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123 North Enola Drive, Suite 2, Enola, PA 17025 T (717) 732-7066 FAX (717) 732-6736
1524 West College Avenue, Suite 201, State College, PA 16801, T(814) 231-4812 FAX (814) 231-4996
941 Chatham Lane, Suite 105, Columbus, OH 43221 T (614)-459-7930 FAX (614)459-4485

Letter of Transmittal

May 23, 2006

PROJECT NO: iocap00/05380

Mr. Mark Stewart, Esquire
Wolf, Block Government Relations LP
213 Market Street, 9th Floor
Harrisburg, PA 17101

WE ARE SENDING YOU: _____ Prints _____ Reproducibles _____ Reports
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COPIES	DATE	NO.	DESCRIPTION
1	3/10/2006		Copy of items sent to Sidney Kaikai, City of Pittsburgh, including: Isle of Capri Supplement A Isle of Capri Supplement B

THIS MATERIAL IS SENT:

_____ FOR YOUR INFORMATION
_____ FOR YOUR APPROVAL
_____ FOR YOUR REVIEW AND COMMENT
FOR BIDS DUE _____ 20 ___

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_____ PRINTS TO BE RETURNED
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REMARKS:

Copy To: _____

Signed: Pamela Housley
Administrative Assistant

SENT VIA:
First Class Mail_____ Overnight: __X__ FAX: _____
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941 Chatham Lane, Suite 105, Columbus, OH 43221 T (614)-459-7930 FAX (614)459-4485

Letter of Transmittal

March 10, 2006

PROJECT NO:

Mr. Sidney Kaiai
200 Ross Street
City of Pittsburgh, Pennsylvania 15219

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COPIES	DATE	NO.	DESCRIPTION
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1	3/10/06		Isle of Capri Supplement B
1	3/10/06		1 CD containing .pdf copies of Supplements A & B

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REMARKS:
Sidney,

Enclosed are the above mentioned items. These copies are being hand delieverd due to your servers inablilty to accept larger file sizes. These items were emailed out before noon on Friday 3/10/06.

Thank you

Chris A. Droznek II, E.I.T.

Copy To: _____ Signed: _____

SENT VIA:
First Class Mail_____ Overnight: _____ FAX: _____
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TABLE A1
SUMMARY OF TRIP GENERATION
Pittsburgh First Master Plan
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

LAND USE	SIZE	ITE LAND USE	FRIDAY CASINO PEAK[1]				SATURDAY CASINO PEAK[1]			
			ENTERING	EXITING	TOTAL	AVERAGE DAILY TRIPS	ENTERING	EXITING	TOTAL	AVERAGE DAILY TRIPS
PITTSBURGH FIRST MASTER PLAN										
Casino	5,000 slots	--[2]	2,103	1,748	3,851	50,866	1,652	1,906	3,558	51,046
Hotel	400 rooms	310	112	90	202	2,566	63	49	112	2,842
Residential	1,707 units	223	264	183	447	9,127[3][4]	264	183	447	10,023[3][4]
Retail	71,200 S.F.	820	29	28	57	3,057[4]	36	59	95	3,558[4]
Office	200,000 S.F.	710	Neg.	Neg.	0	2,275[4]	Neg.	Neg.	0	Neg.
Subtotal, Master Plan	--	--	**2,508**	**2,049**	**4,557**	**67,891**	**2,015**	**2,197**	**4,212**	**67,469**
ISLE OF CAPRI CASINO										
Casino	5,000 slots	--[2]	2,103	1,748	3,851	50,866	1,652	1,906	3,558	51,046
Subtotal, Casino Only	**5,000 slots**	--	**2,103**	**1,748**	**3,851**	**50,866**	**1,652**	**1,906**	**3,558**	**51,046**

(1) Calculated to be 10:00 to 11:00 P.M. based upon projected site traffic.
(2) No relevant ITE data available, calculations based upon data provided by Isle of Capri, Inc. for a comparable urban casino facility in the U.S.A.
(3) Average daily trips for the 1,707 residential mid-rise apartment units were not available, therefore the ITE rates for low-rise apartments was used.
(4) ADT not adjusted to account for pass-by and transit usage of proposed developments.

Source: Analysis by Trans Associates.

TABLE A2
ROADWAY ADT VOLUME COMPARISON
Pittsburgh First Master Plan
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

LOCATION	DIRECTION	NUMBER OF TRIPS			
		EXISTING CONDITIONS[1]		MASTER PLAN TRIPS[2]	
		FRIDAY	SATURDAY	FRIDAY	SATURDAY
Washington Place (From Centre Avenue to Bedford Avenue)	Northbound	12,483	10,391	10,015	9,562
Washington Place (From Centre Avenue to Bedford Avenue)	Southbound	4,556	3,610	506	510
Bedford Avenue (From Chatham to Washington Place)	Eastbound	14,647	10,339	685	752
Seventh Avenue Ramp (From Bigelow Blvd. to Washington Place)	Eastbound	6,138	4,668	1,242	1,296
Centre Avenue (From Washington Place to Mario Lemieux Place)	Eastbound	6,246	5,192	24,039	24,147
Centre Avenue (From Washington Place to Mario Lemieux Place)	Westbound	5,865	4,879	9,806	15,751
Crawford Street (From Centre Avenue to Wylie Avenue)	Northbound	1,976	1,398	502	551
Crawford Street (From Centre Avenue to Wylie Avenue)	Southbound	2,256	1,689	927	1,011
Veterans Bridge Ramp (To Washington Place)	Eastbound	11,742	8,638	685	752
Bedford Avenue (From Arthur Street to Roberts Street)	Eastbound	1,413	1,059	11	7
Bedford Avenue (From Arthur Street to Roberts Street)	Westbound	1,490	1,149	117	115

TABLE A2 (con't)
ROADWAY ADT VOLUME COMPARISON
Pittsburgh First Master Plan
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

LOCATION	DIRECTION	NUMBER OF TRIPS			
		EXISTING CONDITIONS[1]		MASTER PLAN TRIPS[2]	
		FRIDAY	SATURDAY	FRIDAY	SATURDAY
Webster Avenue (From Arthur Street to Roberts Street)	Eastbound	543	429	Neg.	Neg.
Webster Avenue (From Arthur Street to Roberts Street)	Westbound	503	492	Neg.	Neg.
Wylie Avenue (From Arthur Street to Roberts Street)	Eastbound	571	494	Neg.	Neg.
Wylie Avenue (From Arthur Street to Roberts Street)	Westbound	498	477	Neg.	Neg.
Centre Avenue (From Arthur Street to Roberts Street)	Eastbound	3,414	2,997	590	624
Centre Avenue (From Arthur Street to Roberts Street)	Westbound	2,723	2,366	482	516
Dinwiddie Street (From Centre Avenue to Rose Street)	Northbound	2,069	1,912	Neg.	Neg.
Dinwiddie Street (From Centre Avenue to Rose Street)	Southbound	1,774	1,586	Neg.	Neg.
Forbes Avenue (From Magee Street to Stevenson Street)	Eastbound	11,579	8,233	Neg.	Neg.
Fifth Avenue (From Stevenson Street to Pride Street)	Westbound	11,232	8,386	6,209	10,550
Washington Place (From Fifth Avenue to Colwell Street)	Northbound	9,699	6,548	2,787	3,556
Washington Place (From Fifth Avenue to Colwell Street)	Southbound	6,412	4,418	2,213	1,759

TABLE A2 (con't)
ROADWAY ADT VOLUME COMPARISON
Pittsburgh First Master Plan
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

LOCATION	DIRECTION	NUMBER OF TRIPS			
		EXISTING CONDITIONS[1]		MASTER PLAN TRIPS[2]	
		FRIDAY	SATURDAY	FRIDAY	SATURDAY
Stevenson Street (From Forbes Avenue to Locust Street)	Northbound	3,700	1,832	2,549	2,630
Stevenson Street (From Forbes Avenue to Locust Street)	Southbound	3,249	1,498	Neg.	Neg.

(1) Existing Conditions ADT volume obtained from traffic counts performed by Trans Associates between October 31, 2005 and November 21, 2005. Friday and Saturday traffic volumes were based on one day of counts, not an average of multiple days.
(2) Master Plan ADT volumes were based on ITE average daily traffic volumes and entering/exiting trip distribution percentages contained in the Master Plan report. For all master plan uses excluding the casino and hotel use, the average daily traffic volumes found in Table A1 were split in half to represent entering and exiting traffic volumes.

Source: Analysis by Trans Associates.

TABLE A3
TRANSPORTATION MODAL SPLIT
Pittsburgh First Master Plan
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

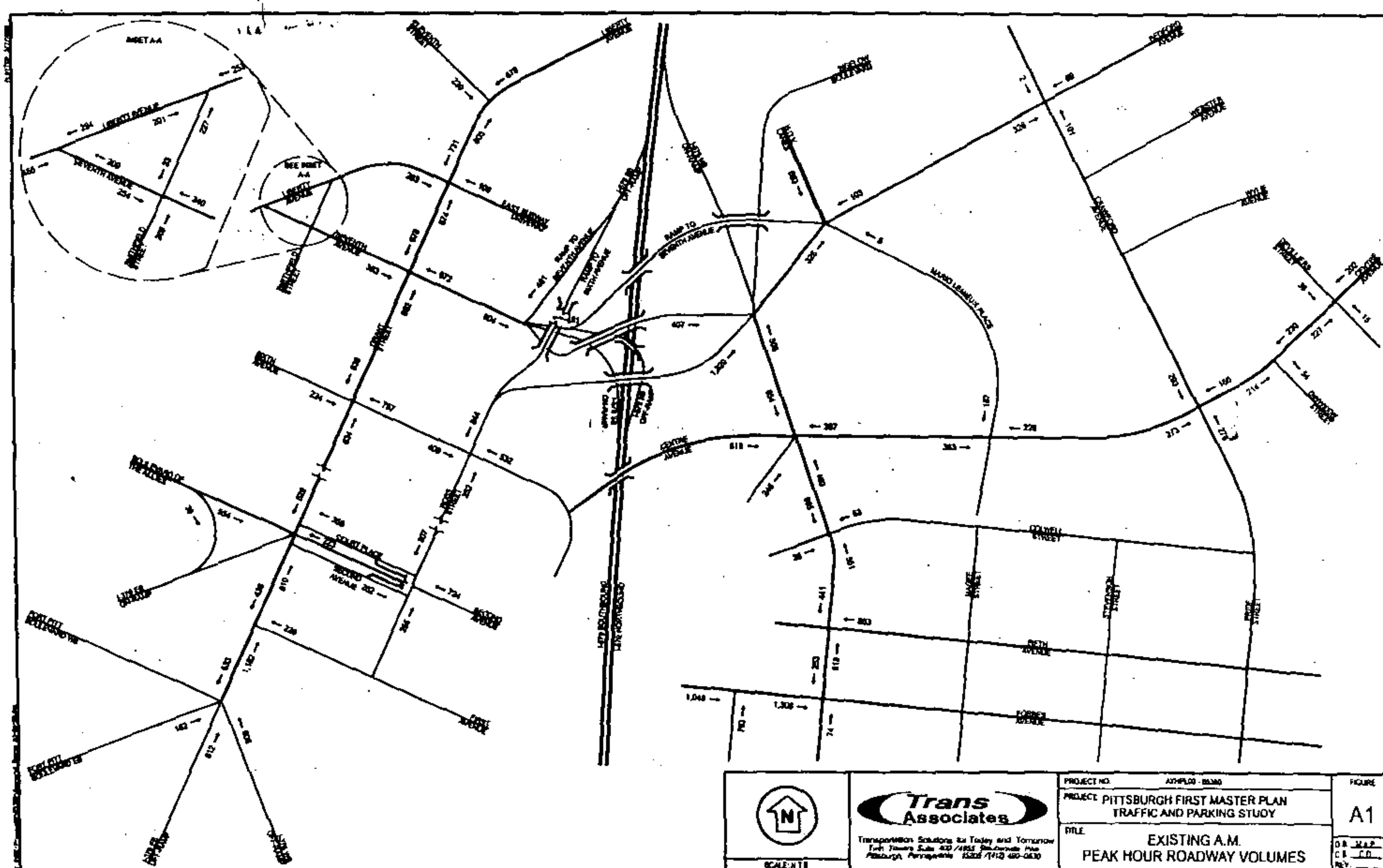
MODE OF TRANSPORTATION	PERCENTAGE OF TRIPS	
	FRIDAY CASINO PEAK	SATURDAY CASINO PEAK
Pedestrians[1]	2%	2%
Taxis[2]	5%	5%
Limousines[3]	<1%	<1%
Public Transit[4]	12%	12%
Charter Buses[5]	<1%	<1%
Private Automobiles[6]	80%	80%
TOTAL	**100%**	**100%**

NOTE: For analysis purposes, Trans Associates assumed 100% private automobile trips. This will represent the most conservative analysis.

---

(1) Percentage of pedestrian trips is assumed to be two (2) percent.
(2) Percentage of taxi trips is assumed to be five (5) percent.
(3) Limousine usage is considered to be negligible and is therefore equal to less than one (1) percent of the total daily trips.
(4) Public transit includes both the Port Authority of Allegheny County's bus service and "T" light rail transit service. The percentage was based on commuter transit data for both the City of Pittsburgh and Allegheny County from the U.S. Census Bureau's 2000 Census.
(5) Charter buses are assumed to come on average one to two times per day. This accounts for less than one (1) percent of the total daily trips.
(6) The remaining trips are to consist of private automobiles, which is 80% (100%-20%) of the total daily trips.

Source: Summary by Trans Associates.



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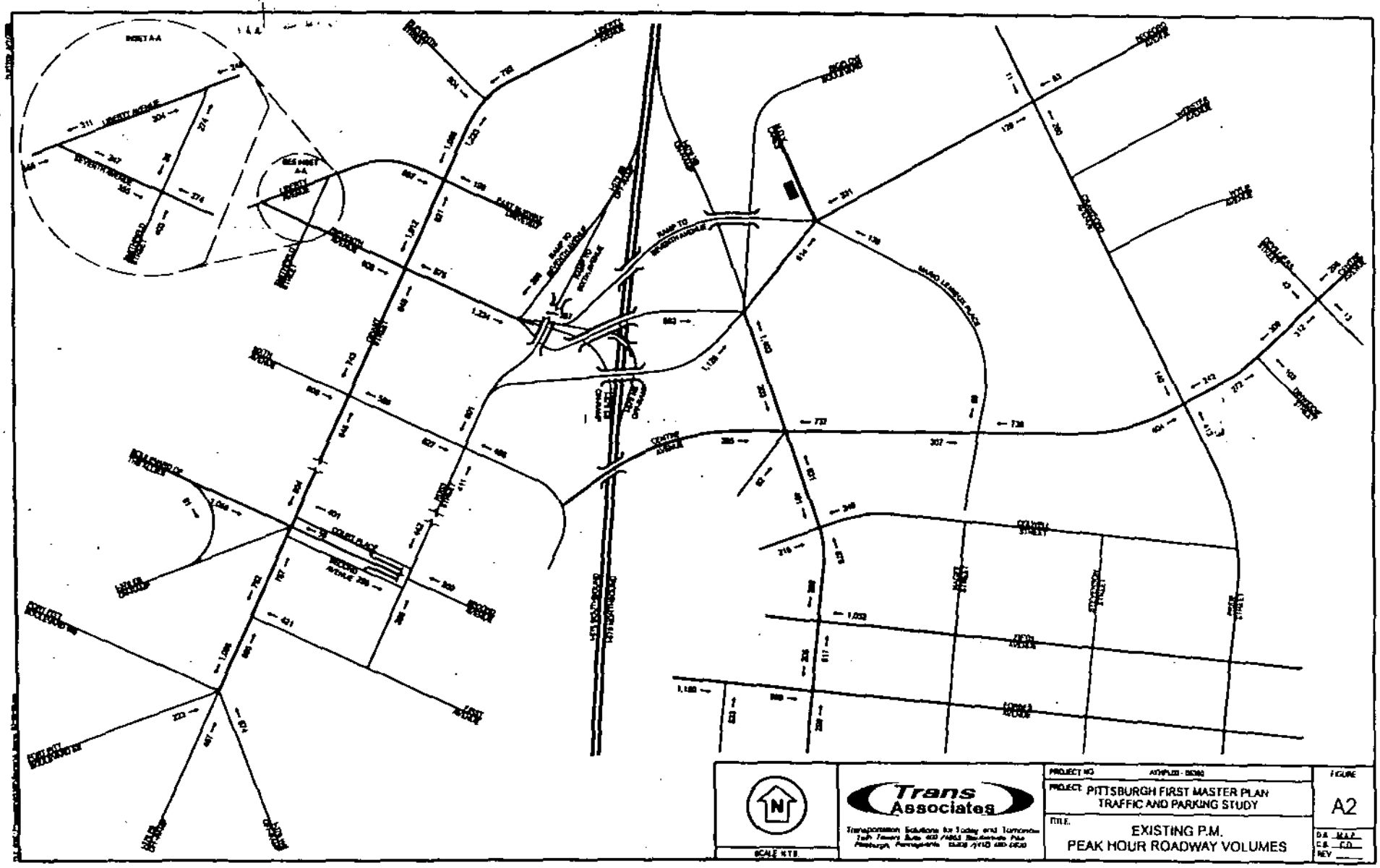
PROJECT: PITTSBURGH FIRST MASTER PLAN TRAFFIC AND PARKING STUDY

TITLE: EXISTING A.M. PEAK HOUR ROADWAY VOLUMES

FIGURE A1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LIBERTY AVENUE
SEVENTH AVENUE
PENN AVENUE
FIFTH AVENUE
FORBES AVENUE
SMITHFIELD STREET
GRANT STREET
STANWIX STREET
WOOD STREET
MARKET STREET
FOURTH AVENUE
THIRD AVENUE
SECOND AVENUE
FIRST AVENUE
COURT PLACE
SECOND AVENUE 28a
RAMP TO SOUTHBOUND
RAMP TO NORTHBOUND
RAMP TO WOODSWORTH
RAMP TO NORTHBOUND
RAMP TO LEBANON PLACE
CENTRE AVENUE
CHERRY STREET
PENN STREET
ROSLYN STREET
BOULEVARD OF THE ALLIES
SOUTHBOUND
NORTHBOUND
SCALE N.T.S.
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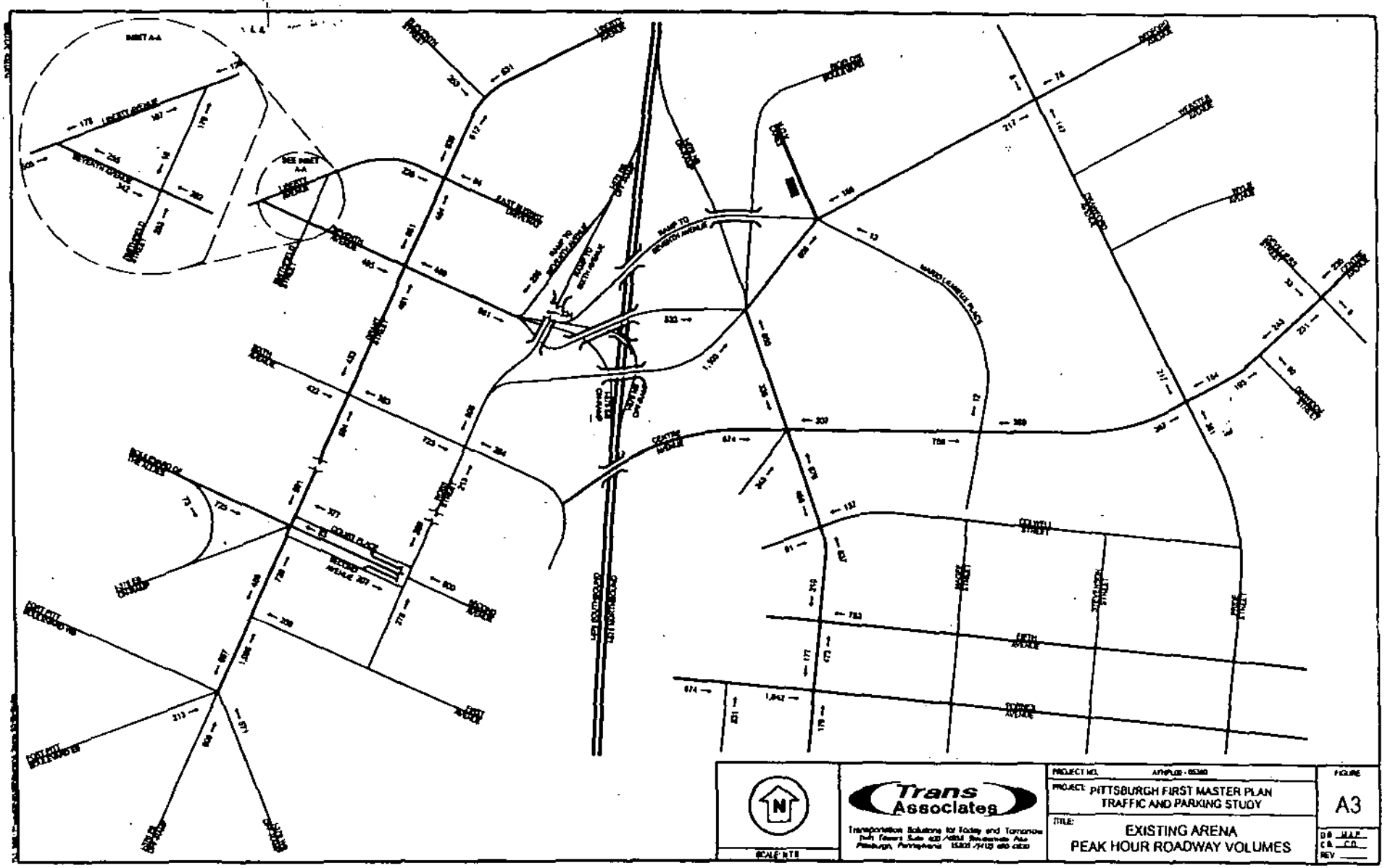
Pittsburgh, Pennsylvania
PROJECT NO
PROJECT: PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY
TITLE:
EXISTING P.M.
PEAK HOUR ROADWAY VOLUMES
FIGURE
A2
D.R. M.A.F.
C.B. F.D.
REV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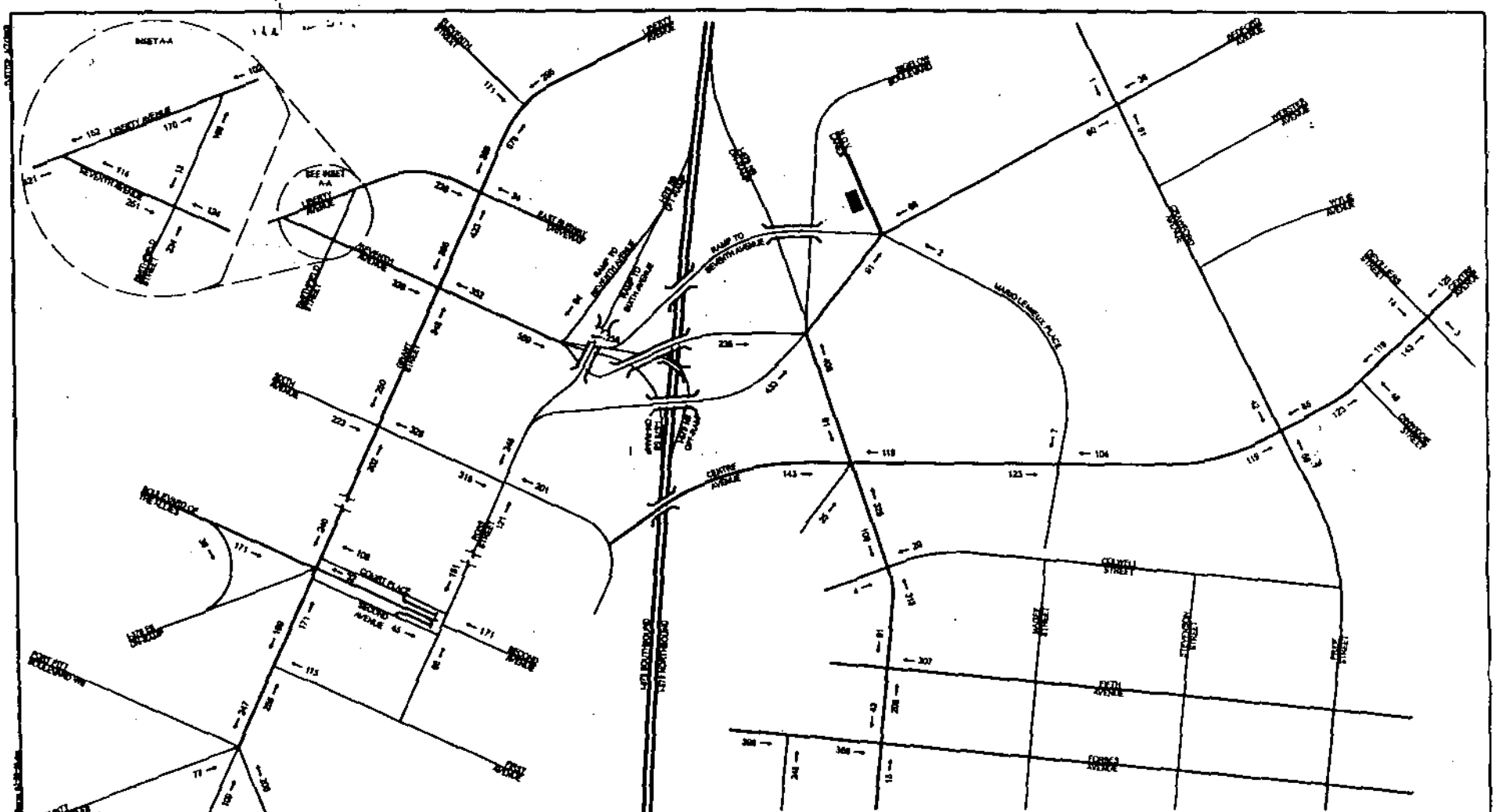
Trans Associates
PROJECT NO.
PROJECT: PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY
TITLE:
EXISTING ARENA
PEAK HOUR ROADWAY VOLUMES
FIGURE
A3
DR. M.A.P.
CK. C.D.
REV.


