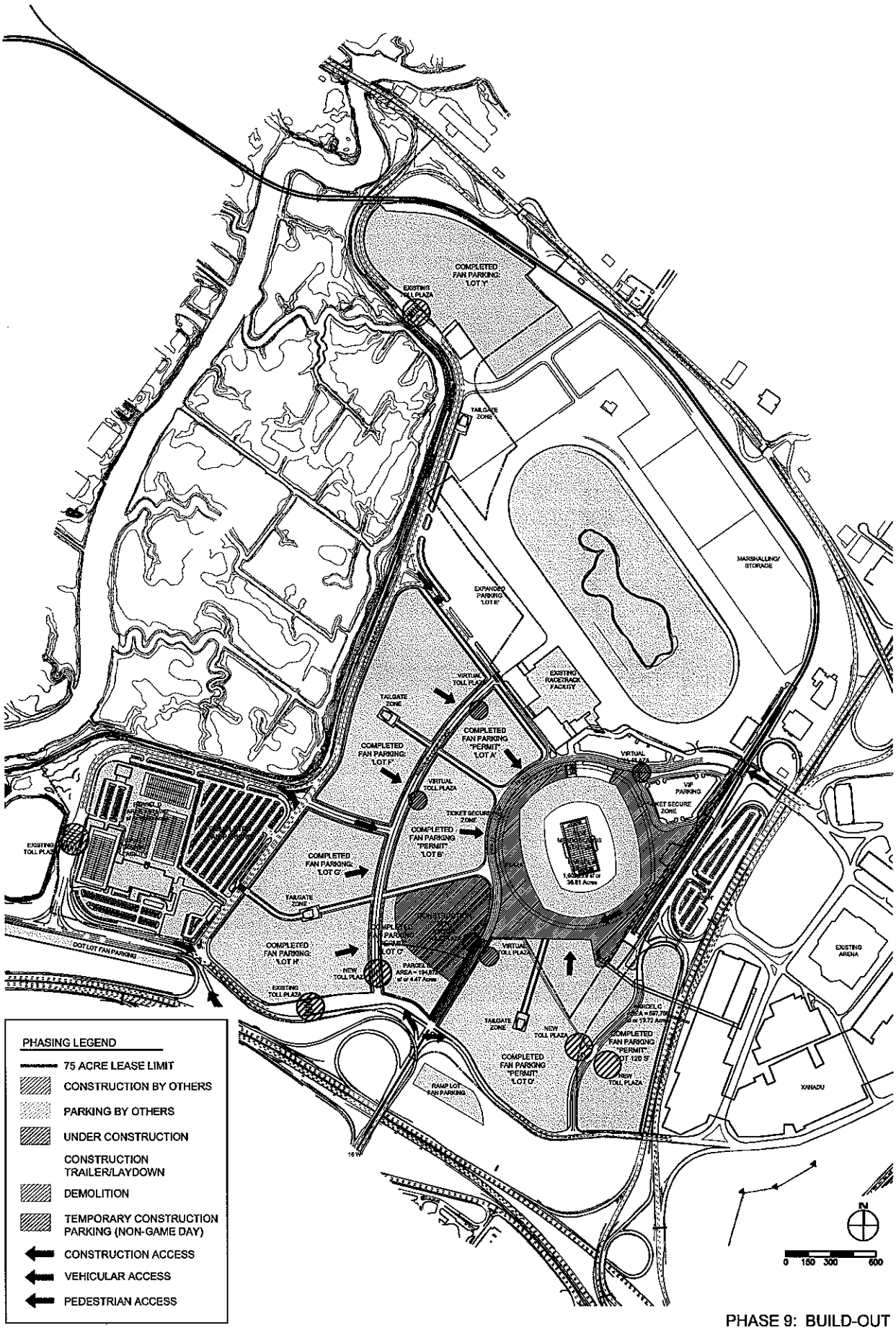
PHASE 6: INITIAL CONSTRUCTION
FEB '09- JULY '09



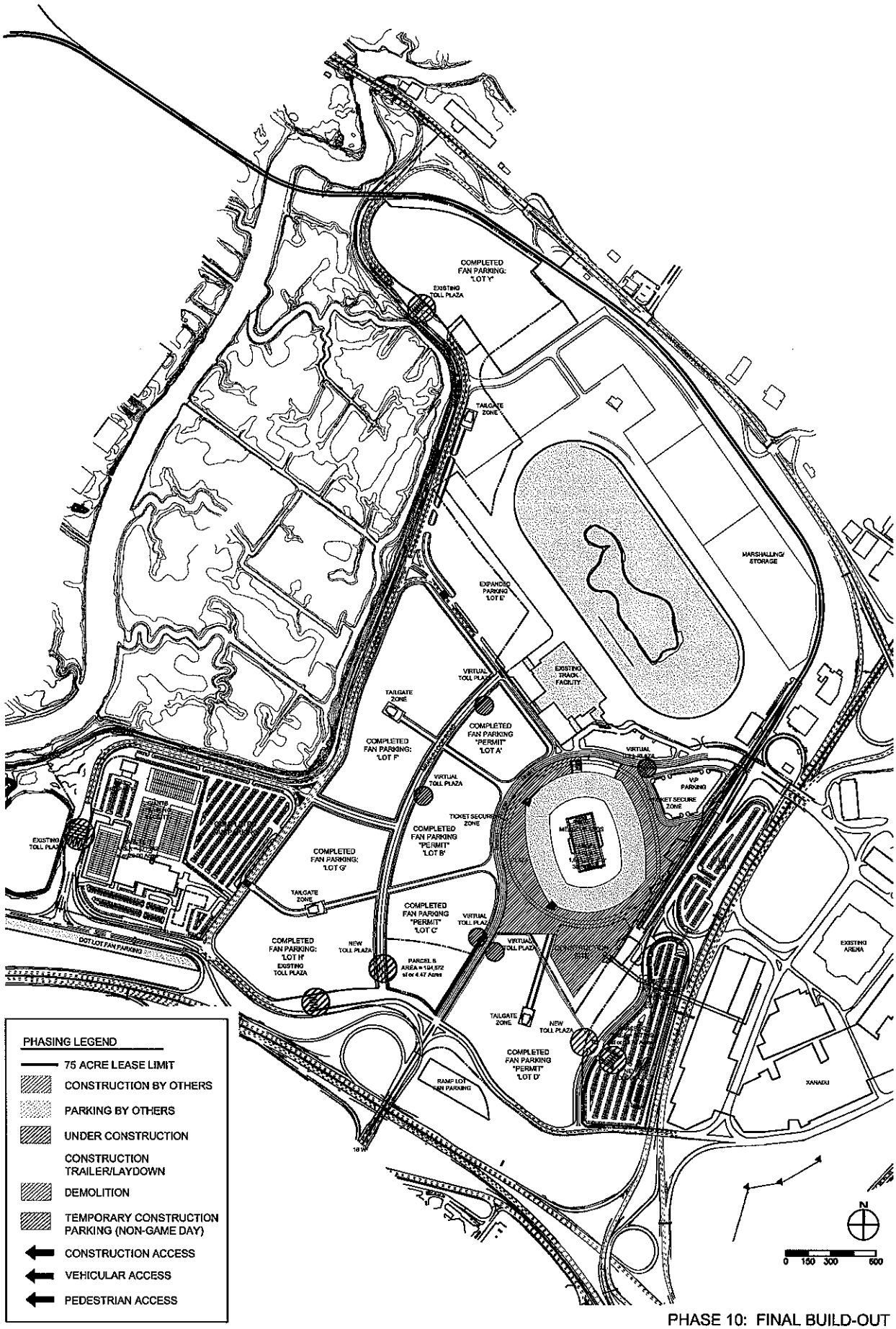
PHASE 7: BUILD-OUT
AUG '09- JAN '10



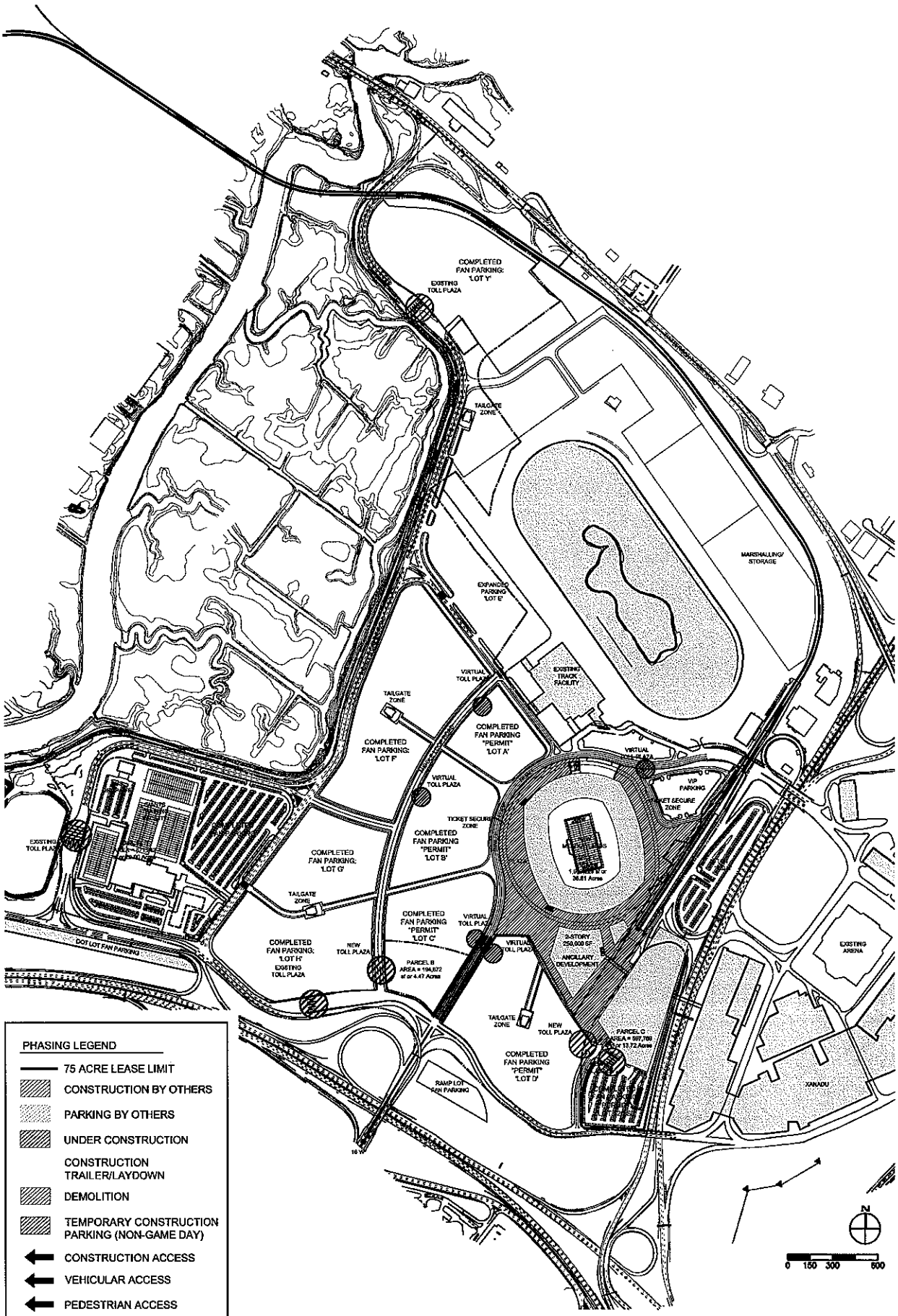
PHASE 8: BUILD-OUT
FEB '10- JULY '10



PHASE 9: BUILD-OUT
AUGUST '10



PHASE 10: FINAL BUILD-OUT
ANCILLARY CONSTRUCTION



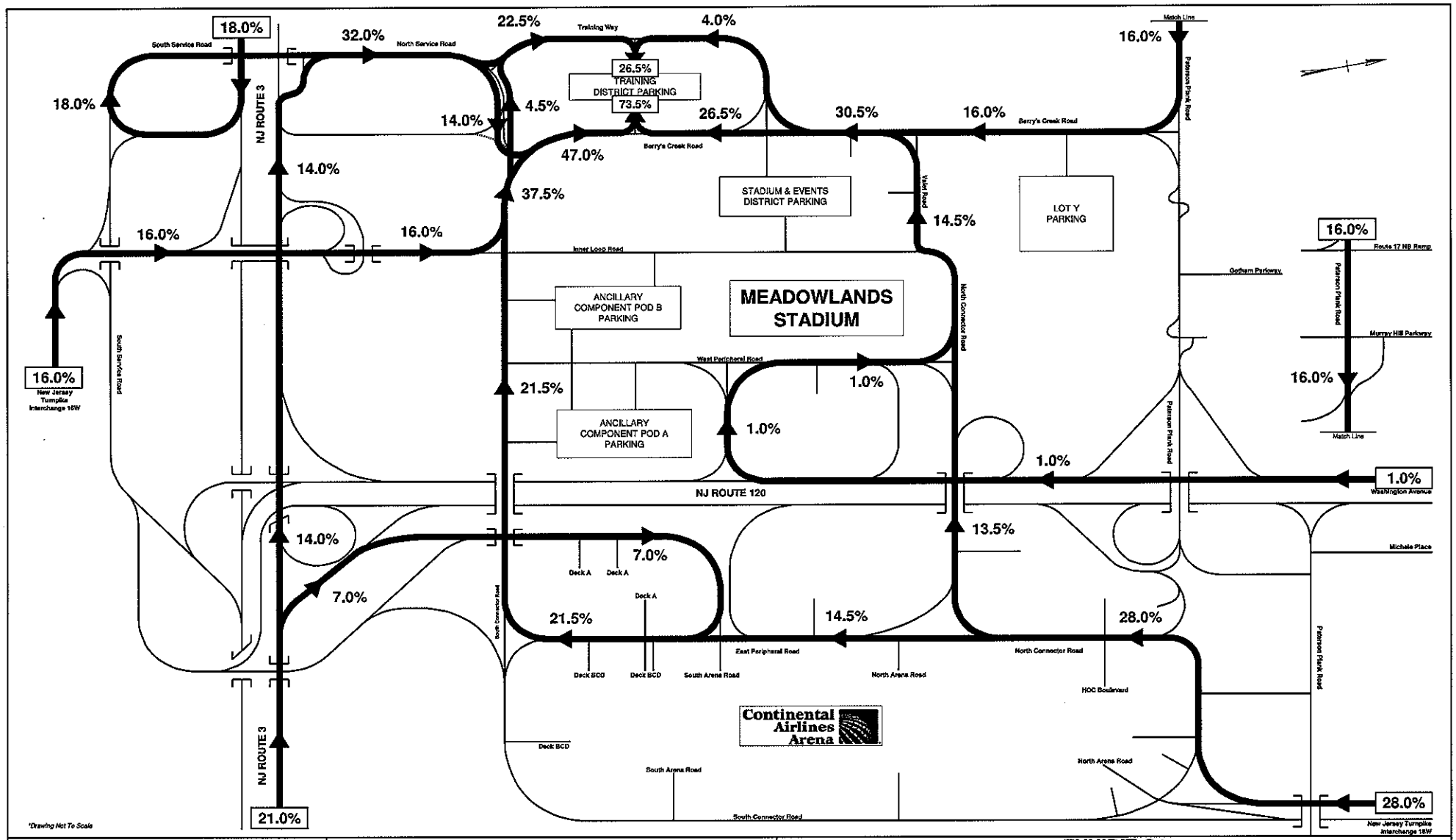
PHASE 11: FINAL BUILD-OUT
WITH ANCILLARY DEVELOPMENT

APPENDIX C

TRAFFIC ASSIGNMENT DIAGRAMS

LIST OF EXHIBITS

C-1 Entering Traffic Distribution – Training District
C-2 Entering Traffic Distribution – Stadium District
C-3 Entering Traffic Distribution – Ancillary Component Pod A
C-4 Entering Traffic Distribution – Ancillary Component Pod B
C-5 Exiting Traffic Distribution – Training District
C-6 Exiting Traffic Distribution – Stadium District
C-7 Exiting Traffic Distribution – Ancillary Component Pod A
C-8 Exiting Traffic Distribution – Ancillary Component Pod B



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NEW MEADOWLANDS STADIUM
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EXHIBIT C1
ENTERING TRAFFIC DISTRIBUTION
TRAINING DISTRICT

K:\2005-097 - giants-jets coordination\access permit application dec-2006\traffic impact study (lis)\appendix c - traffic assignment diagrams\trip distribution network

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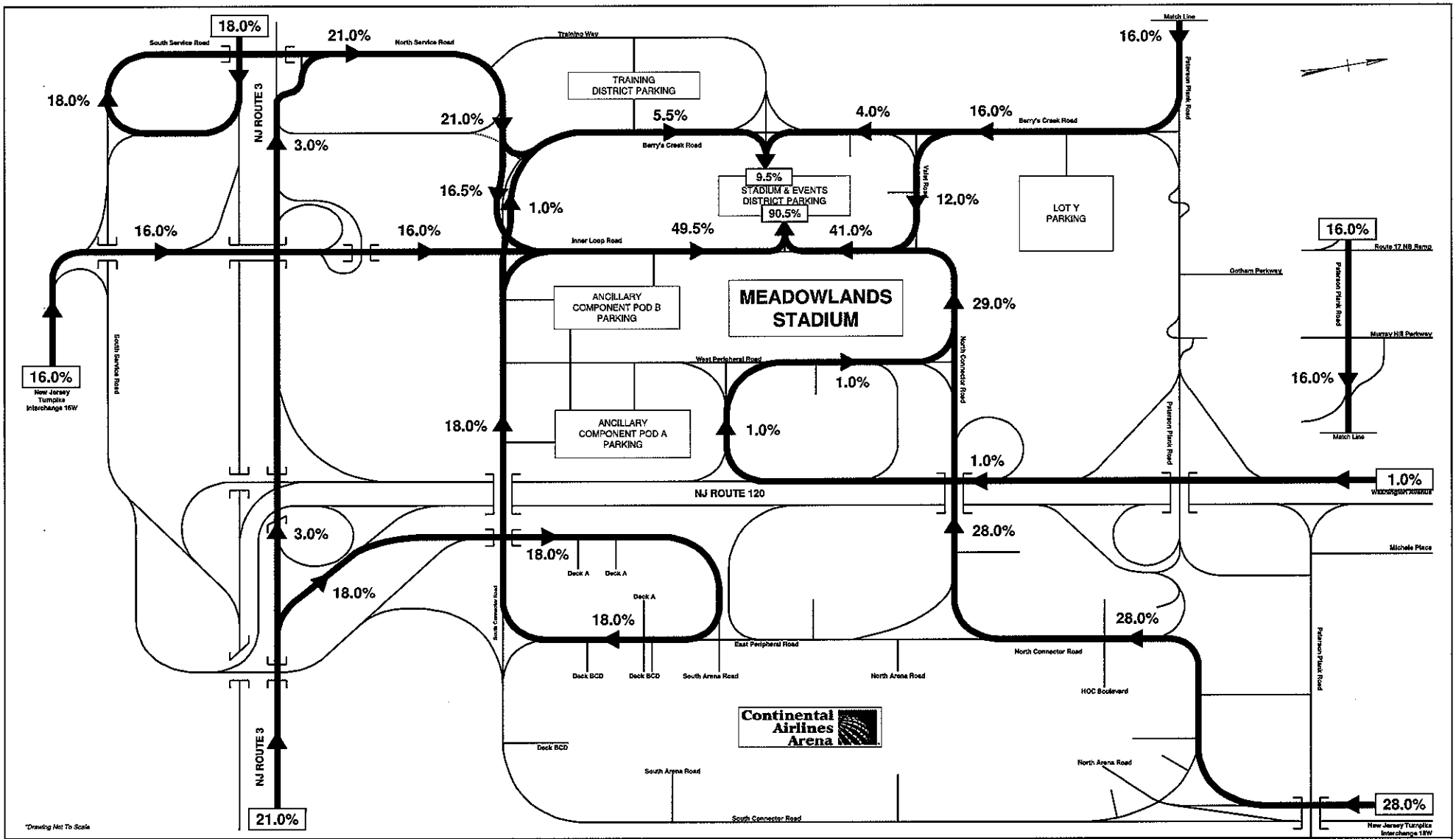

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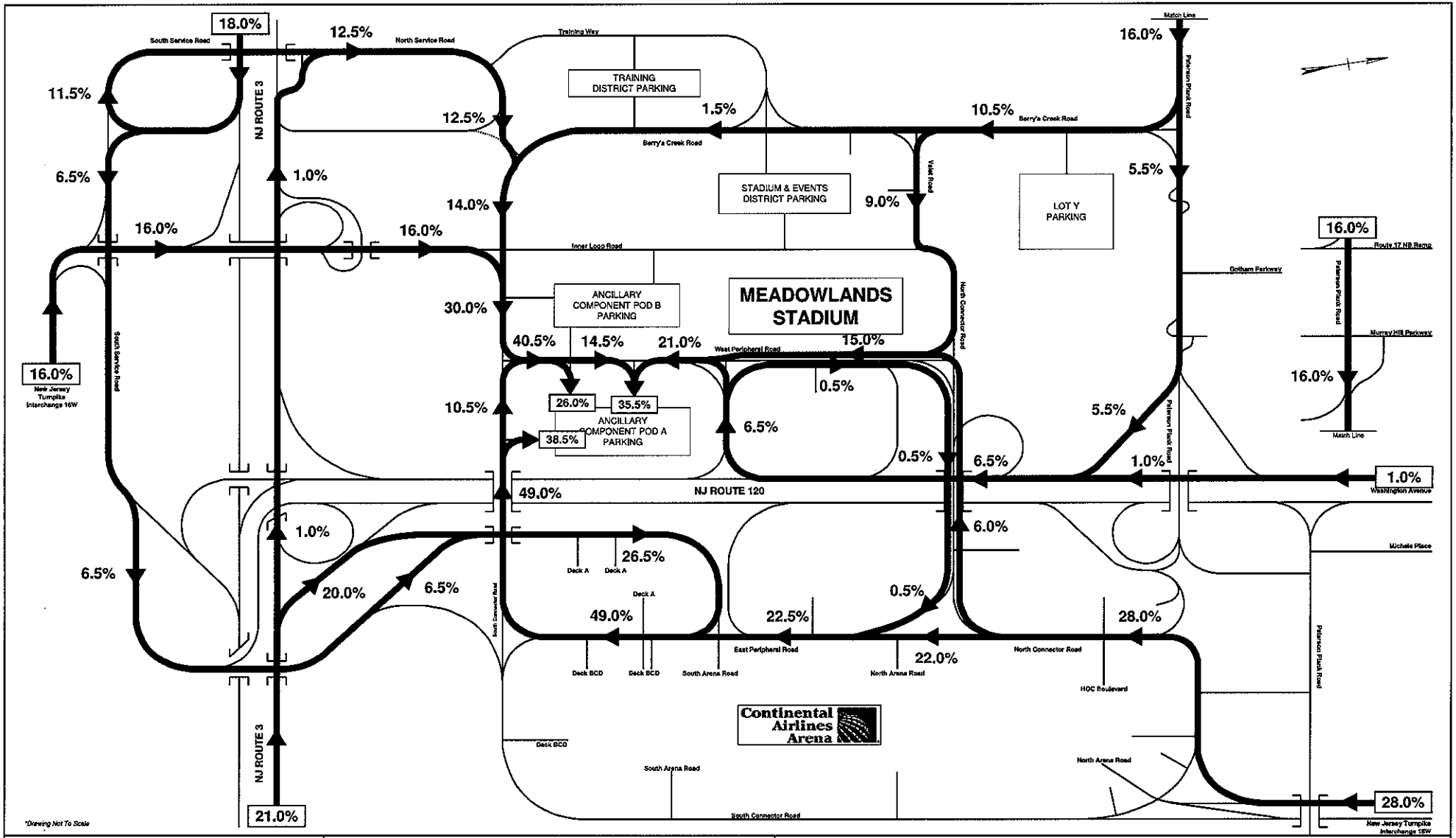
EXHIBIT C2
ENTERING TRAFFIC DISTRIBUTION
STADIUM DISTRICT



