

Appendix F
Construction Impacts

Appendix F
Construction Impacts

INTRODUCTION

The following sections outline the detailed construction information which served as the basis for technical analyses of potential construction impacts. Four attachments are included:

1. Attachment 1: Construction Sequence Schedule (Gantt chart).
2. Attachment 2: Project Construction Activities—Phase 1
3. Attachment 3: Project Construction Activities—Phase 2
4. Attachment 4: Equipment Usage by Task

CONSTRUCTION SEQUENCE SCHEDULE (GANTT CHART)

The detailed construction sequence schedule is presented in Attachment 1 as a Gantt chart. An overview of the construction tasks can be seen in a less detailed chart in Chapter 17, “Construction Impacts.”

PROJECT CONSTRUCTION ACTIVITIES

Project construction activities by quarter for Phase 1 and Phase 2 are delineated in two series’ of tables presented in Attachment 1 and 2, respectively. The quarterly tables include details of the activities that would take place in the quarter, the facility location where the work would take place, the number of trucks and worker that would be on site, and a reference to a task code describing the equipment usage that would be necessary, which is detailed separately in the equipment usage tables in Attachment 4.

EQUIPMENT USAGE BY TASK

Equipment usage by task is described in the tables in Attachment 4. These tables describe the equipment, the power input levels, the number of engines and the fraction of time that the engine would be active throughout a shift both on a short term (8 to 24 hour average) basis and on a long term (annual) basis, the frequency of additional shifts, and additional notes detailing specific activity information.

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ATTACHMENT 1

CONSTRUCTION SEQUENCE SCHEDULE (GANTT CHART)

ATTACHMENT 2

PROJECT CONSTRUCTION ACTIVITIES—PHASE 1



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2006

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Yard - Stage 1: Sitework (Demo, Ramp, Utilities & Drainage), Support of Excavation, Carlton Ave Bridge, RR Trestle, Excavation & Sub Ballast, Trackwork/Electric		65	TMG-1A, TMG 1-B, TMG 1-C, TMG 1-D, TMG 1-E, TMG 1-F	
Arena Block	Demolition		25	TCCO - 1	
Arena Block	Utility Work		6	TCCO - 8	
Arena Block	Support of Excavation		20	TCCO - 6	
Arena Block	Environmental Classification		5	TCCO - 2	
Block 1128	Demolition		20	TCCO - 1	
Block 1129	Demolition		20	TCCO - 1	
SUBTOTAL		565	161		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
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3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2007

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Yard - Stage 1: Sitework (Utilities & Drainage), Carlton Ave Bridge, RR Trestle, Excavation & Sub Ballast, Trackwork/Electric		50	TMG-1A, TMG 1-C, TMG 1-D, TMG 1-E, TMG 1-F	
Arena Block	Demolition		25	TCCO - 1	
Arena Block	Utility Work		6	TCCO - 8	
Arena Block	Support of Excavation		20	TCCO - 6	
Block 1118	Excavation		120	TCCO - 5	
Arena Block	Environmental Classification		5	TCCO - 2	
Block 1128	Demolition		20	TCCO - 1	
Block 1129	Demolition		30	TCCO - 1	
SUBTOTAL		634	276		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2007

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Yard - Stage 1: Sitework (Utilities & Drainage), Carlton Ave Bridge, Excavation & Sub Ballast, Trackwork/Electric		20	TMG-1A, TMG 1-C, TMG 1-E, TMG 1-F	
Arena Block	Utility Work		6	TCCO - 8	
Arena Block	Support of Excavation		20	TCCO - 6	
Blocks 1118, 1119, 1127	Excavation		120	TCCO - 5	
Arena Block	Environmental Classification		5	TCCO - 2	
Block 1128	Demolition		20	TCCO - 1	
Block 1129	Demolition		30	TCCO - 1	
Block 1129	Phase 1 Construction Staging		20	Material Deliveries, General Deliveries	
SUBTOTAL		461	241		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2007

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Yard Stage - 2: Sitework (Demo, Clearing of Utilities), Support of Excavation, Mass Excavation, Mat Slabs & Piles, West Portal, Subballast/ Track Work/ Electric		115	TMG 2-A, TMG 2-B, TMG 2-C, TMG 2-D, TMG 2-E, TMG 2-G	
Arena Block	Utility Work		6	TCCO - 8	
Arena Block	Pile Drilling		10	TCCO - 6	
Blocks 1118, 1119, 1127	Excavation		120	TCCO - 5	
Arena	Foundations		50	TCCO - 4	
B-1	Foundations		28	TCCO - 4	
Arena	Superstructure		30	TCCO - 7a	
Site 5	Demolition		20	TCCO - 1	
Site 5	Utility Work		6	TCCO - 8	
Arena Block	Environmental Classification		5	TCCO - 2	
Block 1129	Phase 1 Construction Staging		20	Material Deliveries, General Deliveries	
SUBTOTAL		582	410		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2007

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 2: Sitework (Utilities & Drainage), Retaining Walls, Subballast/ Track Work/ Electric		125	TMG 2-A, TMG 2-F, TMG 2-G	
Arena Block	Utility Work		6	TCCO - 8	
Arena	Foundations		40	TCCO - 4	
Arena & B1	Superstructure		35	TCCO - 7a	
B-1	Foundations		40	TCCO - 4	
Site 5	Utility Work		6	TCCO - 8	
Site 5	Demolition		20	TCCO - 1	
Site 5	Environmental Classification		5	TCCO - 2	
Block 1129	Phase 1 Construction Staging		20	Material Deliveries, General Deliveries	
SUBTOTAL		1139	297		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2008

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 2: Sitework (Utilities & Drainage), Subballast/ Track Work/ Electric		30	TMG 2-A, TMG 2-G	
Arena, & B-1	Superstructure		75	TCCO - 7a	
Arena	Interiors		20	Material Deliveries, Precast concrete trucks, General Deliveries, Steel Trucks, Cranes, Construction Hoist	
B-2, B-3, B-4	Foundations		40	TCCO - 4	
Site 5	Demolition		20	TCCO - 1	
Site 5	SOE		10	TCCO - 6	
Site 5	Excavation		30	TCCO - 5	
Site 5	Utility Work		6	TCCO - 8	
Site 5	Environmental Classification		5	TCCO - 2	
Block 1129	Phase 1 Construction Staging		20	Material Deliveries, General Deliveries	
TA Connection	TA Connection		5	TCCO - 4	
SUBTOTAL		1572	261		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2008

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 2: Sitework (Utilities & Drainage), Subballast/ Track Work/ Electric		30	TMG 2-A, TMG 2-G	
Arena, B-1, B-2, B-3, & B-4	Superstructure		160	TCCO - 7a	
Arena	Interiors		25	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Arena	Exterior		4	TCCO - 3	
Site 5	SOE		10	TCCO - 6	
Site 5	Excavation		60	TCCO - 5	
Site 5	Foundation		60	TCCO - 4	
Block 1129	Phase 1 Construction Staging		20	Material Deliveries, General Deliveries	
TA Connection	TA Connection		5	TCCO - 4	
SUBTOTAL		2221	374		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2008

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 2: Sitework (Utilities & Drainage), Subballast/ Track Work/ Electric		30	TMG 2-A, TMG 2-G	
Arena, B-1, B-2, B-3, B-4, Urban Room, & Site 5	Superstructure		160	TCCO - 7a	
Arena	Interiors		30	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Arena	Exterior		4	TCCO - 3	
B-1	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1	Exterior		4	TCCO - 3	
B-2	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-2	Exterior		4	TCCO - 3	
B-3	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Site 5	Foundation		60	TCCO - 4	
Block 1129	Phase 1 Construction Staging		20	Material Deliveries, General Deliveries	
TA Connection	TA Connection		5	TCCO - 4	
SUBTOTAL		2918	353		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2008

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 3: Sitework/Utilities, Mat Slabs/Piles, Ballast/ Track Work/ Electric		125	TMG 3-A, TMG 3-C, TMG 3-E	
Arena	Interiors		30	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Arena	Exterior		10	TCCO - 3	
Arena	Arena Specialties		25	Material Deliveries, General Deliveries	
B-1, B-2, B-3, B-4, Urban Room, & Site 5	Superstructure		150	TCCO - 7b	
B-1	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1	Exterior		6	TCCO - 3	
B-2	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-2	Exterior		4	TCCO - 3	
B-3	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-3	Exterior		4	TCCO - 3	
B-4	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-4	Exterior		4	TCCO - 3	
Block 1129	Phase 1 Construction Staging		20	Material Deliveries, General Deliveries	
TA Connection	TA Connection		5	TCCO - 4	
SUBTOTAL		3539	431		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

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3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2009

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 3: Sitework/Utilities, Ballast/ Track Work/ Electric, Retaining Walls		125	TMG 3-A, TMG 3-D, TMG 3-E	
Arena	Interiors		30	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Arena	Exterior		10	TCCO - 3	
Arena	Arena Specialties		25	Material Deliveries, General Deliveries	
B-1, B-2, B-3, B-4, Urban Room, & Site 5	Superstructure		150	TCCO - 7b	
B-1	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1	Exterior		6	TCCO - 3	
B-2	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-2	Exterior		4	TCCO - 3	
B-3	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-3	Exterior		4	TCCO - 3	
B-4	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-4	Exterior		4	TCCO - 3	
Urban Room	Exterior		6	TCCO - 3	
TA Connection	TA Connection		5	TCCO - 4	
Site 5	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Site 5	Exterior		4	TCCO - 3	
Block 1129	Phase 1 Construction Staging		20	Material Deliveries, General Deliveries	
SUBTOTAL		3709	467		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

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2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2009

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 3: Sitework/Utilities, Ballast/ Track Work/ Electric, Retaining Walls		30	TMG 3-A, TMG 3-D, TMG 3-E	
Arena	Interiors		30	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Arena	Exterior		10	TCCO - 3	
Arena	Arena Specialties		25	Material Deliveries, General Deliveries	
B-1, B-3, B-4, Urban Room, & Site 5	Superstructure		130	TCCO - 7b	
B-1	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1	Exterior		6	TCCO - 3	
B-2	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-2	Exterior		4	TCCO - 3	
B-3	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-3	Exterior		4	TCCO - 3	
B-4	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-4	Exterior		4	TCCO - 3	
Urban Room	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
TA Connection	TA Connection		5	TCCO - 4	
Urban Room	Exterior		5	TCCO - 3	
Site 5	Exterior		4	TCCO - 3	
Site 5	Interiors		30	Material Deliveries, General Deliveries, Construction Hoist, Boom Lifts, Trash Hauling	
Block 1120	Demolition		20	TCCO - 1	
Block 1129	Grading / Paving		25	TCCO - 4	
SUBTOTAL		3505	402		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2009