INSET A-A
LIBERTY AVENUE
SEVENTH AVENUE
SEE INSET A-A
PENN AVENUE
FIFTH AVENUE
SIXTH AVENUE
GRANT STREET
STANWIX STREET
RAMP TO SOUTH AVENUE
RAMP TO NORTH AVENUE
MARBLE HEAD PLACE
CENTRE AVENUE
COURT PLACE
SECOND AVENUE
FORBES AVENUE
WOOD STREET
MARKET STREET
FIFTH STREET
SCALE: N.T.S.
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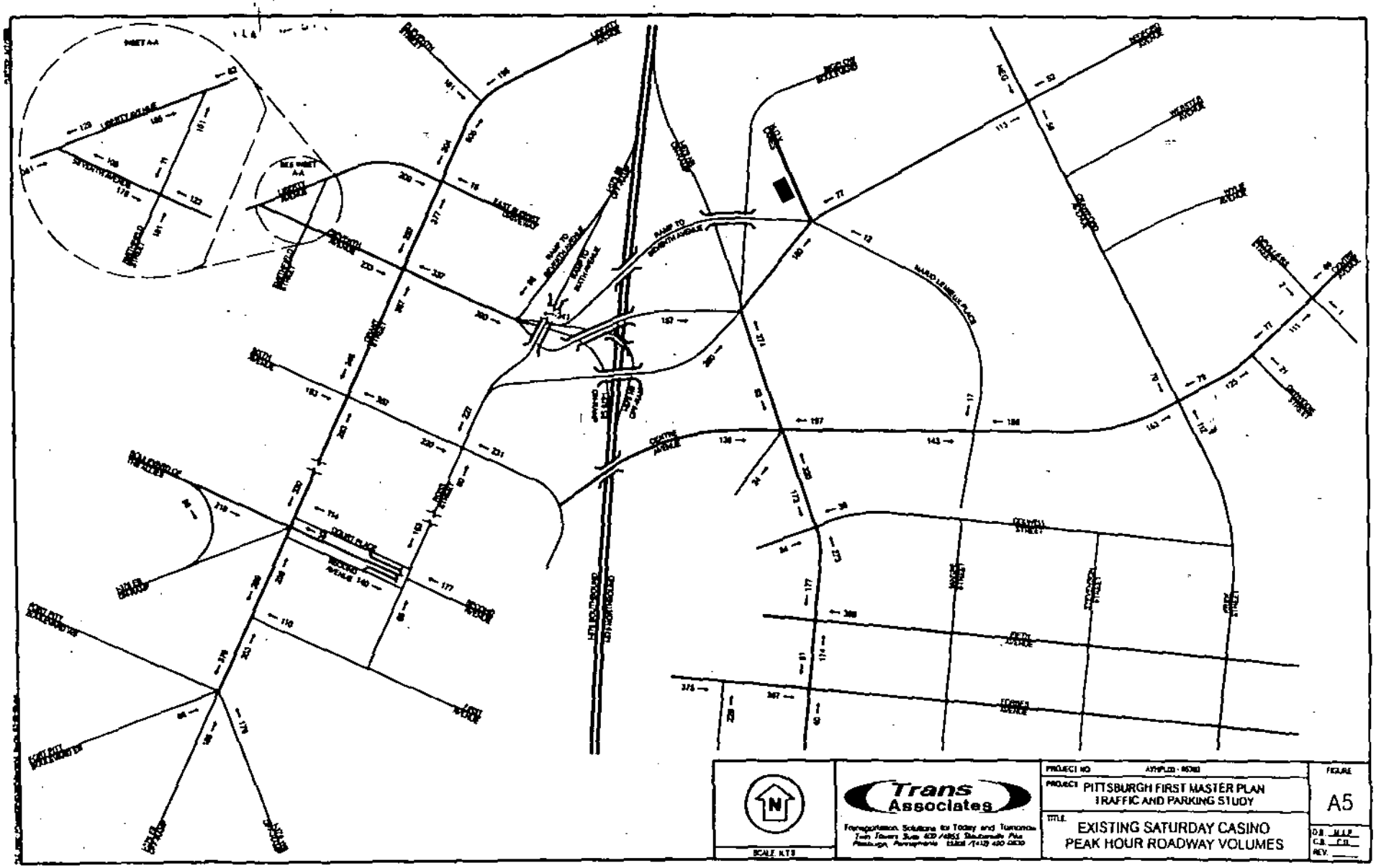
PROJECT: PITTSBURGH FIRST MASTER PLAN TRAFFIC AND PARKING STUDY
TITLE: EXISTING FRIDAY CASINO PEAK HOUR ROADWAY VOLUMES
FIGURE
A4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SEVENTH AVENUE
PENN AVENUE
FIFTH AVENUE
FORBES AVENUE
WOOD STREET
STANWIX STREET
MARKET STREET
GRANT STREET
SMITHFIELD STREET
DUQUESNE WAY
FORT PITT BRIDGE
FORT PITT TUNNEL
RAMP TO SOUTHBOUND
RAMP TO NORTH AVENUE
NARCISSA PLACE
FORBES PLACE
MEDICAL PLACE
ROOSEVELT BLVD
CENTRE AVENUE
COLWELL STREET
FIFTH AVENUE
FORBES AVENUE
BOULEVARD OF THE ALLIES
LIBERTY AVENUE
ALLEGHENY VALLEY EXPRESSWAY
ALLEGHENY VALLEY EXPRESSWAY
N
SCALE N.T.S.
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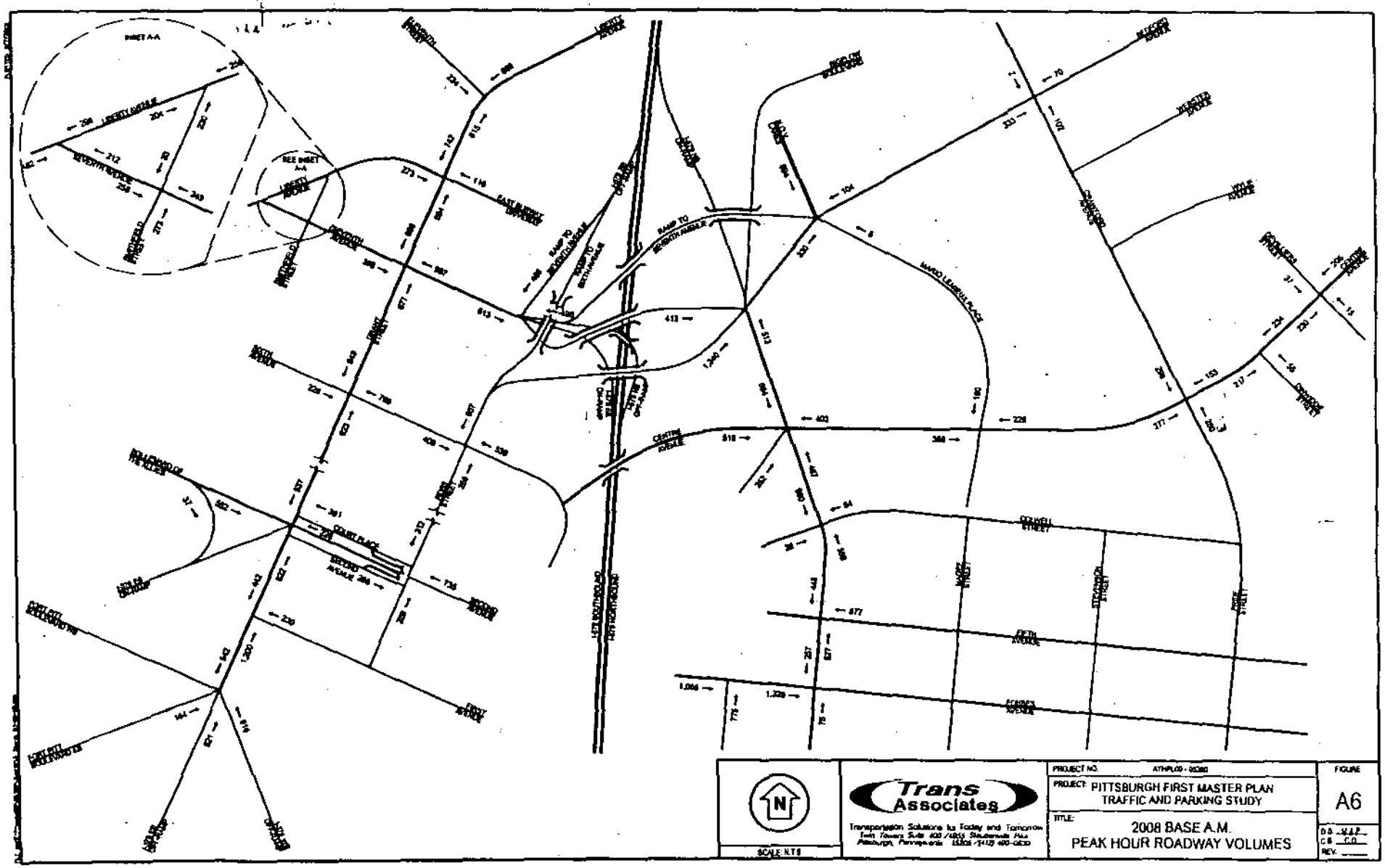
PROJECT PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY
TITLE EXISTING SATURDAY CASINO
PEAK HOUR ROADWAY VOLUMES
FIGURE
A5
D.B. M.A.P.
C.B. F.H.
REV.


INSET A-A
SEE INSET A-A
LIBERTY AVENUE
FORBES AVENUE
FIFTH AVENUE
SECOND AVENUE
FIRST AVENUE
BIGELOW BOULEVARD
WILLOW AVENUE
WEBSTER AVENUE
HOLT AVENUE
ROBERTS STREET
DENNISTON STREET
CENTRE AVENUE
MAYOR LEAMON PLACE
COLLEGE PLACE
DEXTER AVENUE
BOULEVARD OF THE ALLIES
DARRAGH STREET
MAGEE STREET
STANTON STREET
PARK STREET
RAMP TO SOUTHBOUND
RAMP TO NORTHBOUND
RAMP TO SOUTHBOUND
RAMP TO NORTHBOUND
SOUTHBOUND
NORTHBOUND
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SCALE: N.T.S.
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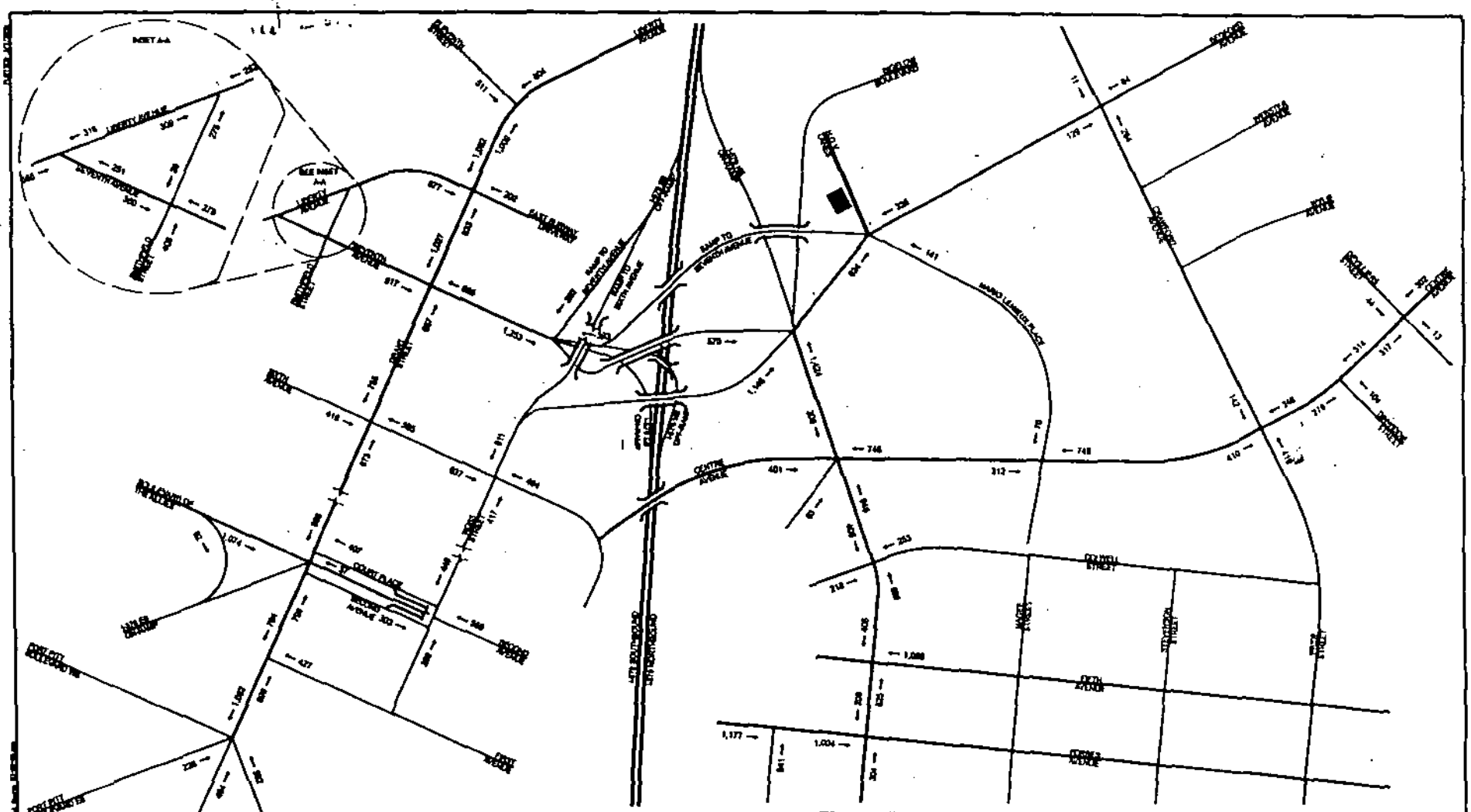
PROJECT NO. ATHPL00 - 9080
PROJECT: PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY
TITLE:
2008 BASE A.M.
PEAK HOUR ROADWAY VOLUMES
FIGURE
A6
D.B. M.A.P.
C.B. C.D.
REV.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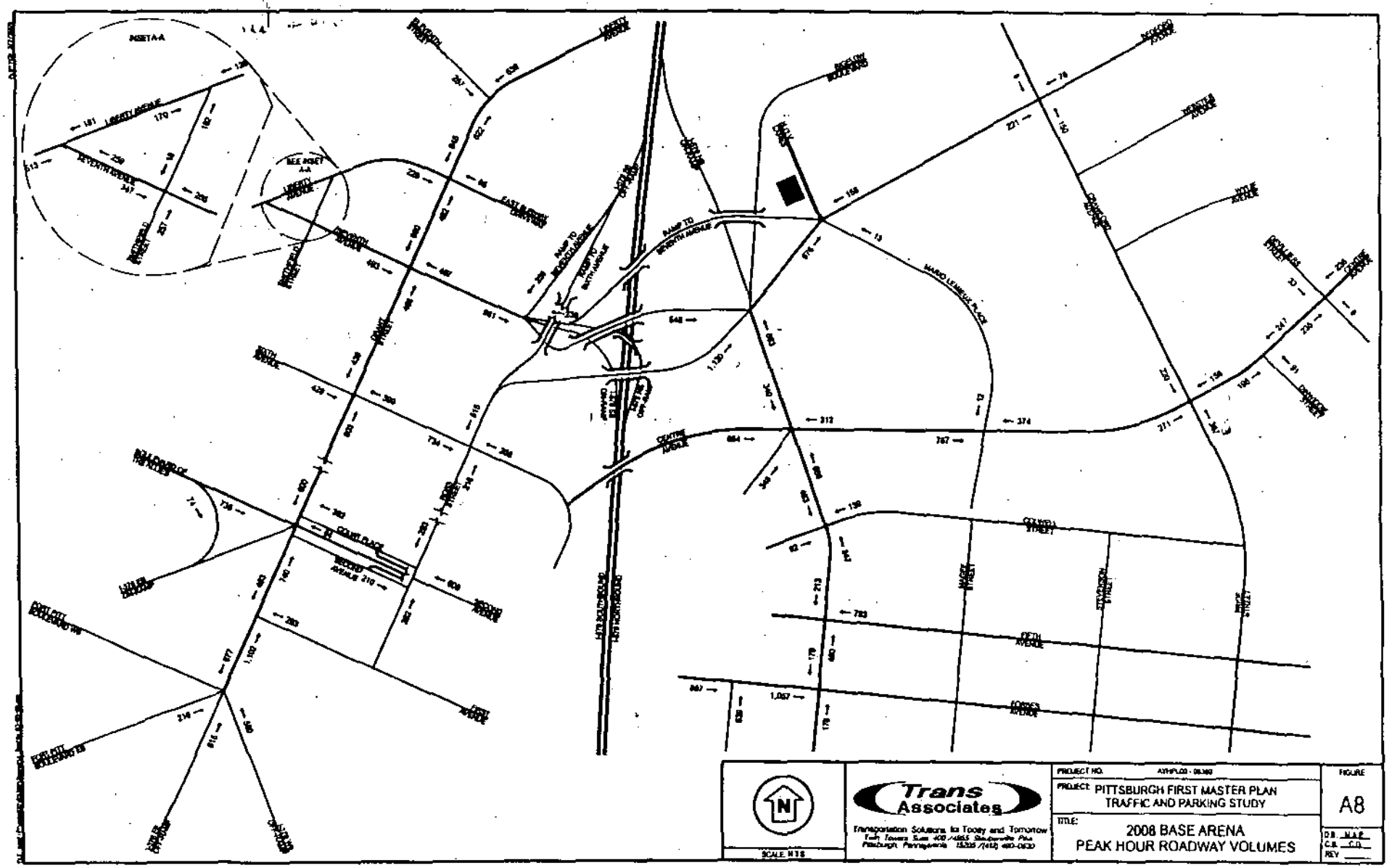
Transportation Solutions for Today and Tomorrow
Twin Towers Suite 400 (412) 562-0231 Rabinowitz Plaza
Pittsburgh, Pennsylvania 15219 (412) 480 0630
PROJECT NO.
PROJECT: PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY
TITLE:
2008 BASE P.M.
PEAK HOUR ROADWAY VOLUMES
FIGURE
A7
D.B. M.A.P.
C.B. C.D.
REV.