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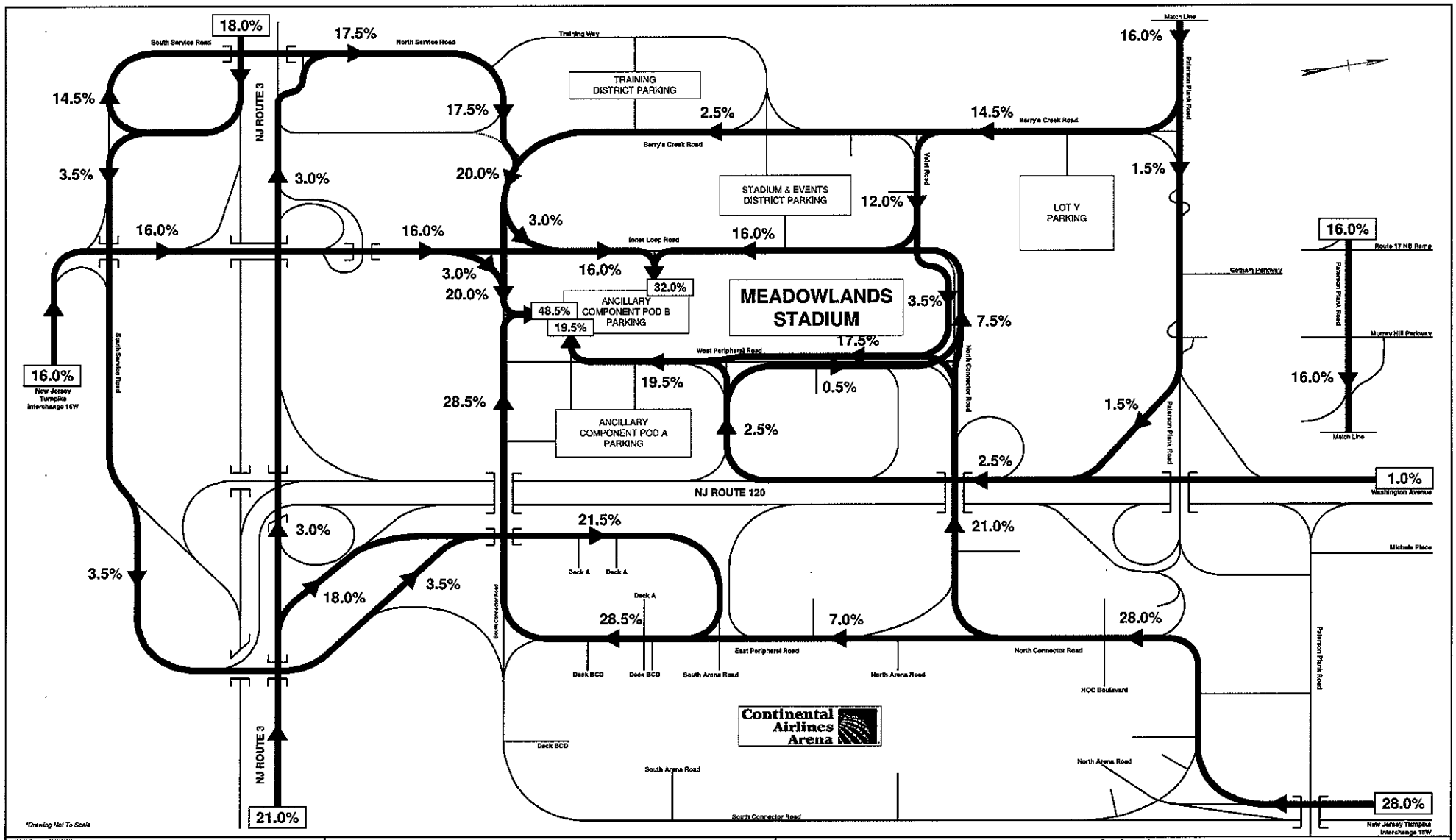
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT C3
ENTERING TRAFFIC DISTRIBUTION
ANCILLARY COMPONENT POD A



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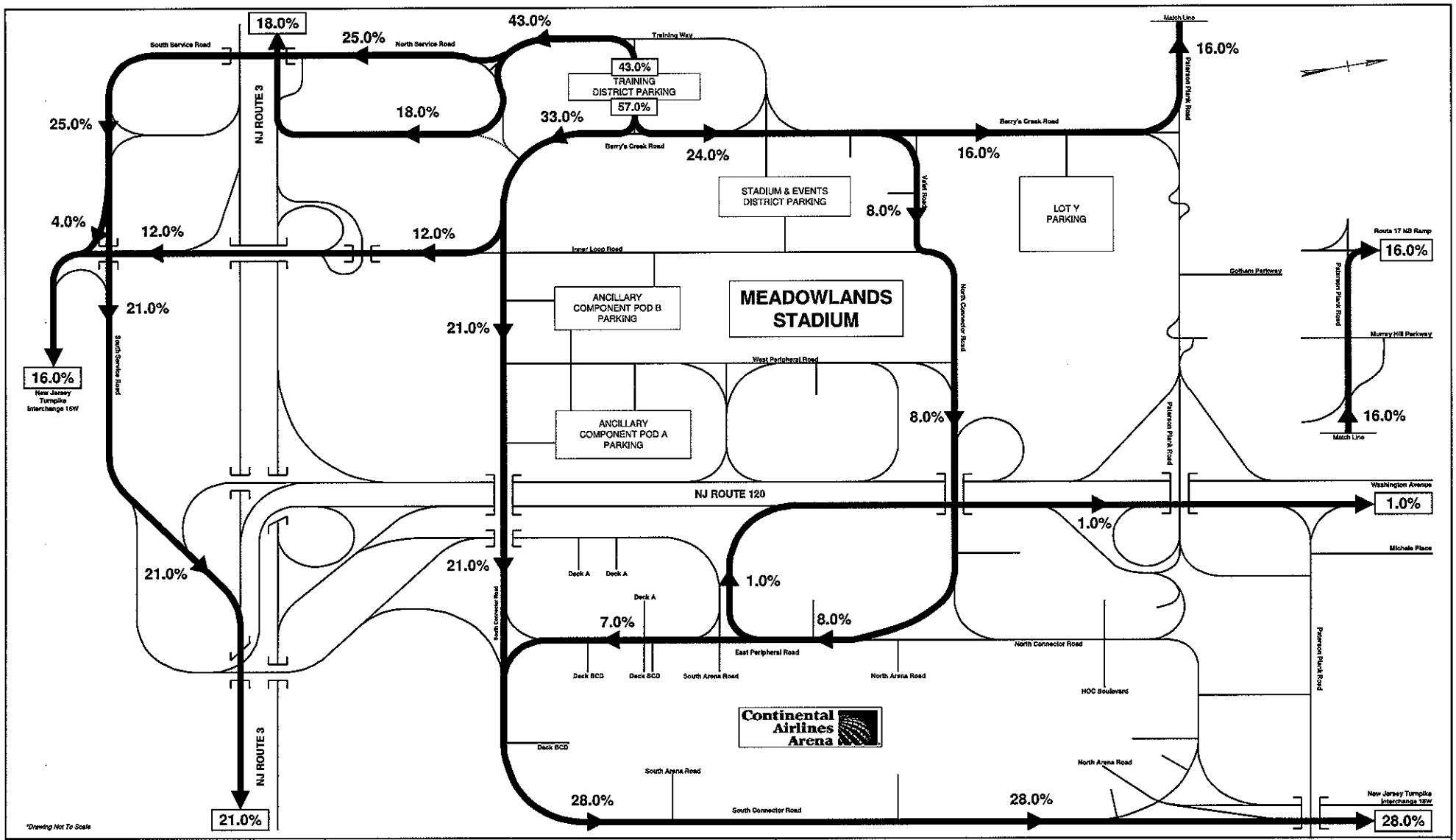
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT C4
ENTERING TRAFFIC DISTRIBUTION
ANCILLARY COMPONENT POD B



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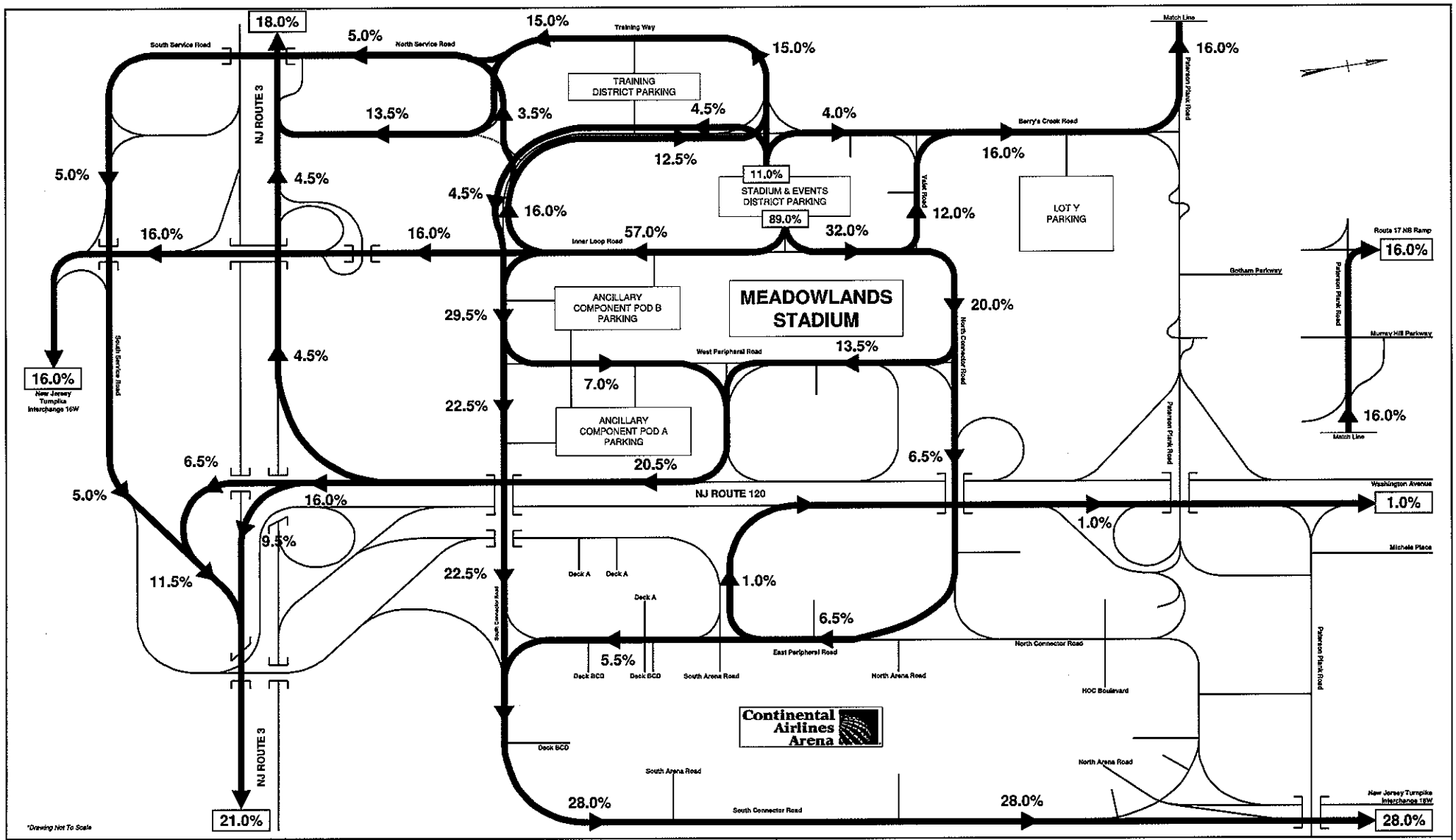
NEW MEADOWLANDS STADIUM AND ANCILLARY COMPONENTS

EXHIBIT C5
EXITING TRAFFIC DISTRIBUTION TRAINING DISTRICT



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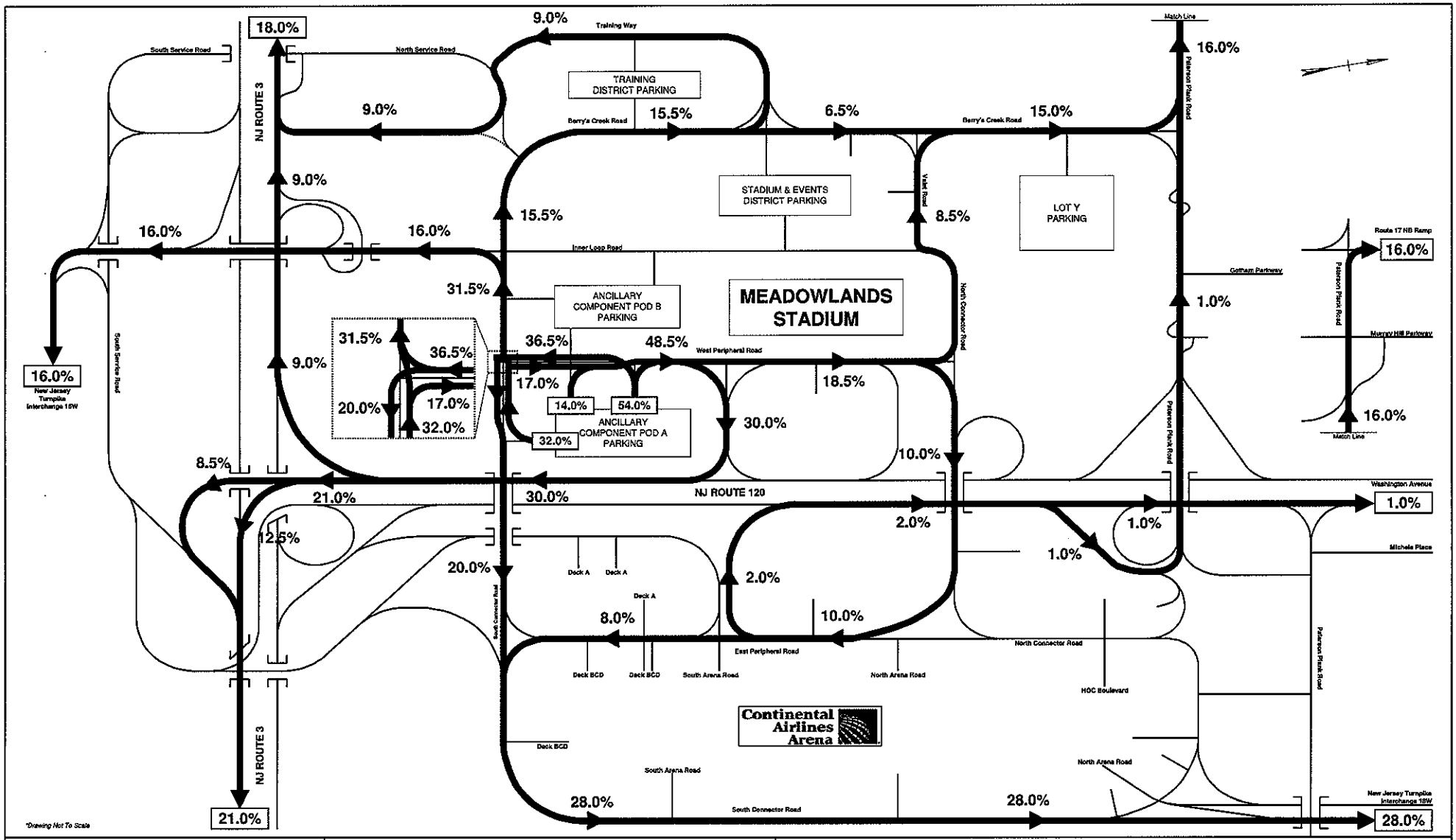
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT C6
EXITING TRAFFIC DISTRIBUTION
STADIUM DISTRICT



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AND ANCILLARY COMPONENTS

EXHIBIT C7
EXITING TRAFFIC DISTRIBUTION
ANCILLARY COMPONENT POD A

K:\2005-097 - giants-jets coordination\access permit application dec-2006\traffic impact study (tis)\appendix c - traffic assignment diagrams\trip distribution network

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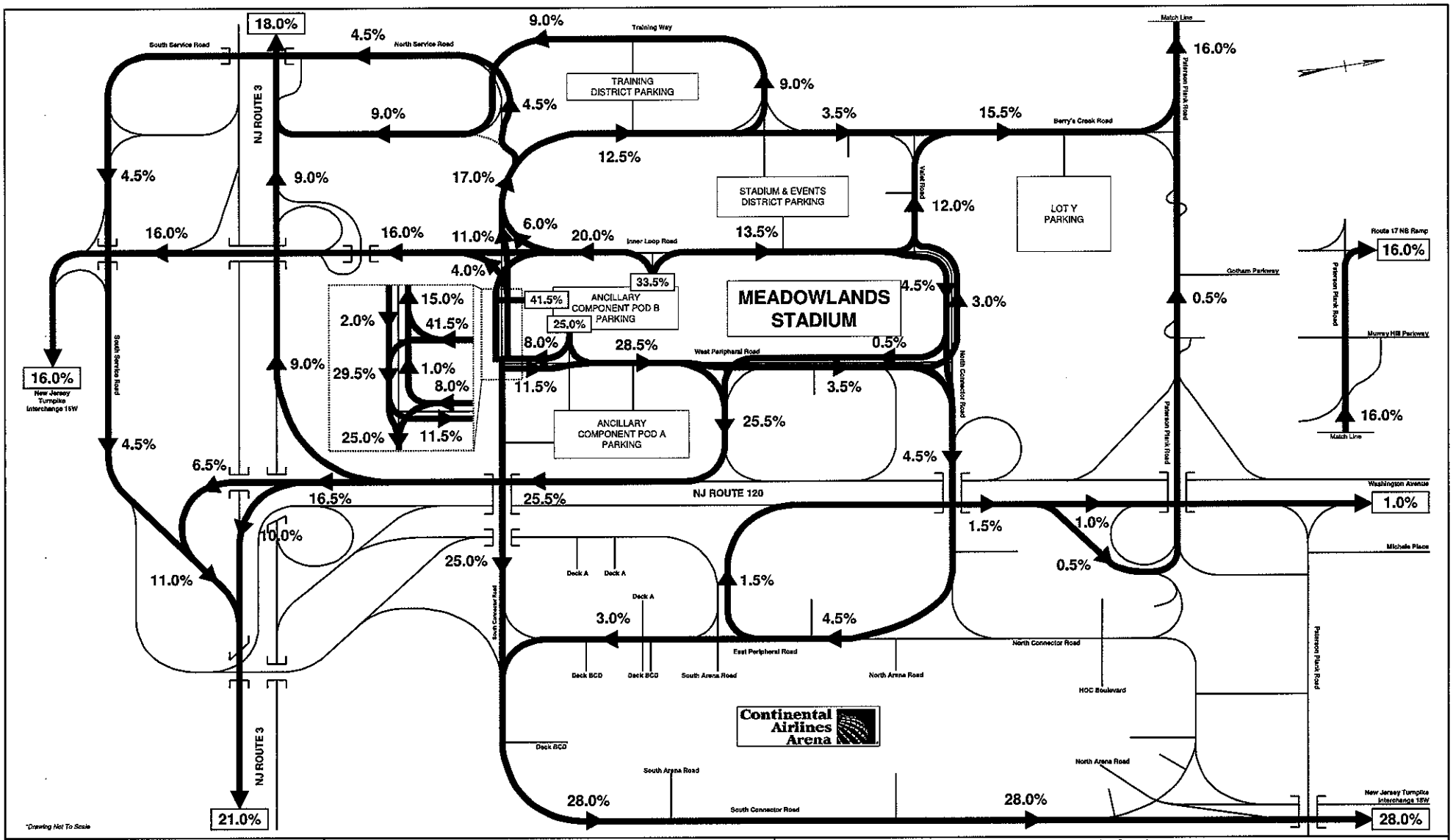

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AND ANCILLARY COMPONENTS

EXHIBIT C8
EXITING TRAFFIC DISTRIBUTION
ANCILLARY COMPONENT POD B

K:\2005-097 - giants-jets coordination\access permit application dec-2006\traffic impact study (tia)\appendix c - traffic assignment diagrams\trip distribution network

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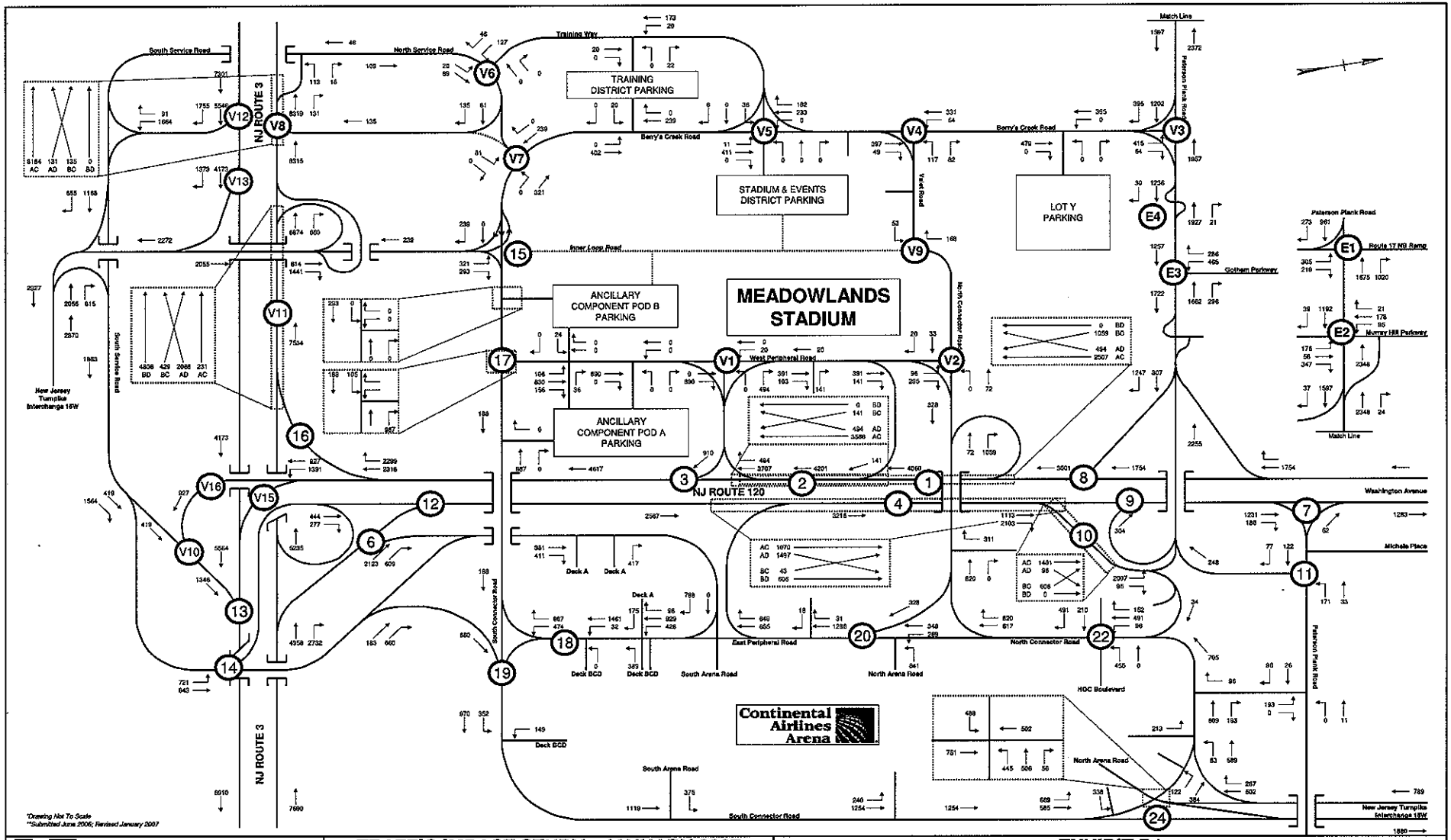
APPENDIX D

NO-BUILD BASELINE TRAFFIC VOLUMES DIAGRAMS 2010 AND 2013

LIST OF EXHIBITS

D-1 2010 No Build Baseline Volumes Weekday PM Peak Highway Hour
D-2 2010 No Build Baseline Volumes Weekday PM Peak Arena Event Hour
D-3 2010 No Build Baseline Volumes Saturday Peak Arena Event Hour
D-4 2013 No Build Baseline Volumes Weekday PM Peak Highway Hour
D-5 2013 No Build Baseline Volumes Weekday PM Peak Arena Event Hour
D-6 2013 No Build Baseline Volumes Saturday Peak Arena Event Hour



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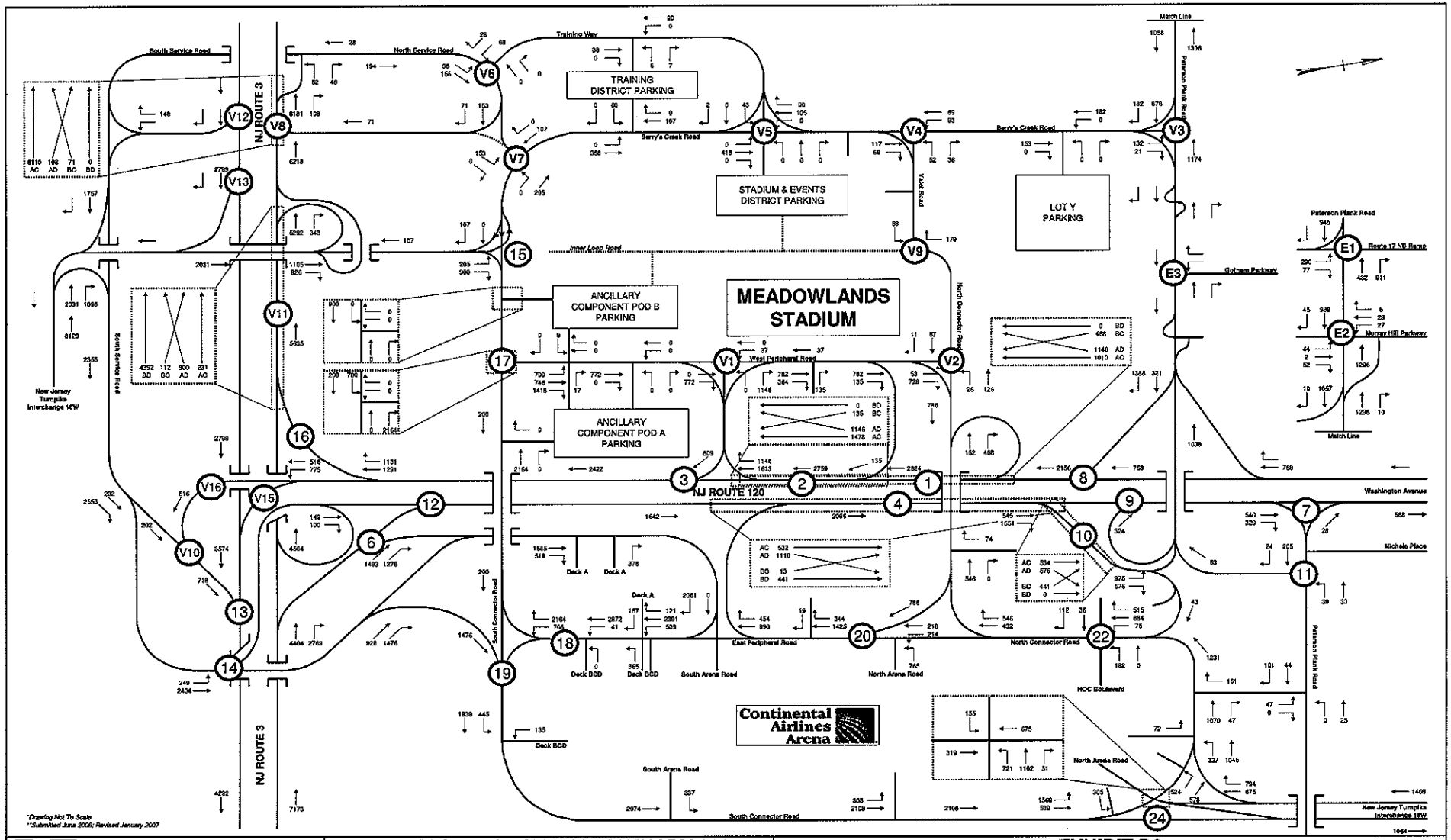
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT D1
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
2010 NO BUILD BASELINE VOLUMES