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 3: Sitework/Utilities		30	TMG 3-A	
Arena	Interiors		30	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Arena	Arena Specialties		20	Material Deliveries, General Deliveries	
Arena	Commissioning		10	Material Deliveries, General Deliveries	
Arena	Start Events		10	Material Deliveries, Furniture and Operational Supplies deliveries, Performer related deliveries	
B-1	Interiors		23	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1	Exterior		6	TCCO - 3	
B-2	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1, B-3, & B-4	Superstructure		90	TCCO - 7b	
B-3	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-3	Exterior		5	TCCO - 3	
B-4	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-4	Exterior		5	TCCO - 3	
Urban Room	Interiors		5	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Urban Room	Commissioning		5	Material Deliveries, General Deliveries	
Site 5	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Site 5	Exterior		4	TCCO - 3	
Block 1120	Demolition		20	TCCO - 1	
Block 1129	Grading / Paving		25	TCCO - 4	
SUBTOTAL		2324	360		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

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2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2009

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 3: Sitework/Utilities - Clean-up & Miscellaneous		40	TMG 3-A	
Platform 1120	Superstructure		30	TCCO - 7g	
Arena	NBA Opening		10	Performer related deliveries	
B-1	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1	Exterior		6	TCCO - 3	
B-2	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-2	Commissioning		20	Material Deliveries, General Deliveries, Trash Hauling	
B-1	Superstructure		40	TCCO - 7b	
B-3	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-3	Exterior		5	TCCO - 3	
B-4	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-4	Exterior		5	TCCO - 3	
Site 5	Interiors		35	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Site 5	Exterior		4	TCCO - 3	
Block 1120	Demolition		20	TCCO - 1	
SUBTOTAL		1251	279		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

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2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2010

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
LIRR YARD WORK Arena Block, 1120, 1121	LIRR Stage - 3: Sitework/Utilities - Clean-up & Miscellaneous		10	TMG 3-A	
Platform 1120	Superstructure		30	TCCO - 7g	
B-1	Interiors		18	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1	Exterior		6	TCCO - 3	
B-3	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-3	Exterior		5	TCCO - 3	
B-4	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-4	Exterior		5	TCCO - 3	
Site 5	Interiors		18	Material Deliveries, General Deliveries, Trash Hauling	
Site 5	Exterior		4	TCCO - 3	
B- 15	Environmental Classification		4	TCCO - 2	
SUBTOTAL		742	140		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2010

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
Platform 1120	Superstructure		45	TCCO - 7g	
B-1	Interiors		18	Material Deliveries, General Deliveries, Trash Hauling	
B-3	Interiors		12	Material Deliveries, General Deliveries, Trash Hauling	
B-4	Interiors		15	Material Deliveries, General Deliveries, Trash Hauling	
Site 5	Interiors		18	Material Deliveries, General Deliveries, Trash Hauling	
B- 15	SOE		10	TCCO - 6	
B- 15	Environmental Classification		4	TCCO - 2	
SUBTOTAL		663	122		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2010

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
Platform 1120	Superstructure		45	TCCO - 7g	
B-1	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-3	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-3	Commissioning		20	Material Deliveries, General Deliveries, Trash Hauling	
B-4	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Site 5	Interiors		10	Material Deliveries, General Deliveries, Trash Hauling	
Site 5	Commissioning		5	Material Deliveries, General Deliveries	
B- 15	Excavation		40	TCCO - 5	
SUBTOTAL		619	157		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2010

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
Platform 1120	Superstructure		45	TCCO - 7g	
B-1	Interiors		12	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-1	Commissioning		20	Material Deliveries, General Deliveries, Trash Hauling	
B-4	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-4	Commissioning		20	Material Deliveries, General Deliveries, Trash Hauling	
Site 5	Interiors		10	Material Deliveries, General Deliveries, Trash Hauling	
Site 5	Commissioning		5	Material Deliveries, General Deliveries	
Tower 15	Foundations		24	TCCO - 4	
Block 1121	Demolition		20	TCCO - 1	
SUBTOTAL		340	166		



ATTACHMENT 3

PROJECT CONSTRUCTION ACTIVITIES—PHASE 2



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2011

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
Platform 1120	Superstructure		45	TCCO - 7g	
B-5, B-6, B-7, & B-15	Superstructure		110	TCCO - 7c	
Platform 1121	Superstructure		25	TCCO - 7	
Parking in Block 1129	SOE / Excavation		20	TCCO - 6	
Block 1129	Demo		30	TCCO - 1	
Parking in Block 1129	Excavation		25	TCCO - 5	
SUBTOTAL		490	255		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2011

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-5, B-6, B-7, & B-15	Superstructure		125	TCCO - 7c	
Platform 1121	Superstructure		25	TCCO - 7g	
Parking in Block 1129	SOE / Excavation		20	TCCO - 6	
Block 1129	Demo		30	TCCO - 1	
Block 1129	Environmental Classification		5	TCCO - 2	
Parking in Block 1129	Excavation		50	TCCO - 5	
SUBTOTAL		1036	255		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2011

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-5, B-6, B-7, & B-15	Superstructure		130	TCCO - 7c	
B-5	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-5	Exterior		5	TCCO - 3	
B-6	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-6	Exterior		5	TCCO - 3	
B-7	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-7	Exterior		5	TCCO - 3	
B-15	Exterior		5	TCCO - 3	
B-15	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Platform 1121	Superstructure		25	TCCO - 7g	
Block 1129	Environmental Classification		5	TCCO - 2	
Block 1129	Support of Excavation		20	TCCO - 6	
Parking in Block 1129	Excavation		70	TCCO - 5	
Parking in Block 1129	Foundations		25	TCCO - 4	
SUBTOTAL		1757	335		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2011

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-5, B-6, B-7, & B-15	Superstructure		145	TCCO - 7c	
B-5	Exterior		5	TCCO - 3	
B-5	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-6	Exterior		5	TCCO - 3	
B-6	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-7	Exterior		5	TCCO - 3	
B-7	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-15	Exterior		5	TCCO - 3	
B-15	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1120	Open Space & Site Amenities		15	TCCO - 5	
Platform 1121	Superstructure		40	TCCO - 7g	
Block 1129	Environmental Classification		5	TCCO - 2	
Block 1129	Support of Excavation		20	TCCO - 6	
Parking in Block 1129	Excavation		50	TCCO - 5	
Parking in Block 1129	Foundations		25	TCCO - 4	
SUBTOTAL		2103	360		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2012

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-5	Exterior		5	TCCO - 3	
B-5	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-6	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-6	Exterior		5	TCCO - 3	
B-7	Superstructure		40	TCCO - 7c	
B-7	Exterior		5	TCCO - 3	
B-7	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-15	Exterior		5	TCCO - 3	
B-15	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1120	Open Space & Site Amenities		15	TCCO - 5	
Platform 1121	Superstructure		50	TCCO - 7g	
Block 1129	Environmental Classification		5	TCCO - 2	
Block 1129	Support of Excavation		20	TCCO - 6	
Parking in Block 1129	Excavation		50	TCCO - 5	
Parking in Block 1129	Foundations		50	TCCO - 4	
SUBTOTAL		2216	320		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2012

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-5	Exterior		5	TCCO - 3	
B-5	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-6	Exterior		5	TCCO - 3	
B-6	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-6	Commissioning		15	Material Deliveries, General Deliveries	
B-7	Exterior		5	TCCO - 3	
B-7	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-15	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-15	Commissioning		15	Material Deliveries, General Deliveries	
Block 1120	Open Space & Site Amenities		15	TCCO - 5	
Platform 1121	Superstructure		50	TCCO - 7g	
Parking in Block 1129	Foundations		50	TCCO - 4	
SUBTOTAL		2087	235		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2012

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-5	Interiors		20	Material Deliveries, General Deliveries, Trash Hauling	
B-5	Commissioning		10	Material Deliveries, General Deliveries	
B-6	Interiors		20	Material Deliveries, General Deliveries, Trash Hauling	
B-6	Commissioning		15	Material Deliveries, General Deliveries	
B-7	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-7	Exterior		5	TCCO - 3	
Block 1120	Open Space & Site Amenities		10	TCCO - 5	
Platform 1121	Superstructure		45	TCCO - 7g	
Parking in Block 1129	Foundations		50	TCCO - 4	
SUBTOTAL		1449	195		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2012

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-5	Interiors		10	Material Deliveries, General Deliveries, Trash Hauling	
B-5	Commissioning		15	Material Deliveries, General Deliveries	
B-7	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1120	Open Space & Site Amenities		10	TCCO - 5	
B-8 & B-14	Superstructure		60	TCCO - 7d	
SUBTOTAL		811	115		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2013

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-7	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-7	Commissioning		5	Material Deliveries, General Deliveries	
B-8 & B-14	Superstructure		70	TCCO - 7d	
SUBTOTAL		596	90		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2013

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-7	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-7	Commissioning		5	Material Deliveries, General Deliveries	
B-8 & B-14	Superstructure		60	TCCO - 7d	
B-8	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-8	Exterior		5	TCCO - 3	
B-14	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-14	Exterior		5	TCCO - 3	
SUBTOTAL		570	120		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2013

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-8	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-8	Exterior		5	TCCO - 3	
B-14	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-14	Exterior		5	TCCO - 3	
SUBTOTAL		817	40		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2013

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-8	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-14	Interiors		20	Material Deliveries, General Deliveries, Trash Hauling	
B-14	Commissioning		5	Material Deliveries, General Deliveries	
SUBTOTAL		843	40		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2014

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-8	Interiors		20	Material Deliveries, General Deliveries, Trash Hauling	
B-8	Commissioning		5	Material Deliveries, General Deliveries	
B-9 & B-13	Superstructure		60	TCCO - 7e	
SUBTOTAL		441	85		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2014

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-9 & B-13	Superstructure		70	TCCO - 7e	
SUBTOTAL		420	70		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2014

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-9 & B-13	Superstructure		60	TCCO - 7e	
B-9	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-9	Exterior		5	TCCO - 3	
B-13	Exterior		5	TCCO - 3	
B-13	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1121	Open Space & Site Amenities		10	TCCO - 5	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		705	130		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2014

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-9	Superstructure		30	TCCO - 7e	
B-9	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-9	Exterior		5	TCCO - 3	
B-13	Exterior		5	TCCO - 3	
B-13	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1121	Open Space & Site Amenities		10	TCCO - 5	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		869	100		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2015