INSET A-A
SEE INSET A-A
LIBERTY AVENUE
SEVENTH AVENUE
SECOND AVENUE
FIRST AVENUE
FIFTH AVENUE
FORBES AVENUE
CENTRE AVENUE
COLWELL STREET
MARO LEMIEUX PLACE
RAMP TO NORTH AVENUE
RAMP TO SOUTH AVENUE
SCALE N.T.S.
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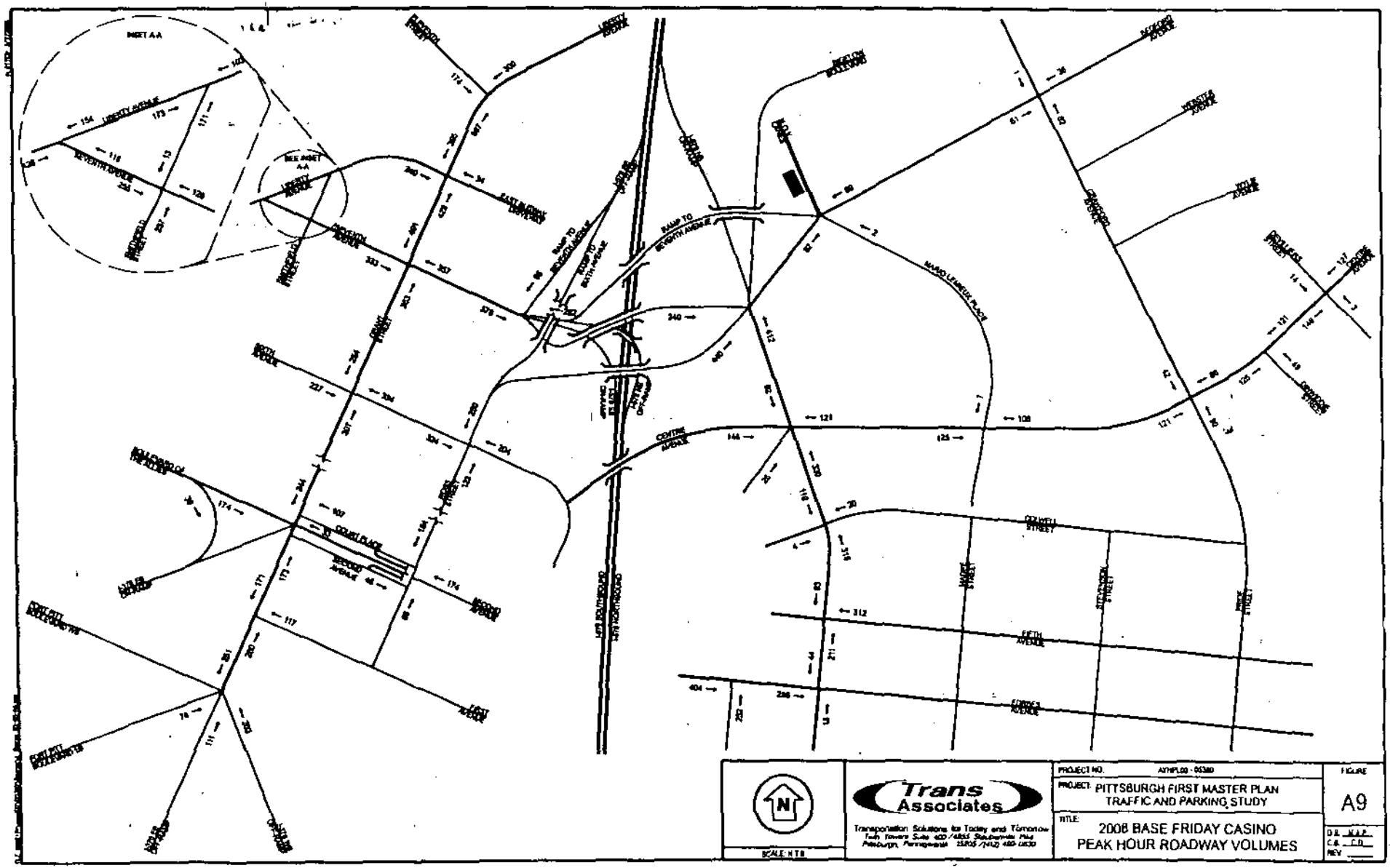
PROJECT NO.
PROJECT: PITTSBURGH FIRST MASTER PLAN TRAFFIC AND PARKING STUDY
TITLE: 2008 BASE ARENA PEAK HOUR ROADWAY VOLUMES
FIGURE
A8
D.B. MAP
C.B. C.D.
REV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SEVENTH AVENUE
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SECOND AVENUE
THIRD AVENUE
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FIFTH AVENUE
SIXTH AVENUE
SEVENTH AVENUE
VENTURA AVENUE
YOLK AVENUE
ROSELEAS STREET
JOHNSON STREET
BOSTON AVENUE
FORT STREET
BOTH AVENUE
CENTRE AVENUE
RAMP TO SEVENTH AVENUE
RAMP TO SECOND AVENUE
RAMP TO BOTH AVENUE
NARD LEMIEUX PLACE
COURT PLACE
CRAWFORD STREET
HAYS STREET
STANTON STREET
PARK STREET
EUREKA AVENUE
LRT SOUTHBOUND
LRT NORTHBOUND
STATION PLATFORM
ISLAND PLATFORM
N
SCALE NTS
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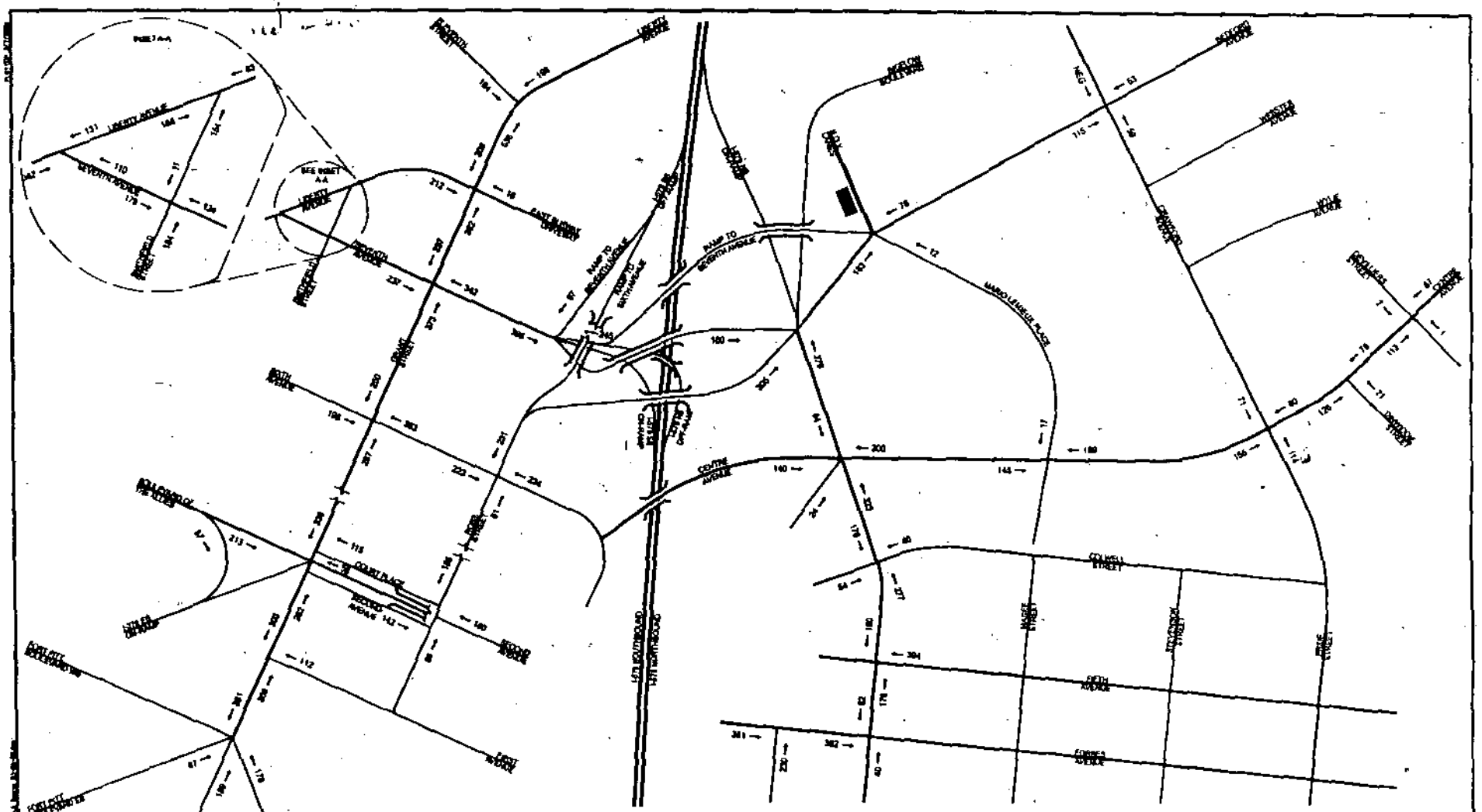
Transportation Solutions for Today and Tomorrow
Tech Towers Suite 400 / 4955 Steubenville Pike
Pittsburgh, Pennsylvania 15205 / (412) 490-0630
PROJECT NO. A7HPL00 - 00380
PROJECT: PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY
TITLE:
2008 BASE FRIDAY CASINO
PEAK HOUR ROADWAY VOLUMES
FIGURE
A9
D.B. M.A.P.
C.B. F.D.
REV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NINTH AVENUE
TENTH AVENUE
ELEVENTH AVENUE
CENTRE AVENUE
FORBES AVENUE
MARIO LEMIEUX PLACE
COURT PLACE
SECOND AVENUE
CRAWFORD STREET
WAYNE STREET
COLWELL STREET
ROOSEVELT STREET
PRICE STREET
ROOSEVELT STREET
CENTRE AVENUE
RAMP TO SEVENTH AVENUE
RAMP TO BOULEVARD OF THE ALLIES
RAMP TO SIXTH AVENUE
SEE SHEET A-4
N
SCALE: N.T.S.
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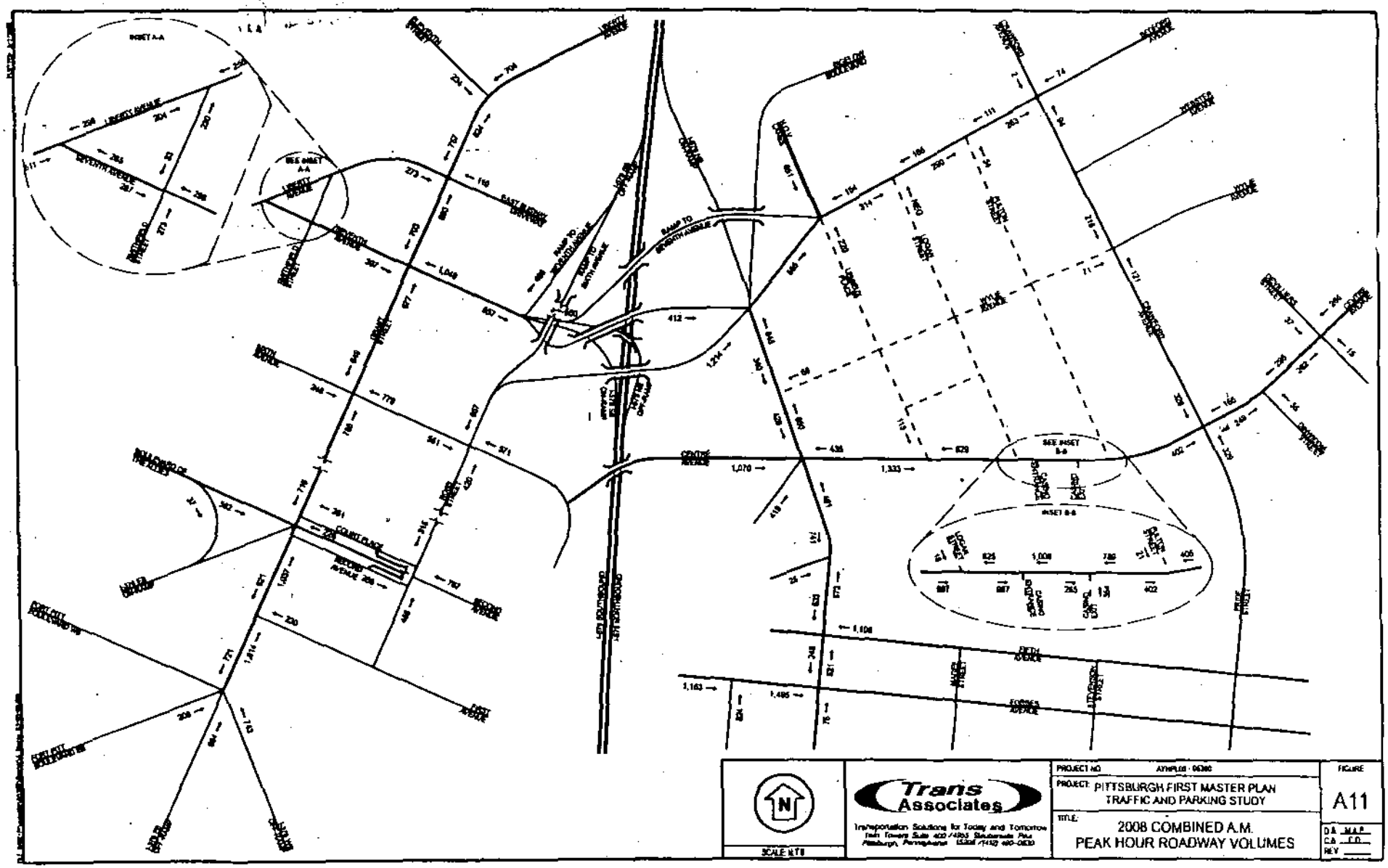
PROJECT NO. AYHPLUD-05380
PROJECT: PITTSBURGH FIRST MASTER PLAN TRAFFIC AND PARKING STUDY
TITLE: 2008 BASE SATURDAY CASINO PEAK HOUR ROADWAY VOLUMES
FIGURE
A10
DR. M.L.P.
CK. C.G.
REV.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SEVENTH AVENUE
SEE INSET A-A
EASTBOUND
WESTBOUND
FIFTH AVENUE
FORBES AVENUE
GRANT STREET
MARKET STREET
COURT PLACE
BEYOND AVENUE 206
RAMP TO SOUTH AVENUE
RAMP TO NORTH AVENUE
CENTER DRIVE
CENTER PLACE
NORTHBOUND
SOUTHBOUND
CROSS AVENUE
SEE INSET B-B
INSET B-B
SCALE NTS
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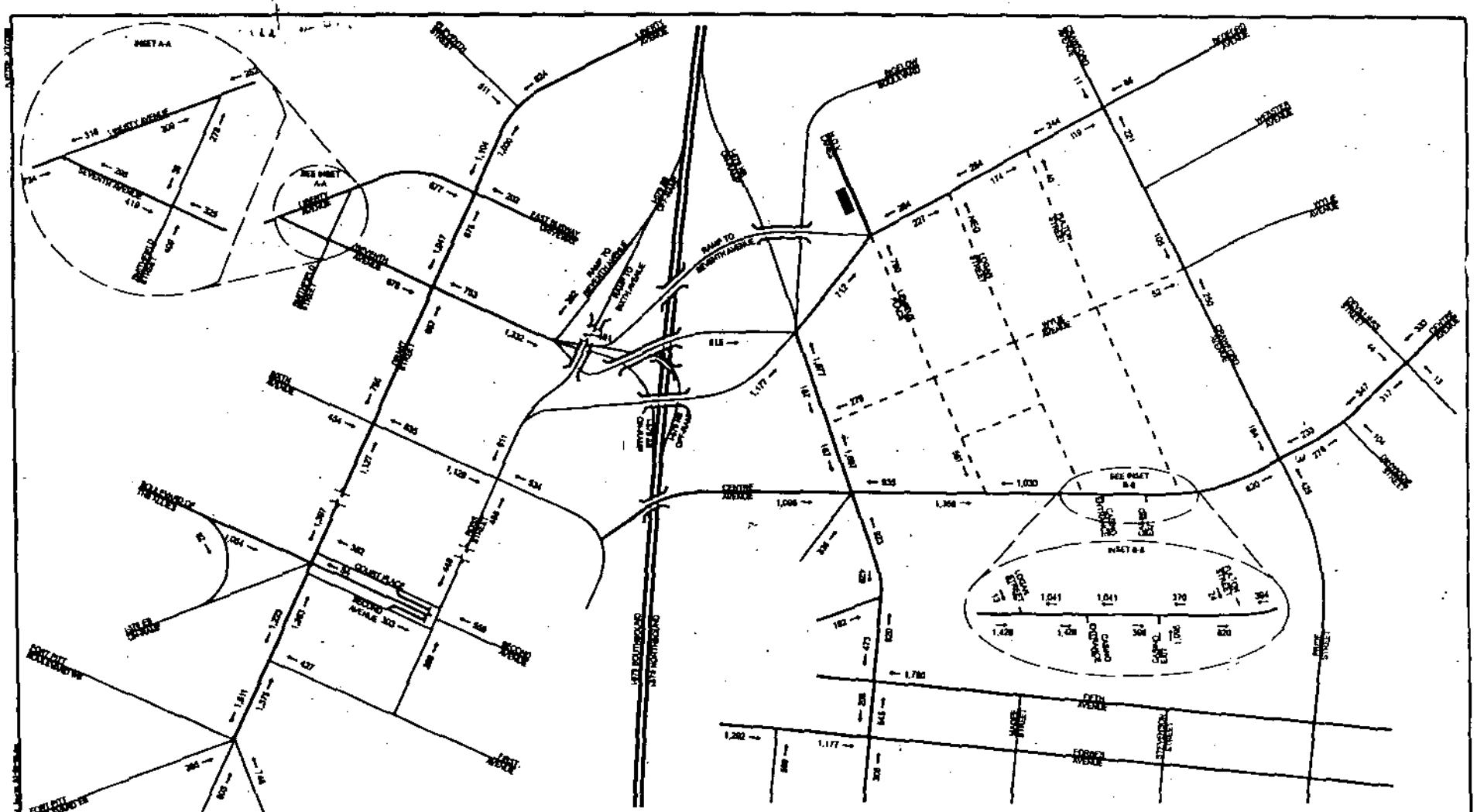
Transportation Solutions for Today and Tomorrow
PROJECT NO
PROJECT: PITTSBURGH FIRST MASTER PLAN TRAFFIC AND PARKING STUDY
TITLE: 2008 COMBINED A.M. PEAK HOUR ROADWAY VOLUMES
FIGURE
A11



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Tuft Towers Suite 400 / 4955 Steubenville Pike
Pittsburgh, Pennsylvania 15205 / (412) 920-0520

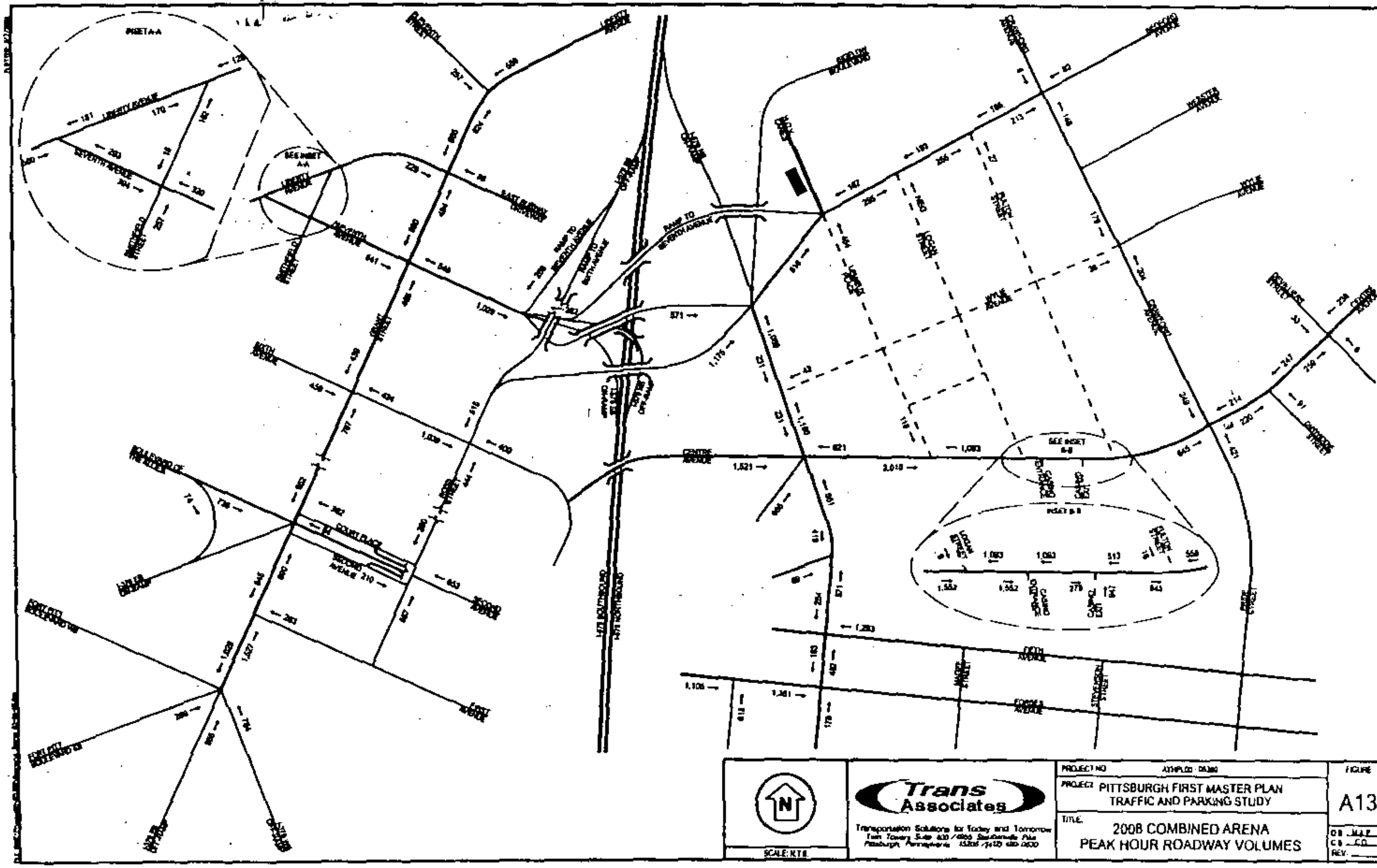
PROJECT NO. A7HPL00-05380

PROJECT: PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY

TITLE: 2008 COMBINED P.M.
PEAK HOUR ROADWAY VOLUMES

FIGURE
A12

DR. MAP
CK. CO.
REV.



PROJECT NO.

PROJECT: PITTSBURGH FIRST MASTER PLAN TRAFFIC AND PARKING STUDY

TITLE: 2008 COMBINED ARENA PEAK HOUR ROADWAY VOLUMES

FIGURE A13

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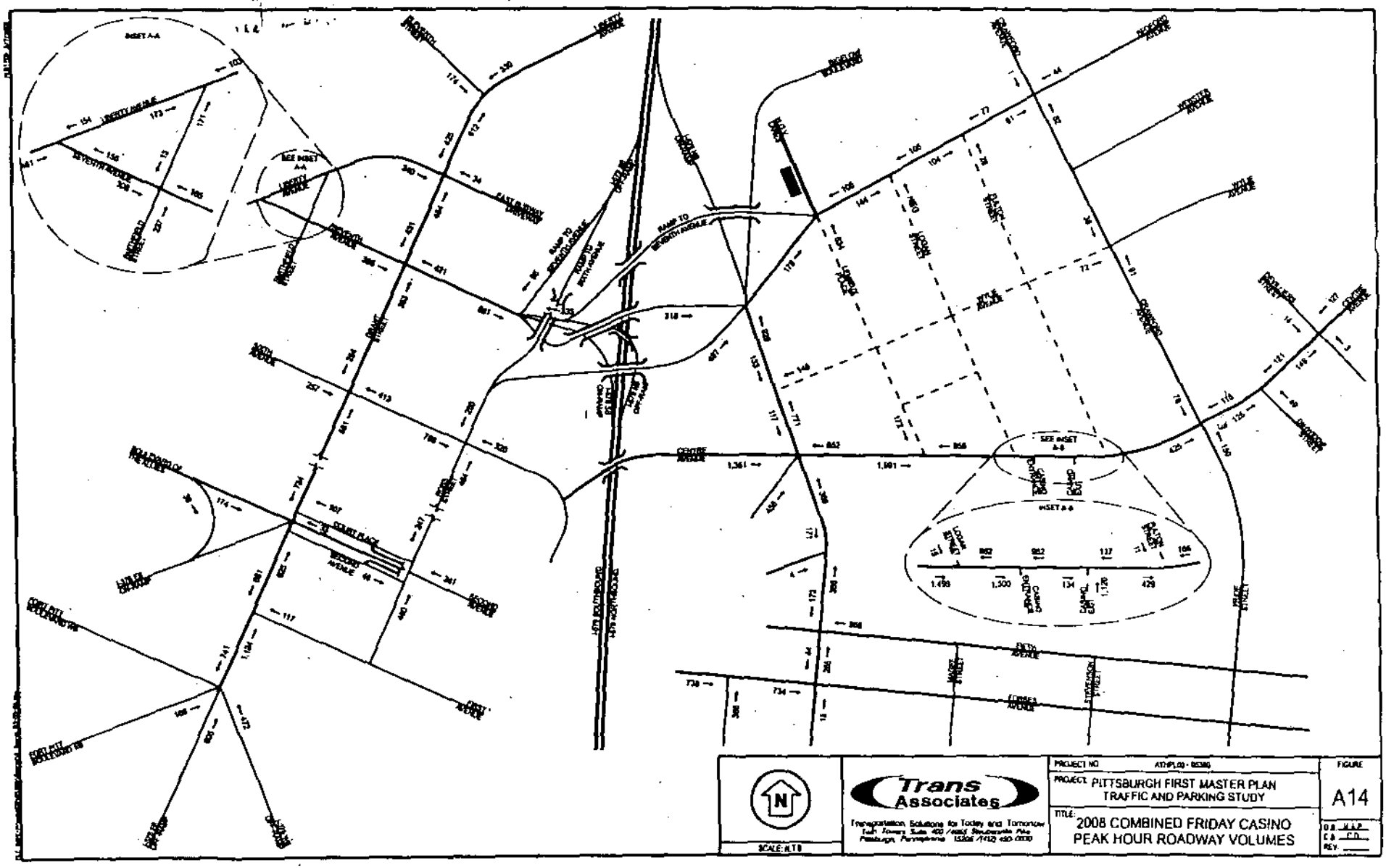
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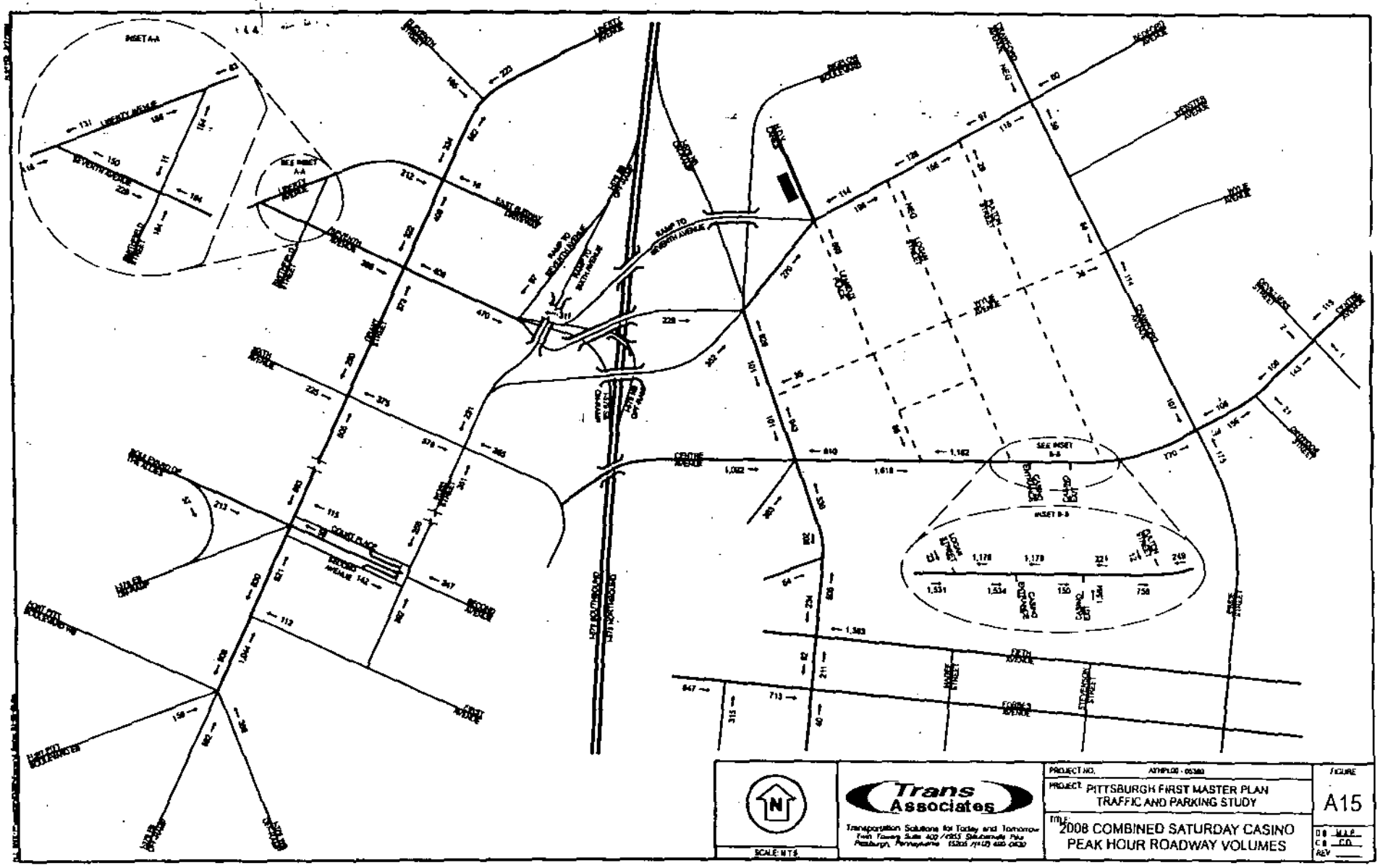
Trans Associates
PROJECT NO. ATHPL00-05380
PROJECT: PITTSBURGH FIRST MASTER PLAN TRAFFIC AND PARKING STUDY
TITLE: 2008 COMBINED FRIDAY CASINO PEAK HOUR ROADWAY VOLUMES
FIGURE
A14