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007\pm24 pm highway volumes.xls\TRC Build 2010

1/29/2007



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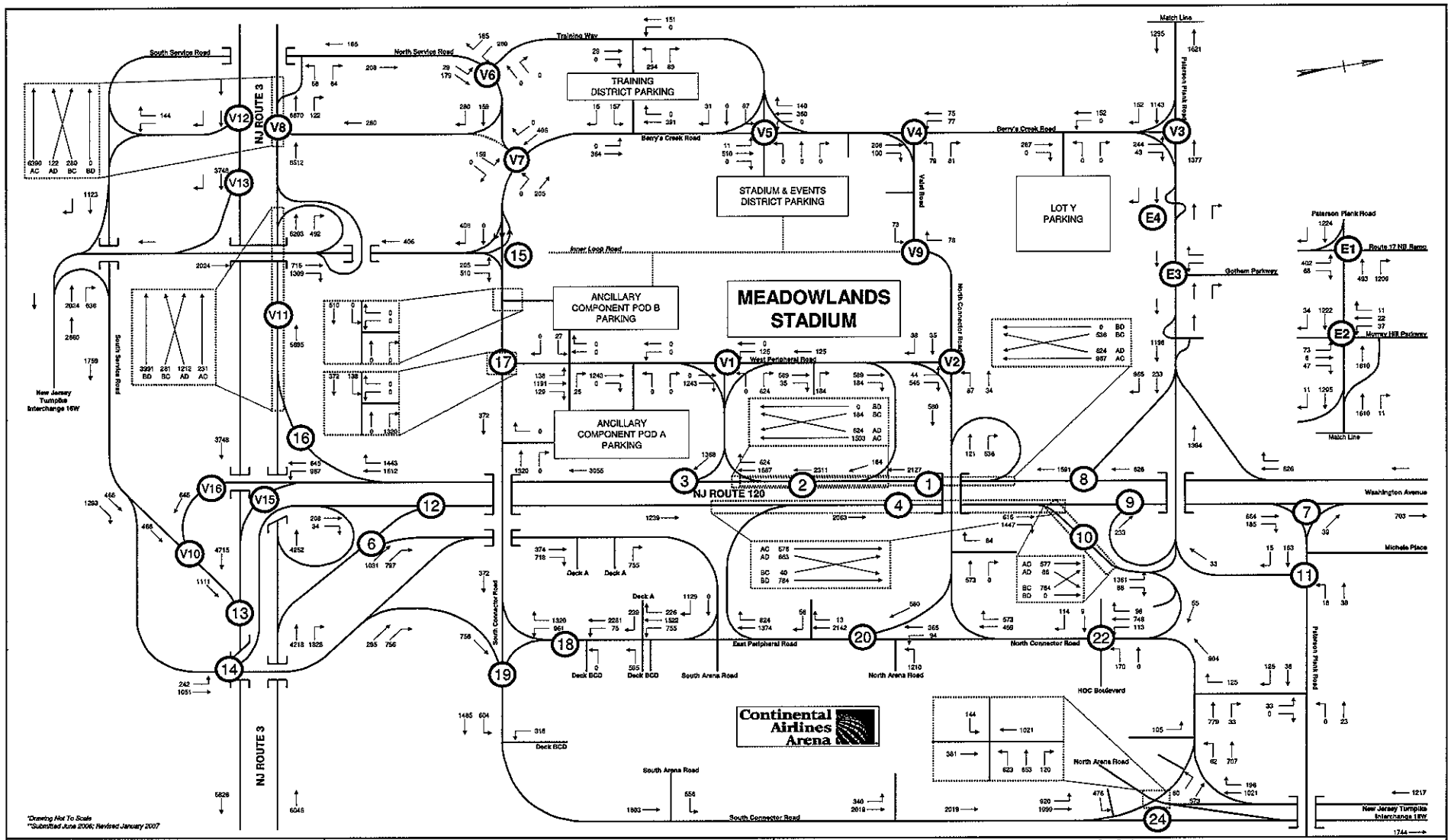
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT D2
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
2010 NO BUILD BASELINE VOLUMES



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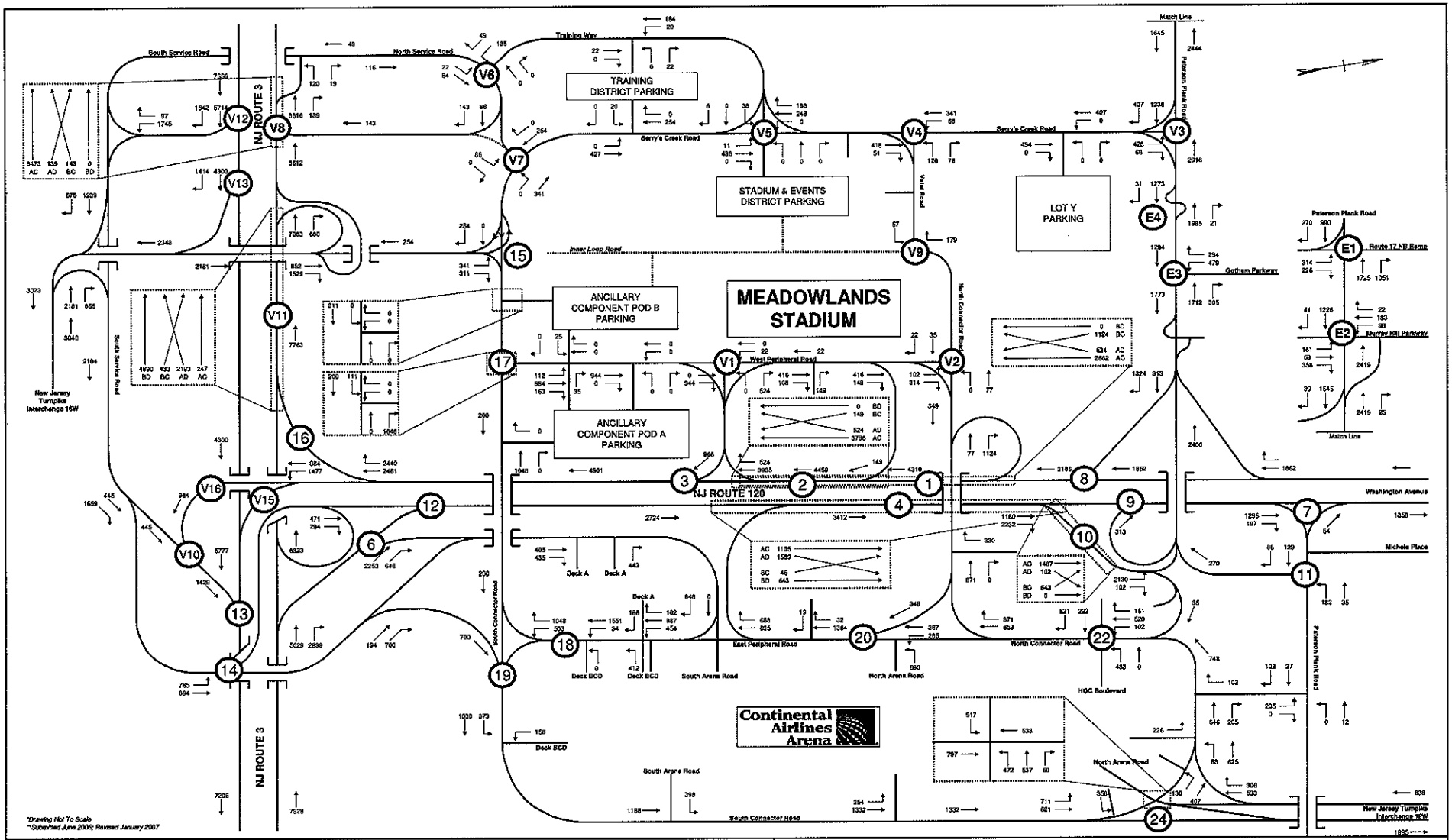
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT D3
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
2010 NO BUILD BASELINE VOLUMES

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007jan26 sat event volumes

1/29/2007



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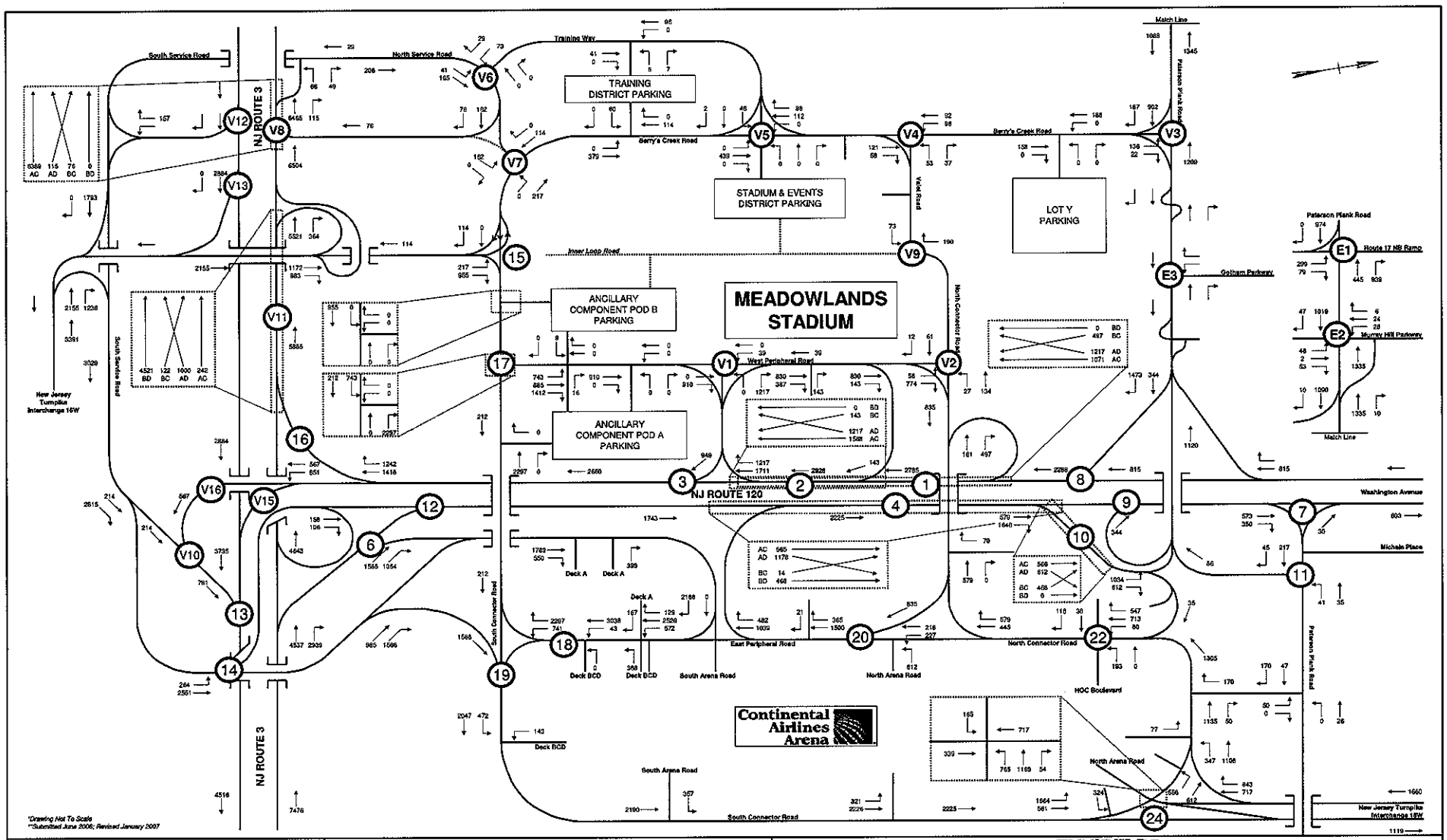
AND ANCILLARY COMPONENTS

EXHIBIT D4
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
2013 NO BUILD BASELINE VOLUMES

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007\jan24 pm highway volumes.xls\TRC Build 2013

1/29/2007



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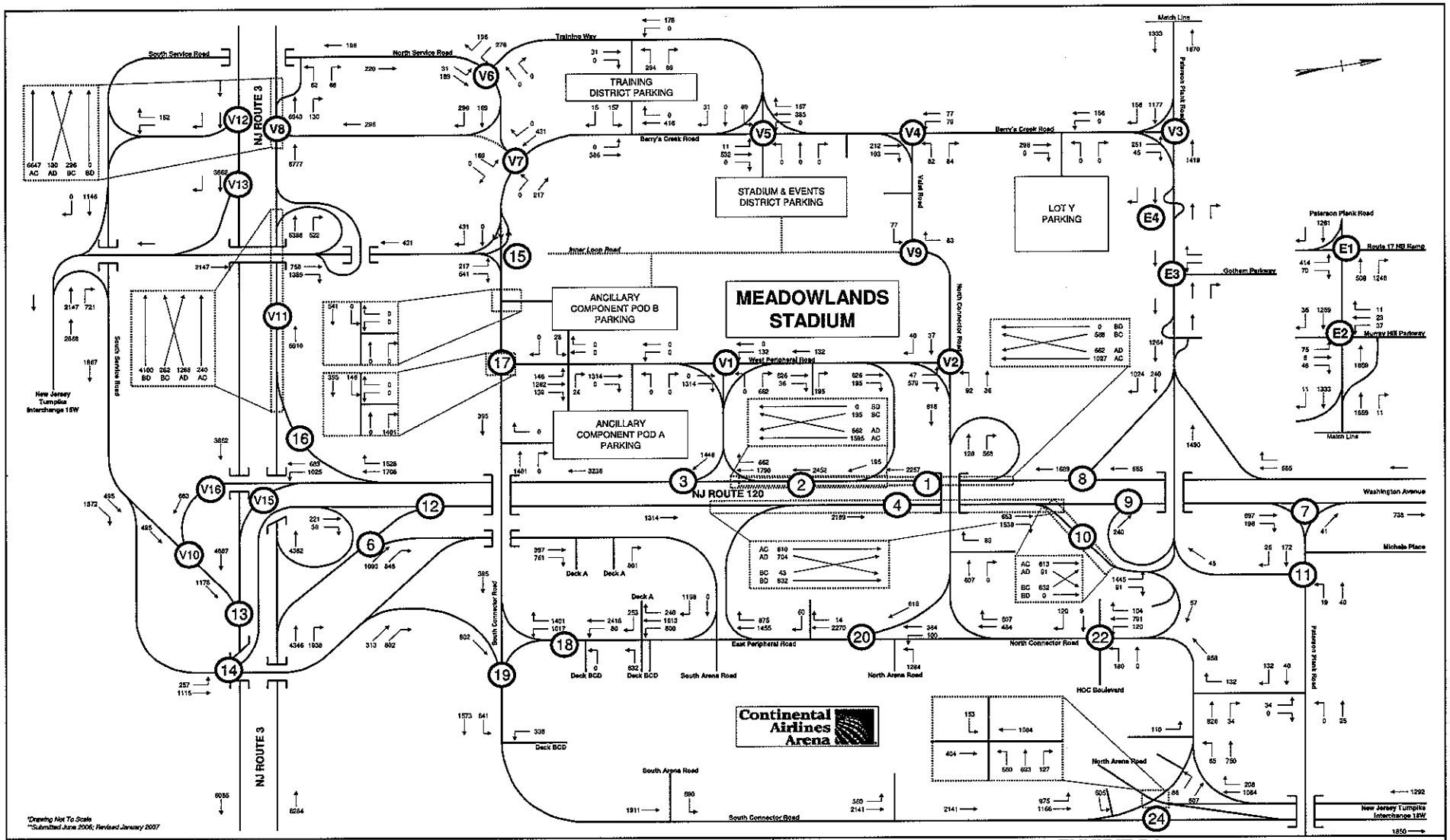
AND ANCILLARY COMPONENTS

EXHIBIT D5
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
2013 NO BUILD BASELINE VOLUMES



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TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT D6
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
2013 NO BUILD BASELINE VOLUMES

APPENDIX E

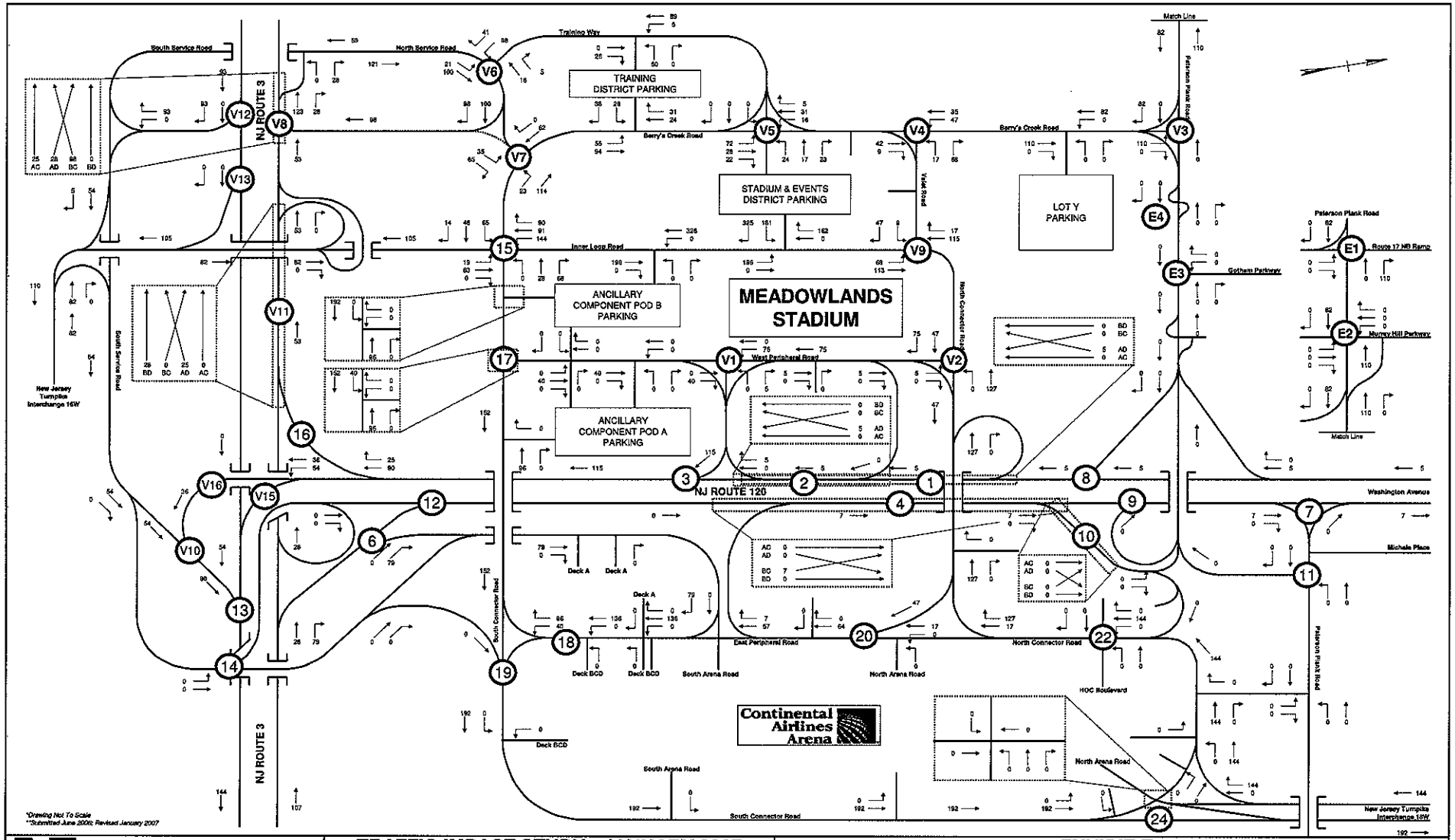
SITE GENERATED TRAFFIC VOLUMES DIAGRAMS
2010 and 2013

LIST OF EXHIBITS

E-1 Phase I – 2010 Total New Site Generated Trips Weekday PM Peak Highway Hour
E-2 Phase I – 2010 Total New Site Generated Trips Weekday PM Peak Arena Event Hour
E-3 Phase I – 2010 Total New Site Generated Trips Saturday Peak Arena Event Hour
E-4 Phase I – 2010 Total Pass-By Trips Weekday PM Peak Highway Hour
E-5 Phase I – 2010 Total Pass-By Trips Weekday PM Peak Arena Event Hour
E-6 Phase I – 2010 Total Pass-By Trips Saturday Peak Arena Event Hour
E-7 Phase I – 2010 Total New Site Generated & Pass-By Trips Weekday PM Peak Highway Hour
E-8 Phase I – 2010 Total New Site Generated & Pass-By Trips Weekday PM Peak Arena Event Hour
E-9 Phase I – 2010 Total New Site Generated & Pass-By Trips Saturday Peak Arena Event Hour
E-10 Phase II – 2013 Total New Site Generated Trips Weekday PM Peak Highway Hour
E-11 Phase II – 2013 Total New Site Generated Trips Weekday PM Peak Arena Event Hour
E-12 Phase II – 2013 Total New Site Generated Trips Saturday Peak Arena Event Hour
E-13 Phase II – 2013 Total Pass-By Trips Weekday PM Peak Highway Hour
E-14 Phase II – 2013 Total Pass-By Trips Weekday PM Peak Arena Event Hour
E-15 Phase II – 2013 Total Pass-By Trips Saturday Peak Arena Event Hour
E-16 Phase II – 2013 Total New Site Generated & Pass-By Trips Weekday PM Peak Highway Hour
E-17 Phase II – 2013 Total New Site Generated & Pass-By Trips Weekday PM Peak Arena Event Hour
E-18 Phase II – 2013 Total New Site Generated & Pass-By Trips Saturday Peak Arena Event Hour
E-19 Phases I & II – 2013 Total New Site Generated Trips Weekday PM Peak Highway Hour
E-20 Phases I & II – 2013 Total New Site Generated Trips Weekday PM Peak Arena Event Hour

LIST OF EXHIBITS (continued)

E-21 Phases I & II – 2013 Total New Site Generated Trips Saturday Peak Arena Event Hour
E-22 Phases I & II – 2013 Total Pass-By Trips Weekday PM Peak Highway Hour
E-23 Phases I & II – 2013 Total Pass-By Trips Weekday PM Peak Arena Event Hour
E-24 Phases I & II – 2013 Total Pass-By Trips Saturday Peak Arena Event Hour
E-25 Phases I & II – 2013 Total New Site Generated & Pass-By Trips Weekday PM Peak Highway Hour
E-26 Phases I & II – 2013 Total New Site Generated & Pass-By Trips Weekday PM Peak Arena Event Hour
E-27 Phases I & II – 2013 Total New Site Generated & Pass-By Trips Saturday Peak Arena Event Hour