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-9	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-9	Exterior		5	TCCO - 3	
B-13	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1121	Open Space & Site Amenities		10	TCCO - 5	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		869	65		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2015

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-9	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-13	Interiors		20	Material Deliveries, General Deliveries, Trash Hauling	
B-13	Commissioning		5	Material Deliveries, General Deliveries	
B-10, B-11, & B-12	Superstructure		90	TCCO - 7f	
Block 1121	Open Space & Site Amenities		10	TCCO - 5	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		954	155		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2015

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-9	Interiors		20	Material Deliveries, General Deliveries, Trash Hauling	
B-9	Commissioning		5	Material Deliveries, General Deliveries	
B-10, B-11, & B-12	Superstructure		105	TCCO - 7f	
Block 1121	Open Space & Site Amenities		10	TCCO - 5	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		856	150		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2015

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-10, B-11, & B-12	Superstructure		90	TCCO - 7f	
B-10	Exterior		5	TCCO - 3	
B-10	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-11	Exterior		5	TCCO - 3	
B-11	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-12	Exterior		5	TCCO - 3	
B-12	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1121	Open Space & Site Amenities		10	TCCO - 5	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		803	155		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

1st Quarter 2016

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-10, B-11, & B-12	Superstructure		90	TCCO - 7f	
B-10	Exterior		5	TCCO - 3	
B-10	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-11	Exterior		5	TCCO - 3	
B-11	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-12	Exterior		5	TCCO - 3	
B-12	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1121	Open Space & Site Amenities		10	TCCO - 5	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		1323	155		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

2nd Quarter 2016

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-10	Exterior		5	TCCO - 3	
B-10	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-11	Exterior		5	TCCO - 3	
B-11	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-12	Exterior		5	TCCO - 3	
B-12	Interiors		10	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		1419	55		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

3rd Quarter 2016

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-10	Exterior		5	TCCO - 3	
B-10	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-11	Interiors		15	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
B-11	Commissioning		5	Material Deliveries, General Deliveries	
B-12	Exterior		5	TCCO - 3	
B-12	Interiors		20	Material Deliveries, General Deliveries, Construction Hoist, Trash Hauling	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		1069	80		



Atlantic Yards
Project Construction Activities
Turner Construction Company
May 19, 2006

1. Trucks Per Day column identify the number of site visits per day.
2. Equipment column identifies the reference number for the Equipment Index to be referenced for each Activity.
3. Trucks per day and durations are based on working extended hours as needed to meet schedule requirements.

4th Quarter 2016

Facility	Activity	Workers Per Day	Trucks Per Day	Equipment	Notes
B-10	Interiors		15	Material Deliveries, General Deliveries, Trash Hauling	
B-10	Commissioning		5	Material Deliveries, General Deliveries	
B-12	Interiors		15	Material Deliveries, General Deliveries, Trash Hauling	
B-12	Commissioning		5	Material Deliveries, General Deliveries	
Block 1129	Open Space & Site Amenities		10	TCCO - 5	
SUBTOTAL		644	50		



ATTACHMENT 4
EQUIPMENT USAGE BY TASK

ACTIVITY

Stage 1 (continued)

TMG 1-C

Trucks will be dispatched from street to job site. Bridge foundation and erection will be performed in Blocks 1120 and 1121.

STAGE 1 TEMPORARY YARD		
CARLTON AVE. BRIDGE		
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE
DT	Dump Truck 10 wheel 16-20 CY	450HP
ST	Straight Truck 6 wheel rack/fuel/water	375HP
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP
CTP	Concrete pump	500HP
CTT	Concrete Truck 10 cy	500HP
EX	Excavator .5 - 5 CY	140-331HP
L	Front End Loader 1- 3.5 CY	100-160HP
BH	Backhoe/Loader	110HP
BD	Bulldozer	110HP
RC	Compactor	105HP
CP	Cherry Picker 35-55 ton	200-350HP
CR	Hyd. Truck Crane 125-160 ton	500HP
DR	Drill Rigs 14"- 48" dia	500-800HP
TDR	Tie-Back Drill Rig	275HP
HR	Hoe Rams	222-321HP
AP	Asphalt Paver	155HP
AR	Asphalt Roller	145HP

WEEKDAY WORK SHIFT FROM 7:00AM TO 3:30PM
Long Term Av 75%

Wk. Day	Wk. Day	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
14	2	40
1	1	20
2	2	20
1	1	20
42	6	20
2	2	20
1	1	20
1	1	20
1	1	20
		60
		60
2	2	20
1	1	25
		75
		65
2	2	50
		65
		70

WEEKDAY EXTENDED WORK SHIFT FROM 3:00PM TO 6:00PM
Average 3 hours per day, 3 nights per week
Long Term Av 20%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
4	1	20
1	1	10
		50
		75
		40
1	1	20
1	1	20
		80
		80
		80
		60
		60
1	1	20
		25
		75
		65
		50
		65
		70

WEEKDAY NIGHT WORK SHIFT FROM 3:30PM TO 11:00PM
Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

WEEKEND WORK SHIFT FROM 7:00AM TO 5:00PM
Average two 8 hour days per weekend
Long Term Av 50%

Weekend	Weekend	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
4	1	40
1	1	20
		50
		75
		40
1	1	20
1	1	20
1	1	20
		60
		60
1	1	50
1	1	25
		75
		65
1	1	50
		65
		70

TMG 1-D

Trucks will be dispatched from street to job site. Trestle erection will be done in Block 1121.

STAGE 1 TEMPORARY YARD		
RAILROAD TRESTLE		
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE
DT	Dump Truck 10 wheel 16-20 CY	450HP
ST	Straight Truck 6 wheel rack/fuel/water	375HP
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP
CTP	Concrete pump	500HP
CTT	Concrete Truck 10 cy	500HP
EX	Excavator .5 - 5 CY	140-331HP
L	Front End Loader 1- 3.5 CY	100-160HP
BH	Backhoe/Loader	110HP
BD	Bulldozer	110HP
RC	Compactor	105HP
CP	Cherry Picker 35-55 ton	200-350HP
CR	Hyd. Truck Crane 125-160 ton	500HP
DR	Drill Rigs 14"- 48" dia	500-800HP
TDR	Tie-Back Drill Rig	275HP
HR	Hoe Rams	222-321HP
AP	Asphalt Paver	155HP
AR	Asphalt Roller	145HP

WEEKDAY WORK SHIFT FROM 7:00AM TO 3:30PM
Long Term Av 80%

Wk. Day	Wk. Day	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
7	1	40
		20
1	1	20
		75
		40
1	1	20
1	1	20
		80
		80
		80
1	1	20
1	1	20
		50
1	1	25
1	1	40
		65
		50
		65
		70

WEEKDAY EXTENDED WORK SHIFT FROM 3:00PM TO 6:00PM
Average 3 hours per day, 3 nights per week
Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

WEEKDAY NIGHT WORK SHIFT FROM 3:30PM TO 11:00PM
Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

WEEKEND WORK SHIFT FROM 7:00AM TO 5:00PM
Average two 8 hour days per weekend
Long Term Av 50%

Weekend	Weekend	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
1	1	25
		75
		65
		50
		65
		70

ACTIVITY
TMG 1-E
Trucks will be dispatched from street to job site Block 1121. Excavation subballast work will be accomplished in Temporary Yard Block 1121.

Stage 1 (continued)

STAGE 1 TEMPORARY YARD EXCAVATION/SUB-BALLAST				WEEKDAY WORK SHIFT FROM 7:00AM TO 3:30PM			WEEKDAY EXTENDED WORK SHIFT FROM 3:00PM TO 6:00PM			WEEKDAY NIGHT WORK SHIFT FROM 3:30PM TO 11:00PM			WEEKEND WORK SHIFT FROM 7:00AM TO 5:00PM		
				Long Term Av	80%		Long Term Av	0%		Long Term Av	0%		Long Term Av	0%	
ABBREVIATION	ITEM OR DEVICE	Motor SIZE		Wk. Day Day Shift	Wk. Day Day Peak Hour	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Weekend Day Shift	Weekend Day Peak Hour	Usage Factor
				QTY	QTY	%	QTY	QTY	%	QTY	QTY	%	QTY	QTY	%
DT	Dump Truck 10 wheel 16-20 CY	450HP		84	12	40			100			100			100
ST	Straight Truck 6 wheel rack/fuel/water	375HP		1	1	20			20			20			20
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP				50			50			50			50
CTP	Concrete pump	500HP				75			75			75			75
CTT	Concrete Truck 10 cy	500HP				40			40			40			40
EX	Excavator .5 - 5 CY	140-331HP		1	1	25			80			80			80
L	Front End Loader 1- 3.5 CY	100-160HP		1	1	25			80			80			80
BH	Backhoe/Loader	110HP				80			80			80			80
BD	Bulldozer	110HP		1	1	20			60			60			60
RC	Compactor	105HP		1	1	20			60			60			60
CP	Cherry Picker 35-55 ton	200-350HP				50			50			50			50
CR	Hyd. Truck Crane 125-160 ton	500HP				25			25			25			25
DR	Drill Rigs 14"- 48" dia	500-800HP				75			75			75			75
TDR	Tie-Back Drill Rig	275HP				65			65			65			65
HR	Hoe Rams	222-321HP				50			50			50			50
AP	Asphalt Paver	155HP				65			65			65			65
AR	Asphalt Roller	145HP				70			70			70			70

TMG 1-F
Trucks will be dispatched from street to job site Block 1121. Trackwork and electric work will be accomplished in Temporary Yard Block 1121.