INSET A-A
LIBERTY AVENUE
BIDWELL STREET
EAST BUSBY AVENUE
FORBES AVENUE
FIFTH AVENUE
BIGELOW BOULEVARD
FORT PITT BRIDGE
FORT PITT BOULEVARD
FORT PITT TUNNELS
FORT AVENUE
WILLIAM PENN HIGHWAY
HOLLAND STREET
HOLLAND TUNNEL
HOLLAND OPEN CUT
RAMP TO BIGELOW BOULEVARD
RAMP TO FORT PITT BRIDGE
RAMP TO FORBES AVENUE
GRANT STREET
STEVENSON STREET
DUQUESNE WAY
DUQUESNE PLACE
BEYMER AVENUE
CENTRE AVENUE
SEE INSET B-B
INSET B-B
SEVENTH AVENUE
EIGHTH AVENUE
MARKET STREET
WOOD STREET
MAGEE STREET
PENN AVENUE
WALNUT STREET
HIGH STREET
LINCOLN AVENUE
WOLE AVENUE
CHURCH AVENUE
NEWELL AVENUE
KENSINGTON AVENUE
COLLINGS STREET
CRESTON AVENUE
CHARLOTTE STREET
PARK STREET
NORTH AVENUE
NORTH BOULEVARD
NORTH PITTSBURGH
SCALE: NTS
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Transportation Solutions for Today and Tomorrow
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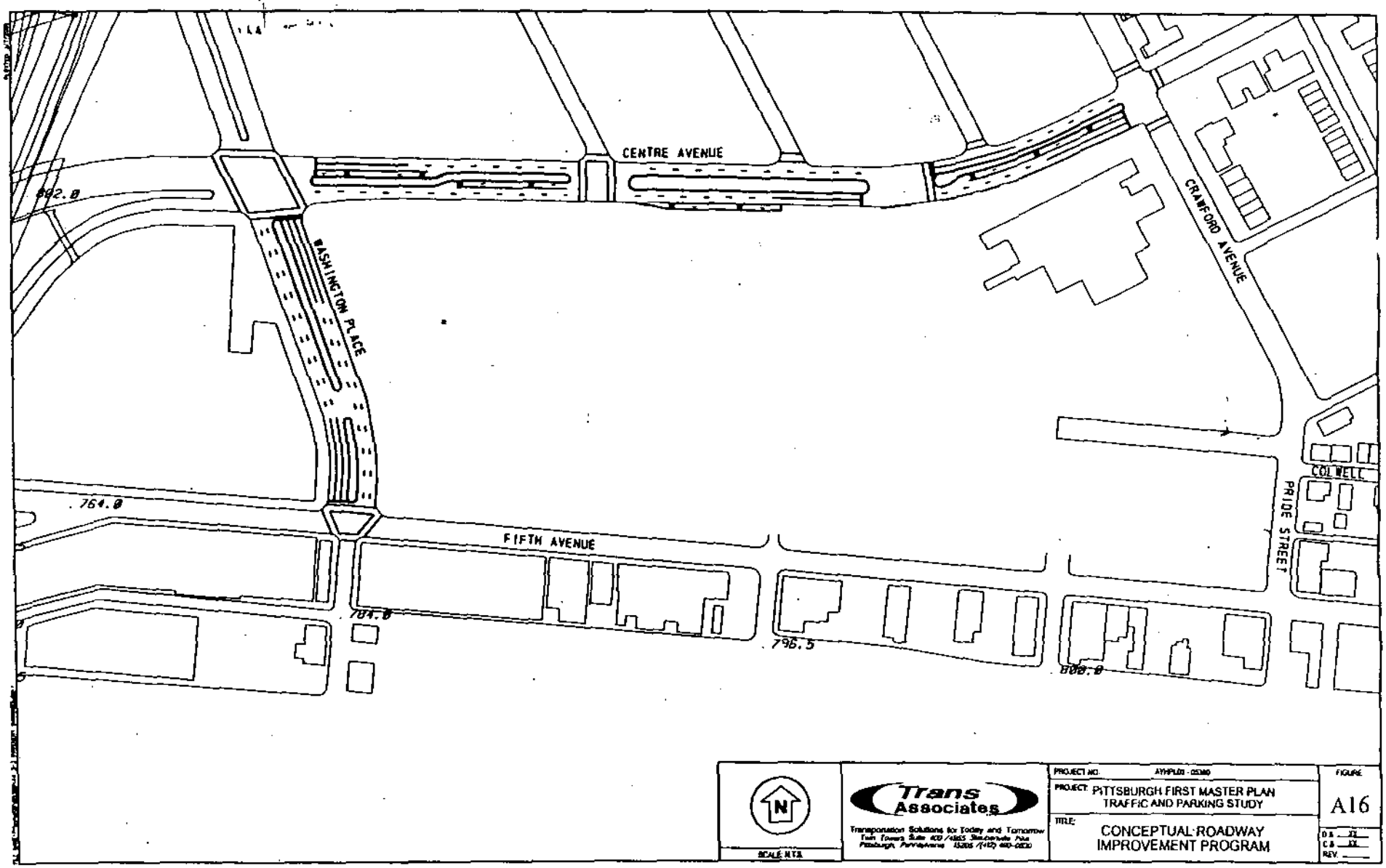
Pittsburgh, Pennsylvania 15205 / (412) 490-0430
PROJECT NO. A7HPL00 - 05380
PROJECT PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY
TITLE 2008 COMBINED SATURDAY CASINO
PEAK HOUR ROADWAY VOLUMES
FIGURE
A15
DR M.A.P.
CK C.D.
REV


CENTRE AVENUE
WASHINGTON PLACE
CRAWFORD AVENUE
FIFTH AVENUE
COLWELL
PRIDE STREET
892.0
764.0
784.0
796.5
808.0
N
SCALE: N.T.S.
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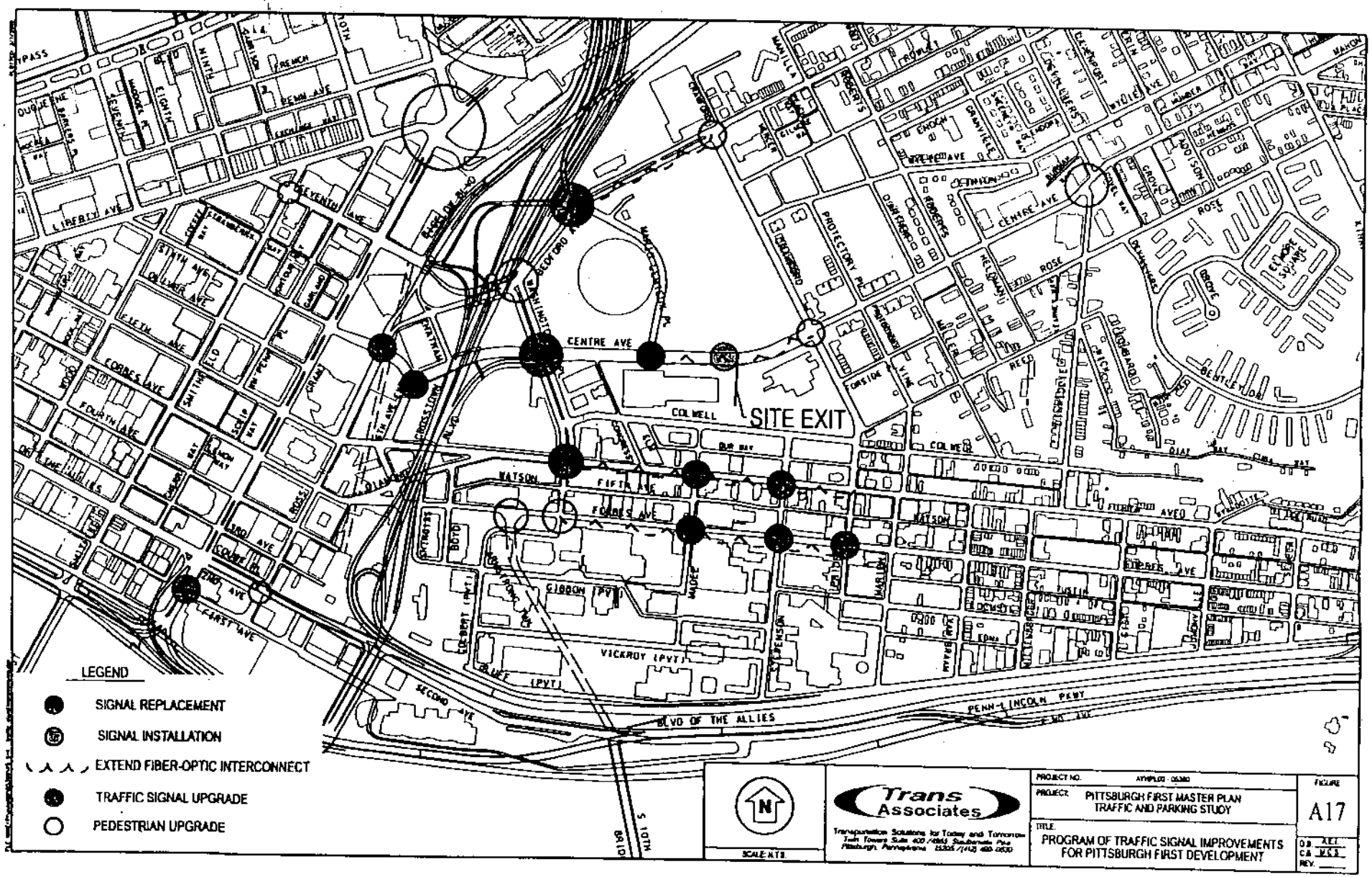
Pittsburgh, Pennsylvania 15205 (412) 490-0830
PROJECT NO. AYHPL03 - 05380
PROJECT: PITTSBURGH FIRST MASTER PLAN
TRAFFIC AND PARKING STUDY
TITLE: CONCEPTUAL ROADWAY
IMPROVEMENT PROGRAM
FIGURE
A16
D.B. XX
C.B. XX
REV.



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Pittsburgh, Pennsylvania 15205 / (412) 490-0530

PROJECT NO. ATMPL03 - 05380

PROJECT: PITTSBURGH FIRST MASTER PLAN TRAFFIC AND PARKING STUDY

TITLE: PROGRAM OF TRAFFIC SIGNAL IMPROVEMENTS FOR PITTSBURGH FIRST DEVELOPMENT

FIGURE A17

DB XEI
CA MCS
REV.

TABLE B1
NUMBER OF PERSONS AND THEIR CORRESPONDING TRIPS
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

DEVELOPMENT	NUMBER OF PERSONS			
	EMPLOYEE[1]		PATRONS[2]	
	FRIDAY	SATURDAY	FRIDAY	SATURDAY
Casino (5,000 slots)	[3]	[3]	29,903	29,982

DEVELOPMENT	NUMBER OF TRIPS			
	EMPLOYEE[3]		PATRONS[4]	
	FRIDAY	SATURDAY	FRIDAY	SATURDAY
Casino (5,000 slots)	[3]	[3]	50,866	51,046

(1) Number of employees provided by
(2) Patronage data provided by Isle of Capri for Kansas City location.
(3) Number of employee persons and trips to be provided by Isle of Capri.
(4) Numbers of patron trips calculations are available in the technical appendix for the "Pittsburgh First Master Plan."

Source: Summary by Trans Associates

TABLE B2
ON-SITE PARKING SUPPLY/DEMAND COMPARISON
Pittsburgh First Master Plan Supplement B Phase 1 Development
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

PARKING PEAK PERIOD	TOTAL PARKING SUPPLY[1]	PARKING DEMAND[2]		PARKING SURPLUS OR (DEFICIT)[3]
ON-SITE PARKERS		PATRONS	EMPLOYEES	
Friday Evening with Maximum Arena Event	4,301	3,897	100[4]	304
Saturday Evening with Maximum Arena Event	4,301	3,789	100[4]	412

(1) Data provided by UDA Architects and Cope-Linder Architects.
(2) Detailed calculations for employee parking demand can be found in the "Pittsburgh First Master Plan Traffic and Parking Study Table 8." Parking demand for the casino employees includes 100 spaces for the executive staff. It does not include parking demand for the remaining casino staff. The Isle of Capri will provide this data.
(3) Parking Supply minus parking demand. Parking surplus/deficit contains the patrons and casino executive staff. It does not include the parking demand for the remaining casino staff. The Isle of Capri will provide this data.
(4) Employee parking demand includes 100 spaces for executive staff. This number does not include the parking demand for the remaining casino staff. The Isle of Capri will provide this data.

Source: Trans Associates

SHORT REPORT

General Information		Site Information	
Analyst	M. Southern	Intersection	CENTRE/RAMP & WASHINGTON PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASINO	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0	0	2	1	0	3	0	0	2	1
Lane Group		LTR			LT	R		LTR			LT	R
Volume (vph)	37	68	41	7	60	54	15	305	10	27	57	8
% Heavy Vehicles	1	1	1	3	3	3	1	1	1	4	4	4
PHF	0.70	0.70	0.70	0.73	0.73	0.73	0.80	0.80	0.80	0.78	0.78	0.78
Pretimed/Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup Lost Time		2.0			2.0	2.0		2.0			2.0	2.0
Extension of Effective Green		2.0			2.0	2.0		2.0			2.0	2.0
Arrival Type		3			3	3		3			3	3
Unit Extension		3.0			3.0	3.0		3.0			3.0	3.0
Ped/Bike/RTOR Volume	5	0	0	5	0	0	0	0	0	4	0	0
Lane Width		13.0			10.0	13.0		12.0			12.0	12.0
Parking/Grade/Parking	N	-1	N	N	-6	N	N	6	Y	N	-3	N
Parking/Hour									10			
Bus Stops/Hour		0			0	0		0			0	0
Minimum Pedestrian Time		23.7			23.7			21.2			3.2	

Phasing	EW Perm	Peds Only	03	04	NS Perm	06	07	08
Timing	G = 23.0	G = 17.0	G =	G =	G = 24.0	G =	G =	G =
	Y = 5.5	Y = 5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		209			92	74		412			108	10
Lane Group Capacity		790			804	430		1175			742	424
v/c Ratio		0.26			0.11	0.17		0.35			0.15	0.02
Green Ratio		0.29			0.29	0.29		0.30			0.30	0.30
Uniform Delay d_1		22.0			21.0	21.4		21.9			20.5	19.7
Delay Factor k		0.50			0.50	0.50		0.50			0.50	0.50
Incremental Delay d_2		0.8			0.3	0.9		0.8			0.4	0.1
PF Factor		1.000			1.000	1.000		1.000			1.000	1.000
Control Delay		22.8			21.3	22.2		22.7			20.9	19.8
Lane Group LOS		C			C	C		C			C	B
Approach Delay		22.8			21.7			22.7			20.8	
Approach LOS		C			C			C			C	
Intersection Delay		22.3			Intersection LOS						C	

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SHORT REPORT

General Information		Site Information	
Analyst	M. Southern	Intersection	CENTRE/RAMP & WASHINGTON PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASINO	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0				0	3	0	0	2	1
Lane Group		LTR						LTR			LT	R
Volume (vph)	9	7	9				15	305	10	27	57	8
% Heavy Vehicles	0	0	0				1	1	1	4	4	4
PHF	0.56	0.56	0.56				0.80	0.80	0.80	0.78	0.78	0.78
Pretimed/Actuated (P/A)	P	P	P				P	P	P	P	P	P
Startup Lost Time		2.0						2.0			2.0	2.0
Extension of Effective Green		2.0						2.0			2.0	2.0
Arrival Type		3						3			3	3
Unit Extension		3.0						3.0			3.0	3.0
Ped/Bike/RTOR Volume	5	0	0				0	0	0	4	0	0
Lane Width		12.0						12.0			12.0	12.0
Parking/Grade/Parking	N	6	N				N	6	Y	N	-3	N
Parking/Hour									10			
Bus Stops/Hour		0						0			0	0
Minimum Pedestrian Time		23.7						21.2			3.2	

Phasing	Peds Only	EB Only	03	04	NS Perm	06	07	08
Timing	G = 23.0	G = 17.0	G =	G =	G = 24.0	G =	G =	G =
	Y = 5.5	Y = 5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		44						412			108	10
Lane Group Capacity		622						1174			742	423
v/c Ratio		0.07						0.35			0.15	0.02
Green Ratio		0.21						0.30			0.30	0.30
Uniform Delay d_1		25.2						21.9			20.5	19.7
Delay Factor k		0.50						0.50			0.50	0.50
Incremental Delay d_2		0.2						0.8			0.4	0.1
PF Factor		1.000						1.000			1.000	1.000
Control Delay		25.4						22.7			20.9	19.8
Lane Group LOS		C						C			C	B
Approach Delay	25.4						22.7			20.8		
Approach LOS	C						C			C		
Intersection Delay	22.5			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	M. Southern	Intersection	FIFTH AVE & WASHINGTON/CHATHAM
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASINO	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				0	2	0	1	1			1	2
Lane Group					LTR		L	T			T	R
Volume (vph)				6	187	119	12	199			43	50
% Heavy Vehicles				9	9	9	0	0			0	0
PHF				0.96	0.96	0.96	0.62	0.62			0.63	0.63
Pretimed/Actuated (P/A)				P	P	P	P	P			P	P
Startup Lost Time					2.0		2.0	2.0			2.0	2.0
Extension of Effective Green					2.0		2.0	2.0			2.0	2.0
Arrival Type					3		3	3			3	3
Unit Extension					3.0		3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume				4	0	12	0	0		0	0	0
Lane Width					11.0		10.0	9.0			11.0	12.0
Parking/Grade/Parking				Y	-2	Y	N	-6	N	N	-2	N
Parking/Hour				20		20						
Bus Stops/Hour					0		0	0			0	0
Minimum Pedestrian Time					25.2			3.2			15.2	

Phasing	WB Only	02	03	04	NS Perm	06	07	08
Timing	G = 39.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 5.5	Y =	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate					312		19	321			68	79
Lane Group Capacity					1141		440	594			626	974
v/c Ratio					0.27		0.04	0.54			0.11	0.08
Green Ratio					0.49		0.38	0.38			0.38	0.38
Uniform Delay d_1					12.1		15.9	19.6			16.3	16.1
Delay Factor k					0.50		0.50	0.50			0.50	0.50
Incremental Delay d_2					0.6		0.2	3.5			0.4	0.2
PF Factor					1.000		1.000	1.000			1.000	1.000
Control Delay					12.7		16.1	23.1			16.6	16.3
Lane Group LOS					B		B	C			B	B
Approach Delay				12.7			22.7			16.4		
Approach LOS				B			C			B		
Intersection Delay	17.7			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	M. Southern	Intersection	WASHINGTON PL & BEDFORD/CENTRE
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASE 00	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	1					2	1	1	2	0
Lane Group	L	LTR	R					T	R	L	LTR	
Volume (vph)	315	61	64					340	72	154	42	44
% Heavy Vehicles	2	2	2					0	0	2	2	2
PHF	0.81	0.81	0.81					0.80	0.80	0.66	0.66	0.66
Pretimed/Actuated (P/A)	P	P	P					P	P	P	P	
Startup Lost Time	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Extension of Effective Green	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Arrival Type	3	3	3					3	3	3	3	
Unit Extension	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	100	0	0				0	0	7	0	0	0
Lane Width	11.0	11.0	12.0					12.0	12.0	16.0	10.0	
Parking/Grade/Parking	N	5	N				N	-1	N	N	6	N
Parking/Hour												
Bus Stops/Hour	0	0	0					0	0	0	0	
Minimum Pedestrian Time		15.1						3.2			3.2	

Phasing	EB Only	02	03	04	NB Only	SB Only	07	08
Timing	G = 21.0	G =	G =	G =	G = 26.0	G = 18.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	370	98	75					425	81	117	247	
Lane Group Capacity	394	405	295					1063	475	394	609	
v/c Ratio	0.94	0.24	0.25					0.40	0.17	0.30	0.41	
Green Ratio	0.26	0.26	0.26					0.32	0.32	0.22	0.22	
Uniform Delay d_1	28.9	23.2	23.3					20.9	19.3	25.7	26.4	
Delay Factor k	0.50	0.50	0.50					0.50	0.50	0.50	0.50	
Incremental Delay d_2	32.3	1.4	2.1					1.1	0.8	1.9	2.0	
PF Factor	1.000	1.000	1.000					1.000	1.000	1.000	1.000	
Control Delay	61.2	24.6	25.4					22.1	20.1	27.7	28.4	
Lane Group LOS	E	C	C					C	C	C	C	
Approach Delay	49.7						21.8			28.2		
Approach LOS	D						C			C		
Intersection Delay	34.1			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	N. Karsko	Intersection	BEDFORD AVE & LEMIEUX PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY [illegible]	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0	0	2	0	0	1	0			
Lane Group		LTR			LTR			LTR				
Volume (vph)	72	102	9	2	60	16	8	4	1			
% Heavy Vehicles	2	2	2	0	0	0	.0	0	0			
PHF	0.76	0.76	0.76	0.74	0.74	0.74	0.60	0.60	0.60			
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A			
Startup Lost Time		2.0			2.0			2.0				
Extension of Effective Green		2.0			2.0			2.0				
Arrival Type		3			3			3				
Unit Extension		3.0			3.0			3.0				
Ped/Bike/RTOR Volume	75	0	0	75	0	0	75	0	0			
Lane Width		12.0			12.0			12.0				
Parking/Grade/Parking	N	10	N	N	-6	N	N	2	Y			
Parking/Hour									10			
Bus Stops/Hour		0			0			0				
Minimum Pedestrian Time		15.0			16.0			12.3				

Phasing	EB Only	WB Only	03	04	NB Only	06	07	08
Timing	G = 20.0	G = 10.0	G =	G =	G = 8.5	G =	G =	G =
	Y = 5.5	Y = 5.5	Y =	Y =	Y = 5.5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 55.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adjusted Flow Rate	241	106	22	
Lane Group Capacity	1068	572	210	
v/c Ratio	0.23	0.19	0.10	
Green Ratio	0.36	0.18	0.15	
Uniform Delay d_1	12.1	19.1	20.0	
Delay Factor k	0.11	0.11	0.11	
Incremental Delay d_2	0.1	0.2	0.2	
PF Factor	1.000	1.000	1.000	
Control Delay	12.2	19.2	20.2	
Lane Group LOS	B	B	C	
Approach Delay	12.2	19.2	20.2	
Approach LOS	B	B	C	
Intersection Delay	14.7	Intersection LOS		B

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SHORT REPORT

General Information		Site Information	
Analyst	N. Karsko	Intersection	CENTRE AVE & CRAWFORD ST
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Lane Group		LT	R	L	TR			LTR			LTR	
Volume (vph)	21	77	57	11	56	13	28	51	35	11	29	31
% Heavy Vehicles	5	5	5	4	4	4	5	5	5	6	6	6
PHF	0.78	0.78	0.78	0.86	0.86	0.86	0.85	0.85	0.85	0.65	0.65	0.65
Pretimed/Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup Lost Time		2.0	2.0	2.0	2.0			2.0			2.0	
Extension of Effective Green		2.0	2.0	2.0	2.0			2.0			2.0	
Arrival Type		3	3	3	3			3			3	
Unit Extension		3.0	3.0	3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	50	0	0	50	0	0	50	0	0	50	0	3
Lane Width		15.0	16.0	11.0	11.0			14.0			13.0	
Parking/Grade/Parking	N	-4	Y	N	8	Y	N	5	N	N	-6	N
Parking/Hour			10			10						
Bus Stops/Hour		0	0	0	0			0			0	
Minimum Pedestrian Time		22.7			13.5			14.7			14.7	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 30.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 70.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB		WB		NB		SB	
Adjusted Flow Rate	126	73	13	80		134		105
Lane Group Capacity	730	549	421	534		624		643
v/c Ratio	0.17	0.13	0.03	0.15		0.21		0.16
Green Ratio	0.43	0.43	0.43	0.43		0.43		0.43
Uniform Delay d_1	12.3	12.1	11.6	12.2		12.6		12.3
Delay Factor k	0.50	0.50	0.50	0.50		0.50		0.50
Incremental Delay d_2	0.5	0.5	0.1	0.6		0.8		0.5
PF Factor	1.000	1.000	1.000	1.000		1.000		1.000
Control Delay	12.9	12.6	11.7	12.8		13.4		12.8
Lane Group LOS	B	B	B	B		B		B
Approach Delay	12.8		12.7		13.4		12.8	
Approach LOS	B		B		B		B	
Intersection Delay	12.9		Intersection LOS				B	

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SHORT REPORT

General Information		Site Information	
Analyst	N. Karsko	Intersection	CENTRE AVE & LEMIEUX PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	11/21/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASE	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0	0	2	0				0	1	0
Lane Group		LTR			LTR						LTR	
Volume (vph)	7	138	1	1	187	2				3	1	14
% Heavy Vehicles	4	4	4	4	4	4				0	0	0
PHF	0.94	0.94	0.94	0.83	0.83	0.83				0.61	0.61	0.61
Pretimed/Actuated (P/A)	P	P	P	P	P	P				P	P	P
Startup Lost Time		2.0			2.0						2.0	
Extension of Effective Green		2.0			2.0						2.0	
Arrival Type		3			3						3	
Unit Extension		3.0			3.0						3.0	
Ped/Bike/RTOR Volume	0	0	0	162	0	0				25	0	0
Lane Width		11.0			11.0						12.0	
Parking/Grade/Parking	N	4	Y	N	-2	Y				N	-5	Y
Parking/Hour			20			20						20
Bus Stops/Hour		0			0						0	
Minimum Pedestrian Time		3.2			14.1						21.3	

Phasing	EW Perm	02	03	04	SB Only	06	07	08
Timing	G = 38.0	G =	G =	G =	G = 21.0	G =	G =	G =
	Y = 5.5	Y =	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 70.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		155			228						30	
Lane Group Capacity		1360			1422						367	
v/c Ratio		0.11			0.16						0.08	
Green Ratio		0.54			0.54						0.30	
Uniform Delay d_1		7.8			8.0						17.6	
Delay Factor k		0.50			0.50						0.50	
Incremental Delay d_2		0.2			0.2						0.4	
PF Factor		1.000			1.000						1.000	
Control Delay		8.0			8.3						18.0	
Lane Group LOS		A			A						B	
Approach Delay		8.0			8.3						18.0	
Approach LOS		A			A						B	
Intersection Delay		8.9			Intersection LOS						A	