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TRAFFIC IMPACT STUDY - JANUARY 2007
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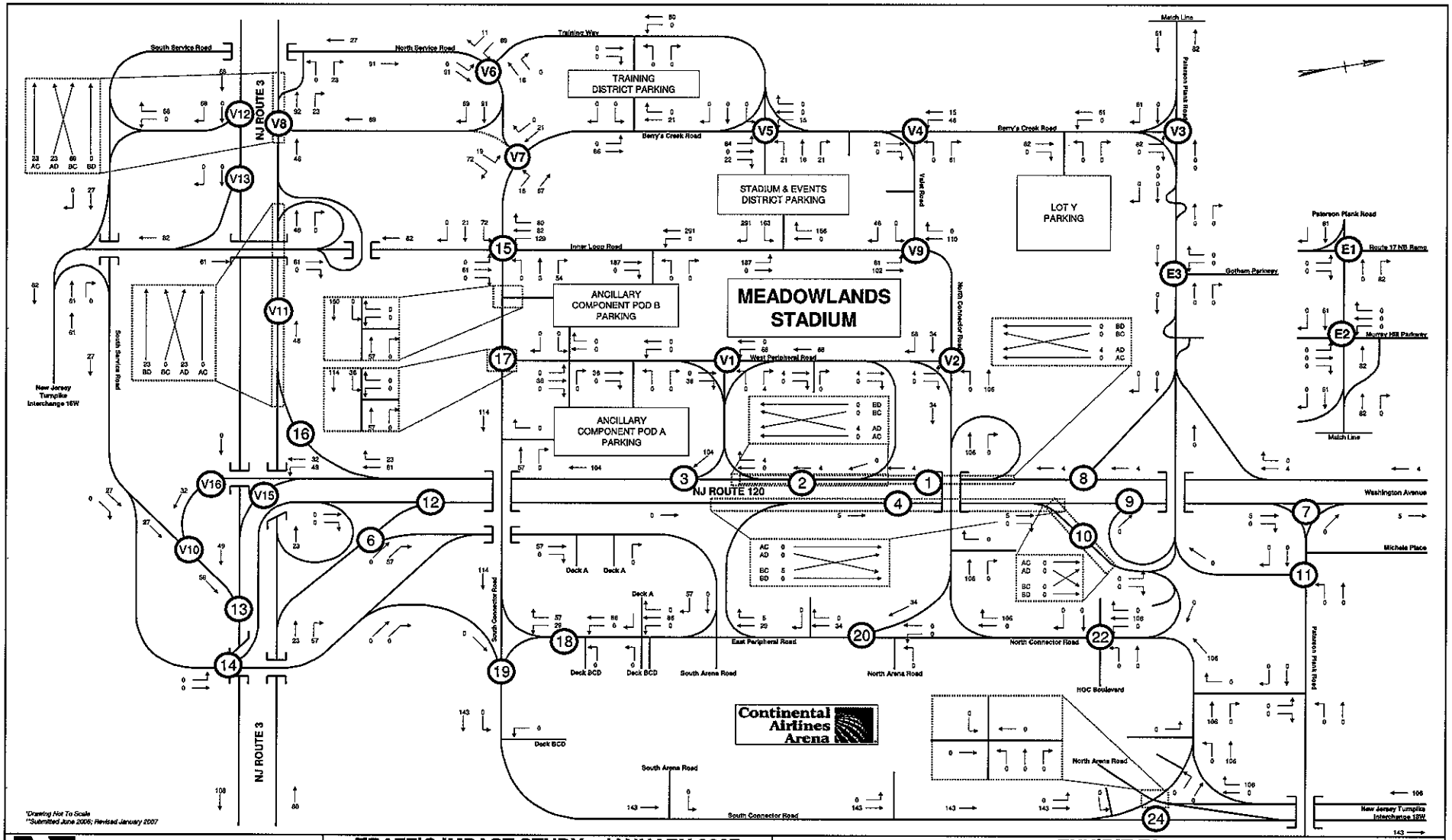
AND ANCILLARY COMPONENTS

EXHIBIT E1
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASE I - 2010 TOTAL NEW SITE GENERATED TRIPS

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007\jan24 pm highway volumes.xls\2010 Subtotal - New Trip

1/29/2007



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TRAFFIC IMPACT STUDY - JANUARY 2007
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EXHIBIT E2
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASE I - 2010 TOTAL NEW SITE GENERATED TRIPS

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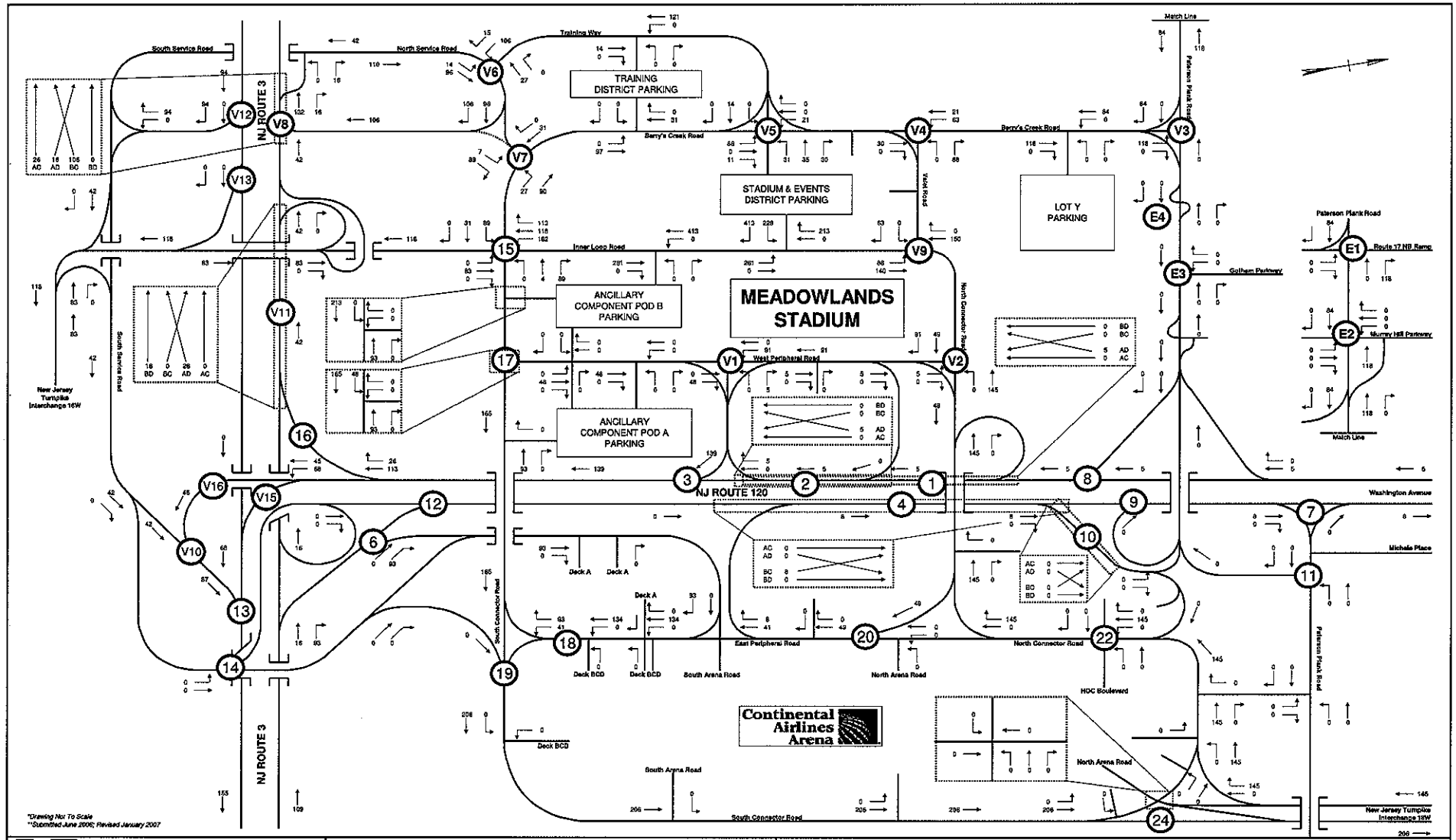
1/29/2007



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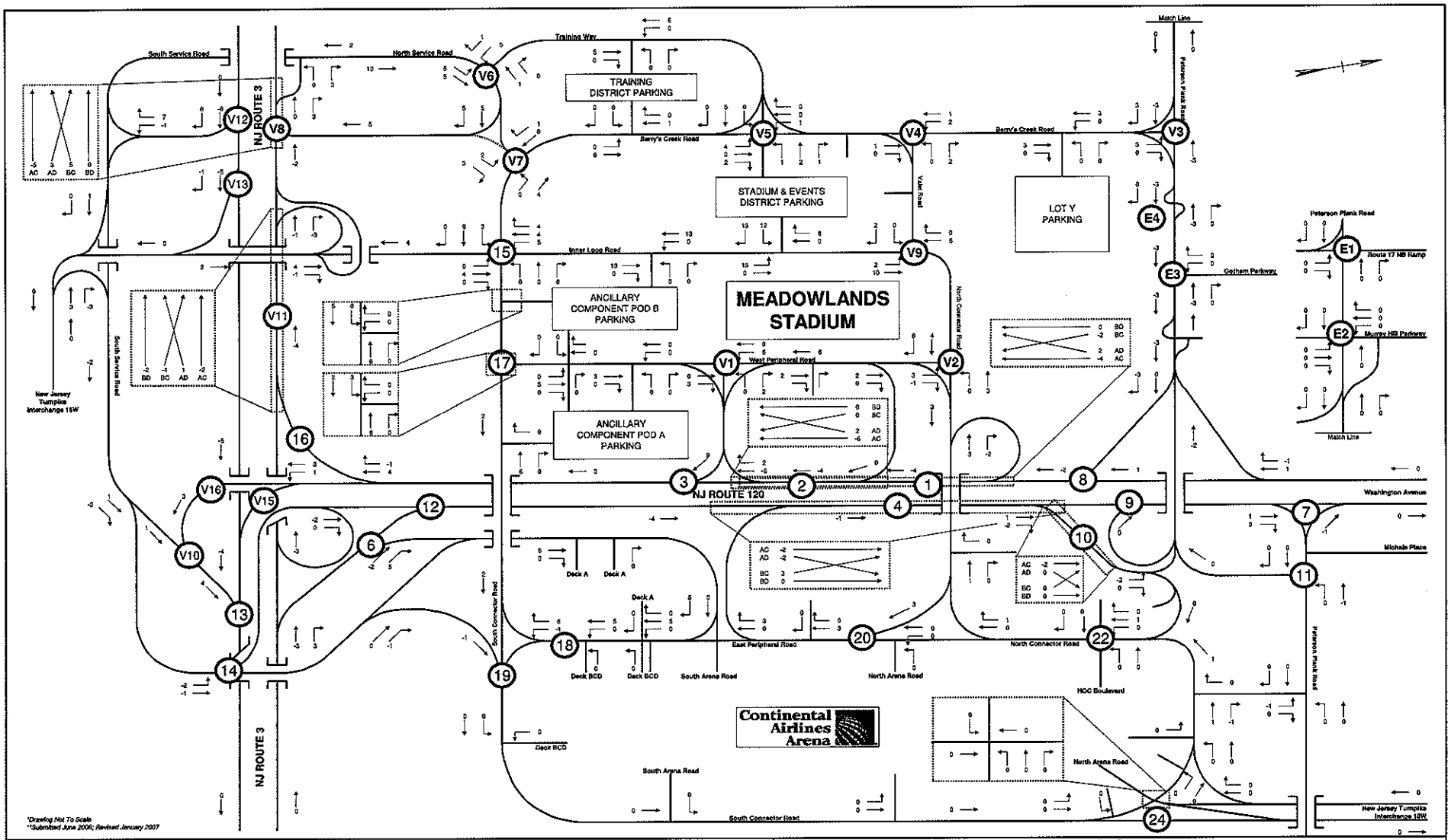
AND ANCILLARY COMPONENTS

EXHIBIT E3
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASE I - 2010 TOTAL NEW SITE GENERATED TRIPS



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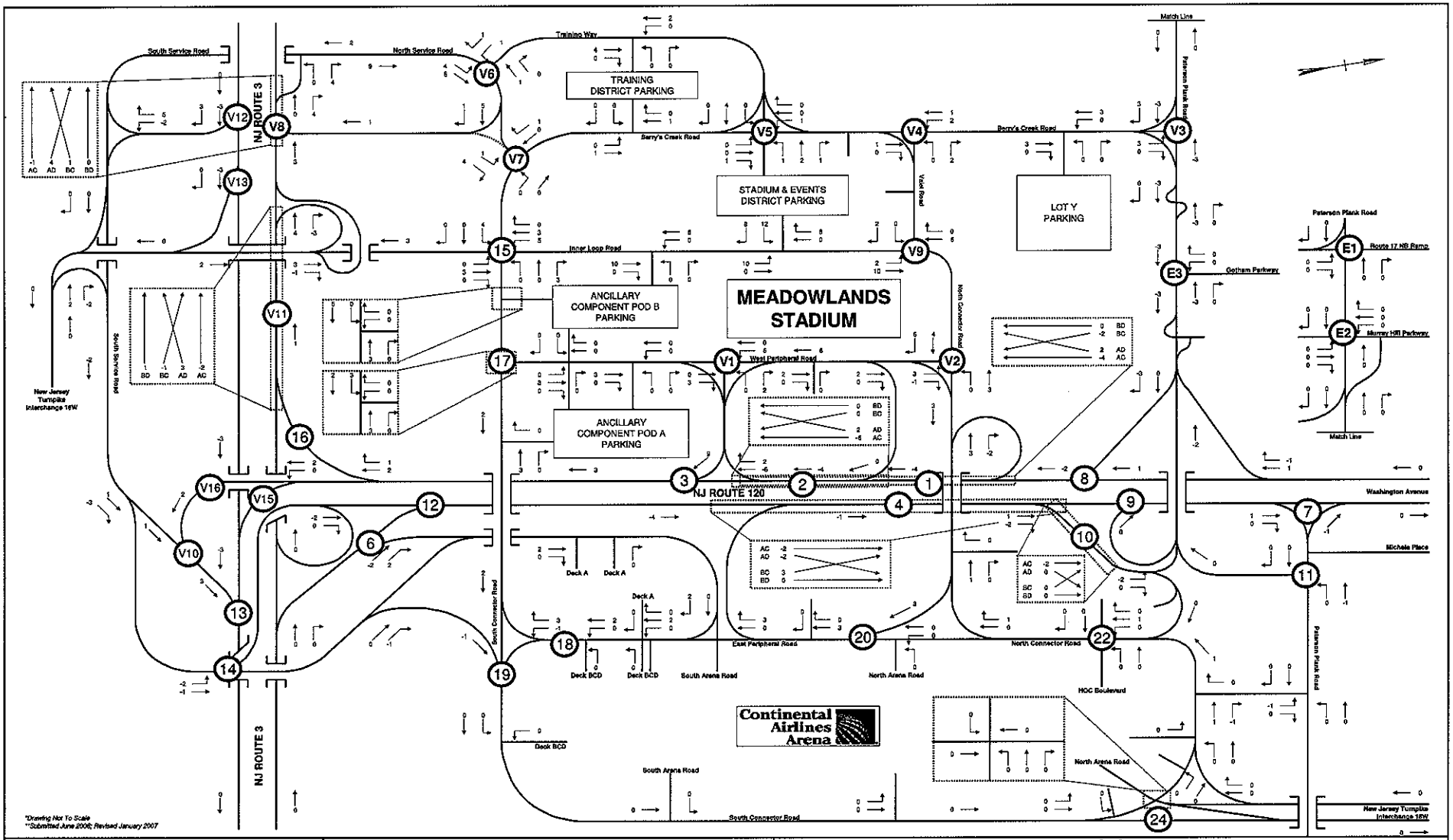
AND ANCILLARY COMPONENTS

EXHIBIT E4
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASE I - 2010 TOTAL PASS-BY TRIPS

K:\2005-097 - giants-jets coordination\traffic\volumes\january 2007\2007\jan24 pm highway volumes.xls\2010 Subtotal - Pass By

1/29/2007



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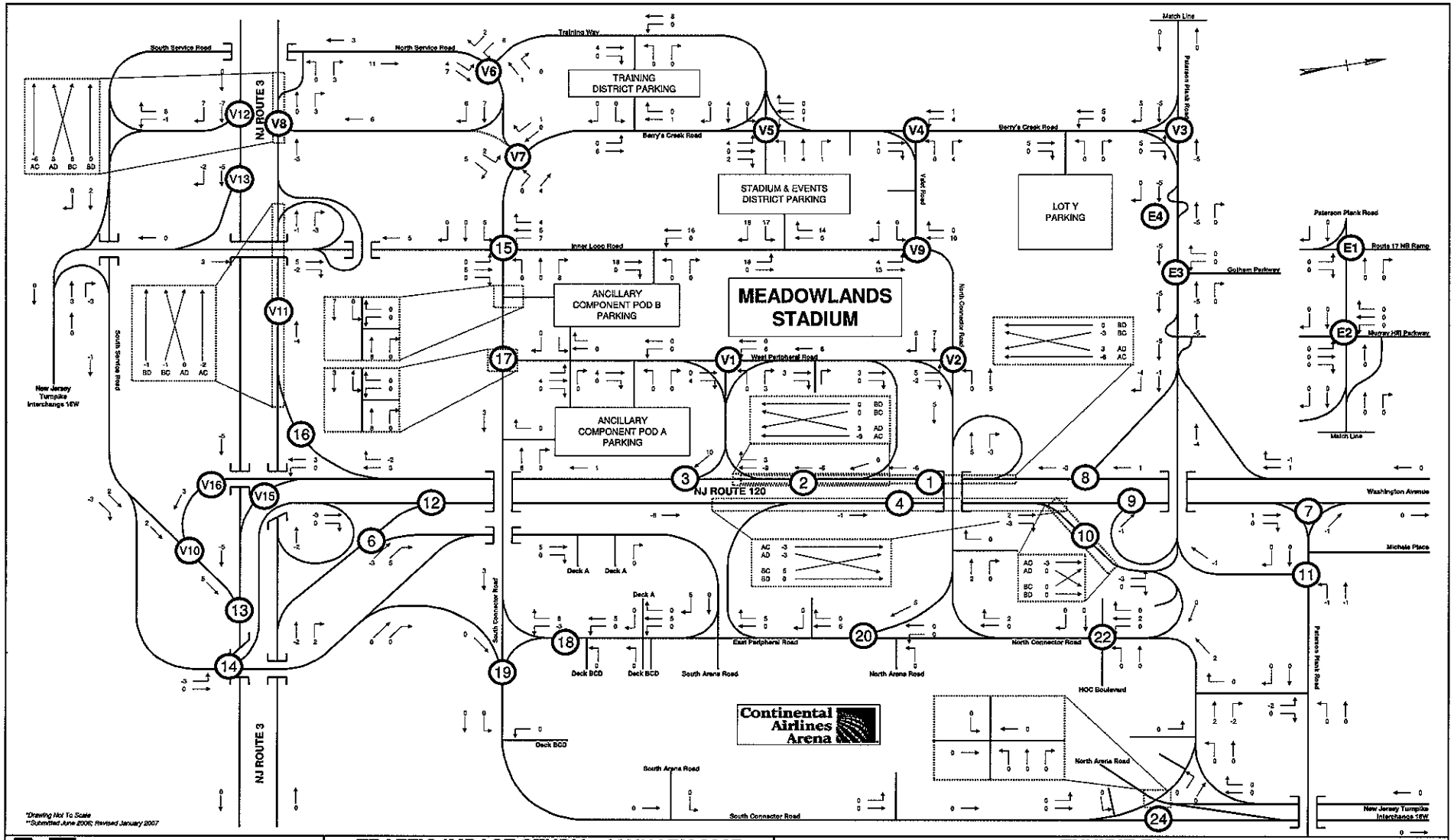
AND ANCILLARY COMPONENTS

EXHIBIT E5
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASE I - 2010 TOTAL PASS-BY TRIPS



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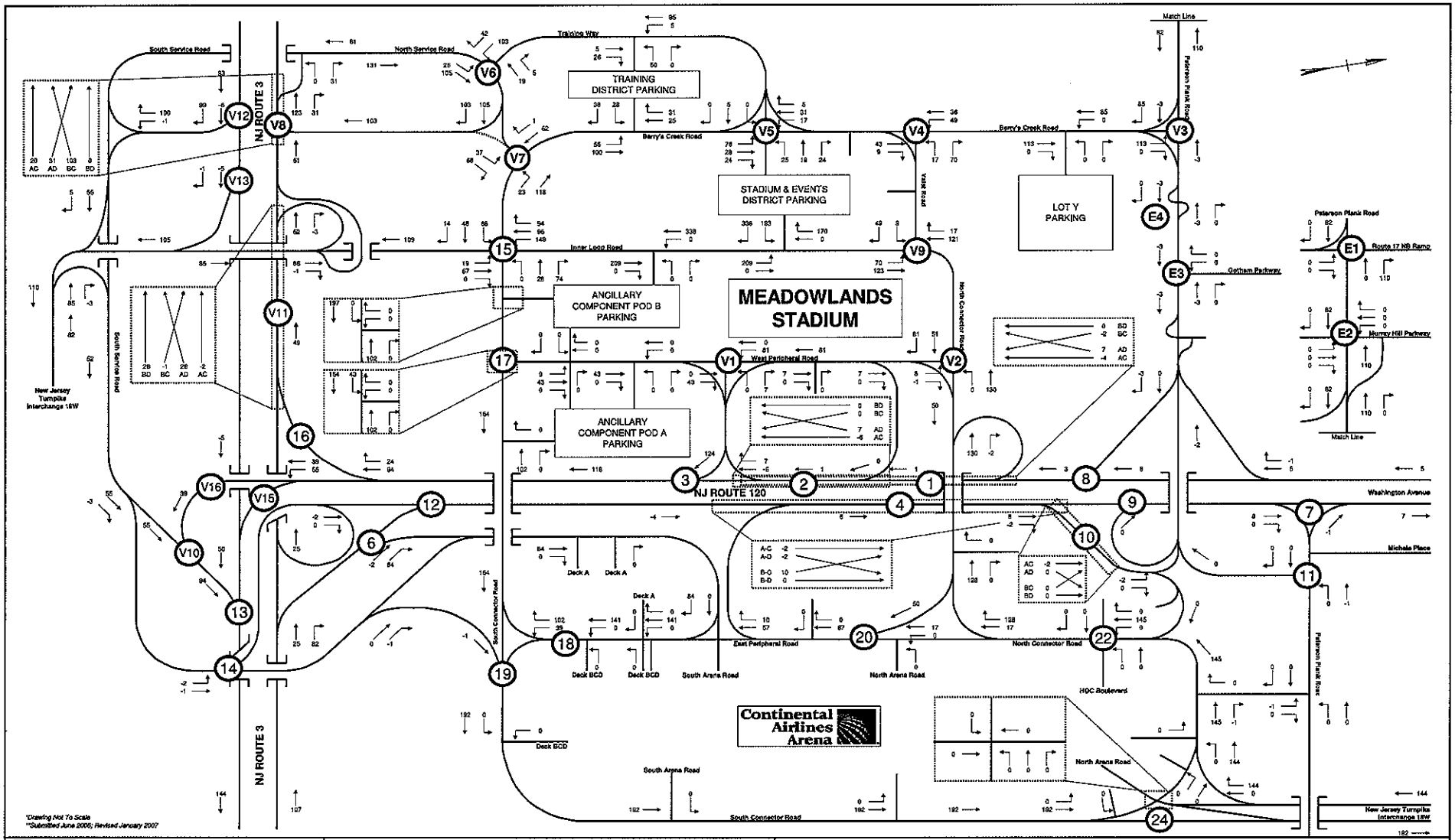
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E6
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASE I - 2010 TOTAL PASS-BY TRIPS



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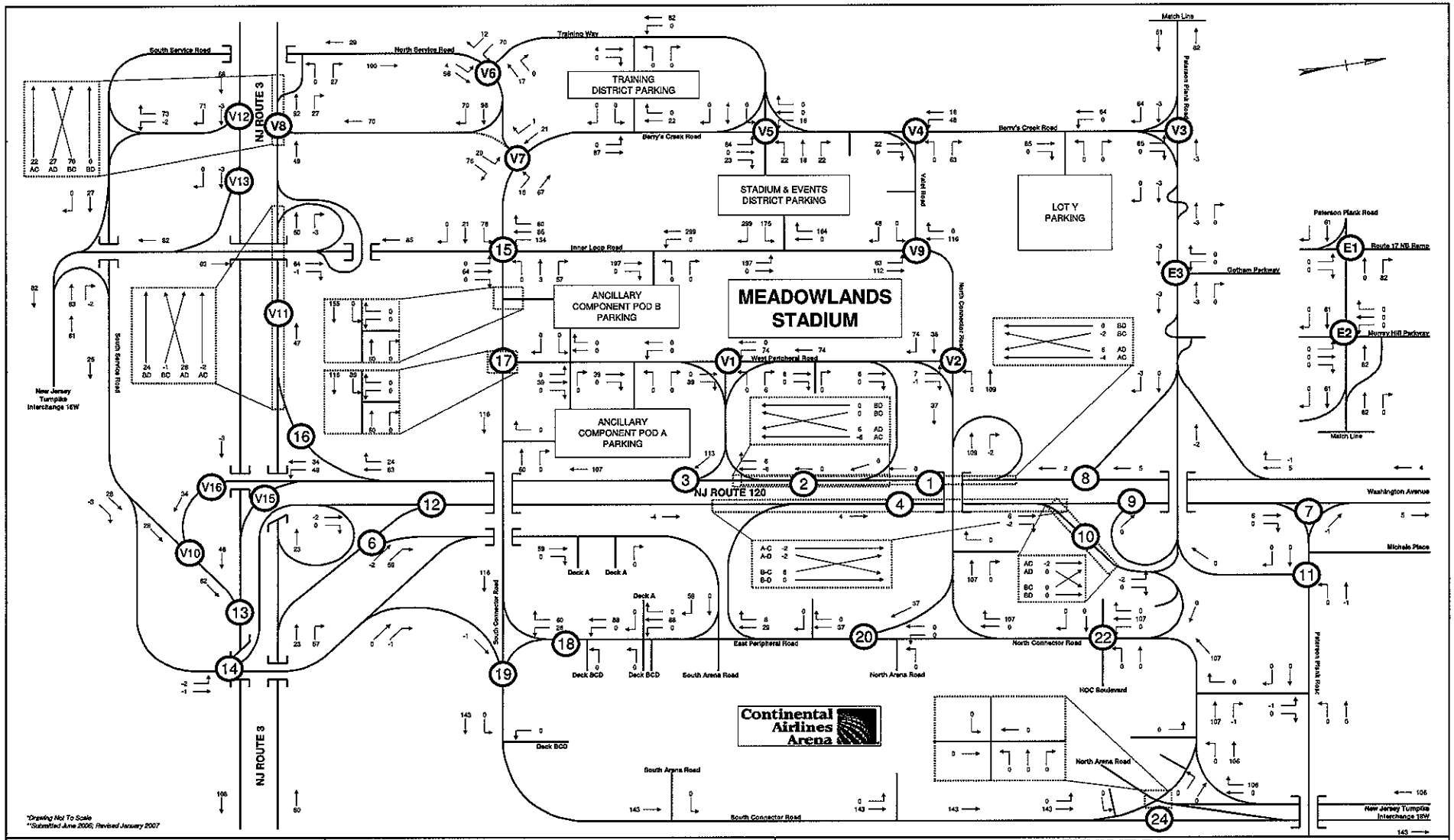
AND ANCILLARY COMPONENTS