STAGE 1 TEMPORARY YARD TRACKWORK/ELECTRIC				Long Term Av 70%			Average 3 hours per day, 3 nights per week Long Term Av 20%			Long Term Av 0%			Average one 8 hour day per weekend Long Term Av 40%		
ABBREVIATION	ITEM OR DEVICE	Motor SIZE		Wk. Day Day Shift	Wk. Day Day Peak Hour	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Weekend Day Shift	Weekend Day Peak Hour	Usage Factor
				QTY	QTY	%	QTY	QTY	%	QTY	QTY	%	QTY	QTY	%
DT	Dump Truck 10 wheel 16-20 CY	450HP		7	1	40			100			100			100
ST	Straight Truck 6 wheel rack/fuel/water	375HP		1	1	20	1	1	20			20			20
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP				50			50			50			50
CTP	Concrete pump	500HP				75			75			75			75
CTT	Concrete Truck 10 cy	500HP		1	1	40			40			40			40
EX	Excavator .5 - 5 CY	140-331HP				80			80			80			80
L	Front End Loader 1- 3.5 CY	100-160HP		1	1	40			80			80			80
BH	Backhoe/Loader	110HP		1	1	40	1	1	40			80	1	1	40
BD	Bulldozer	110HP		1	1	20			60			60			60
RC	Compactor	105HP		1	1	20			60			60			60
CP	Cherry Picker 35-55 ton	200-350HP		1	1	20			50			50			50
CR	Hyd. Truck Crane 125-160 ton	500HP				25			25			25			25
DR	Drill Rigs 14"- 48" dia	500-800HP				75			75			75			75
TDR	Tie-Back Drill Rig	275HP				65			65			65			65
HR	Hoe Rams	222-321HP				50			50			50			50
AP	Asphalt Paver	155HP				65			65			65			65
AR	Asphalt Roller	145HP				70			70			70			70



**ATLANTIC YARDS - BROOKLYN ARENA
CONSTRUCTION PHASE EQUIPMENT LIST**
5/19/2006

ACTIVITY

Stage 2

TMG 2-A

Trucks will be dispatched from street to job site Block 1121. Sitework will be accomplished in Temporary Yard Block 1121.

STAGE 2 PERMANENT NORTH YARD		
SITWORK(DEMO,CLEARING,UTILITIES ETC..)		
ABBREVIATION	ITEM OR DEVICE	Motor SIZE
DT	Dump Truck 10 wheel 16-20 CY	450HP
ST	Straight Truck 6 wheel rack/fuel/water	375HP
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP
CTP	Concrete pump	500HP
CTT	Concrete Truck 10 cy	500HP
EX	Excavator .5 - 5 CY	140-331HP
L	Front End Loader 1- 3.5 CY	100-160HP
BH	Backhoe/Loader	110HP
BD	Bulldozer	110HP
RC	Compactor	105HP
CP	Cherry Picker 35-55 ton	200-350HP
CR	Hyd. Truck Crane 125-160 ton	500HP
DR	Drill Rigs 14"- 48" dia	500-800HP
TDR	Tie-Back Drill Rig	275HP
HR	Hoe Rams	222-321HP
AP	Asphalt Paver	155HP
AR	Asphalt Roller	145HP

**WEEKDAY WORK SHIFT FROM
7:00AM TO 3:30PM**

Long Term Av 80%

Wk. Day	Wk. Day	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		40
		20
		20
		75
		40
		40
		40
		40
		40
		40
		60
		60
		50
		25
		75
		65
		50
		20
		20

**WEEKDAY EXTENDED WORK SHIFT FROM
3:00PM TO 6:00PM**

Average 3 hours per day, 3 nights per week

Long Term Av 20%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		40
		60
		60
		50
		25
		75
		65
		50
		65
		70

**WEEKDAY NIGHT WORK SHIFT FROM 3:30PM
TO 11:00PM**

Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		40
		60
		60
		50
		25
		75
		65
		50
		65
		70

**WEEKEND WORK SHIFT FROM
7:00AM TO 5:00PM**

Average one 8 hour day per weekend

Long Term Av 40%

Weekend	Weekend	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		40
		40
		40
		40
		60
		60
		50
		25
		75
		65
		50
		65
		70

TMG 2-B

Trucks will be dispatched from street to job site Block 1121. Support of Excavation will be accomplished in Temporary Yard Block 1121.

STAGE 2 PERMANENT NORTH YARD		
SUPPORT OF EXCAVATION		
ABBREVIATION	ITEM OR DEVICE	Motor SIZE
DT	Dump Truck 10 wheel 16-20 CY	450HP
ST	Straight Truck 6 wheel rack/fuel/water	375HP
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP
CTP	Concrete pump	500HP
CTT	Concrete Truck 10 cy	500HP
EX	Excavator .5 - 5 CY	140-331HP
L	Front End Loader 1- 3.5 CY	100-160HP
BH	Backhoe/Loader	110HP
BD	Bulldozer	110HP
RC	Compactor	105HP
CP	Cherry Picker 35-55 ton	200-350HP
CR	Hyd. Truck Crane 125-160 ton	500HP
DR	Drill Rigs 14"- 48" dia	500-800HP
TDR	Tie-Back Drill Rig	275HP
HR	Hoe Rams	222-321HP
AP	Asphalt Paver	155HP
AR	Asphalt Roller	145HP

Long Term Av 80%

Wk. Day	Wk. Day	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		40
		20
		20
		75
		40
		40
		40
		40
		40
		60
		60
		50
		20
		25
		40
		30
		50
		65
		70

Average 3 hours per day, 3 nights per week

Long Term Av 20%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		40
		60
		60
		50
		25
		75
		65
		50
		65
		70

Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		40
		60
		60
		50
		25
		75
		65
		50
		65
		70

Average one 8 hour day per weekend

Long Term Av 40%

Weekend	Weekend	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		40
		40
		40
		40
		60
		60
		50
		25
		75
		65
		50
		65
		70

ACTIVITY
TMG 2-C
Trucks will be dispatched from street to job site Block 1121. Mass Excavation will be accomplished in Temporary Yard Block 1121.

Stage 2 (continued)

STAGE 2 PERMANENT NORTH YARD MASS EXCAVATION			WEEKDAY WORK SHIFT FROM 7:00AM TO 3:30PM			WEEKDAY EXTENDED WORK SHIFT FROM 3:00PM TO 6:00PM			WEEKDAY NIGHT WORK SHIFT FROM 3:30PM TO 11:00PM			WEEKEND WORK SHIFT FROM 7:00AM TO 5:00PM		
			Long Term Av	90%	Usage Factor	Wk. Day Day Shift	Wk. Day Day Peak Hour	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor
ABBREVIATION	ITEM OR DEVICE	Motor SIZE	QTY	QTY	%	QTY	QTY	%	QTY	QTY	%	QTY	QTY	%
DT	Dump Truck 10 wheel 16-20 CY	450HP	210	30	40			100			100			100
ST	Straight Truck 6 wheel rack/fuel/water	375HP	1	1	20			20			20			20
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP			50			50			50			50
CTP	Concrete pump	500HP			75			75			75			75
CTT	Concrete Truck 10 cy	500HP			40			40			40			40
EX	Excavator .5 - 5 CY	140-331HP	2	2	40			80			80			80
L	Front End Loader 1- 3.5 CY	100-160HP			80			80			80			80
BH	Backhoe/Loader	110HP			80			80			80			80
BD	Bulldozer	110HP	1	1	20			60			60			60
RC	Compactor	105HP			60			60			60			60
CP	Cherry Picker 35-55 ton	200-350HP			50			50			50			50
CR	Hyd. Truck Crane 125-160 ton	500HP			25			25			25			25
DR	Drill Rigs 14"- 48" dia	500-800HP			75			75			75			75
TDR	Tie-Back Drill Rig	275HP			65			65			65			65
HR	Hoe Rams	222-321HP			50			50			50			50
AP	Asphalt Paver	155HP			65			65			65			65
AR	Asphalt Roller	145HP			70			70			70			70

TMG 2-D
Trucks will be dispatched from street to Train Yard Block 1120. All structural work will be accomplished in Block 1120.

STAGE 2 PERMANENT NORTH YARD WEST PORTAL			Long Term Av 80%			Long Term Av 0%			Long Term Av 0%			Average one 8 hour day per weekend Long Term Av 40%		
			Wk. Day Day Shift	Wk. Day Day Peak Hour	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Weekend Day Shift	Weekend Day Peak Hour	Usage Factor
ABBREVIATION	ITEM OR DEVICE	Motor SIZE	QTY	QTY	%	QTY	QTY	%	QTY	QTY	%	QTY	QTY	%
DT	Dump Truck 10 wheel 16-20 CY	450HP	1	1	40			100			100			100
ST	Straight Truck 6 wheel rack/fuel/water	375HP	1	1	20			20			20			20
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP			50			50			50			50
CTP	Concrete pump	500HP			75			75			75			75
CTT	Concrete Truck 10 cy	500HP	2	2	20			40			40			40
EX	Excavator .5 - 5 CY	140-331HP	1	1	40			80			80			80
L	Front End Loader 1- 3.5 CY	100-160HP			80			80			80			80
BH	Backhoe/Loader	110HP	1	1	40			80			80	1	1	40
BD	Bulldozer	110HP			60			60			60			60
RC	Compactor	105HP			60			60			60			60
CP	Cherry Picker 35-55 ton	200-350HP	1	1	25			50			50			50
CR	Hyd. Truck Crane 125-160 ton	500HP			25			25			25			25
DR	Drill Rigs 14"- 48" dia	500-800HP			75			75			75			75
TDR	Tie-Back Drill Rig	275HP			65			65			65			65
HR	Hoe Rams	222-321HP	1	1	25			50			50	1	1	20
AP	Asphalt Paver	155HP			65			65			65			65
AR	Asphalt Roller	145HP			70			70			70			70

ACTIVITY **Stage 2 (continued)**

TMG 2-E

Trucking will be dispatched from street to the North Yard. Mat slab construction, pile installation and concrete pours will be accomplished in Yard Block 1121.

STAGE 2 PERMANENT NORTH YARD		
MAT SLABS/PILES		
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE
DT	Dump Truck 10 wheel 16-20 CY	450HP
ST	Straight Truck 6 wheel rack/fuel/water	375HP
TT	Tractor Trailer 80kgwv dump/high-boy/low-boy	500HP
CTP	Concrete pump	500HP
CTT	Concrete Truck 10 cy	500HP
EX	Excavator .5 - 5 CY	140-331HP
L	Front End Loader 1- 3.5 CY	100-160HP
BH	Backhoe/Loader	110HP
BD	Bulldozer	110HP
RC	Compactor	105HP
CP	Cherry Picker 35-55 ton	200-350HP
CR	Hyd. Truck Crane 125-160 ton	500HP
DR	Drill Rigs 14"- 48" dia	500-800HP
TDR	Tie-Back Drill Rig	275HP
HR	Hoe Rams	222-321HP
AP	Asphalt Paver	155HP
AR	Asphalt Roller	145HP

WEEKDAY WORK SHIFT FROM 7:00AM TO 3:30PM

Long Term Av 90%

Wk. Day	Wk. Day	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		40
		20
		20
		30
		20
		80
		40
		40
		40
		20
		60
		20
		25
		30
		65
		50
		65
		70

WEEKDAY EXTENDED WORK SHIFT FROM 3:00PM TO 6:00PM

Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

WEEKDAY NIGHT WORK SHIFT FROM 3:30PM TO 11:00PM

Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

WEEKEND WORK SHIFT FROM 7:00AM TO 5:00PM

Average one 8 hour day per weekend

Long Term Av 40%

Weekend	Weekend	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		40
		60
		60
		20
		25
		30
		65
		50
		65
		70

TMG 2-F

Trucking will be dispatched from street to Temporary Yard. After deliveries, trucks will be dispatched from Yard to street. Retaining wall construction will be in Block 1121.

