

Summary of Findings

The analysis of the three casino proposals by the Department of City Planning investigated six evaluation categories: operator performance, location suitability, site plan compatibility, building design quality, socioeconomic impacts, and accessibility. The categories were evaluated using criteria. Each proposal was evaluated and rated in accordance to the degree to which they addressed the criteria. Table 7 below list the overall scores for each applicant and evaluation category. A summary of the overall evaluations and findings is also provided.

Table 7: Summary of Overall Scores

Categories	Harrah's Casino	Isle of Capri	Majestic Star
Evaluation Categories	Overall Scores		
Location	67.5	50.1	52.9
Operators	94.5	61.0	44.0
Site Planning	55.9	39.5	47.9
Building Design	45.5	44.6	43.8
Socioeconomic	76.5	65.0	43.5
Transportation	48.0	56.5	42.0
Totals (out of 600 points)	387.9	316.7	274.1

- **Location Suitability: Station Square**

The Station Square location offers the best opportunity for a casino to be integrated into an existing regional tourist attraction and entertainment district without adversely impacting a nearby community. The North Shore location is adjacent to existing regional sports and cultural venues. These uses are not compatible with a casino operation. While development on the Mellon Arena site is desirable for spurring economic development in the Lower Hill district, the casino location across the street is not suitable given its close proximity to the Uptown and Lower Hill residential communities. There is no evidence (reported) that casinos serve as catalysts for the revitalization of lower-income communities.

- **Operator Performance: Harrah's Casino**

Harrah's is in the strongest financial position of the three applicants and has the most experience operating a facility of the size and quality proposed for Pittsburgh. The other two applicants do not operate any casinos of the caliber they are proposing and have a lower bond rating.

- **Site Plan and Design Analysis**

- *Site Plan Compatibility: Harrah's Casino*

The Harrah's proposal received the highest score and is best integrated with the adjacent amenities and services with added public spaces. The Majestic Star's proposal incorporates a riverfront trail and amphitheater but is an isolated and self contained facility. The Isle of Capri's plan would demolish existing buildings and does not integrate itself with the adjacent neighborhood. While the

master plan proposes a multitude of additional developments, there is neither commitment nor site control and the developments would be market driven.

- ***Building Design: Tie - Harrah's Casino, Isle of Capri and Majestic Star***

All three applicants submitted comparable designs receiving virtually equal scores. However, the Isle of Capri design lacked contextual considerations and the Harrah's proposal lacked an integration of its building facades with existing adjacent spaces. In addition, Isle of Capri plans their casino as their flagship casino but has no comparables. While the riverfront façade of the proposed design by Majestic Star integrates well with riverfront, the other facades are blank and undesirable. Also, the Majestic Star has no comparables in other cities to what it is proposing in Pittsburgh. Harrah's, on the other hand, has shown a history of delivering quality designed and constructed casinos and has the financial capacity to deliver.

- **Socioeconomic Impact: Harrah's Casino**

Although socioeconomic impacts were difficult to measure, the Harrah's proposal received the highest score. Harrah's ability to attract gamers from outside and act as a destination casino were important considerations in their high score – they are the most likely of the three operators to have the highest revenue and create the highest number of jobs. Integration into an existing entertainment district also makes it less likely that they would compete with existing businesses.

- **Accessibility: Isle of Capri Casino**

While all three sites have good regional access, the Isle of Capri's Uptown site has the overall best access given related street improvements proposed by Isle of Capri. It is the easiest site to reach by car from the regional highway system and by foot from downtown and has good transit access. Although the Harrah's site has good transit access, automobile access is limited by the capacity of Carson Street and pedestrian access limited by its isolated location. The North Shore site has limited transit and pedestrian access.

These findings are intended to raise awareness of all factors that should be considered in the deliberations of the benefits and impacts of the three casino development proposals.

References

Harrah's Entertainment:

- o "City of Pittsburgh Department of City Planning: Casino Proposal Data Request" (February 18, 2006).
- o "Harrah's Station Square Casino: Transportation Analysis, Engineering Analysis" prepared by DKS Associates and GAI Consultants (December, 2005).

Isle of Capri Casino:

- o "Response to Data Request", IOC Inc. (February 21, 2006).
- o "Pittsburgh First Master Plan Traffic and Parking Study" (with three technical appendices), prepared by Trans Associates for Isle of Capri, Inc. (December 13, 2005).
- o "Local Impact Report of IOC Pittsburgh, Inc.", IOC Inc. (December 21, 2005).