EXHIBIT E7
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASE I - 2010 TOTAL NEW SITE GENERATED & PASS-BY TRIPS



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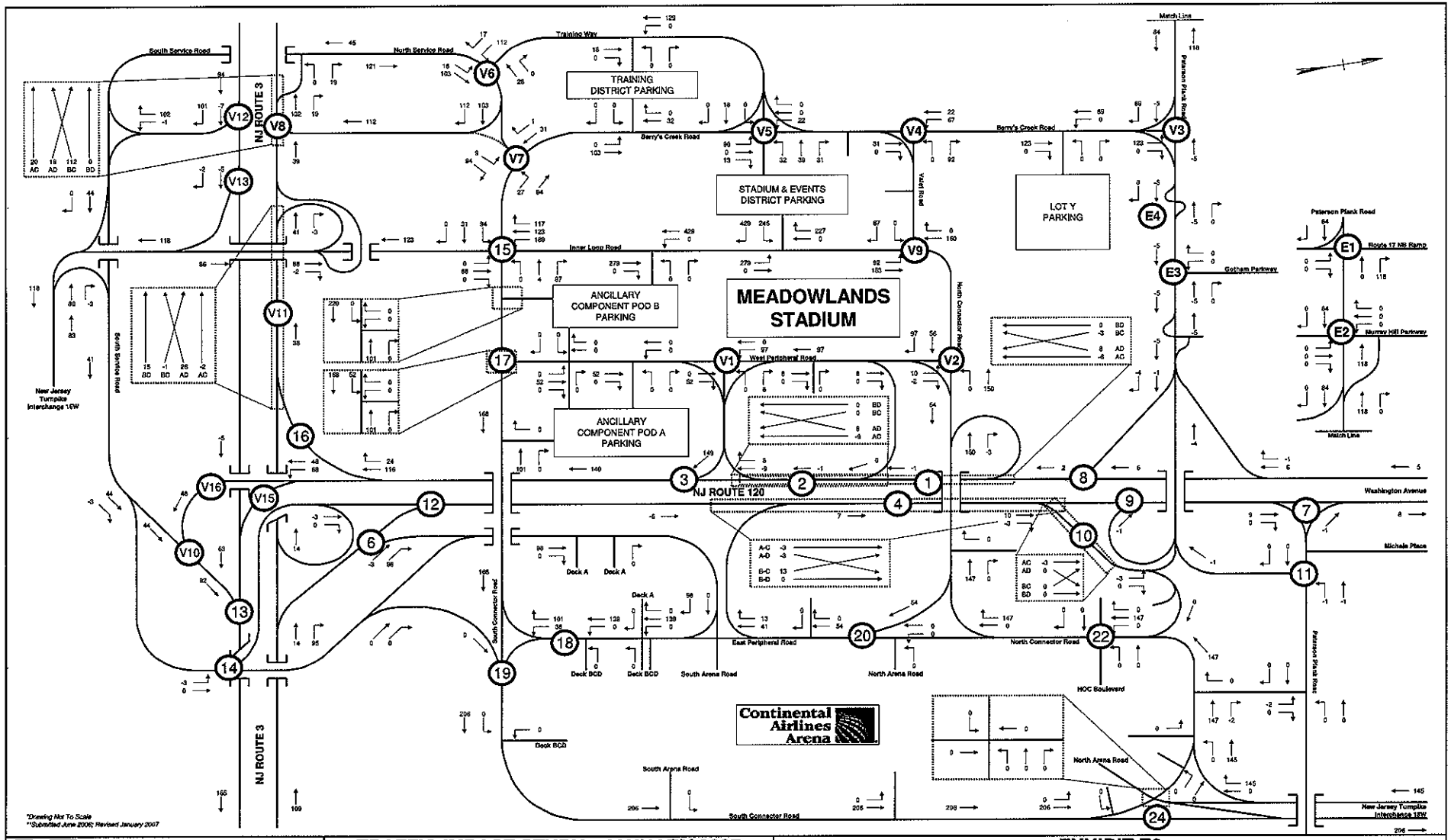
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E8
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASE I - 2010 TOTAL NEW SITE GENERATED & PASS-BY TRIPS

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007\an25 pm event volumes.xls\2010 New Trips

1/29/2007



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TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E9
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASE I - 2010 TOTAL NEW SITE GENERATED & PASS-BY TRIPS

K:\2005-097 - giants-jets coordination\trafficvolume\january 2007\2007jan26 sat event volumes

1/29/2007

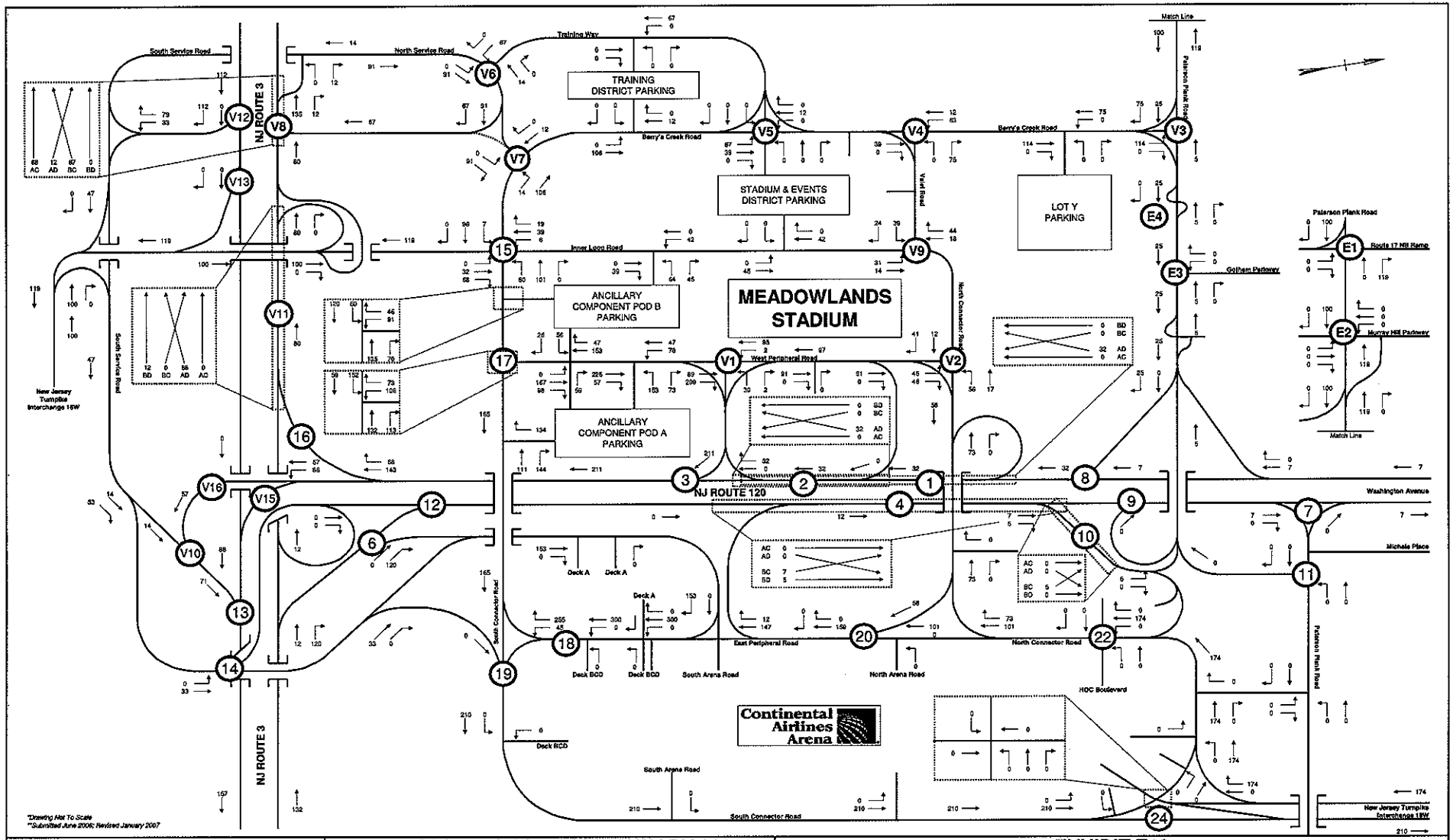

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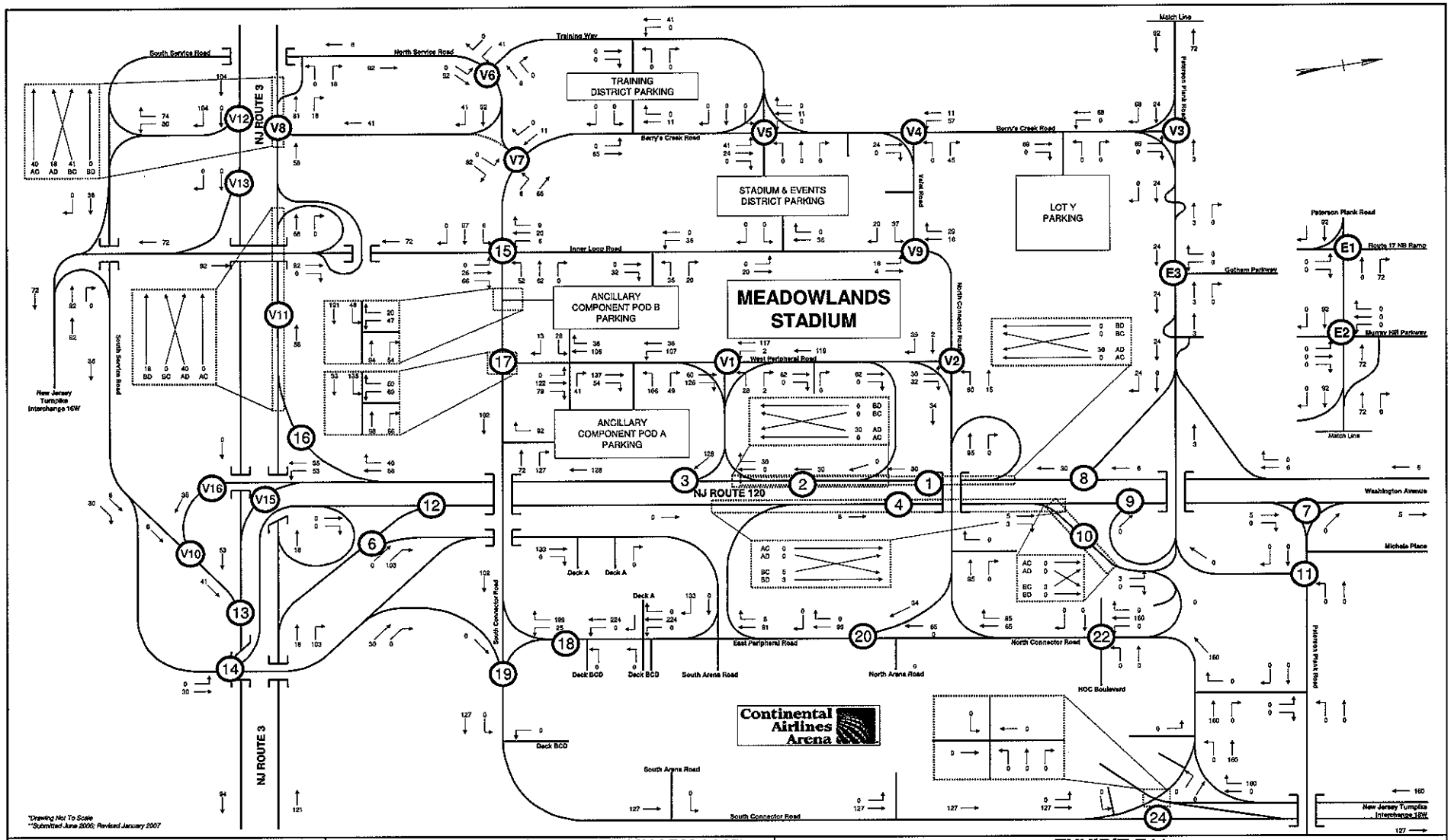
EXHIBIT E10
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASE II - 2013 TOTAL NEW SITE GENERATED TRIPS

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007\jan24 pm highway volumes.xls\2013 Subtotal - New Trip

1/29/2007



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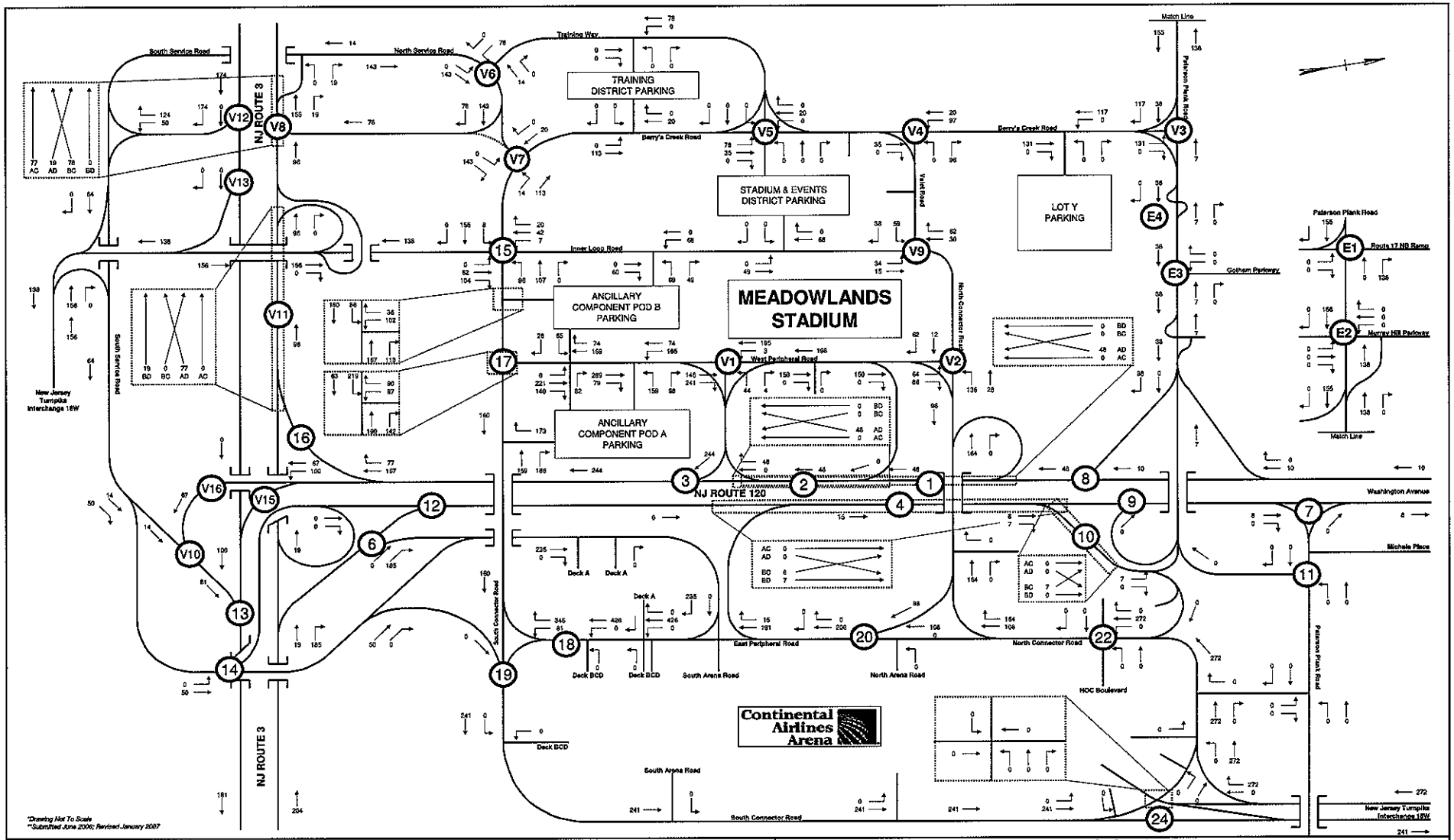
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E11
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASE II - 2013 TOTAL NEW SITE GENERATED TRIPS

K:\2005-097 - plants\jets coordination\traffic\volume\january 2007\2007jan25 pm event volumes.xls\2013 Subtotal - New Trip

1/29/2007



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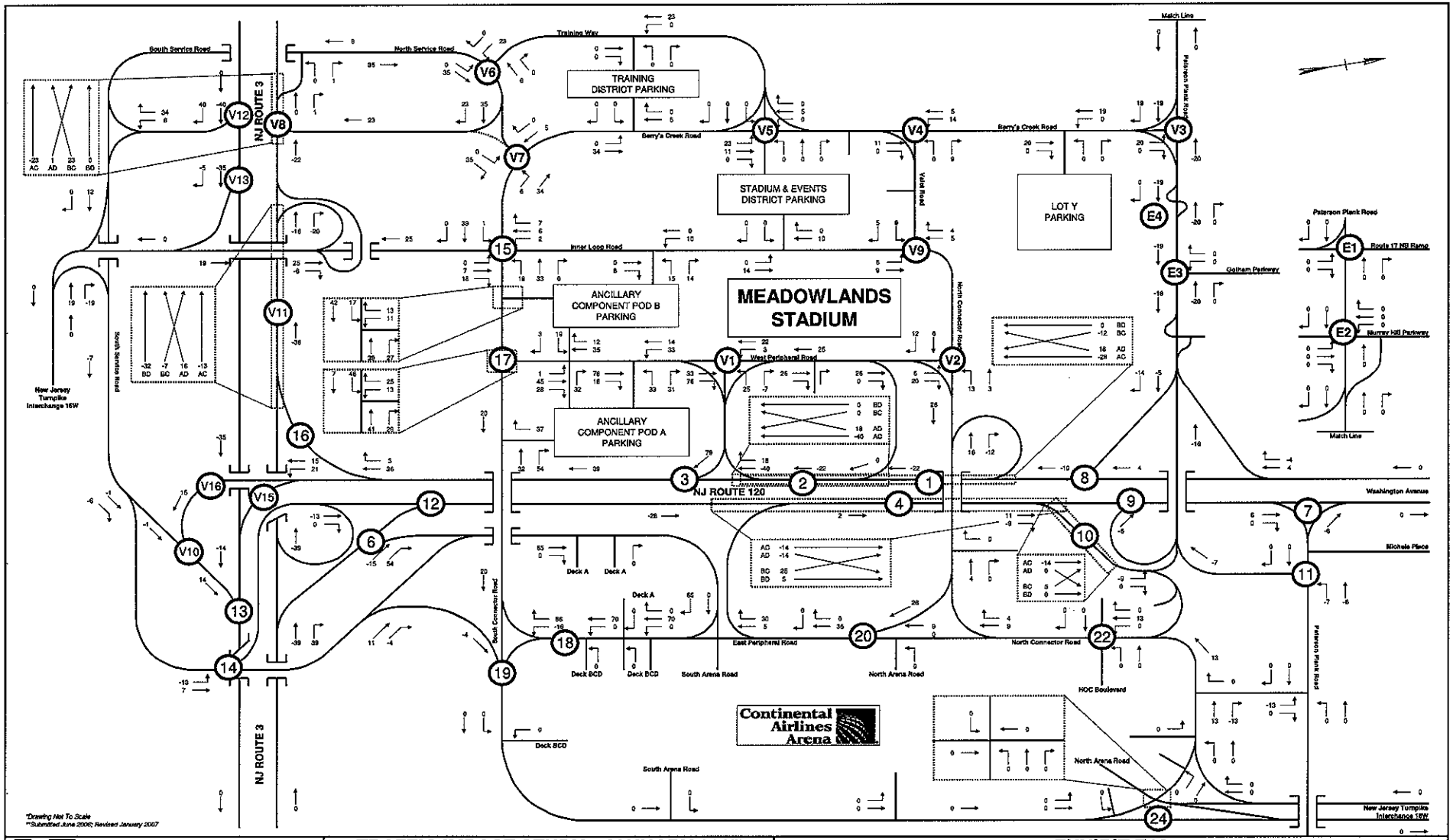
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E12
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASE II - 2013 TOTAL NEW SITE GENERATED TRIPS



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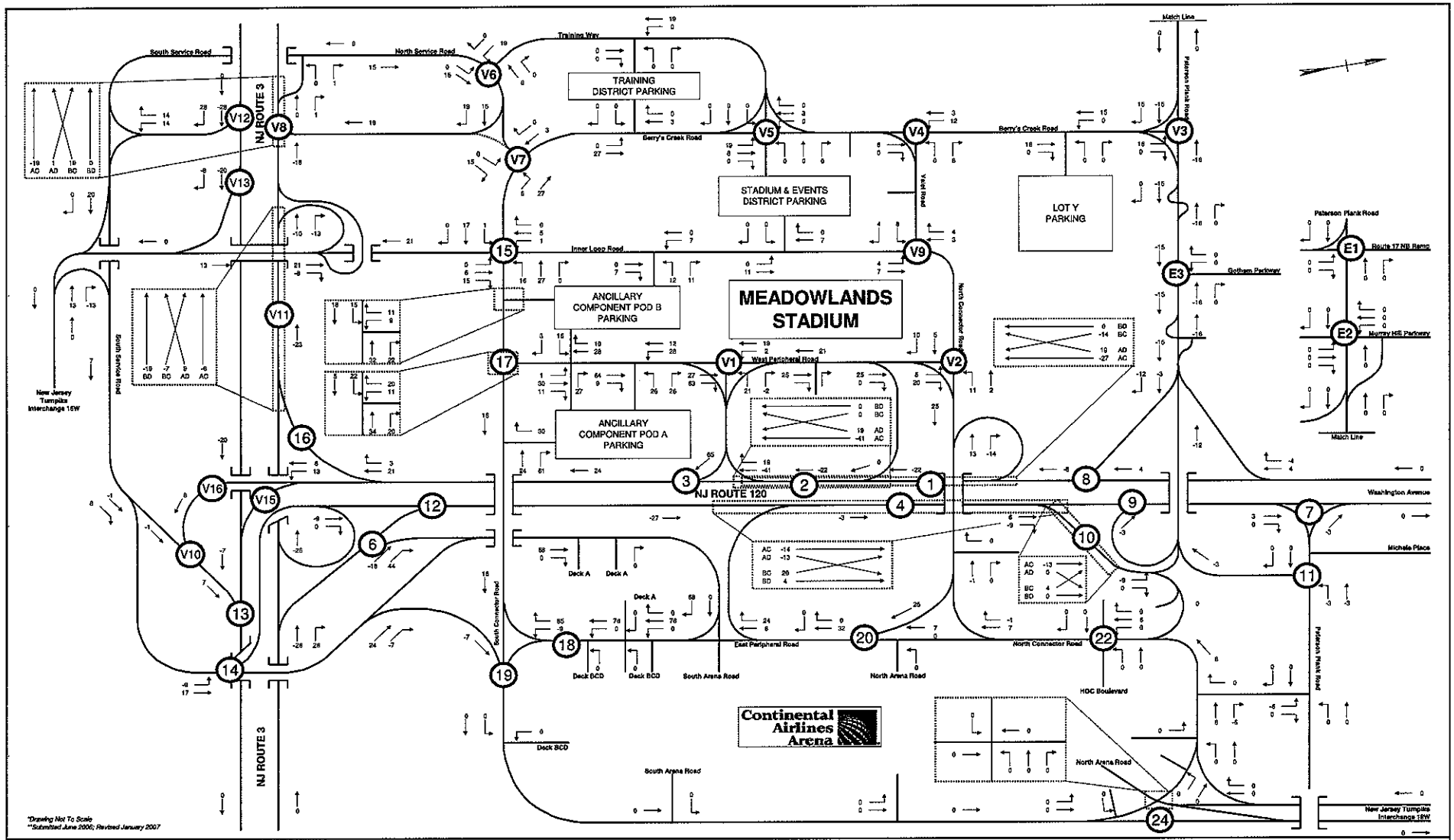
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E13
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASE II - 2013 TOTAL PASS-BY TRIPS