STAGE 2 PERMANENT NORTH YARD		
RETAINING WALLS		
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE
DT	Dump Truck 10 wheel 16-20 CY	450HP
ST	Straight Truck 6 wheel rack/fuel/water	375HP
TT	Tractor Trailer 80kgwv dump/high-boy/low-boy	500HP
CTP	Concrete pump	500HP
CTT	Concrete Truck 10 cy	500HP
EX	Excavator .5 - 5 CY	140-331HP
L	Front End Loader 1- 3.5 CY	100-160HP
BH	Backhoe/Loader	110HP
BD	Bulldozer	110HP
RC	Compactor	105HP
CP	Cherry Picker 35-55 ton	200-350HP
CR	Hyd. Truck Crane 125-160 ton	500HP
DR	Drill Rigs 14"- 48" dia	500-800HP
TDR	Tie-Back Drill Rig	275HP
HR	Hoe Rams	222-321HP
AP	Asphalt Paver	155HP
AR	Asphalt Roller	145HP

WEEKDAY WORK SHIFT FROM 7:00AM TO 3:30PM

Long Term Av 80%

Wk. Day	Wk. Day	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		100
		20
		50
		40
		40
		80
		40
		40
		80
		80
		60
		60
		20
		25
		75
		65
		50
		65
		70

WEEKDAY EXTENDED WORK SHIFT FROM 3:00PM TO 6:00PM

Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

WEEKDAY NIGHT WORK SHIFT FROM 3:30PM TO 11:00PM

Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

WEEKEND WORK SHIFT FROM 7:00AM TO 5:00PM

Average one 8 hour day per weekend

Long Term Av 40%

Weekend	Weekend	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		20
		25
		75
		65
		50
		65
		70

ACTIVITY

Stage 2 (continued)

TMG 2-G

Trucks will be dispatched from street to job site Block 1121. Subballast, Trackwork and electric work will be accomplished in Block 1121.

STAGE 2 PERMANENT NORTH YARD SUBBALLAST/TRACK WORK/ELECTRIC			WEEKDAY WORK SHIFT FROM 7:00AM TO 3:30PM			WEEKDAY EXTENDED WORK SHIFT FROM 3:00PM TO 6:00PM			WEEKDAY NIGHT WORK SHIFT FROM 3:30PM TO 11:00PM			WEEKEND WORK SHIFT FROM 7:00AM TO 5:00PM		
			Long Term Av 80%			Long Term Av 0%			Long Term Av 0%			Average one 8 hour day per weekend Long Term Av 20%		
ABBREVIATION	ITEM OR DEVICE	Motor SIZE	Wk. Day Day Shift	Wk. Day Day Peak Hour	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Weekend Day Shift	Weekend Day Peak Hour	Usage Factor
QTY			QTY	QTY	%	QTY	QTY	%	QTY	QTY	%	QTY	QTY	%
DT	Dump Truck 10 wheel 16-20 CY	450HP	105	15	40			100			100			100
ST	Straight Truck 6 wheel rack/fuel/water	375HP	2	2	20			20			20	1	1	20
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP			50			50			50			50
CTP	Concrete pump	500HP			75			75			75			75
CTT	Concrete Truck 10 cy	500HP			40			40			40			40
EX	Excavator .5 - 5 CY	140-331HP	1	1	40			80			80			80
L	Front End Loader 1- 3.5 CY	100-160HP	2	2	40			80			80			80
BH	Backhoe/Loader	110HP	2	2	40			80			80	1	1	40
BD	Bulldozer	110HP	1	1	20			60			60			60
RC	Compactor	105HP	1	1	20			60			60			60
CP	Cherry Picker 35-55 ton	200-350HP	1	1	20			50			50			50
CR	Hyd. Truck Crane 125-160 ton	500HP			25			25			25			25
DR	Drill Rigs 14"- 48" dia	500-800HP			75			75			75			75
TDR	Tie-Back Drill Rig	275HP			65			65			65			65
HR	Hoe Rams	222-321HP			50			50			50			50
AP	Asphalt Paver	155HP			65			65			65			65
AR	Asphalt Roller	145HP			70			70			70			70



**ATLANTIC YARDS - BROOKLYN ARENA
CONSTRUCTION PHASE EQUIPMENT LIST**
5/19/2006

ACTIVITY

Stage 3

TMG 3-A

Trucks will be dispatched from street to job site Train Yard Block 1120. All sitework and utilities will be accomplished in Train Yard Block 1121.

STAGE 3 PERMANENT SOUTH YARD		
SITWORK/UTILITIES		
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE
DT	Dump Truck 10 wheel 16-20 CY	450HP
ST	Straight Truck 6 wheel rack/fuel/water	375HP
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP
CTP	Concrete pump	500HP
CTT	Concrete Truck 10 cy	500HP
EX	Excavator .5 - 5 CY	140-331HP
L	Front End Loader 1- 3.5 CY	100-160HP
BH	Backhoe/Loader	110HP
BD	Bulldozer	110HP
RC	Compactor	105HP
CP	Cherry Picker 35-55 ton	200-350HP
CR	Hyd. Truck Crane 125-160 ton	500HP
DR	Drill Rigs 14"- 48" dia	500-800HP
TDR	Tie-Back Drill Rig	275HP
HR	Hoe Rams	222-321HP
AP	Asphalt Paver	155HP
AR	Asphalt Roller	145HP

**WEEKDAY WORK SHIFT FROM
7:00AM TO 3:30PM**

Long Term Av 90%		
Wk. Day	Wk. Day	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
14	2	40
1	1	20
		50
		75
		40
1	1	40
2	2	40
1	1	40
1	1	20
1	1	20
1	1	20
		25
		75
		65
		50
1	1	20
1	1	20

**WEEKDAY EXTENDED WORK SHIFT FROM
3:00PM TO 6:00PM**

Long Term Av 0%		
Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

**WEEKDAY NIGHT WORK SHIFT FROM 3:30PM
TO 11:00PM**

Long Term Av 0%		
Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

**WEEKEND WORK SHIFT FROM
7:00AM TO 5:00PM**

Average one 8 hour day per weekend

Long Term Av 40%		
Weekend	Weekend	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
1	1	40
1	1	40
		60
		60
		50
		25
		75
		65
		50
		65
		70

TMG 3-B

Trucks will be dispatched from street to job site Train Yard Block 1120. All mass excavation work will be accomplished in Train Yard Block 1121.

STAGE 3 PERMANENT SOUTH YARD		
MASS EXCAVATION/SOE REMOVAL		
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE
DT	Dump Truck 10 wheel 16-20 CY	450HP
ST	Straight Truck 6 wheel rack/fuel/water	375HP
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP
CTP	Concrete pump	500HP
CTT	Concrete Truck 10 cy	500HP
EX	Excavator .5 - 5 CY	140-331HP
L	Front End Loader 1- 3.5 CY	100-160HP
BH	Backhoe/Loader	110HP
BD	Bulldozer	110HP
RC	Compactor	105HP
CP	Cherry Picker 35-55 ton	200-350HP
CR	Hyd. Truck Crane 125-160 ton	500HP
DR	Drill Rigs 14"- 48" dia	500-800HP
TDR	Tie-Back Drill Rig	275HP
HR	Hoe Rams	222-321HP
AP	Asphalt Paver	155HP
AR	Asphalt Roller	145HP

Long Term Av 90%

Wk. Day	Wk. Day	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
105	15	40
1	1	20
		50
		75
		40
2	2	80
		40
		80
		80
1	1	20
1	1	20
		50
		25
		75
		65
		50
		65
		70

Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

Long Term Av 0%

Wk. Day	Wk. Day	Usage
Night Shift	Night Shift	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

Long Term Av 0%

Weekend	Weekend	Usage
Day Shift	Day Peak Hour	Factor
QTY	QTY	%
		100
		20
		50
		75
		40
		80
		80
		80
		60
		60
		50
		25
		75
		65
		50
		65
		70

ACTIVITY

Stage 3 (continued)

TMG 3-E

Trucks will be dispatched from street to job site Train Yard Block 1120. All ballast, trackwork and electric work will be accomplished in Train Yard Block 1121.

STAGE 3 PERMANENT SOUTH YARD BALLAST/TRACK WORK/ELECTRIC			WEEKDAY WORK SHIFT FROM 7:00AM TO 3:30PM			WEEKDAY EXTENDED WORK SHIFT FROM 3:00PM TO 6:00PM			WEEKDAY NIGHT WORK SHIFT FROM 3:30PM TO 11:00PM			WEEKEND WORK SHIFT FROM 7:00AM TO 5:00PM			
			Long Term Av	70%		Long Term Av	0%		Long Term Av	0%		Average one 8 hour day per weekend	Long Term Av	20%	
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	Wk. Day Day Shift	Wk. Day Day Peak Hour	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Wk. Day Night Shift	Wk. Day Night Shift	Usage Factor	Weekend Day Shift	Weekend Day Peak Hour	Usage Factor	
			QTY	QTY	%	QTY	QTY	%	QTY	QTY	%	QTY	QTY	%	
DT	Dump Truck 10 wheel 16-20 CY	450HP	105	15	40			100			100			100	
ST	Straight Truck 6 wheel rack/fuel/water	375HP	2	2	20			20			20	1	1	20	
TT	Tractor Trailer 80kgw dump/high-boy/low-boy	500HP			50			50			50			50	
CTP	Concrete pump	500HP			75			75			75			75	
CTT	Concrete Truck 10 cy	500HP			40			40			40			40	
EX	Excavator .5 - 5 CY	140-331HP	1	1	40			80			80			80	
L	Front End Loader 1- 3.5 CY	100-160HP	1	1	40			80			80			80	
BH	Backhoe/Loader	110HP	1	1	40			80			80			80	
BD	Bulldozer	110HP	1	1	20			60			60			60	
RC	Compactor	105HP	1	1	20			60			60			60	
CP	Cherry Picker 35-55 ton	200-350HP	1	1	20			50			50			50	
CR	Hyd. Truck Crane 125-160 ton	500HP			25			25			25			25	
DR	Drill Rigs 14"- 48" dia	500-800HP			75			75			75			75	
TDR	Tie-Back Drill Rig	275HP			65			65			65			65	
HR	Hoe Rams	222-321HP			50			50			50			50	
AP	Asphalt Paver	155HP			65			65			65			65	
AR	Asphalt Roller	145HP			70			70			70			70	



ATLANTIC YARDS - BROOKLYN ARENA - CONSTRUCTION EQUIPMENT LIST - AT PEAK PERIODS
5/19/2006

NOTES:

Equipment will not be permitted to idle for more than three minutes (with the exception of queuing concrete and earthwork trucks as clarified by narrative).