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SHORT REPORT

General Information		Site Information	
Analyst	N. Karsko	Intersection	CENTRE/RAMP & WASHINGTON PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASHAD	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0	0	2	1	0	3	0	0	2	1
Lane Group		LTR			LT	R		LTR			LT	R
Volume (vph)	19	75	46	14	104	82	36	273	16	27	48	9
% Heavy Vehicles	1	1	1	4	4	4	1	1	1	5	5	5
PHF	0.84	0.84	0.84	0.72	0.72	0.72	0.90	0.90	0.90	0.87	0.87	0.87
Pretimed/Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup Lost Time		2.0			2.0	2.0		2.0			2.0	2.0
Extension of Effective Green		2.0			2.0	2.0		2.0			2.0	2.0
Arrival Type		3			3	3		3			3	3
Unit Extension		3.0			3.0	3.0		3.0			3.0	3.0
Ped/Bike/RTOR Volume	63	0	0	119	0	0	135	0	0	47	0	0
Lane Width		13.0			10.0	13.0		12.0			12.0	12.0
Parking/Grade/Parking	N	-1	N	N	-6	N	N	6	Y	N	-3	N
Parking/Hour									10			
Bus Stops/Hour		0			0	0		0			0	0
Minimum Pedestrian Time		24.1			24.4			22.0			3.5	

Phasing	EW Perm	Peds Only	03	04	NS Perm	06	07	08
Timing	G = 23.0	G = 17.0	G =	G =	G = 24.0	G =	G =	G =
	Y = 5.5	Y = 5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		167			163	114		361			86	10
Lane Group Capacity		798			785	375		1126			722	402
v/c Ratio		0.21			0.21	0.30		0.32			0.12	0.02
Green Ratio		0.29			0.29	0.29		0.30			0.30	0.30
Uniform Delay d_1		21.6			21.6	22.3		21.7			20.3	19.7
Delay Factor k		0.50			0.50	0.50		0.50			0.50	0.50
Incremental Delay d_2		0.6			0.6	2.1		0.8			0.3	0.1
PF Factor		1.000			1.000	1.000		1.000			1.000	1.000
Control Delay		22.2			22.2	24.3		22.4			20.7	19.9
Lane Group LOS		C			C	C		C			C	B
Approach Delay	22.2			23.1			22.4			20.6		
Approach LOS	C			C			C			C		
Intersection Delay	22.4			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	N. Karsko	Intersection	CENTRE/RAMP & WASHINGTON PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY EVENING	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0				0	3	0	0	2	1
Lane Group		LTR						LTR			LT	R
Volume (vph)	5	16	3				36	273	16	27	48	9
% Heavy Vehicles	4	4	4				1	1	1	5	5	5
PHF	0.67	0.67	0.67				0.90	0.90	0.90	0.87	0.87	0.87
Pretimed/Actuated (P/A)	P	P	P				P	P	P	P	P	P
Startup Lost Time		2.0						2.0			2.0	2.0
Extension of Effective Green		2.0						2.0			2.0	2.0
Arrival Type		3						3			3	3
Unit Extension		3.0						3.0			3.0	3.0
Ped/Bike/RTOR Volume	63	0	0				135	0	0	47	0	0
Lane Width		12.0						12.0			12.0	12.0
Parking/Grade/Parking	N	6	N				N	6	Y	N	-3	N
Parking/Hour									10			
Bus Stops/Hour		0						0			0	0
Minimum Pedestrian Time		24.1						22.0			3.5	

Phasing	Peds Only	EB Only	03	04	NS Perm	06	07	08
Timing	G = 23.0	G = 17.0	G =	G =	G = 24.0	G =	G =	G =
	Y = 5.5	Y = 5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		35						361			86	10
Lane Group Capacity		622						1122			722	389
v/c Ratio		0.06						0.32			0.12	0.03
Green Ratio		0.21						0.30			0.30	0.30
Uniform Delay d_1		25.1						21.7			20.3	19.8
Delay Factor k		0.50						0.50			0.50	0.50
Incremental Delay d_2		0.2						0.8			0.3	0.1
PF Factor		1.000						1.000			1.000	1.000
Control Delay		25.3						22.5			20.7	19.9
Lane Group LOS		C						C			C	B
Approach Delay		25.3						22.5			20.6	
Approach LOS		C						C			C	
Intersection Delay		22.3					Intersection LOS				C	

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SHORT REPORT

General Information		Site Information	
Analyst	N. Karsko	Intersection	FIFTH AVE & WASHINGTON/CHATHAM
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY 24 (1AM)	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				0	2	0	1	1			1	2
Lane Group					LTR		L	T			T	R
Volume (vph)				8	294	92	26	150			64	116
% Heavy Vehicles				4	4	4	0	0			3	3
PHF				0.81	0.81	0.81	0.84	0.84			0.73	0.73
Pretimed/Actuated (P/A)				P	P	P	P	P			P	P
Startup Lost Time					2.0		2.0	2.0			2.0	2.0
Extension of Effective Green					2.0		2.0	2.0			2.0	2.0
Arrival Type					3		3	3			3	3
Unit Extension					3.0		3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume				17	0	9	0	0		12	0	0
Lane Width					11.0		10.0	9.0			11.0	12.0
Parking/Grade/Parking				Y	-2	Y	N	-6	N	N	-2	N
Parking/Hour				20		20						
Bus Stops/Hour					0		0	0			0	0
Minimum Pedestrian Time					25.3			3.2			15.3	

Phasing	WB Only	02	03	04	NS Perm	06	07	08
Timing	G = 39.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 5.5	Y =	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate					475		31	179			88	159
Lane Group Capacity					1220		428	594			608	931
v/c Ratio					0.39		0.07	0.30			0.14	0.17
Green Ratio					0.49		0.38	0.38			0.38	0.38
Uniform Delay d_1					13.0		16.1	17.6			16.5	16.7
Delay Factor k					0.50		0.50	0.50			0.50	0.50
Incremental Delay d_2					0.9		0.3	1.3			0.5	0.4
PF Factor					1.000		1.000	1.000			1.000	1.000
Control Delay					13.9		16.4	18.9			17.0	17.1
Lane Group LOS					B		B	B			B	B
Approach Delay				13.9			18.5			17.1		
Approach LOS				B			B			B		
Intersection Delay	15.8			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	N. Karsko	Intersection	WASHINGTON PL & BEDFORD/CENTRE
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY EVENING	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	1					2	1	1	2	0
Lane Group	L	LTR	R					T	R	L	LTR	
Volume (vph)	209	47	49					306	73	82	44	34
% Heavy Vehicles	0	0	0					0	0	0	0	0
PHF	0.91	0.91	0.91					0.71	0.71	0.86	0.86	0.86
Pretimed/Actuated (P/A)	P	P	P					P	P	P	P	P
Startup Lost Time	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Extension of Effective Green	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Arrival Type	3	3	3					3	3	3	3	
Unit Extension	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	100	0	0				0	0	7	0	0	0
Lane Width	11.0	11.0	12.0					12.0	12.0	16.0	10.0	
Parking/Grade/Parking	N	5	N				N	-1	N	N	6	N
Parking/Hour												
Bus Stops/Hour	0	0	0					0	0	0	0	
Minimum Pedestrian Time		15.1						3.2			3.2	

Phasing	EB Only	02	03	04	NB Only	SB Only	07	08
Timing	G = 21.0	G =	G =	G =	G = 26.0	G = 18.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	219	66	51					431	93	48	138	
Lane Group Capacity	402	414	301					1063	475	402	624	
v/c Ratio	0.54	0.16	0.17					0.41	0.20	0.12	0.22	
Green Ratio	0.26	0.26	0.26					0.32	0.32	0.22	0.22	
Uniform Delay d_1	25.4	22.7	22.8					21.0	19.5	24.7	25.3	
Delay Factor k	0.50	0.50	0.50					0.50	0.50	0.50	0.50	
Incremental Delay d_2	5.2	0.8	1.2					1.1	0.9	0.6	0.8	
PF Factor	1.000	1.000	1.000					1.000	1.000	1.000	1.000	
Control Delay	30.6	23.5	24.0					22.1	20.4	25.3	26.1	
Lane Group LOS	C	C	C					C	C	C	C	
Approach Delay	28.2						21.8			25.9		
Approach LOS	C						C			C		
Intersection Delay	24.6			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	BEDFORD AVE & LEMIEUX PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	1	0	1	1	0			
Lane Group	L	LTR		L	TR		L	LTR				
Volume (vph)	27	63	2	20	59	7	567	1	1			
% Heavy Vehicles	14	14	14	0	0	0	0	0	0			
PHF	0.91	0.91	0.91	0.74	0.74	0.74	0.90	0.90	0.90			
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A			
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0				
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0				
Arrival Type	3	3		3	3		3	3				
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0				
Ped/Bike/RTOR Volume	75	0	0	75	0	0	75	0	0			
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0				
Parking/Grade/Parking	N	10	N	N	-6	N	N	2	Y			
Parking/Hour									10			
Bus Stops/Hour	0	0		0	0		0	0				
Minimum Pedestrian Time		15.3			16.3			12.5				

Phasing	EB Only	WB Only	03	04	NB Only	06	07	08
Timing	G = 18.5	G = 19.5	G =	G =	G = 45.5	G =	G =	G =
	Y = 5.5	Y = 5.5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	30	71		27	89		630	2				
Lane Group Capacity	250	497		269	334		732	591				
v/c Ratio	0.12	0.14		0.10	0.27		0.86	0.00				
Green Ratio	0.19	0.19		0.19	0.19		0.46	0.46				
Uniform Delay d_1	34.0	34.1		33.0	34.2		24.4	14.9				
Delay Factor k	0.11	0.11		0.11	0.11		0.39	0.11				
Incremental Delay d_2	0.2	0.1		0.2	0.4		10.2	0.0				
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000				
Control Delay	34.2	34.2		33.2	34.6		34.6	14.9				
Lane Group LOS	C	C		C	C		C	B				
Approach Delay	34.2			34.3			34.6					
Approach LOS	C			C			C					
Intersection Delay	34.5			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE AVE & CRAWFORD ST
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY C 4S1 ND	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Lane Group		LT	R	L	TR			LTR			LTR	
Volume (vph)	13	78	572	14	61	19	19	38	33	5	16	21
% Heavy Vehicles	3	3	3	6	6	6	2	2	2	5	5	5
PHF	0.90	0.90	0.90	0.79	0.79	0.79	0.73	0.73	0.73	0.64	0.64	0.64
Pretimed/Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup Lost Time		2.0	2.0	2.0	2.0			2.0			2.0	
Extension of Effective Green		2.0	2.0	2.0	2.0			2.0			2.0	
Arrival Type		3	3	3	3			3			3	
Unit Extension		3.0	3.0	3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	50	0	57	50	0	1	50	0	3	50	0	2
Lane Width		15.0	16.0	11.0	11.0			14.0			13.0	
Parking/Grade/Parking	N	-4	Y	N	8	Y	N	5	N	N	6	N
Parking/Hour			10			10						0
Bus Stops/Hour		0	0	0	0			0			0	
Minimum Pedestrian Time		22.8			13.5			14.8			14.8	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 40.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB		WB		NB		SB	
Adjusted Flow Rate	101	572	18	100		119		63
Lane Group Capacity	898	659	496	607		566		569
v/c Ratio	0.11	0.87	0.04	0.16		0.21		0.11
Green Ratio	0.50	0.50	0.50	0.50		0.38		0.38
Uniform Delay d_1	10.6	17.7	10.2	10.9		17.0		16.3
Delay Factor k	0.50	0.50	0.50	0.50		0.50		0.50
Incremental Delay d_2	0.3	14.4	0.1	0.6		0.8		0.4
PF Factor	1.000	1.000	1.000	1.000		1.000		1.000
Control Delay	10.8	32.1	10.3	11.5		17.8		16.7
Lane Group LOS	B	C	B	B		B		B
Approach Delay	28.9		11.3		17.8		16.7	
Approach LOS	C		B		B		B	
Intersection Delay	24.6		Intersection LOS				C	

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE AVE & EXIT
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		2			2		1		0			
Lane Group		T			T		L	LR				
Volume (vph)		125			101		857		542			
% Heavy Vehicles		3			5		2		2			
PHF		0.90			0.90		0.90		0.90			
Pretimed/Actuated (P/A)		P			P		P		P			
Startup Lost Time		2.0			2.0		2.0	2.0				
Extension of Effective Green		2.0			2.0		2.0	2.0				
Arrival Type		3			3		3	3				
Unit Extension		3.0			3.0		3.0	3.0				
Ped/Bike/RTOR Volume	0	0		124	0		0	0	54			
Lane Width		11.0			11.0		12.0	12.0				
Parking/Grade/Parking	N	4	Y	N	-2	Y	N	0	N			
Parking/Hour			20			20						
Bus Stops/Hour		0			0		0	0				
Minimum Pedestrian Time		3.2			13.9			3.2				

Phasing	Thru Only	02	03	04	NB Only	06	07	08
Timing	G = 21.0	G =	G =	G =	G = 48.0	G =	G =	G =
	Y = 5.5	Y =	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		139			112		647	847				
Lane Group Capacity		707			715		956	893				
v/c Ratio		0.20			0.16		0.68	0.95				
Green Ratio		0.26			0.26		0.60	0.60				
Uniform Delay d_1		22.9			22.7		10.8	14.9				
Delay Factor k		0.50			0.50		0.50	0.50				
Incremental Delay d_2		0.6			0.5		3.8	19.9				
PF Factor		1.000			1.000		1.000	1.000				
Control Delay		23.6			23.2		14.6	34.8				
Lane Group LOS		C			C		B	C				
Approach Delay	23.6			23.2			26.1					
Approach LOS	C			C			C					
Intersection Delay	25.7			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE AVE & LEMIEUX PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASUAL	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2			2	0				1		1
Lane Group	L	T			TR					L		R
Volume (vph)	1	1804			397	566				18		6
% Heavy Vehicles	4	4			5	5				2		2
PHF	0.88	0.88			0.81	0.81				0.90		0.90
Pretimed/Actuated (P/A)	P	P			P	P				P		P
Startup Lost Time	2.0	2.0			2.0					2.0		2.0
Extension of Effective Green	2.0	2.0			2.0					2.0		2.0
Arrival Type	3	3			3					3		3
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume	6	0		6	0	57				0	0	0
Lane Width	12.0	11.0			11.0					12.0		12.0
Parking/Grade/Parking	N	4	Y	N	-2	Y				N	-5	-Y
Parking/Hour			20			20						20
Bus Stops/Hour	0	0			0					0		0
Minimum Pedestrian Time		3.2			13.2						21.2	

Phasing	EB Only	EW Perm	03	04	SB Only	06	07	08
Timing	G = 20.0	G = 38.5	G =	G =	G = 7.0	G =	G =	G =
	Y = 3.5	Y = 5.5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	1	2050			1118					20		7
Lane Group Capacity	494	2068			1197					143		475
v/c Ratio	0.00	0.99			0.93					0.14		0.01
Green Ratio	0.77	0.77			0.48					0.09		0.41
Uniform Delay d_1	4.6	8.7			19.6					33.7		14.2
Delay Factor k	0.50	0.50			0.50					0.50		0.50
Incremental Delay d_2	0.0	17.8			14.3					2.0		0.1
PF Factor	1.000	1.000			1.000					1.000		1.000
Control Delay	4.6	26.6			33.9					35.8		14.2
Lane Group LOS	A	C			C					D		B
Approach Delay	26.6			33.9						30.2		
Approach LOS	C			C						C		
Intersection Delay	29.2			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE/RAMP & WASHINGTON PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		2	0	1	2	0	0	3	0	0	2	1
Lane Group		TR		L	TR			LTR		DefL	T	R
Volume (vph)		1300	41	7	60	346	15	480	31	67	57	8
% Heavy Vehicles		1	1	3	3	3	1	1	1	4	4	4
PHF		0.70	0.70	0.73	0.73	0.73	0.80	0.80	0.80	0.78	0.78	0.78
Pretimed/Actuated (P/A)		A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time		2.0		2.0	2.0			2.0		2.0	2.0	2.0
Extension of Effective Green		2.0		2.0	2.0			2.0		2.0	2.0	2.0
Arrival Type		3		3	3			3		3	3	3
Unit Extension		3.0		3.0	3.0			3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	0	0	5	0	0	0	0	0	4	0	0
Lane Width		13.0		12.0	10.0			12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	-1	N	N	-6	N	N	6	Y	N	-3	N
Parking/Hour									10			
Bus Stops/Hour		0		0	0			0		0	0	0
Minimum Pedestrian Time		23.7			23.7			21.2			3.2	

Phasing	EW Perm	Peds Only	03	04	NS Perm	06	07	08
Timing	G = 57.0	G = 24.0	G =	G =	G = 23.0	G =	G =	G =
	Y = 5.5	Y = 5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 120.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1916		10	556			658		86	73	10
Lane Group Capacity		1583		60	1255			751		73	320	270
v/c Ratio		1.21		0.17	0.44			0.88		1.18	0.23	0.04
Green Ratio		0.47		0.47	0.47			0.19		0.19	0.19	0.19
Uniform Delay d_1		31.5		18.0	20.9			47.1		48.5	41.0	39.5
Delay Factor k		0.50		0.11	0.11			0.40		0.50	0.11	0.11
Incremental Delay d_2		100.8		1.3	0.3			11.4		161.2	0.4	0.1
PF Factor		1.000		1.000	1.000			1.000		1.000	1.000	1.000
Control Delay		132.3		19.3	21.2			58.5		209.7	41.4	39.5
Lane Group LOS		F		B	C			E		F	D	D
Approach Delay	132.3			21.2			58.5			126.9		
Approach LOS	F			C			E			F		
Intersection Delay	98.3			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE/RAMP & WASHINGTON PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CABO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0				0	3	0	0	2	1
Lane Group		LTR						LTR		DefL	T	R
Volume (vph)	9	394	9				15	480	31	67	57	8
% Heavy Vehicles	0	0	0				1	1	1	4	4	4
PHF	0.56	0.56	0.56				0.80	0.80	0.80	0.78	0.78	0.78
Pretimed/Actuated (P/A)	A	A	A				A	A	A	A	A	A
Startup Lost Time		2.0						2.0		2.0	2.0	2.0
Extension of Effective Green		2.0						2.0		2.0	2.0	2.0
Arrival Type		3						3		3	3	3
Unit Extension		3.0						3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	5	0	0				0	0	0	4	0	0
Lane Width		12.0						12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	6	N				N	6	Y	N	-3	N
Parking/Hour									10			
Bus Stops/Hour		0						0		0	0	0
Minimum Pedestrian Time		23.7						21.2			3.2	

Phasing	Peds Only	EB Only	03	04	NS Perm	06	07	08
Timing	G = 57.0	G = 24.0	G =	G =	G = 23.0	G =	G =	G =
	Y = 5.5	Y = 5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 120.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		736						658		86	73	10
Lane Group Capacity		629						751		73	320	269
v/c Ratio		1.17						0.88		1.18	0.23	0.04
Green Ratio		0.20						0.19		0.19	0.19	0.19
Uniform Delay d_1		48.0						47.1		48.5	41.0	39.5
Delay Factor k		0.50						0.40		0.50	0.11	0.11
Incremental Delay d_2		92.8						11.4		161.2	0.4	0.1
PF Factor		1.000						1.000		1.000	1.000	1.000
Control Delay		140.8						58.5		209.7	41.4	39.5
Lane Group LOS		F						E		F	D	D
Approach Delay	140.8						58.5			126.9		
Approach LOS	F						E			F		
Intersection Delay	104.6			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	FIFTH AVE & WASHINGTON/CHATHAM
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				0	2	1	1	1			1	2
Lane Group					LT	R	L	T			T	R
Volume (vph)				6	884	294	12	220			43	50
% Heavy Vehicles				9	9	9	0	0			0	0
PHF				0.96	0.96	0.96	0.62	0.62			0.63	0.63
Pretimed/Actuated (P/A)				P	P	P	P	P			P	P
Startup Lost Time					2.0	2.0	2.0	2.0			2.0	2.0
Extension of Effective Green					2.0	2.0	2.0	2.0			2.0	2.0
Arrival Type					3	3	3	3			3	3
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume				4	0	29	0	0		0	0	0
Lane Width					11.0	12.0	10.0	9.0			11.0	12.0
Parking/Grade/Parking				Y	-2	Y	N	-6	N	N	-2	N
Parking/Hour				20		20						
Bus Stops/Hour					0	0	0	0			0	0
Minimum Pedestrian Time					25.2			3.2			15.2	

Phasing	WB Only	02	03	04	NS Perm	06	07	08
Timing	G = 39.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 5.5	Y =	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate					927	276	19	355			68	79
Lane Group Capacity					1279	523	440	594			626	974
v/c Ratio					0.72	0.53	0.04	0.60			0.11	0.08
Green Ratio					0.49	0.49	0.38	0.38			0.38	0.38
Uniform Delay d_1					16.2	14.1	15.9	20.1			16.3	16.1
Delay Factor k					0.50	0.50	0.50	0.50			0.50	0.50
Incremental Delay d_2					3.6	3.8	0.2	4.4			0.4	0.2
PF Factor					1.000	1.000	1.000	1.000			1.000	1.000
Control Delay					19.8	17.9	16.1	24.5			16.6	16.3
Lane Group LOS					B	B	B	C			B	B
Approach Delay				19.4			24.1			16.4		
Approach LOS				B			C			B		
Intersection Delay	20.2			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	WASHINGTON PL & BEDFORD/CENTRE
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/7/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CASE 30	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	1					2	1	1	1	1
Lane Group	L	LTR	R					T	R	L	LT	R
Volume (vph)	315	61	64					807	72	154	42	84
% Heavy Vehicles	0	0	0					0	0	0	0	0
PHF	0.81	0.81	0.81					0.80	0.80	0.66	0.66	0.90
Pretimed/Actuated (P/A)	P	P	P					P	P	P	P	P
Startup Lost Time	2.0	2.0	2.0					2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0	2.0					2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3	3					3	3	3	3	3
Unit Extension	3.0	3.0	3.0					3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	100	0	0				0	0	8	0	0	0
Lane Width	11.0	11.0	12.0					12.0	12.0	16.0	10.0	12.0
Parking/Grade/Parking	N	5	N				N	-1	N	N	6	N
Parking/Hour												
Bus Stops/Hour	0	0	0					0	0	0	0	0
Minimum Pedestrian Time		15.1						3.2			3.2	

Phasing	EB Only	02	03	04	NB Only	SB Only	07	08
Timing	G = 20.5	G =	G =	G =	G = 29.0	G = 15.5	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	253	215	75					1009	80	182	115	93
Lane Group Capacity	392	398	292					1186	530	346	293	273
v/c Ratio	0.65	0.54	0.26					0.85	0.15	0.53	0.39	0.34
Green Ratio	0.26	0.26	0.26					0.36	0.36	0.19	0.19	0.19
Uniform Delay d_1	26.5	25.7	23.7					23.5	17.2	29.0	28.1	27.8
Delay Factor k	0.50	0.50	0.50					0.50	0.50	0.50	0.50	0.50
Incremental Delay d_2	8.0	5.2	2.1					7.8	0.6	5.6	3.9	3.4
PF Factor	1.000	1.000	1.000					1.000	1.000	1.000	1.000	1.000
Control Delay	34.5	30.9	25.8					31.3	17.8	34.6	32.1	31.2
Lane Group LOS	C	C	C					C	B	C	C	C
Approach Delay	31.8						30.3			33.0		
Approach LOS	C						C			C		
Intersection Delay	31.2			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	BEDFORD AVE & LEMIEUX PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2	0	1	1	0	1	1	0			
Lane Group	L	LTR		L	TR		L	LTR				
Volume (vph)	72	102	9	15	60	16	624	4	1			
% Heavy Vehicles	2	2	2	0	0	0	2	2	2			
PHF	0.76	0.76	0.76	0.74	0.74	0.74	0.90	0.90	0.90			
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A			
Startup Lost Time	2.0	2.0		2.0	2.0		2.0	2.0				
Extension of Effective Green	2.0	2.0		2.0	2.0		2.0	2.0				
Arrival Type	3	3		3	3		3	3				
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0				
Ped/Bike/RTOR Volume	75	0	0	75	0	0	75	0	0			
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0				
Parking/Grade/Parking	N	10	N	N	-6	N	N	2	Y			
Parking/Hour									10			
Bus Stops/Hour	0	0		0	0		0	0				
Minimum Pedestrian Time		15.1			16.1			12.3				