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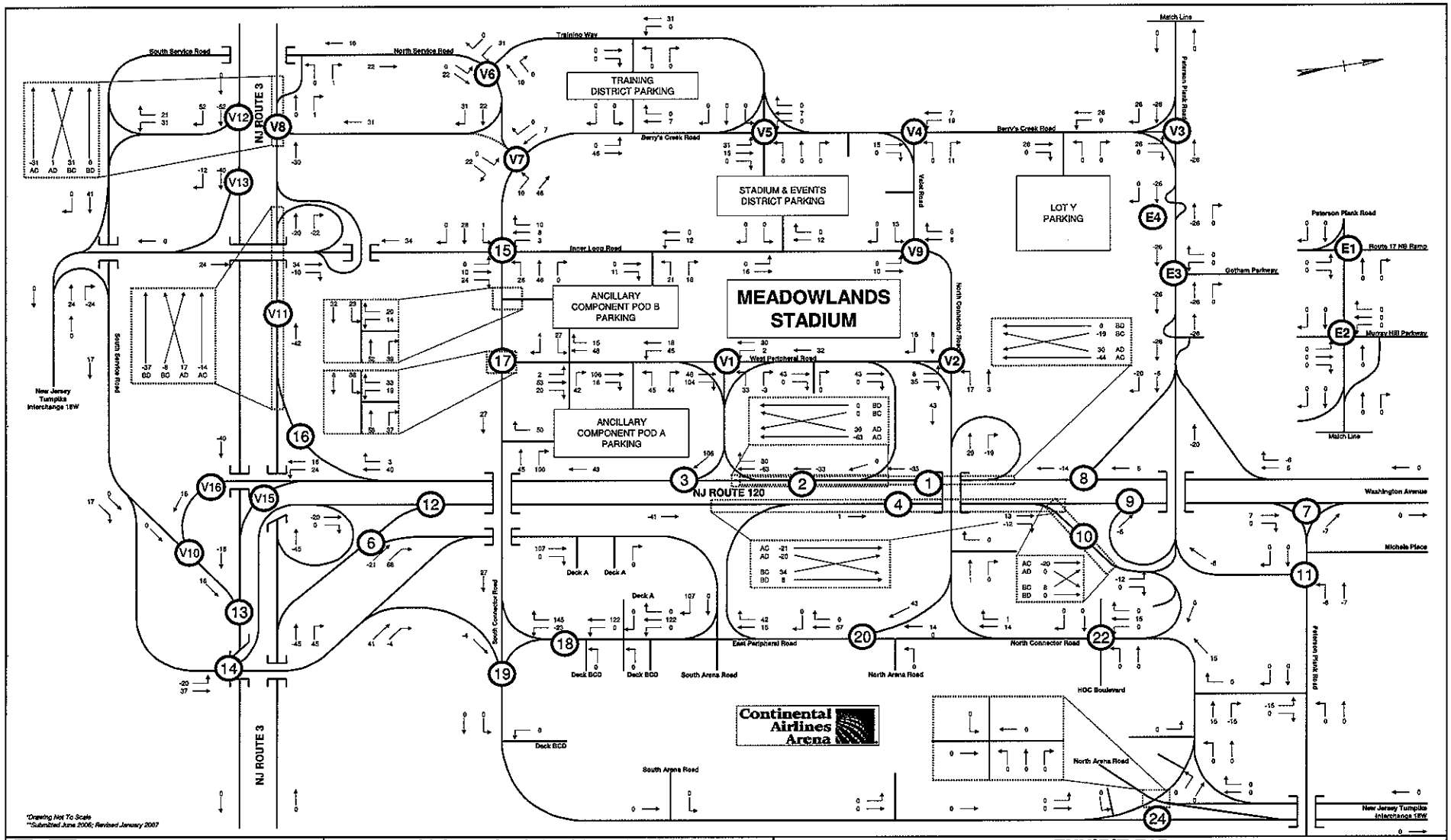
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E14
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASE II - 2013 TOTAL PASS-BY TRIPS

K:\2005-067 - giants-jets coordination\traffic\volume\january 2007\2007jan25 pm event volumes.xls\2013 Subtotal - Pass By

1/29/2007



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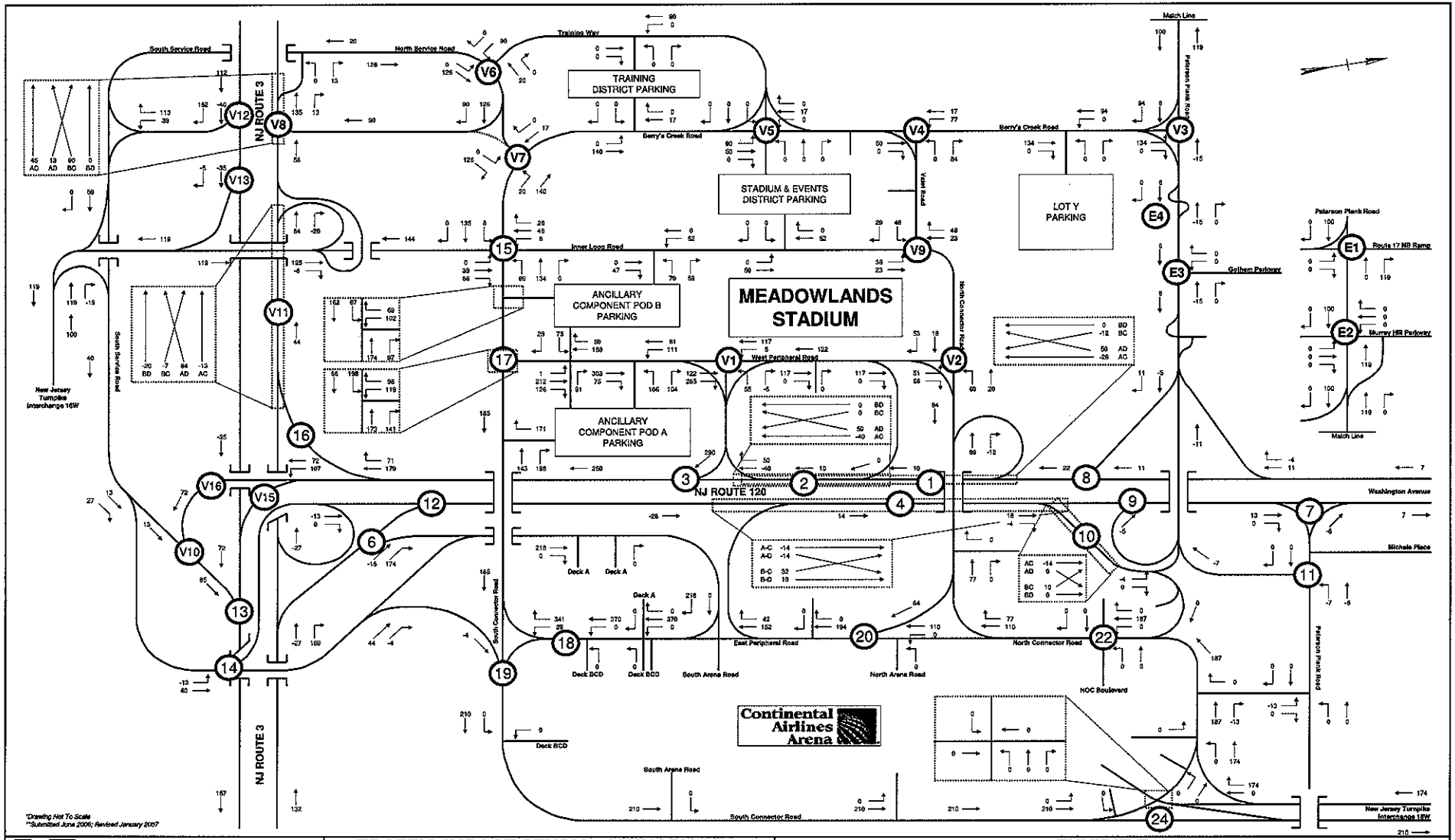
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E15
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASE II - 2013 TOTAL PASS-BY TRIPS



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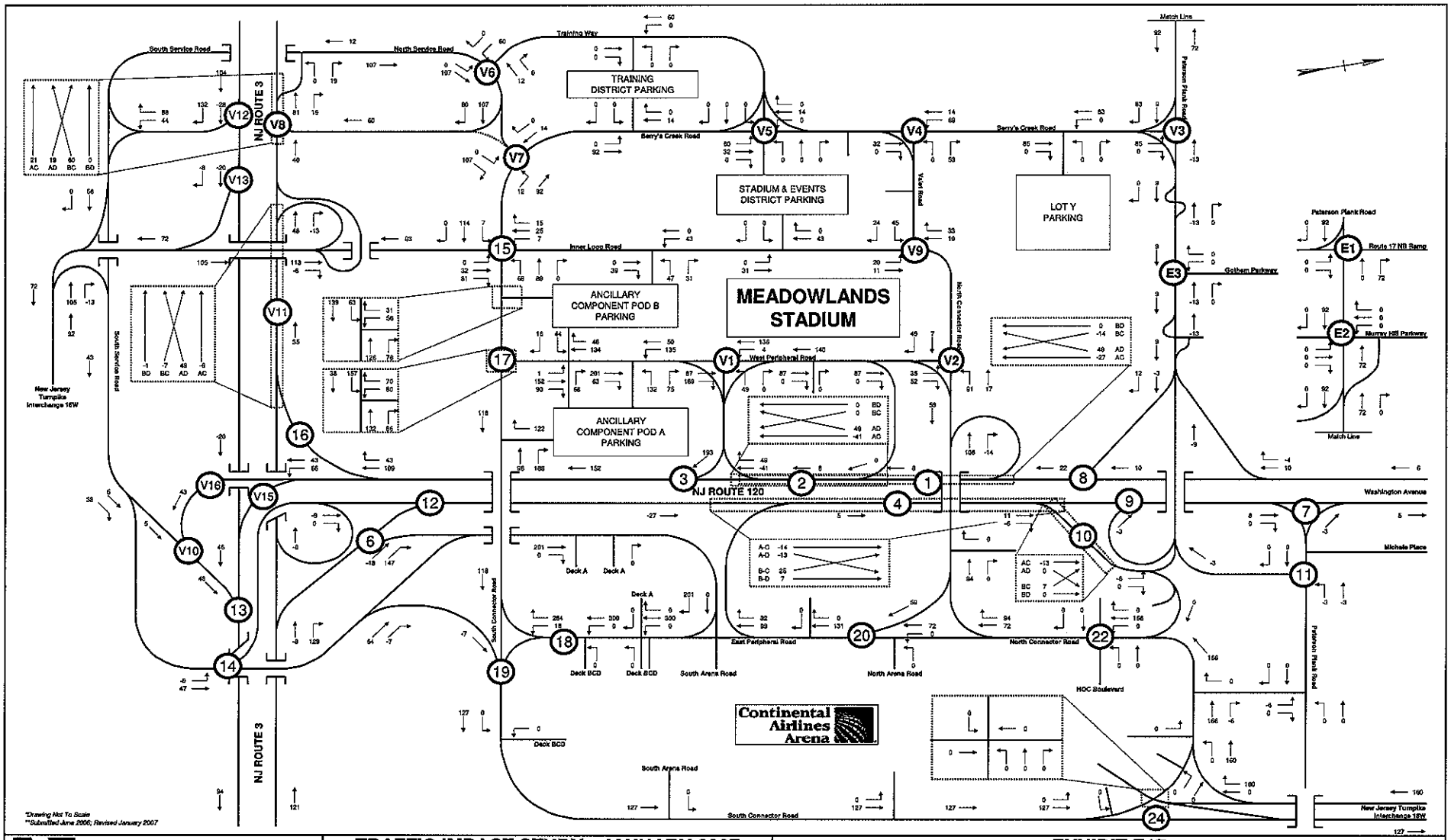
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E16
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASE II - 2013 TOTAL NEW SITE GENERATED & PASS-BY TRIPS



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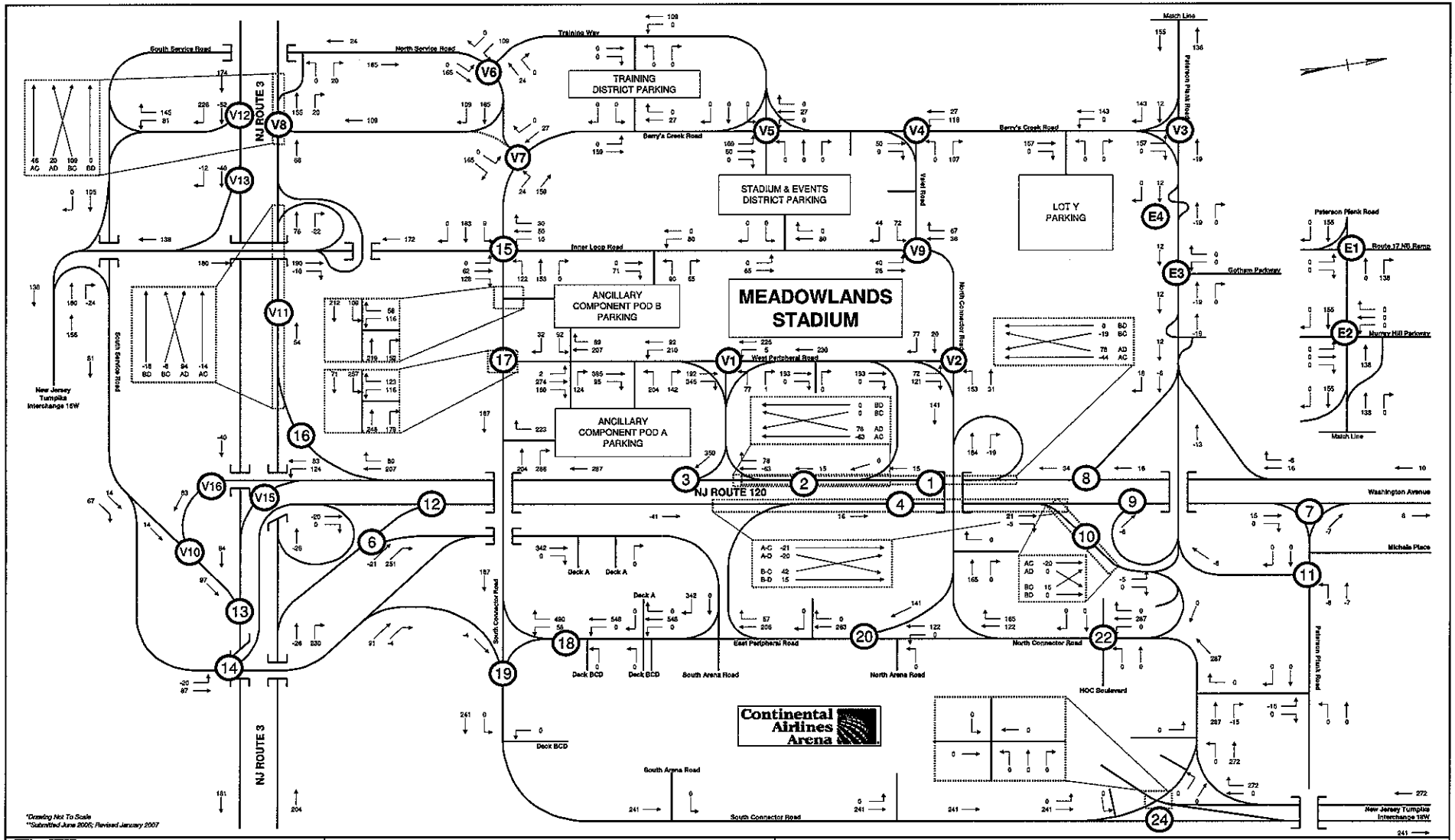
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E17
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASE II - 2013 TOTAL NEW SITE GENERATED & PASS-BY TRIPS



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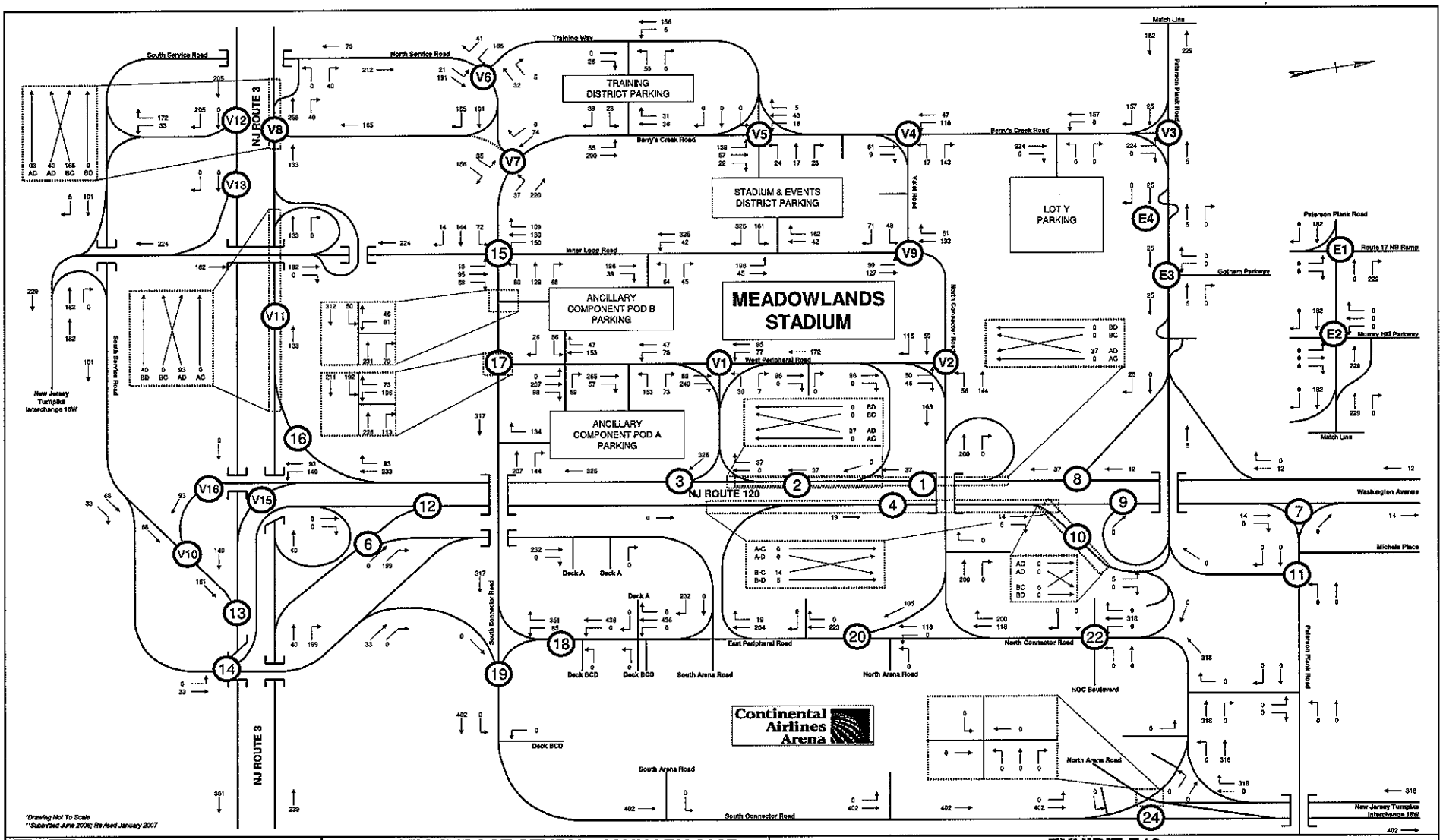
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E18
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASE II - 2013 TOTAL NEW SITE GENERATED & PASS-BY TRIPS

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007jan26 sat event volumes

1/29/2007



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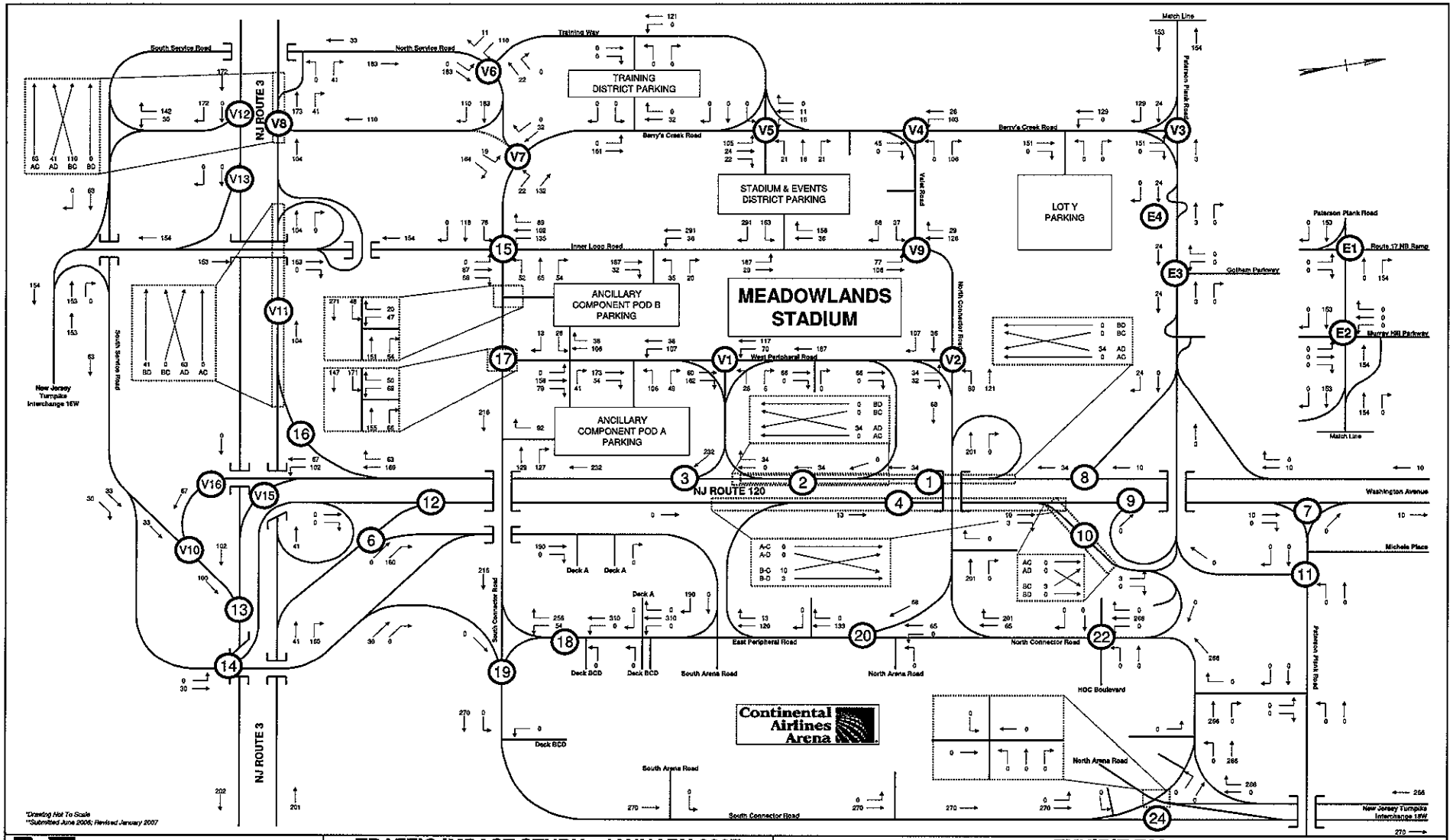
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E19
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASES I & II - 2013 TOTAL NEW SITE GENERATED TRIPS

K:\2005-097 - giants-jets coordination\trafficforum\january 2007\2007\pm24 pm highway volumes.xls\Total New Trips