Trucking Activity

TCCO - 1

Demolition work in Site 5, and Trucking will be at street level block 1128 will include this distributed throughout site equipment index reduced by 50%.

			Weekday work shift from 7:00 am - 3:30 pm			Weekday Extended work shift from 3:30 pm to 6:00 pm			Weekday Night work shift 3:30 pm to 11:30 pm			Weekend Day work shift from 7:00 am to 5:00 pm No Noise Generating Equipment prior to 8:45 am		
			Long Term Average = 80%			Long Term Average = 20%			Long Term Average = 0%			Long Term Average = 25%		
At Street Grade			Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	Day Shift QTY	Day Peak Hour QTY	%	Ext. Shift QTY	Ext. Shift Peak Hour QTY	%	Night Shift QTY	Night Peak Hour QTY	%	Day Shift QTY	Day Peak Hour QTY	%
CM	Compressors	125-275HP	2	2	40	2	2	40	0	0	0	2	2	40
CW	Crane - Demolition Attachment	350HP	2	2	20	-	-	20	0	0	0	2	2	20
DS	Diamond Saws	small engine	2	2	20	2	2	20	0	0	0	2	2	20
DT	Dump Trucks (15Cy)	450HP	25	6	40	10	4	40	0	0	0	10	4	40
RR	Dumpster/Rubbish Removal (30Cy)	410HP	3	1	10	1	1	10	0	0	0	1	1	10
EX	Excavators	128-428 HP	2	2	40	2	2	40	0	0	0	2	2	40
EHR	Excavators w/ Hoe Ram (Pneumatic)	286HP	2	2	40	-	-	40	0	0	0	2	2	40
HG	Hydraulic Gridders	200HP	3	3	40	-	-	40	0	0	0	2	2	40
JH	Jack Hammers (90lbs. Compressed Air)	125HP	6	6	20	-	-	20	0	0	0	4	4	20
SFT	Service/Utility Fuel Trucks	350HP	1	1	20	1	1	20	0	0	0	1	1	20

TCCO - 2

Environmental Classification Trucking will inside the excavation footprint, distributed work in Site 5 will include this throughout site equipment index reduced by 50%.

			Long Term Average = 80%			Long Term Average = 20%			Long Term Average = 0%			Long Term Average = 30%		
At Street Grade to -20' Below			Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	Day Shift QTY	Day Peak Hour QTY	%	Ext. Shift QTY	Ext. Shift Peak Hour QTY	%	Night Shift QTY	Night Peak Hour QTY	%	Day Shift QTY	Day Peak Hour QTY	%
PT	Pick-Up Trucks	350HP	5	3	20	3	3	20	0	0	0	3	3	20
SDR	Sonic Drill Rigs	175-275HP	2	2	20	2	2	20	0	0	0	2	2	20

TCCO - 3

Trucking will be at street level to construction hoists and tower cranes

			Long Term Average = 90%			Long Term Average = 40%			Long Term Average = 0%			Long Term Average = 30%		
From -20' to +120'			Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	Day Shift QTY	Day Peak Hour QTY	%	Ext. Shift QTY	Ext. Shift Peak Hour QTY	%	Night Shift QTY	Night Peak Hour QTY	%	Day Shift QTY	Day Peak Hour QTY	%
G	Generators (25 KVA)	339HP	5	5	50	5	5	50	0	0	0	5	5	50
HM	Hand Tools/Hammers	LOT	LOT	LOT	50	LOT	LOT	50	0	0	0	LOT	LOT	50
TT	Tractor Trailers (18 Wheel)	500HP	10	4	40	5	4	40	0	0	0	5	4	40

TCCO - 4

Foundation work in Site 5 will include this equipment index excavation footprint, distributed throughout site reduced by 50%.

			Long Term Average = 90%			Long Term Average = 40%			Long Term Average = 20%			Long Term Average = 25%		
From -20' to Street Grade			Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	Day Shift QTY	Day Peak Hour QTY	%	Ext. Shift QTY	Ext. Shift Peak Hour QTY	%	Night Shift QTY	Night Peak Hour QTY	%	Day Shift QTY	Day Peak Hour QTY	%
CM	Compressors	125-275HP	3	3	40	3	3	40	1	1	40	3	2	40
CTP	Concrete Pumps	410HP	2	2	20	2	2	20	0	0	20	2	2	20
CTT	Concrete Trucks (10Cy)	435HP	20	6	40	10	4	40	0	0	40	10	4	40
EB	Excavators/Backhoes	100HP	3	3	40	3	3	40	0	0	40	3	3	40
DT	Dump Truck (Tandem 20Cy)	450HP	20	12	40	12	6	40	0	0	40	12	12	40
CLC	Mantlowe 999	450HP	2	2	20	2	2	20	0	0	20	2	2	20
G	Generators	339HP	2	2	50	2	2	50	1	1	50	2	2	50
HT	Hand Tools / Saws	LOT	LOT	LOT	50	LOT	LOT	50	LOT	LOT	50	LOT	LOT	50
HVL	Hydraulic Lift Vehical (Gasoline)	125HP	1	1	35	-	-	35	0	0	35	1	1	35
RT	Rack Trucks	350HP	4	2	20	2	2	20	1	1	20	4	2	20
BB	Bar Bender	10HP	2	2	20	-	-	20	2	2	20	2	2	20
SFT	Service Utility/Fuel Trucks	350HP	1	1	10	1	1	10	1	1	10	1	1	10
SC	Street Cleaners	325HP	1	1	20	1	1	20	1	1	20	1	1	20
TEP	Temporary Elect Plant (Transformers)	1000AMP	1	1	100	1	1	100	1	1	100	1	1	100
TT	Tractor Trailers	500HP	4	2	40	1	1	40	1	1	40	2	2	40
W	Welders (480V)	200AMP	2	2	40	2	2	40	2	2	40	2	2	40

TCCO - 5

Mass Excavation will be as depicted herein for Arena Block and Site 1129. Mass Excavation for Site 5 will be 66% and Building 15 and open space work in Blocks 1120, 1121, & 1129 will be 33%, for equipment quantities shown (Arena and 1129 will have as many as three operations, whereas Site 5 will have two, and Building 15 and Open Space work will each have single operations)

			Long Term Average = 80%			Long Term Average = 20%			Long Term Average = 0%			Long Term Average = 25%		
From Street Grade to -20'			Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	Day Shift	Day Peak Hour	Factor	Ext. Shift	Ext. Shift Peak Hour	Factor	Night Shift	Night Peak Hour	Factor	Day Shift	Day Peak Hour	Factor
BD	Bull Dozers	130-370HP	2	2	40	1	1	40	0	0	0	1	1	40
CS	Chain Saws	small engine	4	4	20	-	-	20	0	0	0	-	-	20
CM	Compressors	125-275HP	6	6	40	2	2	40	0	0	0	2	2	40
DT	Dump Trucks (Tandem 20Cy)	450HP	120	30	40	30	15	40	0	0	0	30	15	40
EB	Excavators/Backhoes	100HP	3	3	40	3	3	40	0	0	0	3	3	40
G	Generators	339HP	3	3	50	2	2	50	0	0	0	2	2	50
L	Front End Loader	150-210HP	3	3	40	2	2	40	0	0	0	2	2	40
RC	Roller/Compactor (Sheeps Foot)	315HP	2	2	20	1	1	20	0	0	0	1	1	20
SFT	Service/Utility Fuel Trucks	350HP	2	2	10	1	1	10	0	0	0	1	1	10
SC	Street Cleaner	325HP	1	1	20	1	1	20	0	0	0	1	1	20
TDR	Tie-Back Drill Rigs	400HP	3	3	20	1	1	20	0	0	0	1	1	20
TT	Tractor Trailers	500HP	2	2	40	1	1	40	0	0	0	1	1	40
WP	Water Pumps	100HP	3	3	10	3	3	10	0	0	0	3	3	10
WT	Water Trucks	300HP	1	1	20	1	1	20	0	0	0	1	1	20
W	Welders	200HP	2	2	40	-	-	40	0	0	0	-	-	40

TCCO - 6

SOE at Site 5 will include this Trucking will be at street level equipment index reduced by @ site perimeter 50%.

			Long Term Average = 90%			Long Term Average = 40%			Long Term Average = 0%			Long Term Average = 25%		
At Street Grade			Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	Day Shift	Day Peak Hour	Factor	Ext. Shift	Ext. Shift Peak Hour	Factor	Night Shift	Night Peak Hour	Factor	Day Shift	Day Peak Hour	Factor
BD	Bull Dozers	130-370HP	1	1	40	1	1	40	0	0	0	1	1	40
HC-90	Hydraulic Cranes - 90t	300-375HP	1	1	20	1	1	20	0	0	0	1	1	20
CM	Compressors	125-275HP	2	2	40	1	1	40	0	0	0	1	1	40
CP	Concrete Pumps	410HP	2	2	20	2	2	20	0	0	0	2	2	20
CTT	Concrete Trucks	435HP	10	4	40	6	3	40	0	0	0	6	3	40
DR	Drill Rigs	350HP	2	2	20	2	2	20	0	0	0	2	2	20
FT	Fuel Trucks	435HP	1	1	10	1	1	10	0	0	0	1	1	10
CSC	Crawler Service Crane (100T)	300HP	1	1	20	1	1	20	0	0	0	1	1	20
SFT	Service Utility/Fuel Trucks	350HP	1	1	10	1	1	10	0	0	0	1	1	10
SUT	Service/Utility Trucks	350HP	1	1	10	1	1	10	0	0	0	1	1	10
SC	Street Cleaners	325HP	1	1	20	1	1	20	0	0	0	1	1	20
TT	Tractor Trailers	500HP	6	2	40	2	2	40	0	0	0	2	2	40
WT	Water Trucks	300HP	1	1	20	1	1	20	0	0	0	1	1	20
W	Welders	200HP	2	2	40	2	2	40	0	0	0	2	2	40

TCCO - 7a

Arena, Buildings 1,2,3,4 thru AGL, Urban Room, & Site 5

From Street Level to 120'

Impact Wrenches used in Arena and Bldg 1

From 75' above Street to 160'