Phasing	EB Only	WB Only	03	04	NB Only	06	07	08
Timing	G = 18.5	G = 10.0	G =	G =	G = 25.0	G =	G =	G =
	Y = 5.5	Y = 5.5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 70.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	48	193		20	103		381	317				
Lane Group Capacity	400	777		191	235		563	480				
v/c Ratio	0.12	0.25		0.10	0.44		0.68	0.66				
Green Ratio	0.26	0.26		0.14	0.14		0.36	0.36				
Uniform Delay d_1	19.6	20.3		26.1	27.4		19.1	18.9				
Delay Factor k	0.11	0.11		0.11	0.11		0.25	0.24				
Incremental Delay d_2	0.1	0.2		0.2	1.3		3.2	3.4				
PF Factor	1.000	1.000		1.000	1.000		1.000	1.000				
Control Delay	19.7	20.4		26.3	28.7		22.3	22.3				
Lane Group LOS	B	C		C	C		C	C				
Approach Delay	20.3			28.4			22.3					
Approach LOS	C			C			C					
Intersection Delay	22.5			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE AVE & CRAWFORD ST
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Lane Group		LT	R	L	TR			LTR			LTR	
Volume (vph)	21	92	633	11	56	20	28	51	35	21	77	57
% Heavy Vehicles	5	5	5	4	4	4	5	5	5	6	6	6
PHF	0.78	0.78	0.78	0.86	0.86	0.86	0.85	0.85	0.85	0.65	0.65	0.65
Pretimed/Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup Lost Time		2.0	2.0	2.0	2.0			2.0			2.0	
Extension of Effective Green		2.0	2.0	2.0	2.0			2.0			2.0	
Arrival Type		3	3	3	3			3			3	
Unit Extension		3.0	3.0	3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	50	0	63	50	0	1	50	0	4	50	0	3
Lane Width		15.0	16.0	11.0	11.0			14.0			13.0	
Parking/Grade/Parking	N	-4	Y	N	8	Y	N	5	N	N	-6	N
Parking/Hour			10			10						
Bus Stops/Hour		0	0	0	0			0			0	
Minimum Pedestrian Time		22.8			13.5			14.8			14.8	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 55.0	G =	G =	G =	G = 25.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 90.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		145	731	13	87			129			233	
Lane Group Capacity		1054	797	599	755			388			412	
v/c Ratio		0.14	0.92	0.02	0.12			0.33			0.57	
Green Ratio		0.61	0.61	0.61	0.61			0.28			0.28	
Uniform Delay d_1		7.4	15.5	6.9	7.3			25.9			27.8	
Delay Factor k		0.50	0.50	0.50	0.50			0.50			0.50	
Incremental Delay d_2		0.3	17.1	0.1	0.3			2.3			5.5	
PF Factor		1.000	1.000	1.000	1.000			1.000			1.000	
Control Delay		7.7	32.6	7.0	7.6			28.2			33.4	
Lane Group LOS		A	C	A	A			C			C	
Approach Delay	28.5			7.5			28.2			33.4		
Approach LOS	C			A			C			C		
Intersection Delay	27.7			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE AVE & EXIT
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		2			2		1		0			
Lane Group		T			T		L	LR				
Volume (vph)		141			189		934		591			
% Heavy Vehicles		4			4		2		2			
PHF		0.94			0.83		0.90		0.90			
Pretimed/Actuated (P/A)		P			P		P		P			
Startup Lost Time		2.0			2.0		2.0	2.0				
Extension of Effective Green		2.0			2.0		2.0	2.0				
Arrival Type		3			3		3	3				
Unit Extension		3.0			3.0		3.0	3.0				
Ped/Bike/RTOR Volume	0	0		124	0		0	0	59			
Lane Width		11.0			11.0		12.0	12.0				
Parking/Grade/Parking	N	4	Y	N	-2	Y	N	0	N			
Parking/Hour			20			20						
Bus Stops/Hour		0			0		0	0				
Minimum Pedestrian Time		3.2			14.0			3.2				

Phasing	Thru Only	02	03	04	NB Only	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 59.0	G =	G =	G =
	Y = 5.5	Y =	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 90.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		150			228		841	788				
Lane Group Capacity		593			611		1044	963				
v/c Ratio		0.25			0.37		0.81	0.82				
Green Ratio		0.22			0.22		0.66	0.66				
Uniform Delay d_1		28.8			29.7		11.3	11.5				
Delay Factor k		0.50			0.50		0.50	0.50				
Incremental Delay d_2		1.0			1.7		6.6	7.7				
PF Factor		1.000			1.000		1.000	1.000				
Control Delay		29.9			31.4		18.0	19.2				
Lane Group LOS		C			C		B	B				
Approach Delay	29.9			31.4			18.6					
Approach LOS	C			C			B					
Intersection Delay	20.9			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE AVE & LEMIEUX PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	2			2	0				1		1
Lane Group	L	T			TR					L		R
Volume (vph)	7	1458			505	618				16		14
% Heavy Vehicles	4	4			4	4				0		0
PHF	0.94	0.94			0.83	0.83				0.90		0.90
Pretimed/Actuated (P/A)	P	P			P	P				P		P
Startup Lost Time	2.0	2.0			2.0					2.0		2.0
Extension of Effective Green	2.0	2.0			2.0					2.0		2.0
Arrival Type	3	3			3					3		3
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume	0	0		162	0	0				25	0	0
Lane Width	12.0	11.0			11.0					12.0		12.0
Parking/Grade/Parking	N	4	Y	N	-2	Y				N	-5	Y
Parking/Hour			20			20						20
Bus Stops/Hour	0	0			0					0		0
Minimum Pedestrian Time		3.2			14.3						21.4	

Phasing	EB Only	EW Perm	03	04	SB Only	06	07	08
Timing	G = 7.0	G = 54.5	G =	G =	G = 14.0	G =	G =	G =
	Y = 3.5	Y = 5.5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 90.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	7	1551			1353					18		16
Lane Group Capacity	241	1928			1416					259		334
v/c Ratio	0.03	0.80			0.96					0.07		0.05
Green Ratio	0.72	0.72			0.61					0.16		0.29
Uniform Delay d_1	6.5	8.3			16.6					32.4		22.7
Delay Factor k	0.50	0.50			0.50					0.50		0.50
Incremental Delay d_2	0.2	3.7			15.4					0.5		0.3
PF Factor	1.000	1.000			1.000					1.000		1.000
Control Delay	6.8	12.0			32.0					33.0		23.0
Lane Group LOS	A	B			C					C		C
Approach Delay	11.9			32.0						28.3		
Approach LOS	B			C						C		
Intersection Delay	21.4			Intersection LOS						C		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE/RAMP & WASHINGTON PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes		2	0	1	2	0	0	3	0	0	2	1
Lane Group		TR		L	TR			LTR		DefL	T	R
Volume (vph)		1043	46	14	104	400	36	464	33	58	48	9
% Heavy Vehicles		1	1	4	4	4	1	1	1	5	5	5
PHF		0.84	0.84	0.72	0.72	0.72	0.90	0.90	0.90	0.87	0.87	0.87
Pretimed/Actuated (P/A)		A	A	A	A	A	A	A	A	A	A	A
Startup Lost Time		2.0		2.0	2.0			2.0		2.0	2.0	2.0
Extension of Effective Green		2.0		2.0	2.0			2.0		2.0	2.0	2.0
Arrival Type		3		3	3			3		3	3	3
Unit Extension		3.0		3.0	3.0			3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	63	0	0	119	0	0	135	0	0	47	0	0
Lane Width		13.0		12.0	10.0			12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	-1	N	N	-6	N	N	6	Y	N	-3	N
Parking/Hour									10			
Bus Stops/Hour		0		0	0			0		0	0	0
Minimum Pedestrian Time		24.2			24.6			22.2			3.6	

Phasing	WB Only	EW Perm	Peds Only	04	NS Perm	06	07	08
Timing	G = 5.0	G = 39.5	G = 17.5	G =	G = 19.5	G =	G =	G =
	Y = 3	Y = 5	Y = 5	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 — Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		1297		19	700			593		67	55	10
Lane Group Capacity		1311		152	1169			737		88	322	254
v/c Ratio		0.99		0.13	0.60			0.80		0.76	0.17	0.04
Green Ratio		0.40		0.48	0.47			0.19		0.19	0.19	0.19
Uniform Delay d_1		30.0		20.8	19.3			38.4		38.1	33.5	32.7
Delay Factor k		0.49		0.11	0.19			0.35		0.31	0.11	0.11
Incremental Delay d_2		22.2		0.4	0.9			6.5		31.6	0.3	0.1
PF Factor		1.000		1.000	1.000			1.000		1.000	1.000	1.000
Control Delay		52.3		21.2	20.1			44.9		69.7	33.8	32.7
Lane Group LOS		D		C	C			D		E	C	C
Approach Delay	52.3			20.1			44.9			51.9		
Approach LOS	D			C			D			D		
Intersection Delay	42.2			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	CENTRE/RAMP & WASHINGTON PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0				0	3	0	0	2	1
Lane Group		LTR						LTR		DefL	T	R
Volume (vph)	5	320	3				36	464	33	58	48	9
% Heavy Vehicles	4	4	4				1	1	1	5	5	5
PHF	0.67	0.67	0.67				0.90	0.90	0.90	0.87	0.87	0.87
Pretimed/Actuated (P/A)	A	A	A				A	A	A	A	A	A
Startup Lost Time		2.0						2.0		2.0	2.0	2.0
Extension of Effective Green		2.0						2.0		2.0	2.0	2.0
Arrival Type		3						3		3	3	3
Unit Extension		3.0						3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	63	0	0				135	0	0	47	0	0
Lane Width		12.0						12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	6	N				N	6	Y	N	-3	N
Parking/Hour									10			
Bus Stops/Hour		0						0		0	0	0
Minimum Pedestrian Time		24.2						22.2			3.6	

Phasing	Peds Only	EB Only	03	04	NS Perm	06	07	08
Timing	G = 47.5	G = 17.5	G =	G =	G = 19.5	G =	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		489						593		67	55	10
Lane Group Capacity		530						735		88	322	241
v/c Ratio		0.92						0.81		0.76	0.17	0.04
Green Ratio		0.17						0.19		0.19	0.19	0.19
Uniform Delay d_1		40.6						38.5		38.1	33.5	32.7
Delay Factor k		0.44						0.35		0.31	0.11	0.11
Incremental Delay d_2		21.9						6.6		31.6	0.3	0.1
PF Factor		1.000						1.000		1.000	1.000	1.000
Control Delay		62.5						45.1		69.7	33.8	32.7
Lane Group LOS		E						D		E	C	C
Approach Delay	62.5						45.1			51.9		
Approach LOS	E						D			D		
Intersection Delay	52.8			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	FIFTH AVE & WASHINGTON/CHATHAM
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes				0	2	1	1	1			1	2
Lane Group					LT	R	L	T			T	R
Volume (vph)				8	1054	283	26	167			64	116
% Heavy Vehicles				4	4	4	0	0			3	3
PHF				0.81	0.81	0.81	0.84	0.84			0.73	0.73
Pretimed/Actuated (P/A)				P	P	P	P	P			P	P
Startup Lost Time					2.0	2.0	2.0	2.0			2.0	2.0
Extension of Effective Green					2.0	2.0	2.0	2.0			2.0	2.0
Arrival Type					3	3	3	3			3	3
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume				17	0	28	0	0		12	0	0
Lane Width					11.0	12.0	10.0	9.0			11.0	12.0
Parking/Grade/Parking				Y	-2	Y	N	-6	N	N	-2	N
Parking/Hour				20		20						
Bus Stops/Hour					0	0	0	0			0	0
Minimum Pedestrian Time					25.3			3.2			15.3	

Phasing	WB Only	02	03	04	NS Perm	06	07	08
Timing	G = 46.0	G =	G =	G =	G = 23.0	G =	G =	G =
	Y = 5.5	Y =	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate					1311	315	31	199			88	159
Lane Group Capacity					1581	640	327	456			466	710
v/c Ratio					0.83	0.49	0.09	0.44			0.19	0.22
Green Ratio					0.57	0.57	0.29	0.29			0.29	0.29
Uniform Delay d_1					13.8	10.1	20.9	23.2			21.5	21.7
Delay Factor k					0.50	0.50	0.50	0.50			0.50	0.50
Incremental Delay d_2					5.2	2.7	0.6	3.0			0.9	0.7
PF Factor					1.000	1.000	1.000	1.000			1.000	1.000
Control Delay					19.0	12.8	21.5	26.2			22.4	22.4
Lane Group LOS					B	B	C	C			C	C
Approach Delay				17.8			25.6			22.4		
Approach LOS				B			C			C		
Intersection Delay	19.2			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	CAD	Intersection	WASHINGTON PL & BEDFORD/CENTRE
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	3/8/06	Jurisdiction	CITY OF PITTSBURGH
Time Period	SATURDAY CASINO	Analysis Year	2008 COMBINED CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	1	1	1					2	1	1	1	1
Lane Group	L	LTR	R					T	R	L	LT	R
Volume (vph)	209	47	49					815	73	82	44	65
% Heavy Vehicles	0	0	0					0	0	0	0	0
PHF	0.91	0.91	0.91					0.71	0.71	0.86	0.86	0.86
Pretimed/Actuated (P/A)	P	P	P					P	P	P	P	P
Startup Lost Time	2.0	2.0	2.0					2.0	2.0	2.0	2.0	2.0
Extension of Effective Green	2.0	2.0	2.0					2.0	2.0	2.0	2.0	2.0
Arrival Type	3	3	3					3	3	3	3	3
Unit Extension	3.0	3.0	3.0					3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	100	0	0				0	0	0	0	0	0
Lane Width	11.0	11.0	12.0					12.0	12.0	16.0	10.0	12.0
Parking/Grade/Parking	N	5	N				N	-1	N	N	6	N
Parking/Hour												
Bus Stops/Hour	0	0	0					0	0	0	0	0
Minimum Pedestrian Time		15.1						3.2			3.2	

Phasing	EB Only	02	03	04	NB Only	SB Only	07	08
Timing	G = 17.0	G =	G =	G =	G = 31.0	G = 17.0	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y = 5	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate	159	126	51					1148	103	48	98	76
Lane Group Capacity	325	330	230					1268	566	380	321	300
v/c Ratio	0.49	0.38	0.22					0.91	0.18	0.13	0.31	0.25
Green Ratio	0.21	0.21	0.21					0.39	0.39	0.21	0.21	0.21
Uniform Delay d_1	27.7	27.0	26.0					23.1	16.1	25.5	26.5	26.2
Delay Factor k	0.50	0.50	0.50					0.50	0.50	0.50	0.50	0.50
Incremental Delay d_2	5.2	3.3	2.2					10.8	0.7	0.7	2.4	2.0
PF Factor	1.000	1.000	1.000					1.000	1.000	1.000	1.000	1.000
Control Delay	32.9	30.3	28.2					33.9	16.9	26.2	29.0	28.2
Lane Group LOS	C	C	C					C	B	C	C	C
Approach Delay	31.2						32.5			28.1		
Approach LOS	C						C			C		
Intersection Delay	31.7			Intersection LOS						C		

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TABLE B6 (cont'd)
STUDY AREA ROADWAY AND SIGNAL IMPROVEMENTS
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

INTERSECTION	IMPROVEMENT
Fifth Avenue & Washington Place/Chatham Place	▪ Upgrade traffic signal to CBD standards. ▪ Prohibit parking for at least 150 feet along north curb line on westbound approach and install an exclusive right turn lane.
Forbes Avenue & Armstrong Tunnels Forbes Avenue & Chatham Place/McAnulty Drive Bedford Avenue & Washington Place Bedford Avenue & Crawford Street Centre Avenue & Dinwiddie Street/DeVilliers Street Centre Avenue & Crawford Street Second Avenue & Ross Street Seventh Avenue & Smithfield Street	▪ Upgrade existing traffic signal to provide pedestrian signals on all crossings.
Bedford Avenue & Crawford Street Centre Avenue & Site Driveway Centre Avenue & Crawford Street Fifth Avenue & Magee Street/ Site Driveway Fifth Avenue & Stevenson Street/ Site Driveway Fifth Avenue & Pride Street Forbes/Magee Street Forbes Avenue & Stevenson Street Forbes Avenue & Pride Street	▪ Install fiber-optic interconnect. ▪ Upgrade signal controller. ▪ Integrate into City's computerized traffic control system.
All Study Area Intersections	▪ Optimize traffic signal timings. ▪ Provide at least 6 timing plans compatible with City's control system.
General Study Area	▪ Extend City's wayfinder signage system to direct visitors to the casino and adjacent parking facilities and to direct exiting traffic to regional highways and bridges.

Source: Trans Associates. Obtained from Table 17 of the "Pittsburgh First Master Plan Traffic and Parking Study."

TABLE B7
CENTRE AVENUE AND WASHINGTON PLACE PUBLIC IMPROVEMENTS
OPINION OF PROBABLE COST
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

DESCRIPTION	QTY.	UNIT	UNIT PRICE	COST
CLASS I, EXCAVATION	10,565	CY	$10.00	$105,700.00
8" SUBBASE (NO. 2A)	17,432	SY	$7.50	$130,700.00
10" REINFORCED CEMENT CONCRETE PAVEMENT	17,432	SY	$55.00	$958,800.00
BRICK CROSSWALK	1,496	SY	$200.00	$299,200.00
GRANITE CURB	4,570	LF	$40.00	$182,800.00
GRANITE MOUNTABLE CURB	3,645	LF	$50.00	$182,300.00
CLASS 1 GEOTEXTILE	4,570	LF	$1.25	$5,700.00
15" REINFORCED CONCRETE PIPE	3,650	LF	$65.00	$237,300.00
MANHOLE	27	EA	$3,200.00	$86,400.00
TYPE C INLET, BICYCLE SAFE GRATE, SPECIAL	42	EA	$4,000.00	$168,000.00
PAVEMENT BASE DRAIN	4,570	LF	$6.00	$27,400.00
24" EXTRA STRENGTH VITRIFIED CLAY PIPE	1,560	LF	$288.00	$449,300.00
36" EXTRA STRENGTH VITRIFIED CLAY PIPE	641	LF	$432.00	$276,900.00
4" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	2,908	LF	$0.75	$2,200.00
8" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	1,883	LF	$1.50	$2,800.00
24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	200	LF	$8.50	$1,700.00
WHITE HOT THERMOPLASTIC LEGEND, "ONLY", 8' - 0"	9	EA	$200.00	$1,800.00
WHITE HOT THERMOPLASTIC LEGEND, "LEFT ARROW", 12' - 0" X 3' - 0"	7	EA	$125.00	$900.00

TABLE B7 (con't)
CENTRE AVENUE AND WASHINGTON PLACE PUBLIC IMPROVEMENTS
OPINION OF PROBABLE COST
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

DESCRIPTION	QTY.	UNIT	UNIT PRICE	COST
WHITE HOT THERMOPLASTIC LEGEND, "RIGHT ARROW", 12' - 0" X 3' - 0"	2	EA	$125.00	$300.00
REPLACEMENT OF EXISTING 8" WATER LINE	2200	LF	$125.00	$275,000.00
CONSTRUCTION SURVEYING (1%)	1	LS	$34,000.00	$34,000.00
MAINTENANCE & PROTECTION OF TRAFFIC DURING CONSTRUCTION (12%)	1	LS	$407,400.00	$407,400.00
MOBILIZATION (5%)	1	LS	$169,800.00	$169,800.00

SUBTOTAL	$4,006,400.00
30% CONTIGENCY	$1,201,900.00
TOTAL CONSTRUCTION COST	**$5,208,300.00** *
20% ENGINEERING/DESIGN	$1,041,700.00
GRAND TOTAL CONSTRUCTION COST	**$6,250,000.00** *

*Does not include any private utility relocation or right-of-way acquisition.

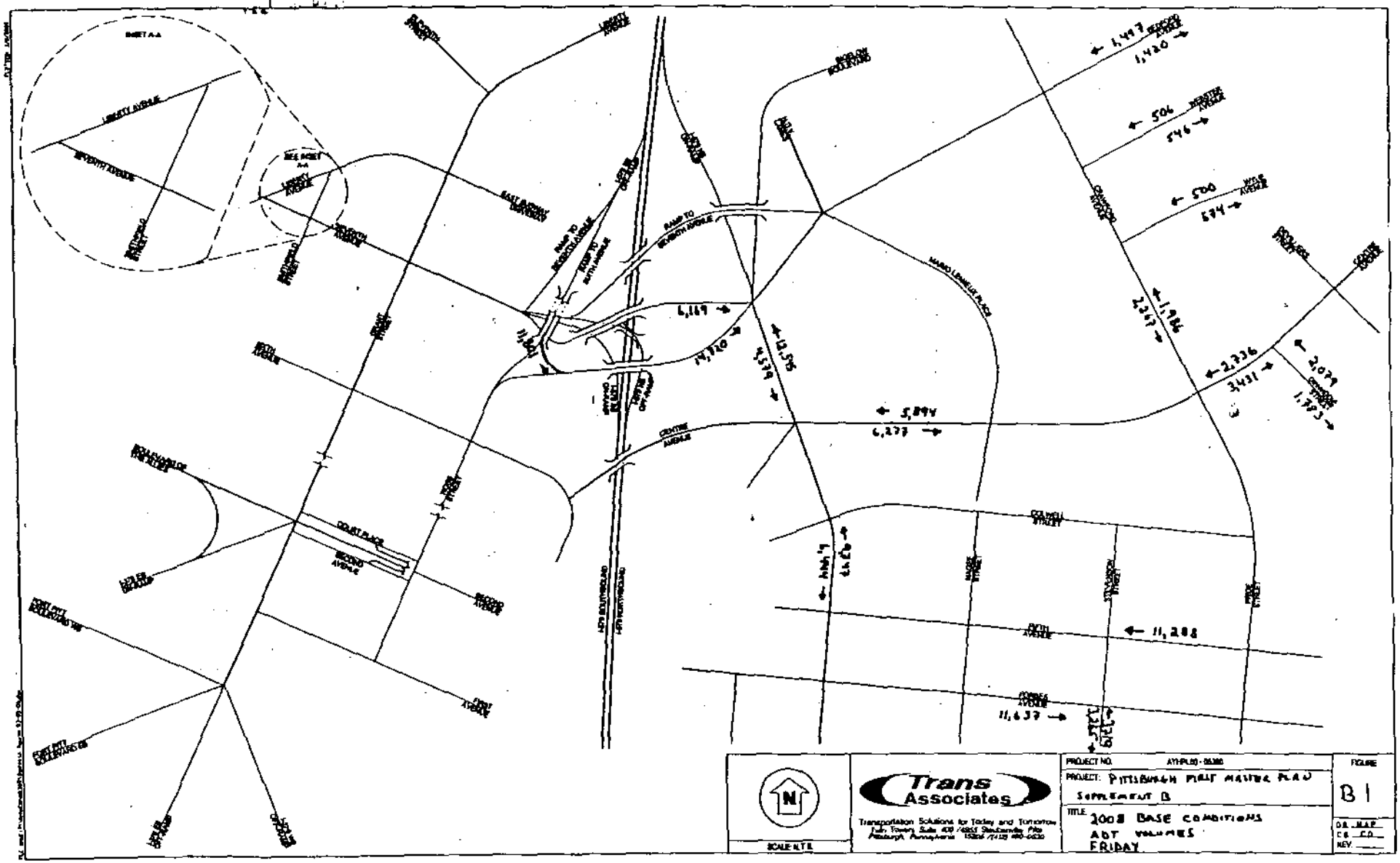
*Does not include any construction items beyond the roadway curb.

Source: Trans Associates. Obtained from Table 18 of the "Pittsburgh First Master Plan Traffic and Parking Study."

TABLE B8
PROGRAM OF TRAFFIC SIGNAL IMPROVEMENTS
OPINION OF PROBABLE COST
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

IMPROVEMENT	OPINION OF PROBABLE COST
PEDESTRIAN UPGRADES AT EXISTING TRAFFIC SIGNALS	$75,000.00
GRANT STREET/FIRST AVE TRAFFIC SIGNAL UPGRADE	$15,000.00
BEDFORD AVENUE/LEMIEUX PLACE/H.O.V. LANE SIGNAL REPLACEMENT	$200,000.00
CENTRE AVENUE/LEMIEUX PLACE SIGNAL REPLACEMENT	$150,000.00
CENTRE AVENUE/PARCEL B SITE DRIVEWAY SIGNAL REPLACEMENT	$175,000.00
CENTRE AVENUE/WASHINGTON PLACE SIGNAL REPLACMEMENT	$175,000.00
FIFTH AVENUE/MAGEE STREET/PARCEL B SITE DRIVEWAY SIGNAL REPLACEMENT	$150,000.00
FIFTH AVENUE/STEVENSON STREET/PARKING GARAGE DRIVEWAY SIGNAL REPLACEMENT	$150,000.00
FIFTH AVENUE/WASHINGTON PLACE/CHATHAM PLACE SIGNAL REPLACEMENT	$150,000.00
FORBES AVENUE/MAGEE STREET SIGNAL REPLACEMENT	$150,000.00
FORBES AVENUE/STEVENSON STREET SIGNAL REPLACEMENT	$150,000.00
FORBES AVENUE/PRIDE STREET SIGNAL REPLACEMENT	$150,000.00
EXTEND FIBER-OPTIC INTERCONNECT ALONG 5TH AVE FROM WASHINGTON PLACE TO PRIDE STREET	$30,000.00
EXTEND FIBER-OPTIC INTERCONNECT ALONG CENTRE AVE FROM WASHINGTON PLACE TO PRIDE STREET	$30,000.00
EXTEND FIBER-OPTIC INTERCONNECT ALONG FORBES AVE FROM CHATHAM PLACE TO PRIDE STREET	$50,000.00
EXTEND FIBER-OPTIC INTERCONNECT ALONG BEDFORD AVE FROM MARIO LEMIEUX PLACE TO CRAWFORD STREET	$20,000.00
6TH AVENUE/CENTRE AVENUE TRAFFIC SIGNAL UPGRADE	$50,000.00
6TH AVENUE/ROSS STREET TRAFFIC SIGNAL UPGRADE	$50,000.00
TOTAL SIGNAL IMPROVEMENTS	**$1,920,000.00**

Source: Analysis by Trans Associates. Obtained from Table 19 of the "Pittsburgh First Master Plan Traffic and Parking Study."



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SCALE: N.T.S.