1/29/2007



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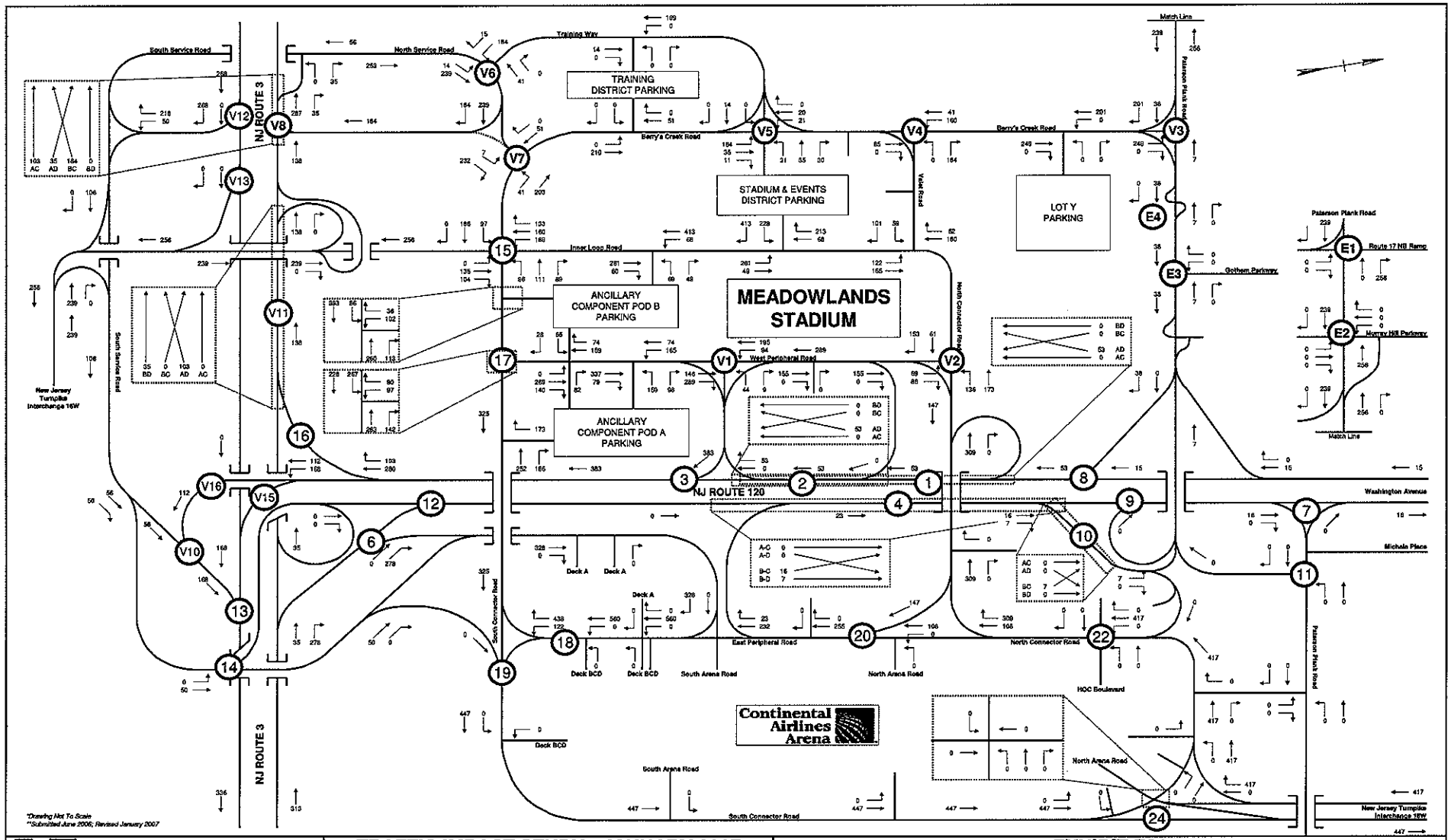
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E20
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASES I & II - 2013 TOTAL NEW SITE GENERATED TRIPS

K:\2005-007 - giants-jets coordination\trafficvolumes\january 2007\2007\jan25 pm event volumes.xls\Total New Trips

1/29/2007



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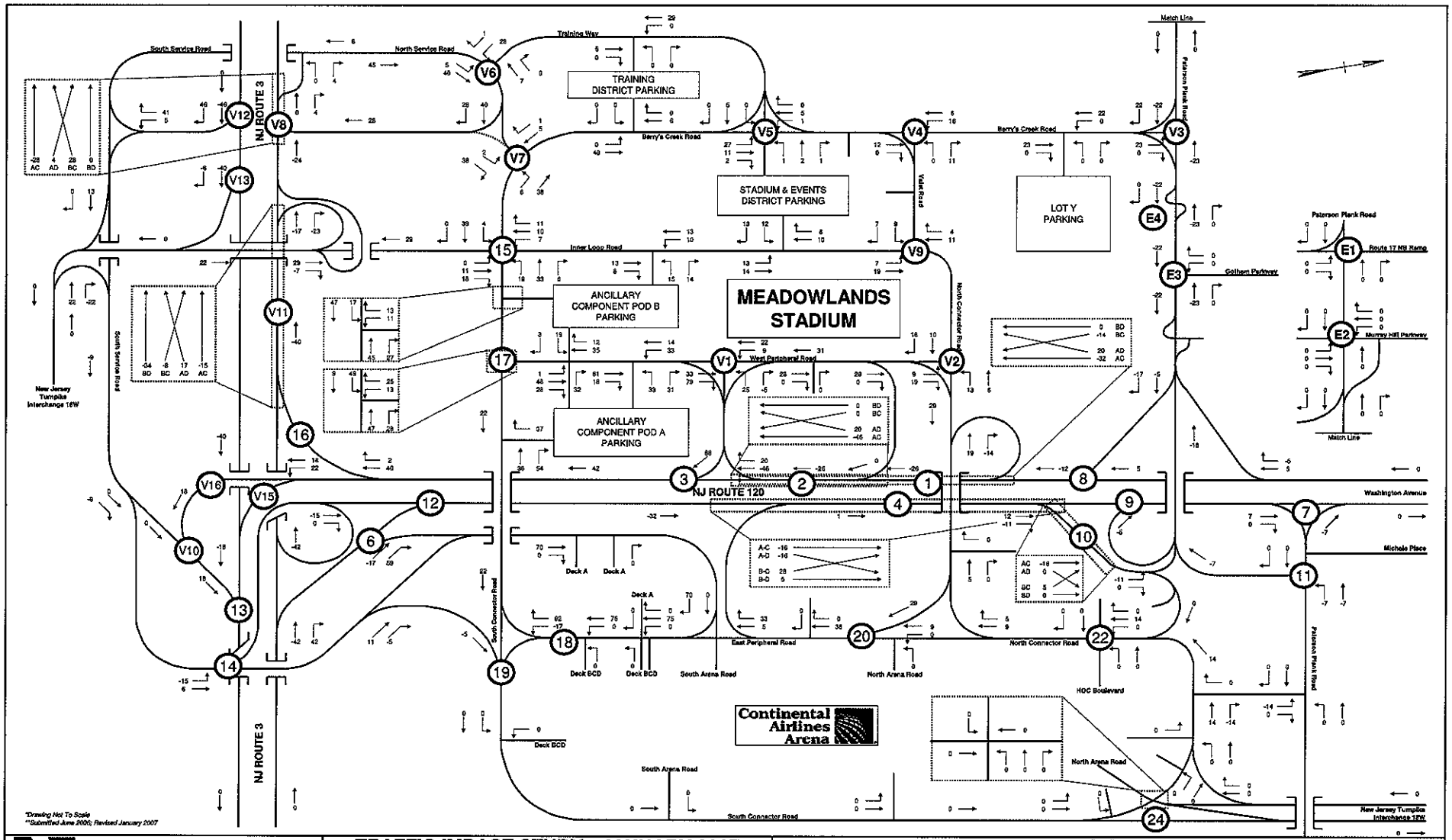
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E21
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASES I & II - 2013 TOTAL NEW SITE GENERATED TRIPS

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007\en26 sat event volume

1/29/2007



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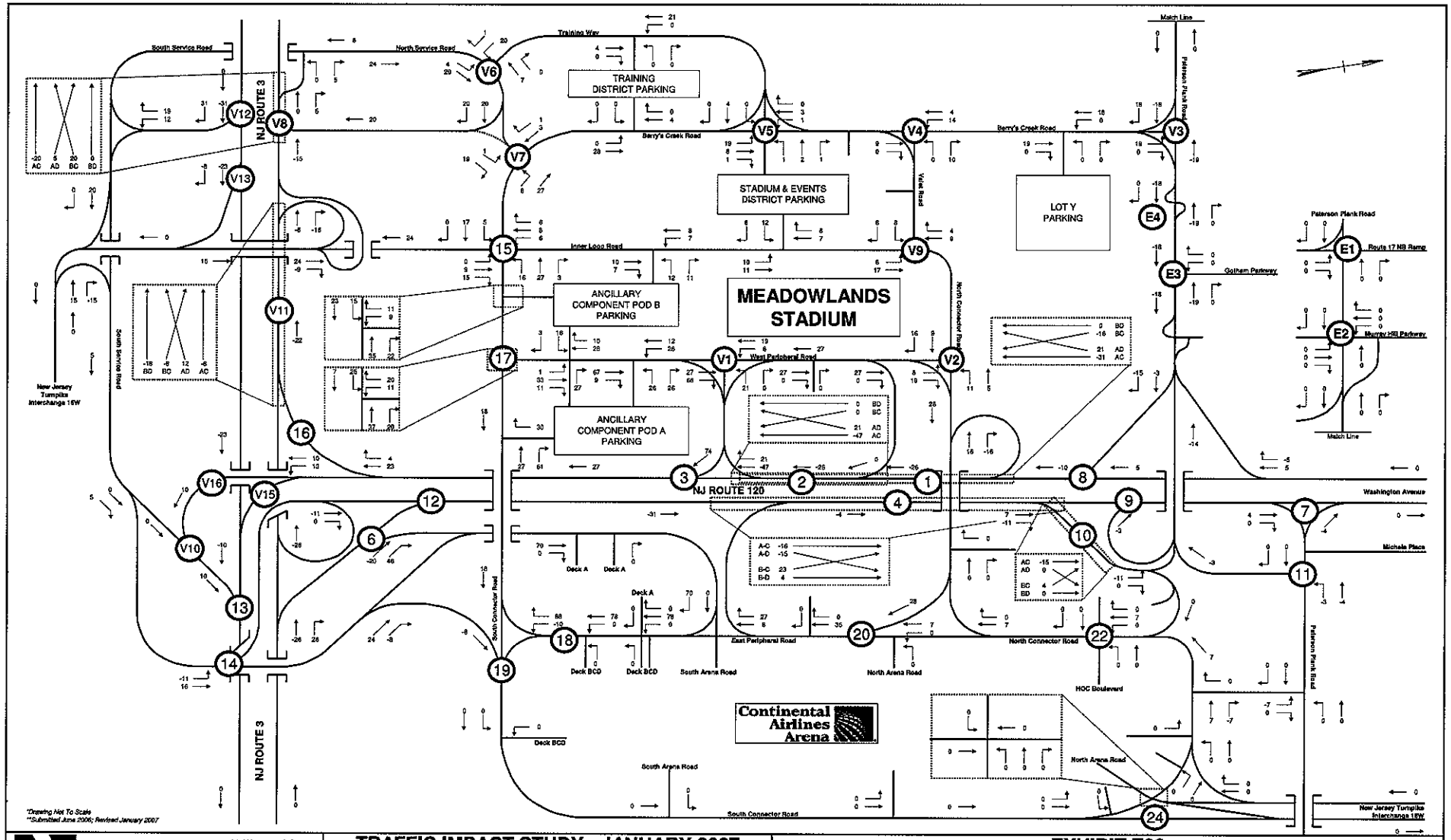
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E22
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASES I & II - 2013 TOTAL PASS-BY TRIPS



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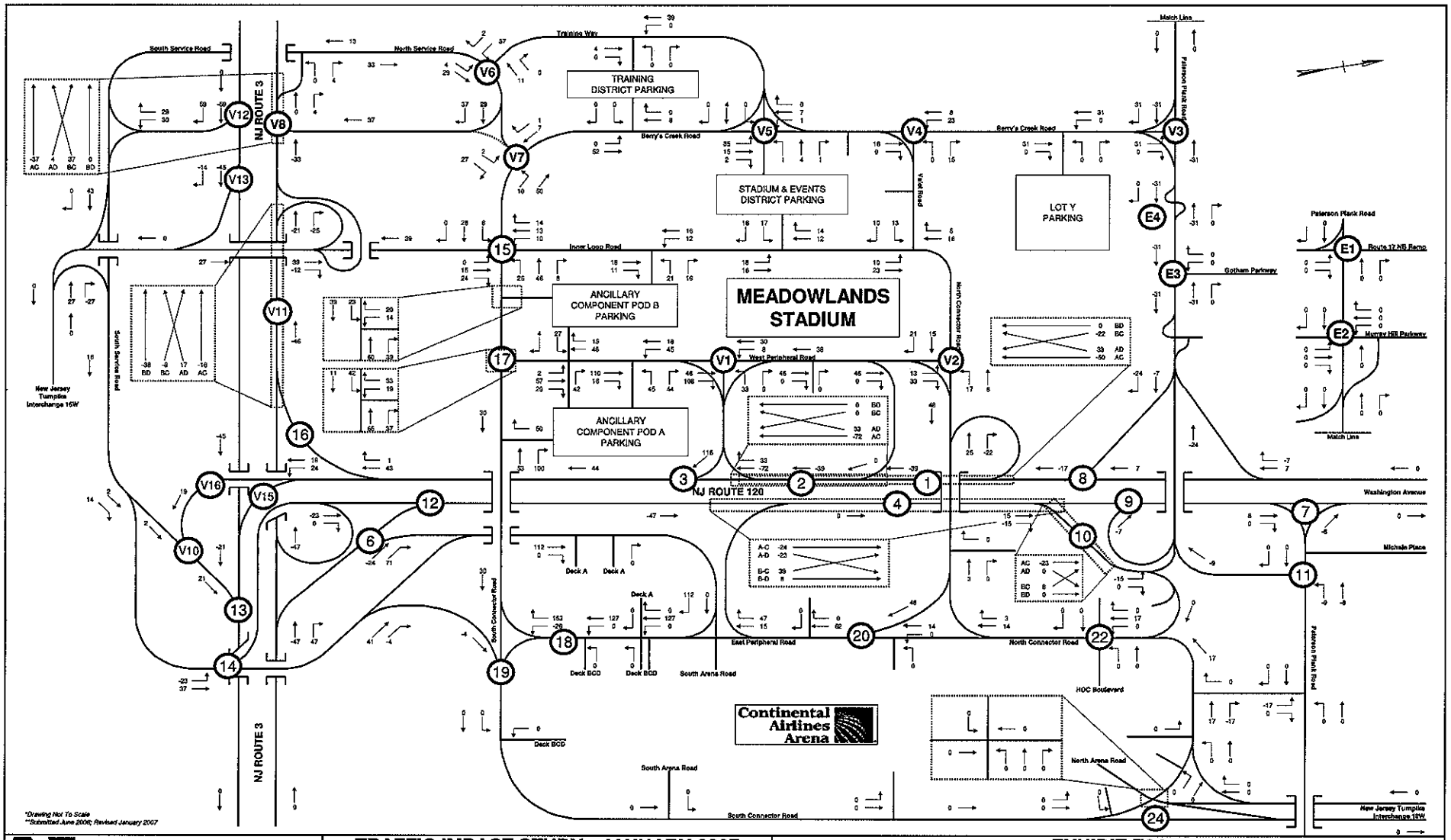
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E23
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASES I & II - 2013 TOTAL PASS-BY TRIPS



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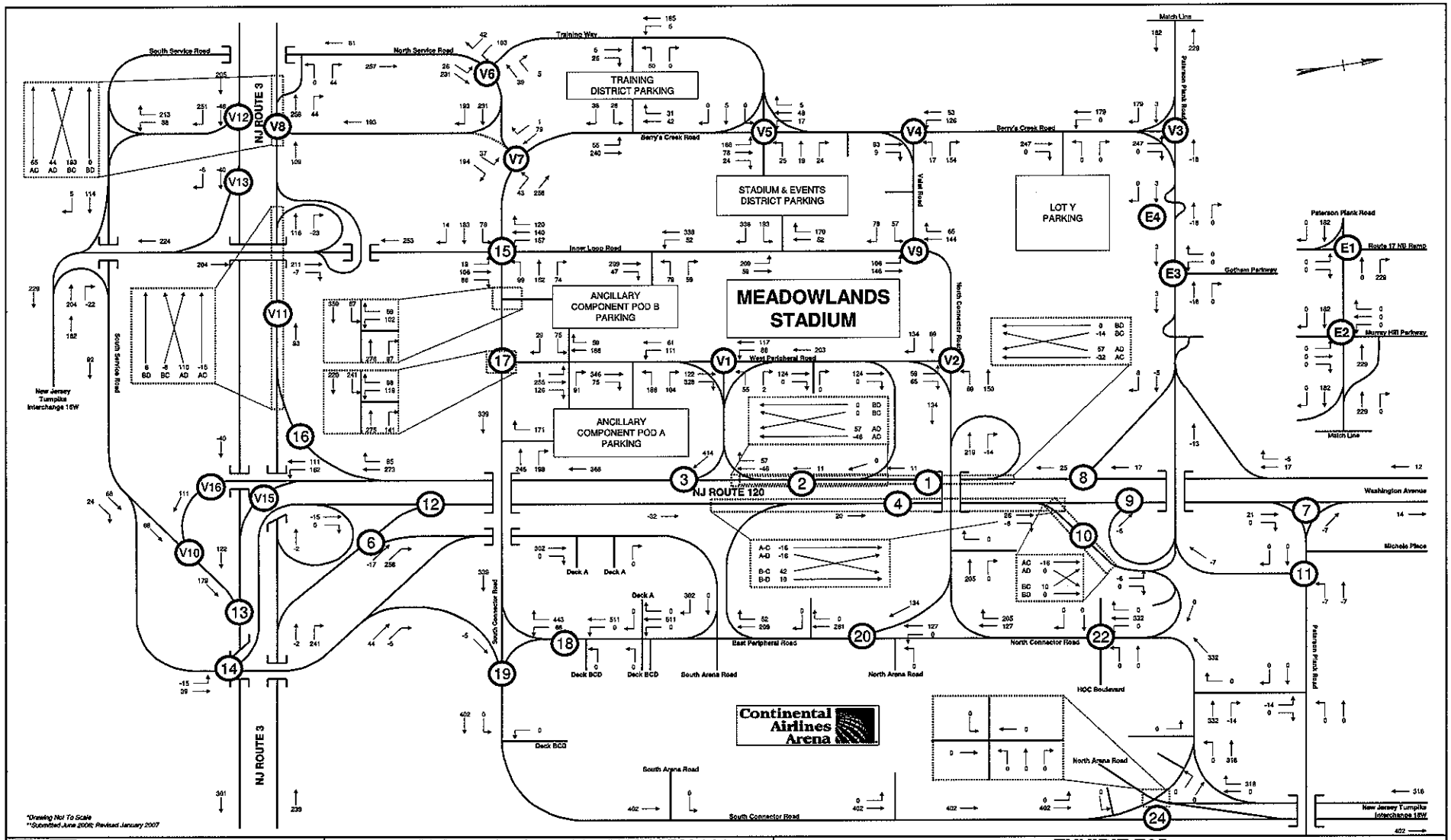
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E24
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASES I & II - 2013 TOTAL PASS-BY TRIPS



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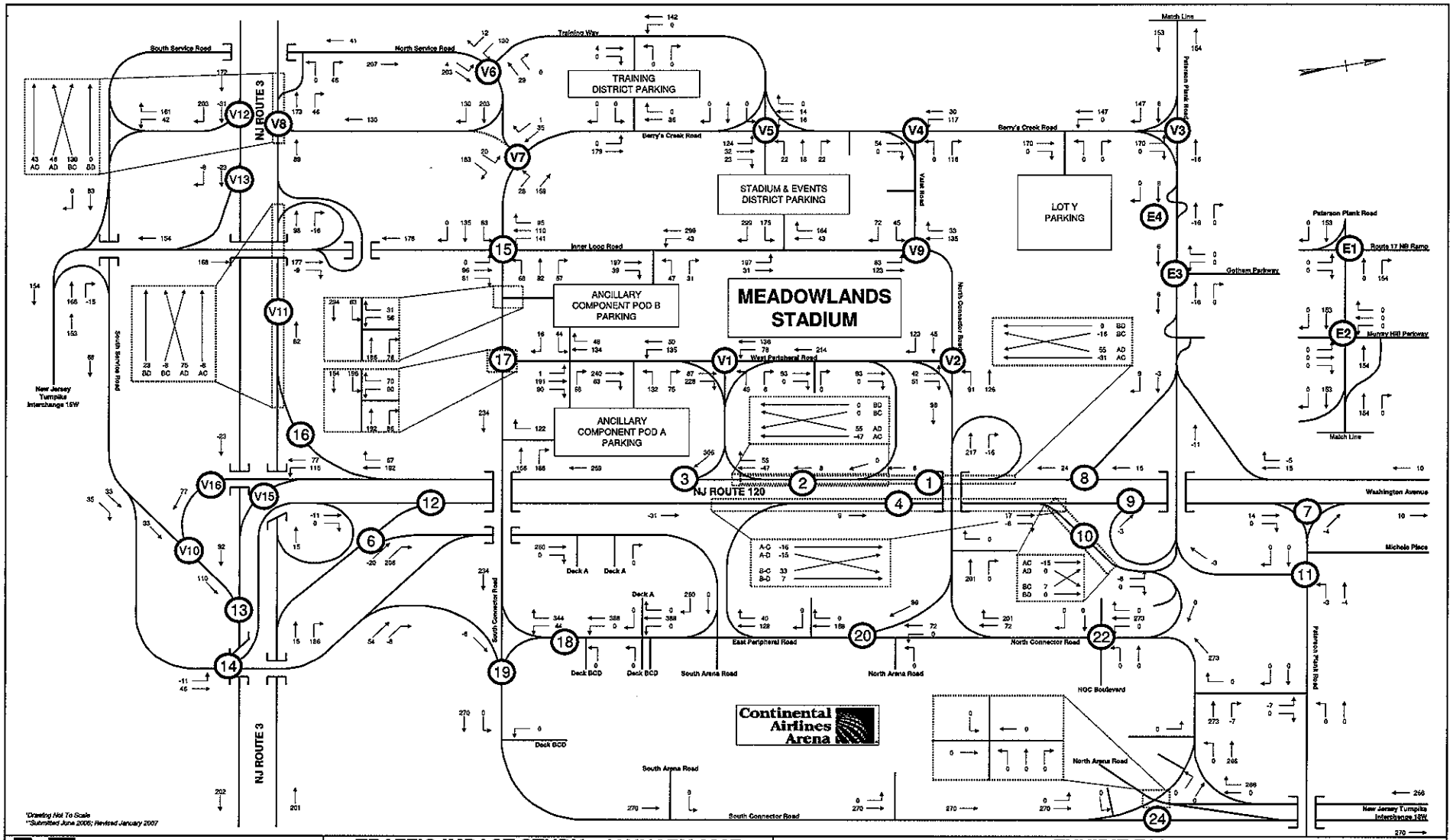
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E25
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
PHASES I & II - 2013 TOTAL NEW SITE GENERATED & PASS-BY TRIPS

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007\jan24 pm highway volumes.xls\Total Trips

1/29/2007



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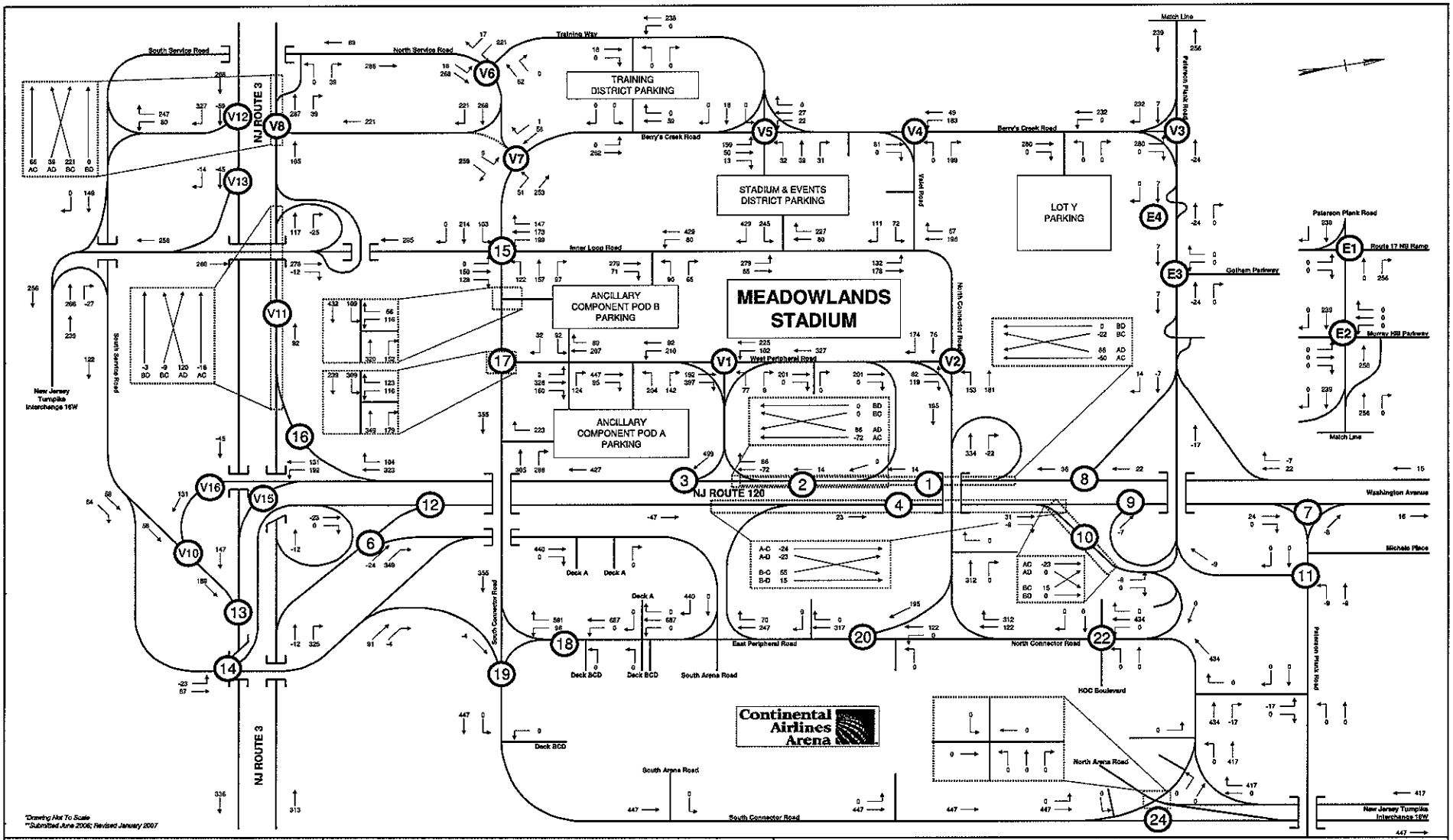
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT E26
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
PHASES I & II - 2013 TOTAL NEW SITE GENERATED & PASS-BY TRIPS