PITG Gaming, LLC (Majestic Star Casinos):

- o "Local Impact Report", PITG Gaming, LLC (December 28, 2006) .
- o "Executive Summary: City of Pittsburgh Casino Project" (December 28, 2006).

Philadelphia Gaming Advisory Task Force: "Final Report - Philadelphia Gaming Advisory Task Force" (October 27, 2005).

Kaikai, Sidney: "Transportation and Parking Analysis, A Comparative Evaluation of Three Casino Gaming Sites in Pittsburgh." Department of City Planning. (March 17, 2006).

Additional information was obtained from the

- o operator presentations at the April 18, 2006 public hearing before the Pennsylvania Gaming Control Board,
- o casino development team meetings,
- o review of industry publications,
- o internet research, and
- o phone interviews.

These additional sources are referenced in footnotes throughout the report.

Appendices

Appendix A. Supplementary Tables

Table A1: Location Analysis Criteria and Scores

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Appendix B. Temporary Casino

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Appendix A. Supplementary Tables

Table A1: Location Analysis Criteria and Scores

	Supporting Questions		Harrah's		Isle of Capri	
Site Suitability Criteria						
Visibility	Is the location visually prominent from or sensitive?	2.5	Located on the riverfront and visible from downtown, North shore and Mt. Washington. Development could negatively impact views.	4	Not visible from most view corridors in the city.	2
	Is the location visible from major freeways and highways for approaching visitors?	2.5	Visible from eastbound and southbound freeways.	2	Not prominently visible from most freeways and highways.	3.5
	Average	2.5		3.0		2.5
Physical Access and Impacts	Is the location readily accessible from freeways and highways?	3	Yes.	4	Yes.	4
	Does the location have good local roadway access?	2	Adjacent roadway system has limited capacity.	3.5	Yes. There could be traffic and parking spillover into adjacent communities.	3
	Is the location pedestrian, bike and transit friendly?	4	Yes. Transit, pedestrians, bikes and water taxis.	3	Yes. Transit and pedestrians	2.5

	Supporting Questions	Harrah's		Isle of Capri	
Site Suitability Criteria					
	Would there be any traffic, parking or other impacts?	2	Station Square traffic could combine with casino traffic and exacerbate traffic congestion.	4	Development could return Colwell Street ROW to the tax rolls. Arena traffic could combine with casino traffic and exacerbate traffic congestion. May impact future LRT plans to connect Downtown to Oakland.
	Average	2.8		3.6	3.4
Impact on Immediate Surroundings	Entertainment	5	Part of the Station Square Complex, proximate to other entertainment uses and downtown.	2.5	Proximate to the Cultural District, Central Business District.
	Retail/ Commercial	3.5	There is retail and commercial within the complex, but due to single ownership, would limit additional neighborhood economic development.	2.5	Adjacent to the Fifth Avenue commercial corridor. Existing restaurants could be impacted.

	Supporting Questions	Harrah's		Isle of Capri		
Site Suitability Criteria						
	Residential	4	Away from residential communities.	1	Adjacent to residential Crawford Square and Hill District. The area is identified as blighted. Potential for negative social effects on adjacent residential communities. A casino use could further disconnect the lower Hill District from the downtown.	3
	Educational/ Institutional	4	Away from Educational and Institutional facilities.	2	Close proximity to Duquesne University and schools.	2
	Average	4.1		2.0		2.5
Ability to Use/ Enhance Existing Amenities and Services	Access to existing hotels, restaurants, bars	4	Easy access to downtown and area hotels and amenities.	2.5	Convenient access to downtown hotels.	1
	Access to other recreational and entertainment facilities	3.5	Access to river-front trails and other facilities. Existing railroad limits potential for integration of riverfront.	2	Adjacent to the Mellon Arena.	3

	Supporting Questions	Harrah's		Isle of Capri	
Site Suitability Criteria					
	What potential opportunities can this location spur?	4	The location can enhance the regional destination of Station Square and the riverfront.	2	The location is adjacent to a regional tourist destination – Mellon Arena.
	Average	3.8		2.2	
Current Use	What are the existing uses at the location to be displaced?	3	Surface parking lot with a temporary amphitheater.	2	Surface parking lots, an abandoned hospital building, and few private properties.
	What will be the impacts of development on the existing structures?	3.5	Demolition of Chevrolet Amphitheater and relocation of parking.		Demolition of existing buildings, relocation of surface parking, and commercial uses.
	Average	3.3		1.5	
Environmental Impacts	Stormwater/ Sewer	3	Negligible impacts.	1.5	Development would require new sewer lines and storm water mitigation efforts.
	100 year floodplain	3	Partly.	5	No.
	Average	3		3.3	