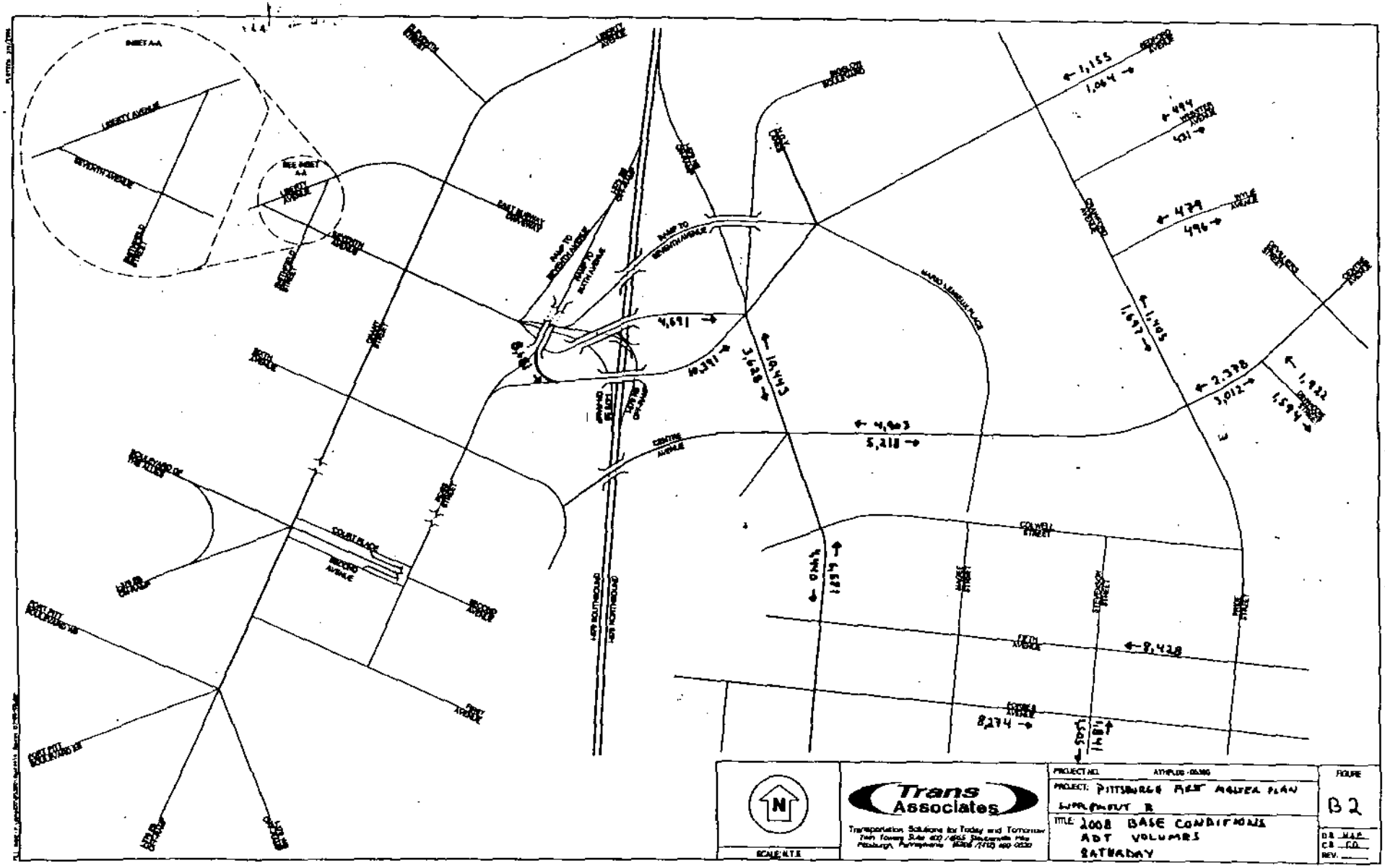
PROJECT NO. 97-PLBD-00380

PROJECT: PITTSBURGH MULTI MODAL PLAN
SUPPLEMENT B

TITLE: 2008 BASE CONDITIONS
ADT VOLUMES
FRIDAY

FIGURE B1

DR. MAP
CK. CD
REV.


LIBERTY AVENUE
BEYNON AVENUE
PENN AVENUE
BROOKS AVENUE
RAMP TO BEYNON AVENUE
RAMP TO BROOKS AVENUE
RAMP TO WOOD AVENUE
CENTRE AVENUE
COURT PLACE
WOOD AVENUE
RAILROAD ST.
HIGH STREET
COLWELL STREET
FIFTH AVENUE
FORBES AVENUE
HAYS STREET
EDGEWOOD STREET
NEVILLE STREET
SCHENLEY PLACE
DARRAH STREET
CRAFTON STREET
WILKINS AVENUE
HAYS WOODS DRIVE
EAST BUSTLETON DR.
WEST BUSTLETON DR.
HIGH SPEED BUS LANE
HIGH SPEED BUS LANE
1,155
1,044
494
501
479
496
1,697
1,495
2,328
3,012
1,922
1,594
4,963
5,218
4,691
10,391
3,648
10,443
4,551
8,428
8,274
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Transportation Solutions for Today and Tomorrow
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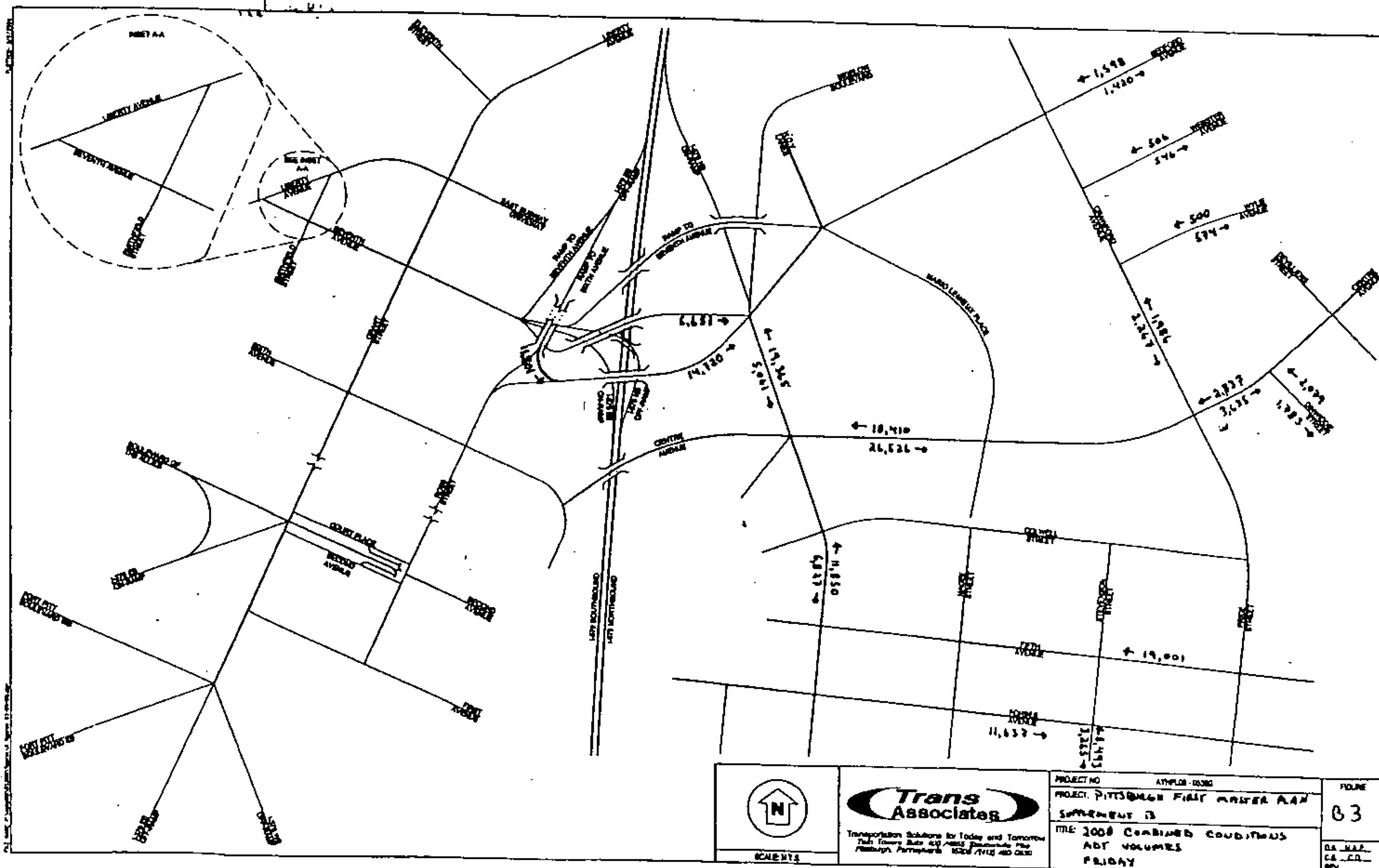
Pittsburgh, Pennsylvania 15222 / (412) 469-0330
SCALE: N.T.S.
PROJECT NO. 97PHLDS-06.00
PROJECT: PITTSBURGH REF MOBILITY PLAN
IMPROVEMENT B
TITLE: 2008 BASE CONDITIONS
ADT VOLUMES
SATURDAY
FIGURE
B2
DR. M.A.P.
CK. T.D.
REV.



PROJECT NO. ATYHPL08 - 05380

PROJECT: PITTSBURGH FIRST MASTER PLAN SUPPLEMENT 13

TITLE: 2008 COMBINED CONDITIONS ADT VOLUMES FRIDAY

FIGURE 63

DA. H.A.F.
CK. C.D.
REV.

SCALE: N.T.S.

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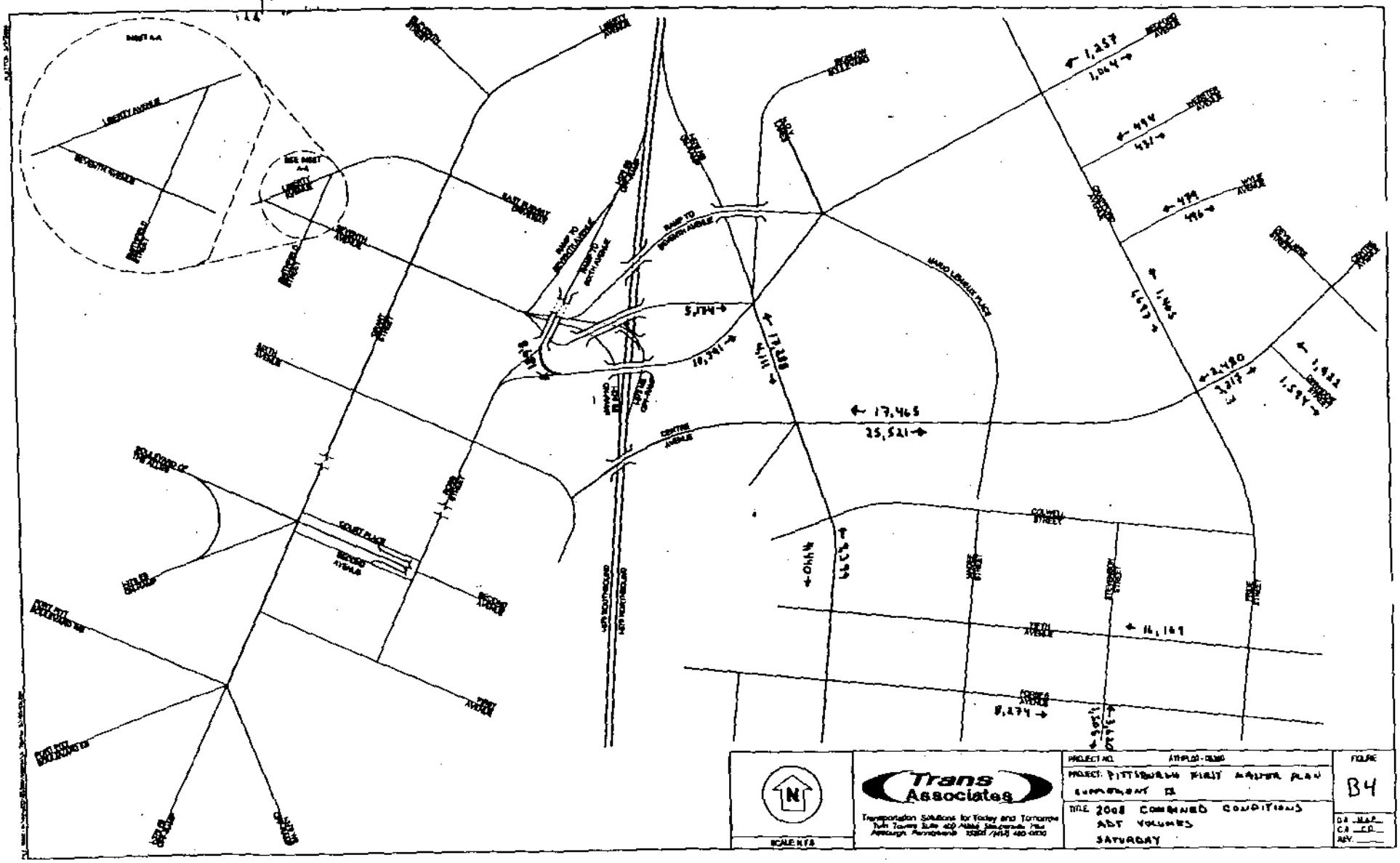
LIBERTY AVENUE
SEVENTH AVENUE
SEE INSET A-A
BOULEVARD OF THE ALLIES
FORBES AVENUE
FIFTH AVENUE
SMITHFIELD STREET
STANWIX STREET
WOOD STREET
MARKET STREET
PENN AVENUE
EAST BOULEVARD
RAMP TO BOULEVARD OF THE ALLIES
RAMP TO FORBES AVENUE
RAMP TO PENN AVENUE
RAMP TO SMITHFIELD STREET
HARRY LEMIEUX PLACE
CENTRE AVENUE
COURT PLACE
BEECHWOOD BOULEVARD
COLLEGE STREET
HOLLAND STREET
CRAIG STREET
COUNTY STREET
WOOD STREET
STANWIX STREET
FIFTH AVENUE
FORBES AVENUE
WILKINS AVENUE
HOWARD STREET
BEECHWOOD AVENUE
BEECHWOOD BOULEVARD
CRAIG STREET
HOLLAND STREET
SOUTH BOUND
NORTH BOUND
5,774
10,741
17,288
4,111
17,465
35,521
1,257
1,044
494
431
499
496
1,465
4,697
2,480
3,215
1,432
1,594
4,910
4,534
14,149
8,274
3,530
3,576
N
SCALE N.T.S.
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Transportation Solutions for Today and Tomorrow
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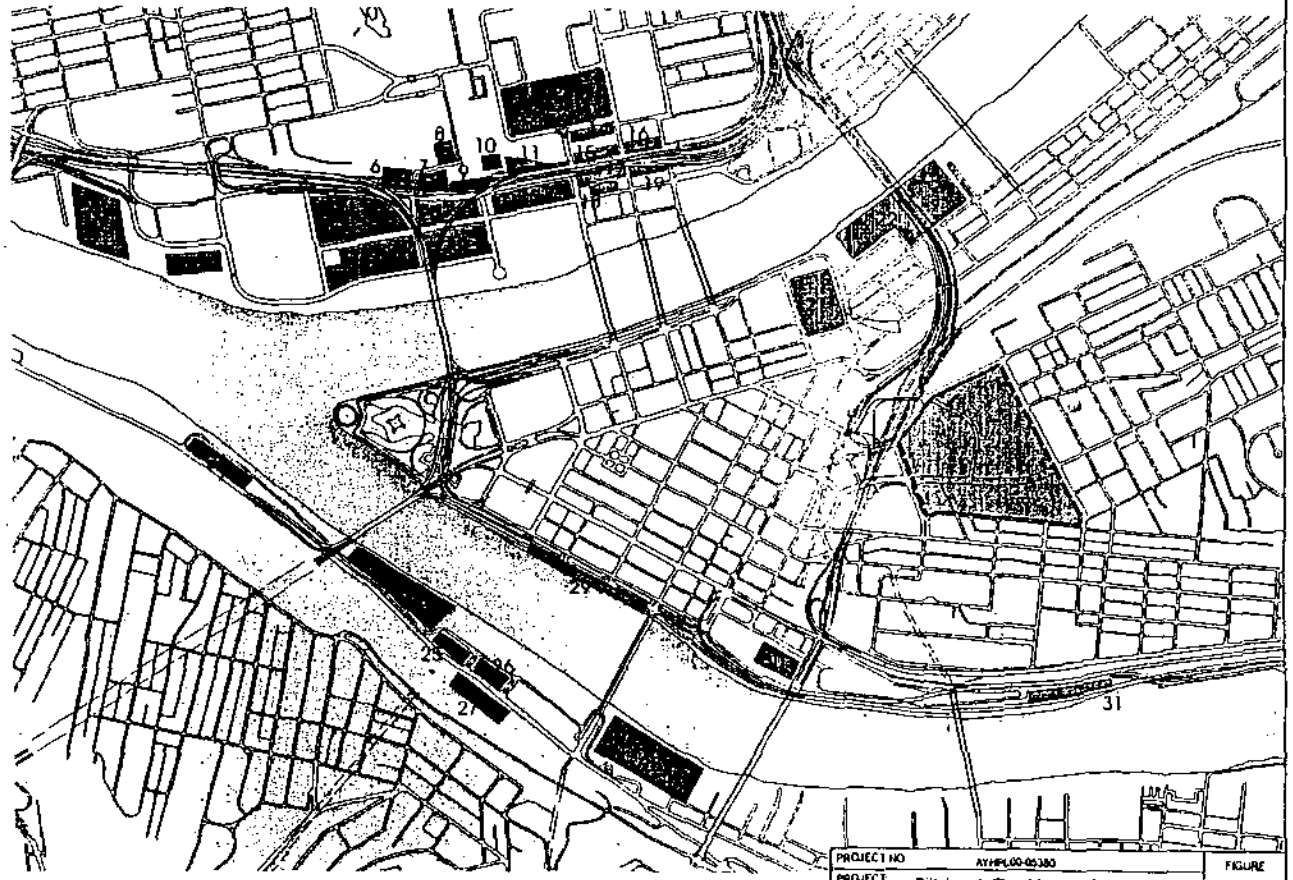
Pittsburgh, Pennsylvania 15222 (412) 480-0700
PROJECT NO. 97PPLCD-0380
PROJECT: PITTSBURGH FIRST MASTER PLAN
EMPLOYMENT IX
TITLE 2008 COMBINED CONDITIONS
ADT VOLUMES
SATURDAY
FIGURE
B4
DR. MAP
CK. CD
REV.

Available Fringe Parking

	Location Name	Available Spaces
1	Gateway Clipper Lot (Approx.)	154
2	Science Center	278
3	Gold Lot 1/1A	567
4	Gold Lot 2	1,046
5	Gold Lot 4	90
6	Red Lot 7A	98
7	Red Lot 7B	29
8	Red Lot Clark	11
9	Red Lot 7C	75
10	Red Lot Clark East	14
11	Red Lot 7D	208
12	Red Lot 8/8A	231
13	Allegheny Center Garage	1,000
14	Canal Street Lot	40
15	Blue Lot 7F	59
16	Blue Lot 7H	74
17	Blue Lot 10/7G	50
18	North Shore Garage	149
19	Blue Lot 7J	31
20	Red Lot 5	144
	Subtotal North Side	**4,345**
21	Convention Center Parking	187
22	Heinz History Center Lot	548
	Subtotal Strip District	**[illegible]**
23	Station Square Lot West	179
24	Amphitheatre Parking	180
25	Station Square Lot	82
26	Station Square Garage	469
27	HOV Lot	24
28	Station Square Lot East	317
	Subtotal South Shore	**1,251**
29	Mon Wharf	254
30	1st Avenue Garage	343
31	Greyhound Park & Ride Lot	2
	Subtotal Second Avenue	**599**
	TOTAL	**6,761**



Transportation
Tons Associates

Isle of Capri Casino, Pittsburgh
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information is subject to modification

PROJECT NO	AYHPL00-05380
PROJECT:	Pittsburgh First Master Plan Traffic and Parking Study
TITLE:	Available Fringe Parking
FIGURE	15

Game Day Parking Guide

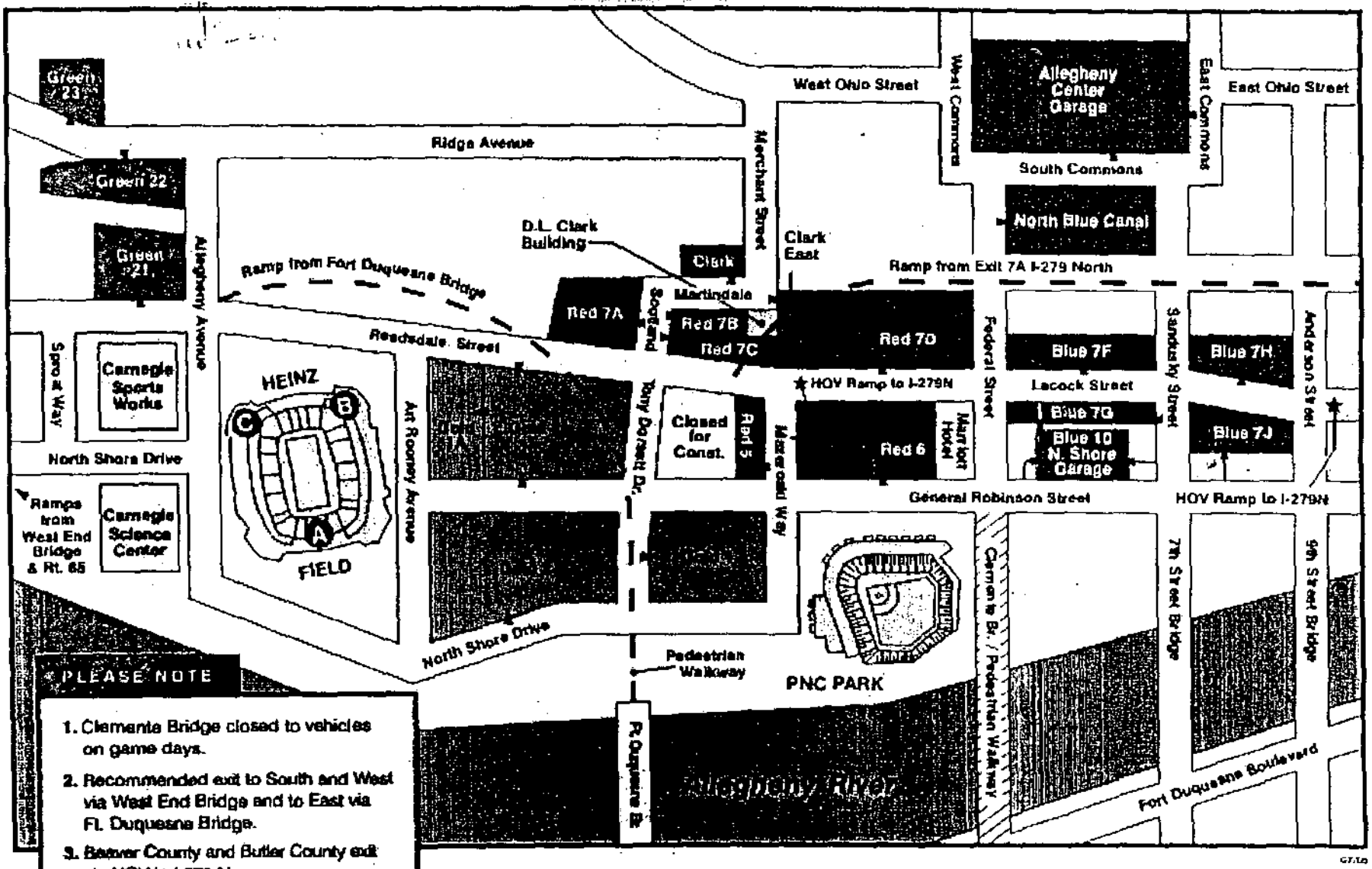
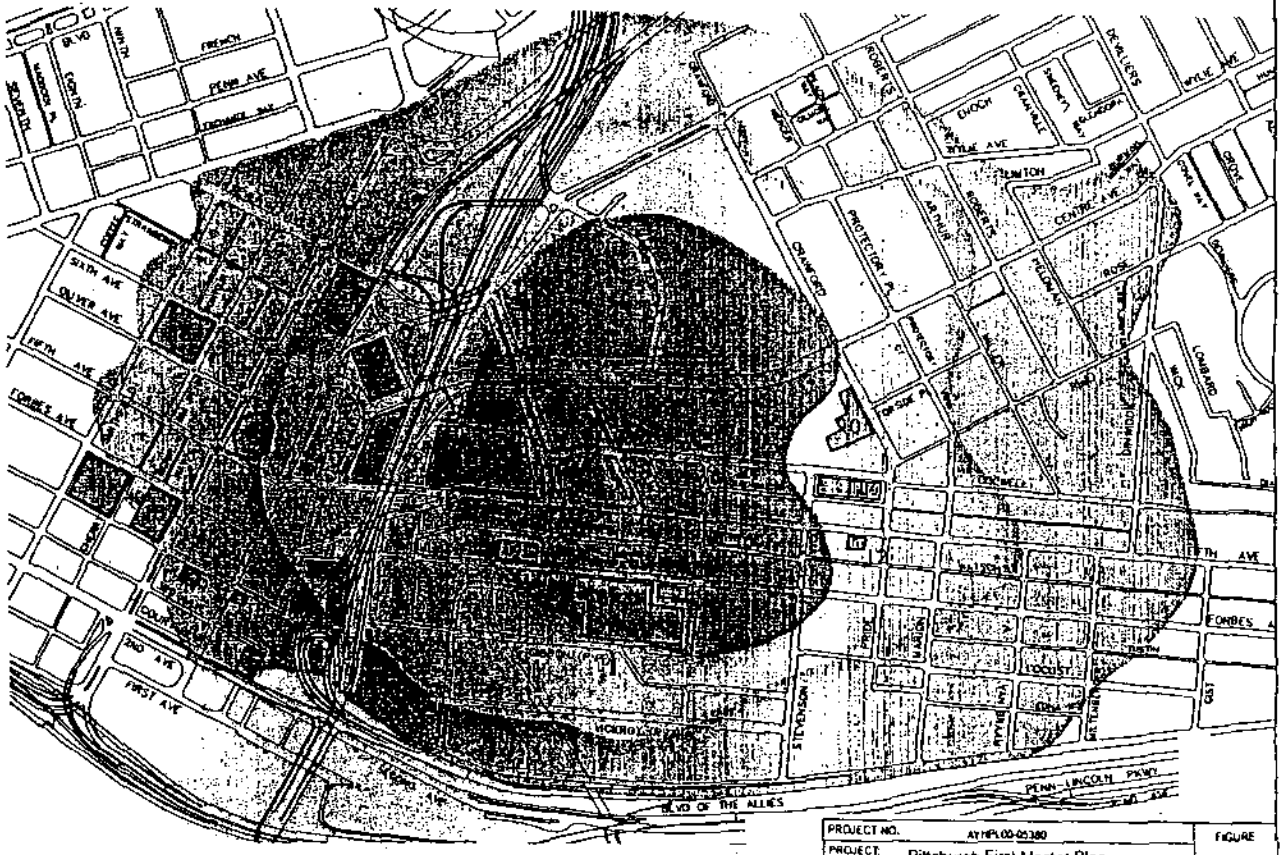