			Long Term Average = 90%			Long Term Average = 40%			Long Term Average = 10%			Long Term Average = 50%		
From Street Grade to +120'			Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	Day Shift	Day Peak Hour	Factor	Ext. Shift	Ext. Shift Peak Hour	Factor	Night Shift	Night Peak Hour	Factor	Day Shift	Day Peak Hour	Factor
BT	Boom Trucks/MTL Deliveries	250HP	10	4	40	8	4	40	6	2	40	8	4	40
CM	Compressors	125-275HP	4	4	40	2	2	40	2	2	40	2	2	40
CP	Concrete Pumps	410HP	6	6	20	2	2	20	0	0	20	2	2	20
CT	Concrete Trucks	435HP	110	36	40	20	5	40	0	0	40	20	5	40
HE	Construction Hoist/Elevators	100AMP	4	4	80	4	4	80	4	4	80	4	4	80
CSC	Crawler Service Crane (100T)	200-375HP	2	2	20	2	2	20	1	1	20	2	2	20
CC	Manitowoc 2250	375HP	2	2	20	2	2	20	1	1	20	2	2	20
G	Generators	339HP	6	6	50	4	4	50	4	4	50	4	4	50
HC-45	Hydraulic Cranes - 45t	200-275HP	3	3	20	3	3	20	1	1	20	3	3	20
HC-90	Hydraulic Cranes - 90t	300-375HP	3	3	20	1	1	20	1	1	20	1	1	20
HLV	Hydraulic Lift Vehicles (Lv11)	125HP	6	6	35	6	6	35	6	6	35	6	6	35
IW	Impact Wrenches	125HP	10	10	20	10	10	20	6	6	20	10	10	20
LS	Lift Booms/Scissor Lifts	100HP	20	20	20	10	10	20	5	5	20	10	10	20
PAH	Power Actuated Hammers	350HP	10	10	20	4	4	20	0	0	20	4	4	20
RT	Rack Trucks	410HP	5	5	20	2	2	20	0	0	20	2	2	20
RR	Dumpster/Rubbish Removal	410HP	10	4	19	4	4	19	6	1	10	4	4	19
SFT	Service/Utility Fuel Trucks	350HP	2	2	10	1	1	10	0	0	10	1	1	10
TEP	Temporary Electric Plant	2000AMP	2	2	100	2	2	100	2	2	100	2	2	100
TC	Tower Cranes (FAVCO's)	350HP	5	3	20	3	3	20	0	0	20	3	3	20
TT	Tractor Trailers	500HP	20	5	40	20	5	40	12	3	40	20	5	40
W	Welders	200AMP	6	6	40	4	4	40	2	2	40	4	4	40

TCCO - 7b

Buildings 1,2,3,4 above AGL & Site 5
Trucking will be at street level to construction hoists and tower cranes

From Street level to 620'

Impact Wrenches used in Bldg 1, up through 25th floor

From 160' to 660'

SUPER STRUCTURE				Long Term Average = 90%				Long Term Average = 40%				Long Term Average = 10%				Long Term Average = 50%			
From Street Grade to 620				Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage	Weekend	Weekend	Usage	
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	QTY	Day Shift	Day Peak Hour	Factor	Ext. Shift	Ext. Shift Peak Hour	Factor	Night Shift	Night Peak Hour	Factor	Day Shift	Day Peak Hour	Factor	Day Shift	Day Peak Hour	Factor	
BT	Boom Trucks/MTL Deliveries	250HP	10	4	4	40	8	3	40	6	2	40	8	3	40	8	3	40	
CM	Compressors	125-275HP	4	4	4	40	2	2	40	2	2	40	2	2	40	2	2	40	
CP	Concrete Pumps	410HP	6	6	20	2	2	20	2	0	0	20	2	2	20	2	2	20	
CT	Concrete Trucks	435HP	100	36	40	20	0	20	0	0	20	0	20	5	20	0	20	5	
HE	Construction Hoist/Elevators	100AMP	10	10	80	10	10	10	80	10	10	80	10	10	80	10	10	80	
G	Generators	339HP	5	5	50	5	5	50	5	5	50	5	5	50	5	5	50	5	
HC-45	Hydraulic Cranes - 45t	200-275HP	4	4	20	4	4	20	4	1	1	20	4	4	20	4	4	20	
HC-90	Hydraulic Cranes - 90t	300-375HP	3	3	20	1	1	20	1	1	20	1	1	20	1	1	20	1	
HLV	Hydraulic Lift Vehicles (Lv11)	125HP	10	10	35	6	6	35	6	6	35	6	6	35	6	6	35	6	
IW	Impact Wrenches	125HP	6	6	20	6	6	20	6	3	3	20	6	6	20	6	6	20	
LS	Lift Booms/Scissor Lifts	100HP	16	16	20	10	10	20	10	5	5	20	10	10	20	10	10	20	
PAH	Power Actuated Hammers	100HP	10	10	20	4	4	20	4	0	0	20	4	4	20	4	4	20	
RT	Rack Trucks	350HP	5	5	20	2	2	20	2	0	0	20	2	2	20	2	2	20	
RR	Dumpster/Rubbish Removal	410HP	12	4	10	9	3	10	6	1	10	6	2	10	6	2	10	6	
SFT	Service/Utility Fuel Trucks	350HP	1	1	10	1	1	10	1	0	0	10	1	1	10	1	1	10	
TEP	Temporary Electric Plant	1000AMP	3	3	100	3	3	100	3	3	100	3	3	100	3	3	100	3	
TC	Tower Cranes (FAVCO's)	350HP	10	10	20	5	5	20	5	0	0	20	5	5	20	5	5	20	
TT	Tractor Trailers	500HP	20	5	40	20	5	40	12	3	40	20	5	40	20	5	40	12	
W	Welders	200AMP	6	6	40	4	4	40	4	4	40	4	4	40	4	4	40	4	

TCCO - 7c

Buildings 5,6,7 & 15
Trucking will be at street level to construction hoists and tower cranes

From 75' to 460'

SUPER STRUCTURE				Long Term Average = 90%				Long Term Average = 40%				Long Term Average = 10%				Long Term Average = 50%			
From Street Grade to +460				Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage	Weekend	Weekend	Usage	
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	QTY	Day Shift	Day Peak Hour	Factor	Ext. Shift	Ext. Shift Peak Hour	Factor	Night Shift	Night Peak Hour	Factor	Day Shift	Day Peak Hour	Factor	Day Shift	Day Peak Hour	Factor	
BT	Boom Trucks/MTL Deliveries	250HP	10	4	4	40	8	3	40	6	2	40	8	3	40	8	3	40	
CM	Compressors	125-275HP	4	4	4	40	2	2	40	2	2	40	2	2	40	2	2	40	
CP	Concrete Pumps	410HP	6	6	20	2	2	20	2	0	0	20	2	2	20	2	2	20	
CT	Concrete Trucks	435HP	100	36	40	20	0	20	0	0	20	0	20	5	20	0	20	5	
HE	Construction Hoist/Elevators	100AMP	6	6	80	6	6	80	6	6	80	6	6	80	6	6	80	6	
G	Generators	339HP	4	4	50	4	4	50	4	4	50	4	4	50	4	4	50	4	
HC-45	Hydraulic Cranes - 45t	200-275HP	4	4	20	4	4	20	4	1	1	20	4	4	20	4	4	20	
HC-90	Hydraulic Cranes - 90t	300-375HP	3	3	20	1	1	20	1	1	20	1	1	20	1	1	20	1	
HLV	Hydraulic Lift Vehicles (Lv11)	125HP	5	5	35	5	5	35	5	5	35	5	5	35	5	5	35	5	
LS	Lift Booms/Scissor Lifts	100HP	16	16	20	10	10	20	10	5	5	20	10	10	20	10	10	20	
PAH	Power Actuated Hammers	100HP	10	10	20	4	4	20	4	0	0	20	4	4	20	4	4	20	
RT	Rack Trucks	350HP	5	5	20	2	2	20	2	0	0	20	2	2	20	2	2	20	
RR	Dumpster/Rubbish Removal	410HP	12	4	10	9	3	10	6	1	10	6	2	10	6	2	10	6	
SFT	Service/Utility Fuel Trucks	350HP	1	1	10	1	1	10	1	0	0	10	1	1	10	1	1	10	
TEP	Temporary Electric Plan	1000AMP	3	3	100	3	3	100	3	3	100	3	3	100	3	3	100	3	
TC	Tower Cranes (FAVCO's)	350HP	8	8	20	4	4	20	4	0	0	20	4	4	20	4	4	20	
TT	Tractor Trailers	500HP	20	5	40	20	5	40	12	3	40	20	5	40	20	5	40	12	
W	Welders	200AMP	6	6	40	4	4	40	4	4	40	4	4	40	4	4	40	4	

TCCO - 7d

Buildings 8 & 14
Trucking will be at street level to construction hoists and tower cranes

From 75' to 284'

SUPER STRUCTURE				Long Term Average = 90%				Long Term Average = 40%				Long Term Average = 10%				Long Term Average = 50%			
From Street Grade to +284				Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage	Weekend	Weekend	Usage	
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	QTY	Day Shift	Day Peak Hour	Factor	Ext. Shift	Ext. Shift Peak Hour	Factor	Night Shift	Night Peak Hour	Factor	Day Shift	Day Peak Hour	Factor	Day Shift	Day Peak Hour	Factor	
BT	Boom Trucks/MTL Deliveries	250HP	3	3	40	2	2	40	2	6	2	40	2	2	40	2	2	40	
CM	Compressors	125-275HP	3	3	40	2	2	40	2	2	2	40	2	2	40	2	2	40	
CP	Concrete Pumps	410HP	3	3	20	2	2	20	2	0	0	20	2	2	20	2	2	20	
CT	Concrete Trucks	435HP	40	18	20	10	5	20	0	0	20	10	5	20	10	5	20	10	
HE	Construction Hoist/Elevators	100AMP	4	4	80	4	4	80	4	4	80	4	4	80	4	4	80	4	
G	Generators	339HP	2	2	50	1	1	50	1	1	50	1	1	50	1	1	50	1	
HC-45	Hydraulic Cranes - 45t	200-275HP	2	2	20	2	2	20	2	1	1	20	2	2	20	2	2	20	
HC-90	Hydraulic Cranes - 90t	300-375HP	1	1	20	1	1	20	1	1	20	1	1	20	1	1	20	1	
HLV	Hydraulic Lift Vehicles (Lv11)	125HP	2	2	35	2	2	35	2	2	35	2	2	35	2	2	35	2	
LS	Lift Booms/Scissor Lifts	100HP	8	8	20	4	4	20	4	4	20	4	4	20	4	4	20	4	
PAH	Power Actuated Hammers	100HP	8	8	20	4	4	20	4	0	0	20	4	4	20	4	4	20	
RT	Rack Trucks	350HP	5	5	20	2	2	20	2	0	0	20	2	2	20	2	2	20	
RR	Dumpster/Rubbish Removal	410HP	6	4	10	6	3	10	6	1	10	6	2	10	6	2	10	6	
SFT	Service/Utility Fuel Trucks	350HP	1	1	10	1	1	10	1	0	0	10	1	1	10	1	1	10	
TEP	Temporary Electric Plant	1000AMP	2	2	100	2	2	100	2	2	100	2	2	100	2	2	100	2	
TC	Tower cranes (FAVCO's)	350HP	4	4	20	2	2	20	2	0	0	20	2	2	20	2	2	20	
TT	Tractor Trailers	500HP	20	5	40	20	5	40	12	3	40	20	5	40	20	5	40	12	
W	Welders	200AMP	6	6	40	4	4	40	4	4	40	4	4	40	4	4	40	4	