Table A2: Site Suitability Criteria and Scores

Site Suitability Criteria	Supporting Questions	Harrah's		Isle of Capri		
		Score	Response	Score	Response	
Site control	Does the operator or developer have site control?	5	Yes	1	No. Contract for casino site, not for arena or other development.	5
	Average	5		1		5
Visual Access	Will the casino be consistent architecturally and in scale with surrounding buildings?	2	Yes. The scale of the casino is similar to surrounding buildings. Materials and finishes may vary a little.	1	No, but may not be easily located by those not familiar with Pittsburgh.	3
	Is there a plan for signage that will be easily visible?	3	Yes	1	Yes. Proposes to use City street markers.	2
	Average	2.5		1		2.5
Accessibility	Is the site directly accessible from major freeways/highways?	1	Yes	4	Yes	4
	Is the site accessible to transit, bikes, pedestrians?	3	Yes	3	Yes	1
	Does the site or plan offer to reduce the need for private automobile?	2	Not much	2	Not much	0

	Supporting Questions		Harrah's		Isle of Capri	
Site Suitability Criteria						
	Includes an effective site circulation plan for pedestrian, auto, bus, and service traffic	2	Yes. Segregation of auto, service, and pedestrian traffic.	1	Yes. Segregation of auto, service and pedestrian traffic on center but not on 5th Ave.	3
	Does the casino have a marketing plan for hotels, taxis, other locations?	1	Yes	0	None mentioned	0
	Will it be easy for casino visitors to leave the casino and return?	2	Yes. By car, walking, or transit.	2	Yes. By car and walking limited distances.	1
	Average	1.8		2		1.5
Integration with Adjacent Amenities and Services	Are there any existing neighboring amenities and services?	5	Yes. Entertainment, hotel, dining, bars.	3	Yes. Hotels and limited dining.	1
	Can the facility generate customers for adjacent businesses?	4	Yes. To existing hotel, dining, entertainment facilities.	1	Yes. To the existing hotels (to the proposed arena if it is built in that location).	0
	Are neighboring amenities attractive to the casino market?	4	Yes. Hotel, dining, bars, entertainment, riverfront trail.	1	Yes. Hotels.	0

	Supporting Questions	Harrah's		Isle of Capri	
Site Suitability Criteria					
	Can casino visitors walk to adjacent businesses easily from the site?	4	Yes	2	Yes 1
	Is there potential for further development on adjacent sites related to the casinos that would benefit from casino traffic?	3	Yes	4	Yes 3
	Average	4		2.2	1
Allows for phased expansion of gaming space and non-gaming uses	Is there room for expansion on the site?	2	Yes	1	Yes 0
	Is there room for expansion in close proximity to the site?	2	Yes	4	Yes 2
	Average	2		2.5	1
Existing Structures	Are there vacant lots or buildings on the site or in close proximity to the site?	1	The site is currently a surface parking lot and currently houses a seasonal amphitheater.	3	Yes. There is a vacant hospital building on the casino site and surface parking lots. 1
	Are there plans for reusing existing buildings, if any?	4	No. Replacing a temporary tent facility.	0	No. Demolition of all existing buildings except for a historic church. 5

	Supporting Questions	Harrah's		Isle of Capri	
Site Suitability Criteria					
	Average	2.5		1.5	3
Site category for development*	Is the site a brownfield?	2	Yes	3	No 1
	What is the potential for remediation?	2	Negligible	4	None 1
	Average	2		3.5	1
Addresses impact on city infrastructure and resources / Sustainable measures	Are there plans to mitigate impacts on city storm water and sewer system?	3	Stormwater, yes; sewer, not addressed (plans of tying into existing sewer).	1	Address, but are dependent on other development. None to mitigate stormwater from casino development. 1
	Are there plans to reduce heat island effect? (in parking lots/ buildings, landscaping, access roads, green roofs, etc)	3	Yes, partly through street materials and landscaping. Are open to the idea of incorporating part green roof.	2	Yes. Part green roof and landscaping. 0
	Is there a plan for waste water reduction?	1	The applicants are willing to address issues.	2	Yes. Plan to use fixtures and technologies that reduce use of potable water. 0
	Are there plans for renewable sources of energy? (solar panels, efficient lighting, etc)	0	None mentioned	1	Yes. Use of efficient lighting. 0