FIGURE 15A

SOURCE: www.alcoparking.com

Adjacent Event Parking

	Parking Area	Capacity – Number of Spaces
	0–5 MINUTE WALKING TIME	
1	Chatham/Marriott Garage	2,400
2	Fisher Lots	37
3	Forbes Avenue Garage	706
4	Locust Street Garage	1,681
5	Forbes Avenue Lot (Lot 5)	42
6	1314 Fifth Avenue Lot	80
	Subtotal	**4,946**
	5–10 MINUTE WALKING TIME	
7	Ramada/Athletic Club	170
8	Mellon Client Service Center	630
9	Manor Building	700
10	Center Washington Lot	149
11	Colwell & Stevenson Lot	90
12	1424 Fifth Avenue Lot	40
	Subtotal	**1,779**
	10–15 MINUTE WALKING TIME	
13	Mellon Square Garage	1,100
14	Kaufmann's Garage	634
15	Bakewell Corporation Lot	128
16	One Mellon Center Garage	220
17	Allegheny County Lot	72
18	Fourth & Ross Streets Lot	30
19	Zucia Lot	116+35 valet
20	USX Garage	675
	Subtotal	**3,118**
	TOTAL	**9,837**



0–5 Minute Walking Distance
5–10 Minute Walking Distance
10–15 Minute Walking Distance

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PROJECT NO. AYHPL00-05380	FIGURE 16
PROJECT: Pittsburgh First Master Plan Traffic and Parking Study	
TITLE: Event Parking within Walking Distance	

SHORT REPORT

General Information		Site Information	
Analyst	M. Southern	Intersection	BEDFORD AVE & LEMIEUX PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY [illegible]	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0	0	2	0	0	1	0			
Lane Group		LTR			LTR			LTR				
Volume (vph)	27	63	2	3	59	7	2	1	1			
% Heavy Vehicles	2	2	2	0	0	0	0	0	0			
PHF	0.91	0.91	0.91	0.74	0.74	0.74	0.50	0.50	0.50			
Pretimed/Actuated (P/A)	A	A	A	A	A	A	A	A	A			
Startup Lost Time		2.0			2.0			2.0				
Extension of Effective Green		2.0			2.0			2.0				
Arrival Type		3			3			3				
Unit Extension		3.0			3.0			3.0				
Ped/Bike/RTOR Volume	75	0	0	75	0	0	75	0	0			
Lane Width		12.0			12.0			12.0				
Parking/Grade/Parking	N	10	N	N	-6	N	N	2	Y			
Parking/Hour									10			
Bus Stops/Hour		0			0			0				
Minimum Pedestrian Time		15.0			16.0			12.3				

Phasing	EB Only	WB Only	03	04	NB Only	06	07	08
Timing	G = 20.0	G = 10.0	G =	G =	G = 8.5	G =	G =	G =
	Y = 5.5	Y = 5.5	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 55.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		101			93			8				
Lane Group Capacity		1081			588			202				
v/c Ratio		0.09			0.16			0.04				
Green Ratio		0.36			0.18			0.15				
Uniform Delay d_1		11.5			19.0			19.8				
Delay Factor k		0.11			0.11			0.11				
Incremental Delay d_2		0.0			0.1			0.1				
PF Factor		1.000			1.000			1.000				
Control Delay		11.6			19.1			19.9				
Lane Group LOS		B			B			B				
Approach Delay	11.6			19.1			19.9					
Approach LOS	B			B			B					
Intersection Delay	15.4			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	M. Southern	Intersection	CENTRE AVE & CRAWFORD ST
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	12/6/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY EVENING	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	1	1	1	1	0	0	1	0	0	1	0
Lane Group		LT	R	L	TR			LTR			LTR	
Volume (vph)	13	64	44	14	61	11	19	38	33	5	16	21
% Heavy Vehicles	3	3	3	6	6	6	2	2	2	5	5	5
PHF	0.90	0.90	0.90	0.79	0.79	0.79	0.73	0.73	0.73	0.64	0.64	0.64
Pretimed/Actuated (P/A)	P	P	P	P	P	P	P	P	P	P	P	P
Startup Lost Time		2.0	2.0	2.0	2.0			2.0			2.0	
Extension of Effective Green		2.0	2.0	2.0	2.0			2.0			2.0	
Arrival Type		3	3	3	3			3			3	
Unit Extension		3.0	3.0	3.0	3.0			3.0			3.0	
Ped/Bike/RTOR Volume	50	0	0	50	0	0	50	0	0	50	0	2
Lane Width		15.0	16.0	11.0	11.0			14.0			13.0	
Parking/Grade/Parking	N	-4	Y	N	8	Y	N	5	N	N	-6	N
Parking/Hour			10			10						
Bus Stops/Hour		0	0	0	0			0			0	
Minimum Pedestrian Time		22.7			13.5			14.7			14.7	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 30.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 70.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		85	49	18	91			123			63	
Lane Group Capacity		763	560	427	528			651			654	
v/c Ratio		0.11	0.09	0.04	0.17			0.19			0.10	
Green Ratio		0.43	0.43	0.43	0.43			0.43			0.43	
Uniform Delay d_1		12.0	11.9	11.6	12.3			12.4			11.9	
Delay Factor k		0.50	0.50	0.50	0.50			0.50			0.50	
Incremental Delay d_2		0.3	0.3	0.2	0.7			0.6			0.3	
PF Factor		1.000	1.000	1.000	1.000			1.000			1.000	
Control Delay		12.3	12.2	11.8	13.0			13.1			12.2	
Lane Group LOS		B	B	B	B			B			B	
Approach Delay	12.3			12.8			13.1			12.2		
Approach LOS	B			B			B			B		
Intersection Delay	12.6			Intersection LOS						B		

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SHORT REPORT

General Information		Site Information	
Analyst	CKR	Intersection	CENTRE AVE & LEMIEUX PL
Agency or Co.	TRANS ASSOCIATES	Area Type	CBD or Similar
Date Performed	11/21/2005	Jurisdiction	CITY OF PITTSBURGH
Time Period	FRIDAY CRUNCH	Analysis Year	2008 BASE CONDITION

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of Lanes	0	2	0	0	2	0				0	1	0
Lane Group		LTR			LTR						LTR	
Volume (vph)	1	124	1	1	105	1				1	1	6
% Heavy Vehicles	4	4	4	5	5	5				0	0	0
PHF	0.88	0.88	0.88	0.81	0.81	0.81				0.58	0.58	0.58
Pretimed/Actuated (P/A)	P	P	P	P	P	P				P	P	P
Startup Lost Time		2.0			2.0						2.0	
Extension of Effective Green		2.0			2.0						2.0	
Arrival Type		3			3						3	
Unit Extension		3.0			3.0						3.0	
Ped/Bike/RTOR Volume	6	0	0	6	0	0				0	0	0
Lane Width		11.0			11.0						12.0	
Parking/Grade/Parking	N	4	Y	N	-2	Y				N	-5	Y
Parking/Hour			20			20						20
Bus Stops/Hour		0			0						0	
Minimum Pedestrian Time		3.2			13.2						21.2	

Phasing	EW Perm	02	03	04	SB Only	06	07	08
Timing	G = 38.0	G =	G =	G =	G = 21.0	G =	G =	G =
	Y = 5.5	Y =	Y =	Y =	Y = 5.5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 70.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adjusted Flow Rate		143			132						14	
Lane Group Capacity		1381			1410						377	
v/c Ratio		0.10			0.09						0.04	
Green Ratio		0.54			0.54						0.30	
Uniform Delay d_1		7.7			7.7						17.3	
Delay Factor k		0.50			0.50						0.50	
Incremental Delay d_2		0.2			0.1						0.2	
PF Factor		1.000			1.000						1.000	
Control Delay		7.9			7.8						17.5	
Lane Group LOS		A			A						B	
Approach Delay		7.9			7.8						17.5	
Approach LOS		A			A						B	
Intersection Delay		8.3			Intersection LOS						A	

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TABLE B3
ROADWAY ADT VOLUME COMPARISON
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

LOCATION	DIRECTION	NUMBER OF TRIPS					
		2008 BASE CONDITIONS[1]		MASTER PLAN TRIPS[2]		2008 COMBINED CONDITIONS	
		FRIDAY	SATURDAY	FRIDAY	SATURDAY	FRIDAY	SATURDAY
Washington Place (From Centre Avenue to Bedford Avenue)	Northbound	12,545	10,443	6,820	6,845	19,365	17,288
Washington Place (From Centre Avenue to Bedford Avenue)	Southbound	4,579	3,628	482	483	5,061	4,111
Bedford Avenue (From Chatham to Washington Place)	Eastbound	14,720	10,391	Neg.	Neg.	14,720	10,391
Seventh Avenue Ramp (From Bigelow Blvd. to Washington Place)	Eastbound	6,169	4,691	482	483	6,651	5,174
Centre Avenue (From Washington Place to Mario Lemieux Place)	Eastbound	6,277	5,218	20,249	20,303	26,526	25,521
Centre Avenue (From Washington Place to Mario Lemieux Place)	Westbound	5,894	4,903	12,516	12,562	18,410	17,465
Crawford Street (From Centre Avenue to Wylie Avenue)	Northbound	1,986	1,405	Neg.	Neg.	1,986	1,405
Crawford Street (From Centre Avenue to Wylie Avenue)	Southbound	2,267	1,697	Neg.	Neg.	2,267	1,697
Veterans Bridge Ramp (To Washington Place)	Eastbound	11,801	8,681	Neg.	Neg.	11,801	8,681
Bedford Avenue (From Arthur Street to Roberts Street)	Eastbound	1,420	1,064	Neg.	Neg.	1,420	1,064
Bedford Avenue (From Arthur Street to Roberts Street)	Westbound	1,497	1,155	101	102	1,598	1,257

TABLE B3 (con't)
ROADWAY ADT VOLUME COMPARISON
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

LOCATION	DIRECTION	NUMBER OF TRIPS					
		2008 BASE CONDITIONS[1]		MASTER PLAN TRIPS[2]		2008 COMBINED CONDITIONS	
		FRIDAY	SATURDAY	FRIDAY	SATURDAY	FRIDAY	SATURDAY
Webster Avenue (From Arthur Street to Roberts Street)	Eastbound	546	431	Neg.	Neg.	546	431
Webster Avenue (From Arthur Street to Roberts Street)	Westbound	506	494	Neg.	Neg.	506	494
Wylie Avenue (From Arthur Street to Roberts Street)	Eastbound	574	496	Neg.	Neg.	574	496
Wylie Avenue (From Arthur Street to Roberts Street)	Westbound	500	479	Neg.	Neg.	500	479
Centre Avenue (From Arthur Street to Roberts Street)	Eastbound	3,431	3,012	204	205	3,635	3,217
Centre Avenue (From Arthur Street to Roberts Street)	Westbound	2,736	2,378	101	102	2,837	2,480
Dinwiddie Street (From Centre Avenue to Rose Street)	Northbound	2,079	1,922	Neg.	Neg.	2,079	1,922
Dinwiddie Street (From Centre Avenue to Rose Street)	Southbound	1,783	1,594	Neg.	Neg.	1,783	1,594
Forbes Avenue (From Magee Street to Stevenson Street)	Eastbound	11,637	8,274	Neg.	Neg.	11,637	8,274
Fifth Avenue (From Stevenson Street to Pride Street)	Westbound	11,288	8,428	7,713	7,741	19,001	16,169
Washington Place (From Fifth Avenue to Colwell Street)	Northbound	9,747	6,581	2,103	2,818	11,850	9,399
Washington Place (From Fifth Avenue to Colwell Street)	Southbound	6,444	4,440	383	Neg.	6,827	4,440

TABLE B3 (con't)
ROADWAY ADT VOLUME COMPARISON
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

LOCATION	DIRECTION	NUMBER OF TRIPS					
		2008 BASE CONDITIONS[1]		MASTER PLAN TRIPS[2]		2008 COMBINED CONDITIONS	
		FRIDAY	SATURDAY	FRIDAY	SATURDAY	FRIDAY	SATURDAY
Stevenson Street (From Forbes Avenue to Locust Street)	Northbound	3,719	1,841	1,774	1,779	5,493	3,620
Stevenson Street (From Forbes Avenue to Locust Street)	Southbound	3,265	1,505	Neg.	Neg.	3,265	1,505

(1) 2008 Base Conditions ADT volumes obtained from traffic counts performed by Trans Associates between October 31, 2005 and November 21, 2005. These counts were then grown by a 0.5% linear growth rate according to the growth rate supplied by the Southwestern Pennsylvania Commission. Friday and Saturday traffic volumes were based on one day of counts, not an average of multiple days.

(2) Master Plan ADT volumes were based on ITE average daily traffic volumes and entering/exiting trip distribution percentages contained in the Master Plan report. For all master plan uses excluding the casino and hotel use, the average daily traffic volumes found in Table A1 were split in half to represent entering and exiting traffic volumes.

Source: Analysis by Trans Associates.

TABLE B4
TRANSPORTATION MODAL SPLIT
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

MODE OF TRANSPORTATION	PERCENTAGE OF TRIPS	
	FRIDAY CASINO PEAK	SATURDAY CASINO PEAK
Pedestrians[1]	2%	2%
Taxis[2]	5%	5%
Limousines[3]	<1%	<1%
Public Transit[4]	12%	12%
Charter Buses[5]	<1%	<1%
Private Automobiles[6]	80%	80%
TOTAL	**100%**	**100%**

NOTE: For analysis purposes, Trans Associates assumed 100% private automobile trips. This will represent the most conservative analysis.

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(1) Percentage of pedestrian trips is assumed to be two (2) percent.
(2) Percentage of taxi trips is assumed to be five (5) percent.
(3) Limousine usage is considered to be negligible and is therefore equal to less than one (1) percent of the total daily trips.
(4) Public transit includes both the Port Authority of Allegheny County's bus service and "T" light rail transit service. The percentage was based on commuter transit data for both the City of Pittsburgh and Allegheny County from the U.S. Census Bureau's 2000 Census.
(5) Charter buses are assumed to come on average one to two times per day. This accounts for less than one (1) percent of the total daily trips.
(6) The remaining trips are to consist of private automobiles, which is 80% (100%-20%) of the total daily trips.

Source: Summary by Trans Associates.

TABLE B4
LEVELS OF SERVICE SUMMARY
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

INTERSECTION/APPROACH/ MOVEMENT	LEVELS OF SERVICE (Delay in seconds) [1]			
	FRIDAY CASINO PEAK HOUR		SATURDAY CASINO PEAK HOUR	
	2008 BASE	2008 COMBINED	2008 BASE	2008 COMBINED
Washington Place and Bedford Avenue/Bigelow Boulevard				
Eastbound Bigelow Boulevard				
• Left Turns	E/61.2	C/34.5	C/30.6	C/32.9
• Left Turns, Throughs, Right Turns	C/24.6	C/30.9	C/23.5	C/30.3
• Right Turns	C/25.4	C/25.8	C/24.0	C/28.2
• Approach	D/49.7	C/31.8	C/28.2	C/31.2
Northbound Washington Place				
• Throughs	C/22.1	C/31.3	C/22.1	C/33.9
• Right Turns	C/20.1	B/17.8	C/20.4	B/16.9
• Approach	C/21.8	C/30.3	C/21.8	C/32.5
Southbound Seventh Avenue Ramp				
• Left Turns	C/27.7	C/34.6	C/25.3	C/26.2
• Left Turns, Throughs	C/28.4	C/32.1	C/26.1	C/29.0
• Right Turns	--	C/31.2	--	C/28.2
• Approach	C/28.2	C/33.0	C/25.9	C/28.1
OVERALL INTERSECTION	C/34.1	C/31.2	C/24.6	C/31.7
Bedford Avenue and Mario Lemieux Place/HOV Ramp				
Eastbound Bedford Avenue				
• Left Turns	--	C/34.2	--	B/19.7
• Left Turns, Throughs, Right Turns	--	C/34.2	--	C/20.4
• Approach	B/11.6	C/34.2	B/12.2	C/20.3
Westbound Bedford Avenue				
• Left Turns	--	C/33.2	--	C/26.3
• Throughs, Right Turns	--	C/34.6	--	C/28.7
• Approach	B/19.1	C/34.3	B/19.2	C/28.4
Northbound Mario Lemieux Place				
• Left Turns	--	C/34.6	--	C/22.3
• Left Turns, Throughs, Right Turns	--	B/14.9	--	C/22.3
• Approach	B/19.9	C/34.6	C/20.2	C/22.3
Southbound HOV Ramp				
Left Turns, Throughs	--	--	--	--
Right Turns	--	--	--	--
Approach	--	--	--	--
OVERALL INTERSECTION	B/15.4	C/34.5	B/14.7	C/22.5

TABLE B5 (con't)
LEVELS OF SERVICE SUMMARY
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

INTERSECTION/APPROACH/ MOVEMENT	LEVELS OF SERVICE (Delay in seconds) [1]			
	FRIDAY CASINO PEAK HOUR		SATURDAY CASINO PEAK HOUR	
	2008 BASE	2008 COMBINED	2008 BASE	2008 COMBINED
Centre Avenue and Washington Place				
Eastbound Centre Avenue				
• Approach	C/22.8	F/132.3	C/22.2	D/52.3
Westbound Centre Avenue				
• Left Turn	--	B/19.3	--	C/21.2
• Left Turns, Throughs	C/21.3	--	C/22.2	--
• Right Turns	C/22.2	--	C/24.3	--
• Throughs, Right Turns	--	C/21.2		C/20.1
• Approach	C/21.7	C/21.2	C/23.1	C/20.1
Northbound Washington Place				
• Approach	C/22.7	F/140.8	C/22.4	D/44.9
Northeast bound Crosstown Boulevard Off Ramp				
• Approach	C/25.4	E/58.5	C/25.3	E/62.5
Southbound Washington Place				
• Defacto Left Turns	--	F/209.7	--	E/69.7
• Left Turns, Throughs	C/20.9	D/41.4	C/20.7	C/33.8
• Right Turns	B/19.8	D/39.5	B/19.9	C/32.7
• Approach	C/20.8	F/126.9	C/20.6	D/51.9
OVERALL INTERSECTION	C/22.3	F/98.3	C/22.4	D/42.2
Centre Avenue and Crawford Street				
Eastbound Centre Avenue				
• Left Turns, Throughs	B/12.3	B/10.8	B/12.9	A/7.7
• Right Turns	B/12.2	C/32.1	B/12.6	C/32.6
• Approach	B/12.3	C/28.9	B/12.8	C/28.5
Westbound Centre Avenue				
• Left Turns	B/11.8	B/10.3	B/11.7	A/7.0
• Throughs, Right Turns	B/13.0	B/11.5	B/12.8	A/7.6
• Approach	B/12.8	B/11.3	B/12.7	A/7.5
Northbound Crawford Street				
• Approach	B/13.1	B/17.8	B/13.4	C/28.2
Southbound Crawford Street Place				
Approach	B/12.2	B/16.7	B/12.8	C/33.4
OVERALL INTERSECTION	B/12.6	C/24.6	B/12.9	C/27.7

TABLE B5 (con't)
LEVELS OF SERVICE SUMMARY
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

INTERSECTION/APPROACH/ MOVEMENT	LEVELS OF SERVICE (Delay in seconds) [1]			
	FRIDAY CASINO PEAK HOUR		SATURDAY CASINO PEAK HOUR	
	2008 BASE	2008 COMBINED	2008 BASE	2008 COMBINED
Fifth Avenue and Washington Place/Chatham Square				
Westbound Fifth Avenue				
• Left Turns, Throughs	--	B/19.8	--	B/19.0
• Right Turns	--	B/17.9	--	B/12.8
• Approach	B/12.7	B/19.4	B/13.9	B/17.8
Northbound Chatham Square				
• Left Turns	B/16.1	B/16.1	B/16.4	C/21.5
• Throughs	C/23.1	C/24.5	B/18.9	C/26.2
• Approach	C/22.7	C/24.1	B/18.5	C/25.6
Southbound Washington Place				
• Throughs	B/16.6	B/16.6	B/17.0	C/22.4
Right Turns	B/16.3	B/16.3	B/17.1	C/22.4
Approach	B/16.4	B/16.4	B/17.1	C/22.4
OVERALL INTERSECTION	B/17.7	C/20.2	B/15.8	B/19.2
Centre Avenue and Mario Lemieux Place				
Eastbound Centre Avenue				
• Left Turns	--	A/4.6	--	A/6.8
• Throughs	--	C/26.6	--	B/12.0
• Approach	A/7.9	C/26.6	A/8.0	B/11.9
Westbound Centre Avenue				
• Approach	A/7.8	C/33.9	A/8.3	C/32.0
Southbound Mario Lemieux Place				
•	--	D/35.8	--	C/33.0
•	--	B/14.2	--	C/23.0
Approach	B/17.5	C/30.2	B/18.0	C/28.3
OVERALL INTERSECTION	A/8.3	C/29.2	A/8.9	C/21.4
Centre Avenue and Site Exit				
Eastbound Centre Avenue				
• Approach	--	C/23.6	--	C/29.9
Westbound Centre Avenue				
• Approach	--	C/23.2	--	C/31.4
Southbound Site Exit				
• Left Turns	--	B/14.6	--	B/18.0
• Left Turns, Right Turns	--	C/34.8	--	B/19.2
Approach	--	C/26.1	--	B/18.6
OVERALL INTERSECTION	--	C/25.7	--	C/20.9

(1) Level of Service determined through the use of the methodologies presented in the "2000 Highway Capacity Manual" (HCM) published by the Transportation Research Board (TRB).

Source: Analysis by Trans Associates.

TABLE B6
STUDY AREA ROADWAY AND SIGNAL IMPROVEMENTS
Pittsburgh First Master Plan Supplement B Casino Only
Traffic and Parking Study
City of Pittsburgh, Allegheny County, Pennsylvania

INTERSECTION	IMPROVEMENT
Centre Avenue – Washington Place to Crawford Street	• Reconstruct roadway, sidewalks and crosswalks to CBD standards. • Provide two through lanes in each direction, with additional lanes as noted for individual intersections. • Reconstruct median on roadway, with breaks at Lemieux Place and casino garage exit.
Washington Place – Centre Avenue to Fifth Avenue	• Reconstruct roadway, sidewalks and crosswalks to CBD standards. • Provide three through lanes in each direction, with additional lanes as noted for individual intersections. • Reconstruct median on roadway, with break at Chatham Center driveway.
Centre Avenue/Casino garage exit	• Signalize new intersection based upon CBD standards. • Construct driveway to provide one exclusive left turn lane and one shared left/right turn lane.
Centre Avenue/Casino garage entrance	• Construct right turn lane into site driveway in addition to two through lanes.
Fifth Avenue & Magee Street/ Site Driveway	• Signalize driveway approach. • Upgrade traffic signal to CBD standards
Fifth Avenue & Stevenson Street/Loading Dock Driveway	• Signalize driveway approach. • Upgrade traffic signal to CBD standards.
Grant Street & First Avenue	• Add northbound right turn overlap phase.
Centre Avenue & Washington Place	• Prohibit left turns from eastbound Centre Avenue. • Add westbound advance phase. • Re-stripe eastbound approach to include a shared left/through and shared through/right lanes. • Re-stripe westbound approach to include an exclusive left turn lane, through lane and shared through/right lane. • Upgrade traffic signal equipment to CBD standards. • Install detection equipment on all approaches to permit fully-actuated operation.
Bedford Avenue & Crawford Avenue	• Re-stripe eastbound approach to include a shared left/through lane and exclusive right turn lane.
Bedford Avenue & Lemieux Place/HOV Ramp	• Upgrade traffic signal to CBD standards. • Construct northbound Lemieux Place approach as one exclusive left turn lane and one shared left/through/right turn lane.
Centre Avenue & Lemieux Place	• Construct eastbound left turn lane on Centre Avenue in addition to the two through lanes. • Construct southbound approach as one left turn and one right turn lane. • Upgrade existing traffic signal to CBD standards. • Add eastbound advance phase. • Add southbound right turn overlap phase. • Install detection equipment on all approaches to permit actuated operation.