TCCO - 7e

Buildings 9 & 13
Trucking will be at street level to construction hoists and tower cranes

From 75' to 419'

SUPER STRUCTURE				Long Term Average = 90%				Long Term Average = 40%				Long Term Average = 10%				Long Term Average = 50%			
From Street Grade to +419				Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Wk. Day	Wk. Day	Usage	Weekend	Weekend	Usage	Weekend	Weekend	Usage	
ABBREVIATION	ITEM OR DEVICE	MOTOR SIZE	QTY	Day Shift	Day Peak Hour	Factor	Ext. Shift	Ext. Shift Peak Hour	Factor	Night Shift	Night Peak Hour	Factor	Day Shift	Day Peak Hour	Factor	Day Shift	Day Peak Hour	Factor	
BT	Boom Trucks/MTL Deliveries	250HP	3	3	40	2	2	40	2	6	2	40	2	2	40	2	2	40	
CM	Compressors	125-275HP	4	4	40	2	2	40	2	2	2	40	2	2	40	2	2	40	
CP	Concrete Pumps	410HP	3	3	20	2	2	20	2	0	0	20	2	2	20	2	2	20	
CT	Concrete Trucks	435HP	40	18	20	10	5	20	0	0	20	10	5	20	10	5	20	10	
HE	Construction Hoist/Elevators	100AMP	4	4	80	4	4	80	4	4	80	4	4	80	4	4	80	4	
G	Generators	339HP	2	2	50	1	1	50	1	1	50	1	1	50	1	1	50	1	
HC-45	Hydraulic Cranes - 45t	200-275HP	2	2	20	2	2	20	2	1	1	20	2	2	20	2	2	20	
HC-90	Hydraulic Cranes - 90t	300-375HP	1	1	20	1	1	20	1	1	20	1	1	20	1	1	20	1	
HLV	Hydraulic Lift Vehicles (Lv11)	125																	

TCCO - 7f
Buildings 10,11 & 12

Trucking will be at street level to construction hoists and tower cranes

Long Term Average = 90%				Long Term Average = 40%				Long Term Average = 10%				Long Term Average = 50%			
SUPER STRUCTURE															
From Street Grade to +313															
ABBREVIATION	ITEM OR DEVICE	Motor SIZE	Wk. Day Day Shift QTY	Wk. Day Day Peak Hour QTY	Usage Factor %	Wk. Day Ext. Shift QTY	Wk. Day Ext. Shift Peak Hour QTY	Usage Factor %	Wk. Day Night Shift QTY	Wk. Day Night Peak Hour QTY	Usage Factor %	Wk. Day Ext. Shift QTY	Wk. Day Ext. Shift Peak Hour QTY	Usage Factor %	
BT	Boom Trucks/MTL Deliveries	250HP	7	3	40	3	3	40	6	2	40	3	3	40	
CM	Compressors	125-275HP	6	6	40	3	3	40	2	2	40	3	3	40	
CP	Concrete Pumps	410HP	6	6	20	2	2	20	0	0	20	2	2	20	
CT	Concrete Trucks	435HP	60	24	20	20	5	20	0	0	20	20	5	20	
HE	Construction Hoist/Elevators	100AMP	5	5	80	5	5	80	5	5	80	5	5	80	
G	Generators	339HP	3	3	50	3	3	50	3	3	50	3	3	50	
HC-45	Hydraulic Cranes - 45t	200-275HP	3	3	20	3	3	20	1	1	20	3	3	20	
HC-90	Hydraulic Cranes - 90t	300-375HP	3	2	20	1	1	20	1	1	20	1	1	20	
HLV	Hydraulic Lift Vehicles (Lv11)	125HP	3	3	35	3	3	35	3	3	35	3	3	35	
LS	Lift Booms/Scissor Lifts	100HP	6	6	20	3	3	20	3	3	20	3	3	20	
PAH	Power Actuated Hammers	350HP	6	6	20	6	6	20	0	0	20	6	6	20	
RT	Rack Trucks	350HP	5	5	20	2	2	20	0	0	20	2	2	20	
RR	Dumpster/Rubbish Removal	410HP	10	4	10	6	3	10	6	1	10	6	2	10	
SFT	Service/Utility Fuel Trucks	350HP	1	1	10	1	1	10	0	0	10	1	1	10	
TEP	Temporary Electric Plant	1000AMP	3	3	100	3	3	100	3	3	100	3	3	100	
TC	Tower cranes (FAVCO's)	350HP	6	6	20	3	3	20	0	0	20	3	3	20	
TT	Tractor Trailers	500HP	30	5	40	36	5	40	12	3	40	36	5	40	
W	Welders	200AMP	6	6	40	4	4	40	4	4	40	4	4	40	

From 75' to 313'

TCCO - 7g
Platforms

Trucking will be at street level, to cranes in various positions distributed at site perimeter

Long Term Average = 90%				Long Term Average = 40%				Long Term Average = 10%				Long Term Average = 50%			
SUPER STRUCTURE															
From -20' to Street Grade															
ABBREVIATION	ITEM OR DEVICE	Motor SIZE	Wk. Day Day Shift QTY	Wk. Day Day Peak Hour QTY	Usage Factor %	Wk. Day Ext. Shift QTY	Wk. Day Ext. Shift Peak Hour QTY	Usage Factor %	Wk. Day Night Shift QTY	Wk. Day Night Peak Hour QTY	Usage Factor %	Wk. Day Ext. Shift QTY	Wk. Day Ext. Shift Peak Hour QTY	Usage Factor %	
BT	Boom Trucks/MTL Deliveries	250HP	4	4	40	3	3	40	8	3	40	3	3	40	
CM	Compressors	125-275HP	4	4	40	2	2	40	2	2	40	2	2	40	
CP	Concrete Pumps	410HP	2	2	20	2	2	20	2	2	20	2	2	20	
CT	Concrete Trucks	435HP	36	12	20	20	5	20	20	5	20	20	5	20	
CC	Manitowoc 2250	375HP	1	1	20	1	1	20	1	1	20	1	1	20	
G	Generators	339HP	1	1	50	1	1	50	1	1	50	1	1	50	
HC-45	Hydraulic Cranes - 45t	200-275HP	1	1	20	1	1	20	1	1	20	1	1	20	
HC-90	Hydraulic Cranes - 90t	300-375HP	1	1	20	1	1	20	1	1	20	1	1	20	
IW	Impact Wrenches	125HP	8	8	20	6	6	20	6	6	20	6	6	20	
LS	Lift Booms/Scissor Lifts	100HP	4	4	20	4	4	20	4	4	20	4	4	20	
PAH	Power Actuated Hammers	350HP	4	4	20	4	4	20	0	0	20	4	4	20	
RT	Rack Trucks	350HP	2	1	20	2	1	20	2	1	20	2	1	20	
RR	Dumpster/Rubbish Removal	410HP	4	2	10	4	2	10	4	2	10	4	2	10	
SFT	Service/Utility Fuel Trucks	350HP	1	1	10	1	1	10	1	1	10	1	1	10	
TEP	Temporary Electric Plant	1000 AMP	1	1	100	1	1	100	1	1	100	1	1	100	
TT	Tractor Trailers	500HP	6	2	40	4	4	40	4	2	40	4	2	40	
W	Welders	200AMP	6	6	40	4	4	40	4	4	40	4	4	40	

Street level

TCCO - 8

Trucking will be at street level, Utility Relocation work at Site to various positions distributed 5 will include this equipment throughout site perimeter index reduced by 50%.

Long Term Average = 80%				Long Term Average = 20%				Long Term Average = 0%				Long Term Average = 25%			
UTILITY RELOCATION															
From -20' to Street Grade															
ABBREVIATION	ITEM OR DEVICE	Motor SIZE	Wk. Day Day Shift QTY	Wk. Day Day Peak Hour QTY	Usage Factor %	Wk. Day Ext. Shift QTY	Wk. Day Ext. Shift Peak Hour QTY	Usage Factor %	Wk. Day Night Shift QTY	Wk. Day Night Peak Hour QTY	Usage Factor %	Weekend Day Shift QTY	Weekend Day Peak Hour QTY	Usage Factor %	
AP	Asphalt Paver	155HP	1	1	50	1	1	50	0	0	50	1	1	50	
C	Compressors	125-275HP	2	2	40	2	2	40	0	0	40	2	2	40	
DS	Diamond Saws	small engine	2	2	20	2	2	20	0	0	20	2	2	20	
DT	Dump Trucks	450HP	4	4	40	4	4	40	0	0	40	4	4	40	
EB	Excavators/Backhoes	100HP	3	3	40	3	3	40	0	0	40	3	3	40	
HC-45	Hydraulic Cranes - 45t	200-275HP	1	1	20	1	1	20	1	1	20	1	1	20	
HC-90	Hydraulic Cranes - 90t	300-375HP	1	1	20	1	1	20	0	0	20	1	1	20	
JH	Jack Hammers	3	3	20	3	3	20	0	0	20	3	3	20		
PBH	Pavement Milling/Reclaimer	625HP	1	1	20	1	1	20	0	0	20	1	1	20	
RL	Rubber Tire Loader	140-400HP	1	1	40	1	1	40	0	0	40	1	1	40	
SFT	Service/Utility Fuel Trucks	350HP	1	1	10	1	1	10	0	0	10	1	1	10	
TT	Tractor Trailer	500HP	2	2	40	2	2	40	0	0	40	2	2	40	
VR	Roller/compactor	315HP	1	1	20	1	1	20	0	0	20	1	1	20	
W	Welders	200AMP	1	1	40	1	1	40	0	0	40	1	1	40	