	Supporting Questions	Harrah's		Isle of Capri		
Site Suitability Criteria						
	Are there plans for reducing the amount of solid waste that goes to public land fills?	0	None mentioned	2	Yes. Recycling of construction waste wherever possible.	0
	Average	1.4		1.6		0.2
Development of new public amenities and infrastructure	Does this project fund new public amenities?	2	Yes. Winter garden, riverfront trail, multi event center.	5	Yes. Provides cash funds for arena (no building), multi event center, and 2 parks as part of future proposal (market driven).	1
	Does this project fund new infrastructure?	1	Yes. Riverfront trail, street furniture, lighting, landscape.	3	Yes. Repaving of streets, signals, lighting, landscape, new sewer line for temporary casino.	1
	Average	1.5		4		1
Landscaping	Are landscaping and hardscaping equal to 15% of area?	1	Yes, before expansion: 38%, after expansion 27%.	1	Yes, if roof is considered as open space.	0
	Are there maintenance plans to ensure continuing maintenance of plants?	0	There is mention but no plans as yet	1	Yes. Spray or drip irrigation.	0

	Supporting Questions		Harrah's		Isle of Capri	
Site Suitability Criteria						
	Does hardscaping use a diversity of natural materials?	0	None mentioned	1	Yes, stones	1
	Are plantings irrigated in an environmentally responsible way?	0	None mentioned	1	Yes. Spray or drip irrigation.	0
	Do you plan to reuse storm-water/graywater for irrigation?	1	There is mention but no plans as yet.	0	None mentioned	0
	Average	0.4		0.8		0.2

* - As per the City of Pittsburgh's Environmental Planner

Table A3: Design Impact Criteria and Scores

	Supporting Questions	Harrah's		Isle of Capri		
Design Impact Criteria						
Compliance with zoning code	Are the facades transparent/ interactive with the streets/ public right of way?	1	Transparent, but not interactive (are willing to discuss it further).	5	On Centre Ave: transparent, but not interactive with street; on Fifth Avenue: transparent and active.	2
	Riverfront trail, landscape along trail, etc?	3	Yes (as per verbal conversation with Forest City).	0	Not Applicable	2
	Average	2		2.5		2
Site Context	Is the exterior consistent with the streetscape, context, scale, and character of the site and neighboring buildings?	4	Yes	0	No. 12-13 stories along Fifth Ave. where buildings are 4-5 stories.	4
	Is the density of building same as, higher than or desirable as that of neighboring buildings?	4	Yes	1	Density of casino is much higher (that of mixed use dev. is desirable).	2
	Average	4		0.5		3

	Supporting Questions	Harrah's		Isle of Capri		
Design Impact Criteria						
Non-gaming uses and public spaces	Does the plan include retail and restaurant space?	2	2-3 restaurants, 5 retail, 1 sports bar.	3	4-5 internal restaurants, 1 buffet, 2-3 fast food centers, 2-3 bars and 3 retail shops. Along Fifth Ave., there is retail and residential towards Pride Ave.	2
	Does the plan include other entertainment venues?	3	Yes. Winter garden (passive rec), multipurpose event center,	1	Yes. Multi event center (future spa).	3
	Does the plan contain exterior public amenities such as plazas, landscaping, arcades, river walks and lighting?	3	Extension to the riverfront trail, marinas, landscaping, signage, street furniture.	1	Internal landscaped atrium/ water feature, but not accessible to general public. Street landscaping (parks, plaza as part of future market driven plan).	3
	Is there access/a link to other recreational uses?	4	Pedestrian and bike trail, marinas.	1	Existing Arena.	3
	Average	3.0		1.5		2.8
Design approach	Is the design bold, contemporary and innovative?	3	Bold, contemporary, somewhat innovative.	4	Bold, contemporary and innovative, except for the fifth avenue façade.	1
	Average	3		4		1