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TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

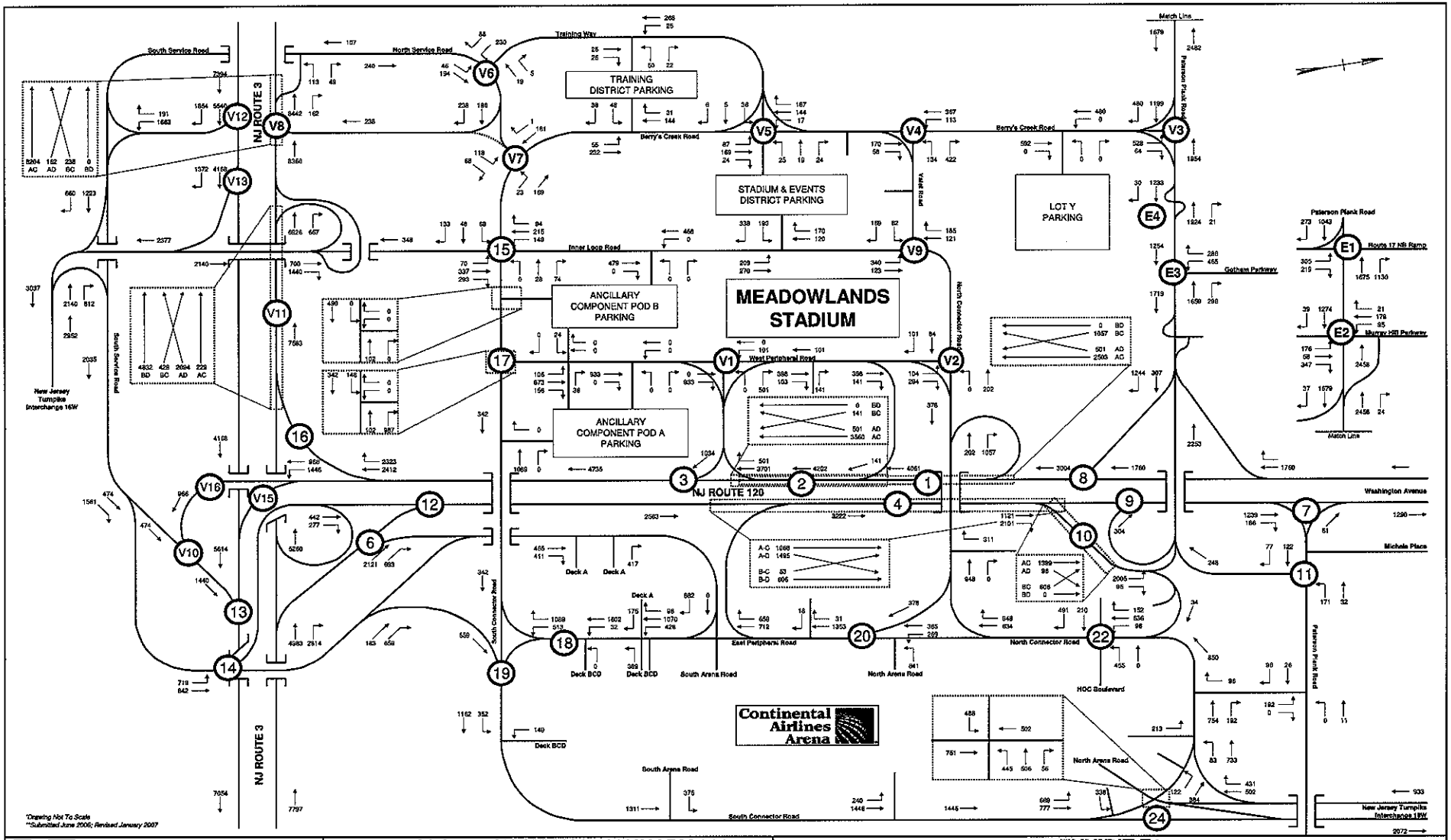
EXHIBIT E27
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
PHASES I & II - 2013 TOTAL NEW SITE GENERATED & PASS-BY TRIPS

APPENDIX F

BUILD TRAFFIC VOLUMES DIAGRAMS
2010 AND 2013

LIST OF EXHIBITS

F-1 2010 Phase I Build Volumes Weekday PM Peak Highway Hour
F-2 2010 Phase I Build Volumes Weekday PM Peak Arena Event Hour
F-3 2010 Phase I Build Volumes Saturday Peak Arena Event Hour
F-4 2013 Phases I & II Build Volumes Weekday PM Peak Highway Hour
F-5 2013 Phases I & II Build Volumes Weekday PM Peak Arena Event Hour
F-6 2013 Phases I & II Build Volumes Saturday Peak Arena Event Hour



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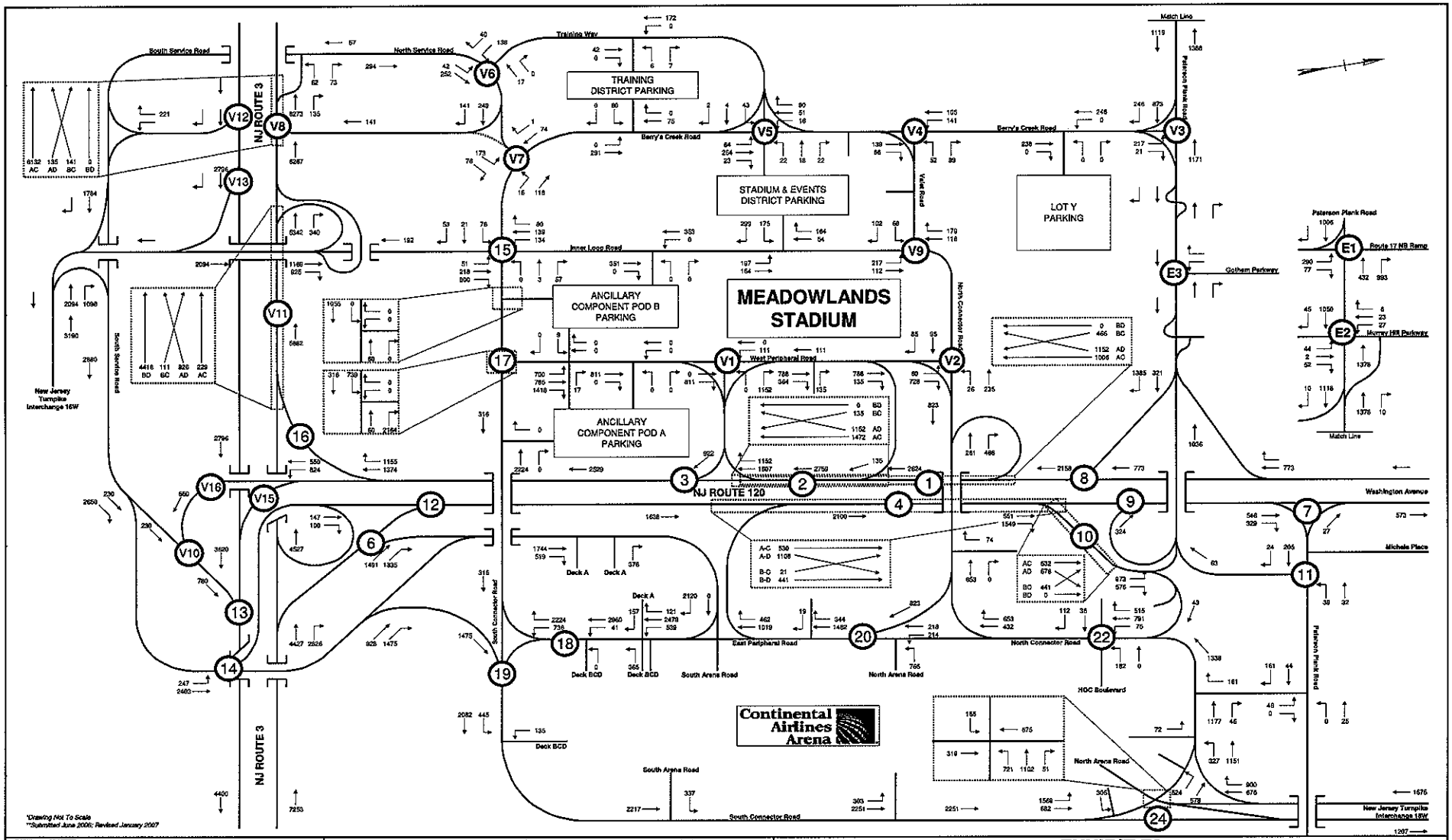
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT F1
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
2010 PHASE I BUILD VOLUMES



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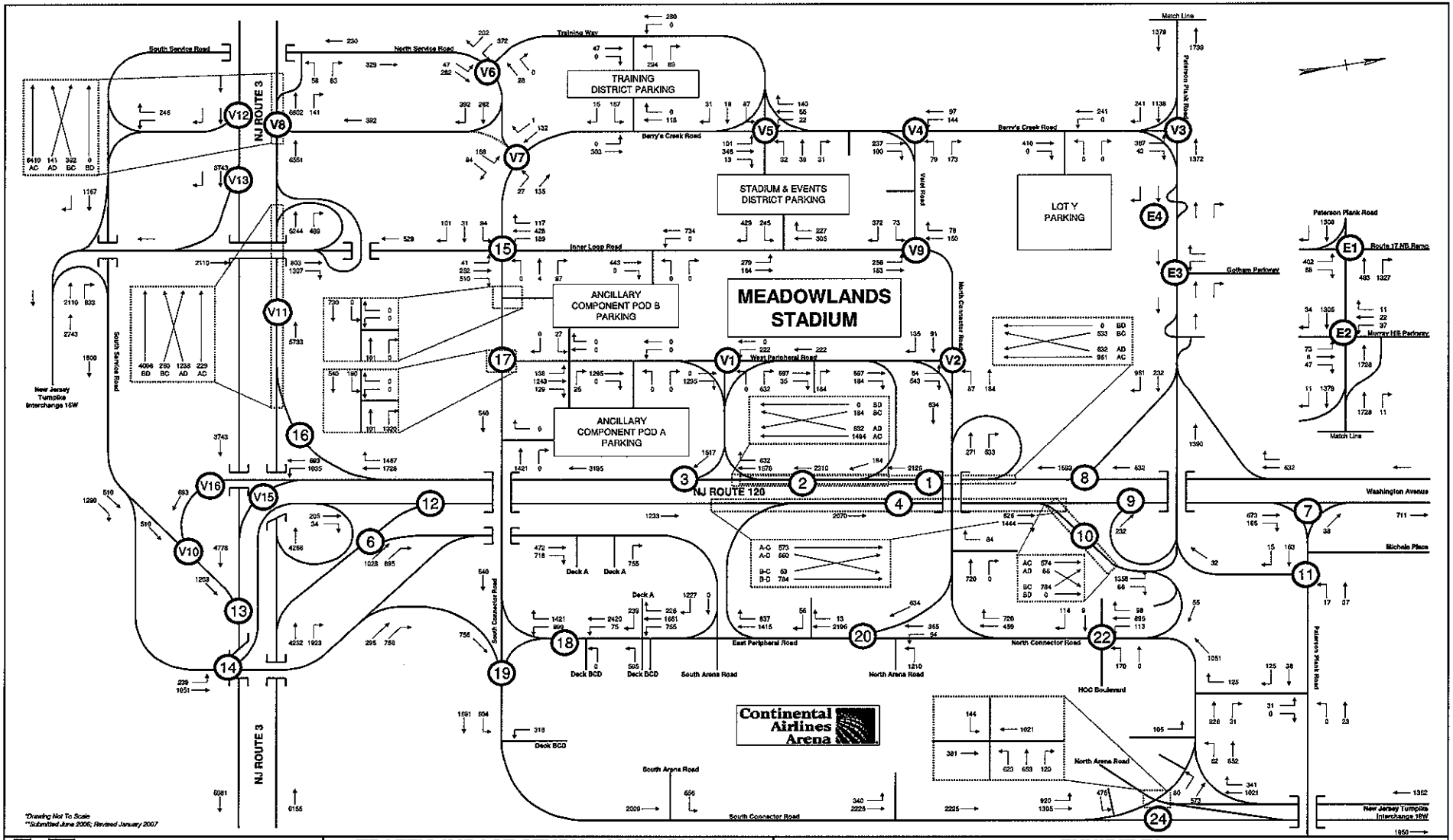
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT F2
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
2010 PHASE I BUILD VOLUMES

K12005-097 - plants-jets coordination\traffic\volume\january 2007\2007jan25 pm event volumes.xls\2010 Partial Build

1/29/2007



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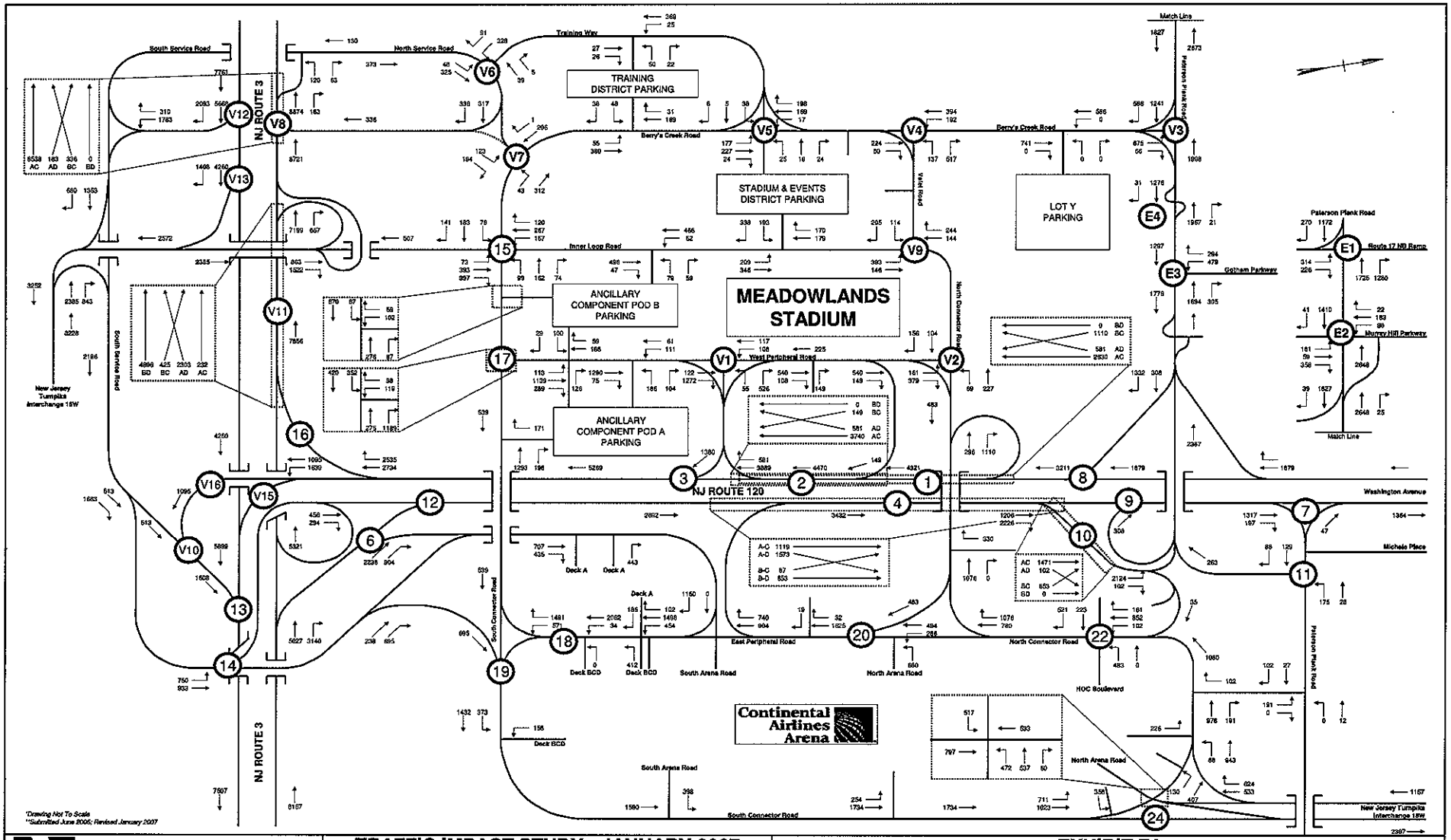
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT F3
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
2010 PHASE I BUILD VOLUMES

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007jan28 sat event volumes

1/29/2007



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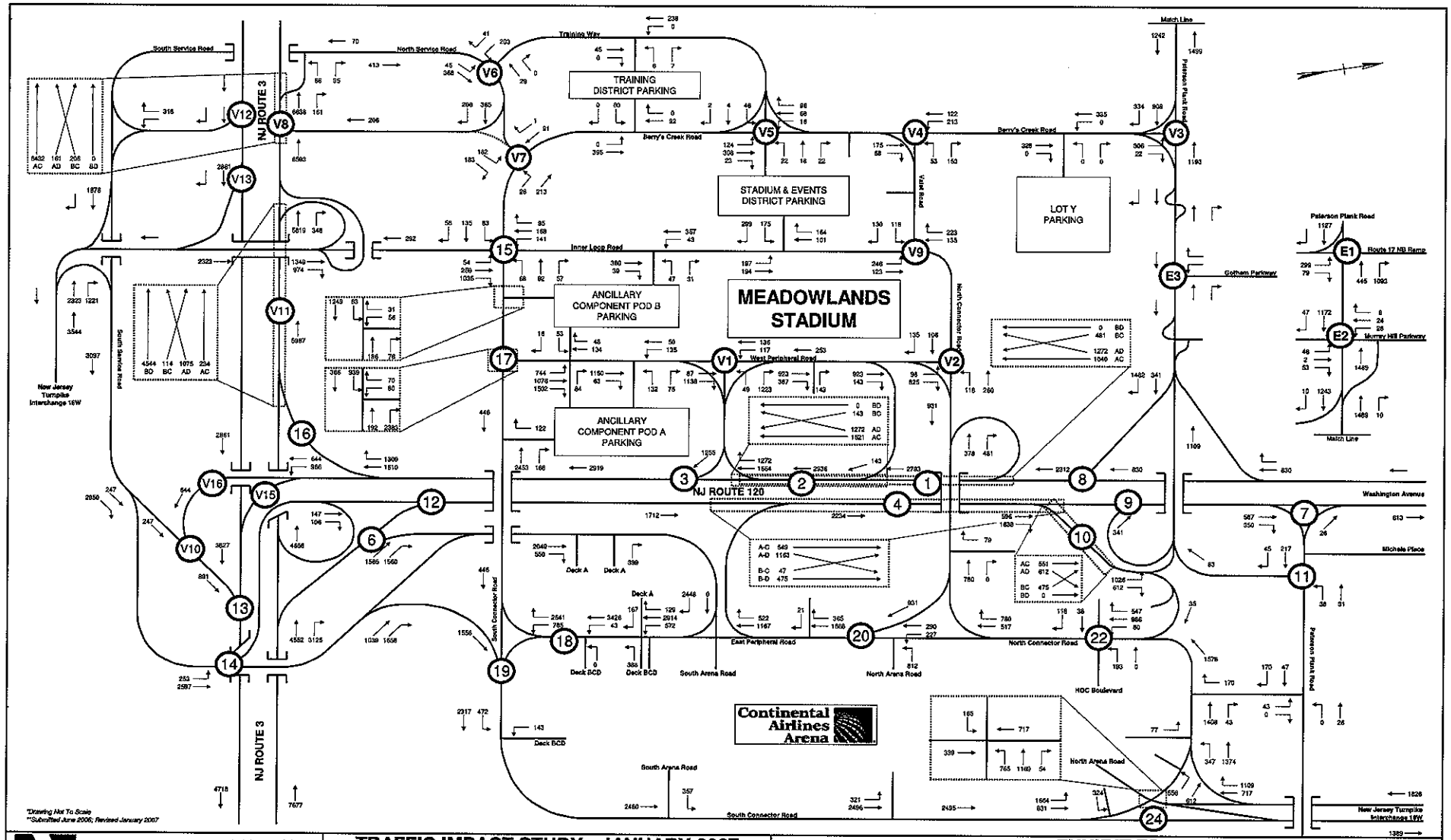
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT F4
WEEKDAY PM PEAK HIGHWAY HOUR (4:30 PM - 5:30 PM)
2013 PHASES I & II - BUILD VOLUMES



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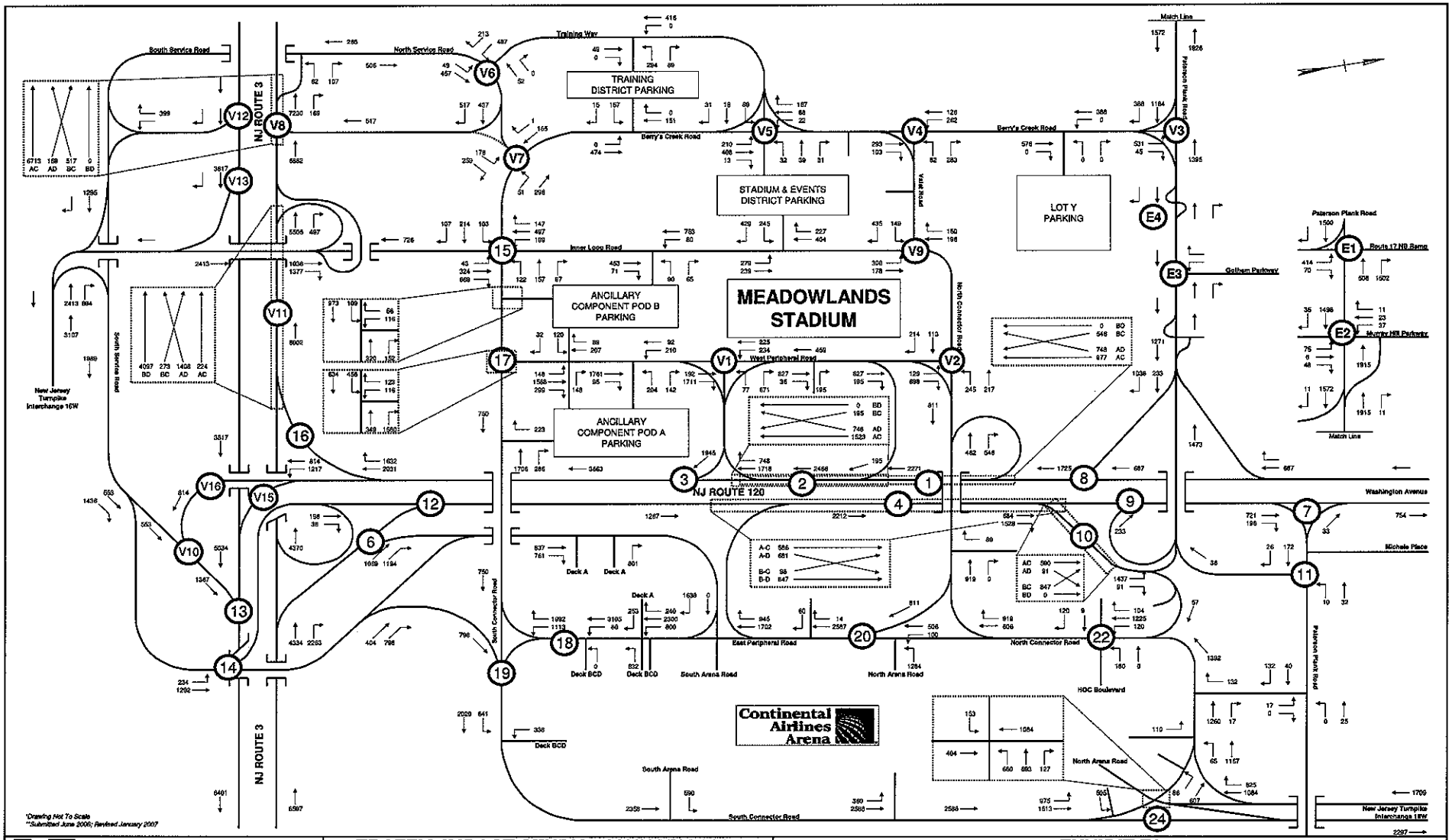
TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT F5
WEEKDAY PM PEAK ARENA EVENT HOUR (7:15 PM - 8:15 PM)
2013 PHASES I & II BUILD VOLUMES

K:\2005-097 - giants-jets coordination\traffic\volume\january 2007\2007jan25 pm event volumes.xls\2013 Ultimate Build

1/29/2007



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TRAFFIC IMPACT STUDY - JANUARY 2007
NEW MEADOWLANDS STADIUM
AND ANCILLARY COMPONENTS

EXHIBIT F6
SATURDAY PEAK ARENA EVENT HOUR (3:15 PM - 4:15 PM)
2013 PHASES I & II - BUILD VOLUMES