	Supporting Questions		Harrah's		Isle of Capri	
Design Impact Criteria						
Building Facades	Is there transparency of street facades? What percentage?	2	Inadequate transparency.	4	Yes. Transparent on Centre Ave. (approx. 45%) and fifth avenue (approx 50%).	3
	Is there visual and physical connection to the building from public right of way?	1	Yes	4	Yes	1
	Is the on-site parking visible from the street?	0	Yes, from Carson Street and the riverfront.	3	Yes, from Fifth Avenue.	2
	Is the design of the parking structure integrated with casino and immediate area?	1	Yes, 2 underground stories and an 8 storied parking garage adjacent to casino (there is talk of treating the façade appropriately).	3	Yes, 8 storied garage beneath the casino. Phase 2 parking is wrapped with residential and retail uses on 5th Ave. and brick panels on Colwell.	3
	Average	1		3.5		2.3
Building materials	Primary materials are not stucco, EIFS systems, concrete block, wood or simulated wood products.	2	No. Not enough data on interior finishes.	3	No	1
	Building uses materials such as stone, metal, glass, concrete and brick	3	Building uses, brick, aluminum curtain wall, glass.	3	Building uses stone, brick, glass curtain wall, metal panels.	2

	Supporting Questions	Harrah's		Isle of Capri	
Design Impact Criteria					
	Are dead facades treated appropriately so as to reduce massing and scale?	2	Dead walls are animated with brick patterns and lighting.	3	Somewhat: metal framed openings, brick infill panels.
	Average	2.3		3	1.3
Public Art	Will any portion of the development costs be devoted to public art created by a professional artist?	1	Talks about public art in public spaces (winter garden, Carson drive).	1	Yes. Use of public art (glass artwork) in the atrium.
	Average	1		1	0
Spatial organization		2	Yes, except for access points from the riverfront trail.	3	Yes, dramatic entrance to casino.
	Average	2		3	3
Design Team*	Has the design team designed other gaming facilities?	3	Yes, many gaming facilities.	3	Yes, gaming and hospitality facilities.
	Is the building designed by an architect?	1	Yes	1	Yes
	Has the design team won awards for excellence?	2	Few	4	Yes, many different categories.
	Is the design team competent to address urban design issues?	4	Yes, Calthorpe assoc	3	Yes, UDA

	Supporting Questions	Harrah's		Isle of Capri		
Design Impact Criteria						
	Are there minority and woman owned firms incorporated into this proposal?	1	Few	2	One, RRA associates	3
	Average	2.2		2.6		1.6
Environmentally friendly building design	Will the building have a green roof, incorporate stormwater run-off, graywater reduction measures??	3	Storm water measures have been addressed and there is consideration of part green roof.	2	Part green roof.	0
	Does the plan incorporate daylighting?	0	Requested but not provided	2	Partly	0
	Does the plan incorporate innovative measures to reduce heating and ventilating costs?	0	Requested but not provided	1	Yes, use of energy efficient fixtures	0
	What will be the thermal performance of buildings?	0	Requested but not provided	1	according to standards	0
	Is there a construction management plan? (disposing/ reusing excavated soil, demolition waste, etc)	0	Requested but not provided	2	Waste will be appropriately disposed. Will consider reusing construction/ demolition waste	0
	Average	0.6		1.6		0

	Supporting Questions		Harrah's		Isle of Capri	
Design Impact Criteria						
Utilities	Are the locations of loading and unloading docks and garbage disposal within the building?	2	Yes	1	Yes	2
	Are the docks visually and physically screened from public sight?	2	Yes	2	Yes	1
	Are rooftop equipments adequately screened or concealed?	1	(Roof would incorporate material variations with part green roof).	1	Part green roof.	0
	What is the location of the electrical substation/ transformer if any?	1	Utilities in the basement.	1	Behind Fifth Avenue retail.	0
	Average	1.5		1.3		0.8
Lighting and signage	On-site light pollution is minimized by fixtures that conceal the light source	0	Not mentioned.	1	Not adequate data.	0
	Garage lighting limits light spillage	1	(Pedestrian stairwells are glass and are illuminated to give effect of light towers)	0	Not adequate data.	0
	Sodium-vapor fixtures are not used, metal halide fixtures instead	0	Not mentioned.	1	Yes	0

	Supporting Questions	Harrah's		Isle of Capri		
Design Impact Criteria						
	Is the exterior lighting very bold and flashy?	3	Yes	1	Not adequate data	2
	Does the signage comply with code requirements?	0	Inadequate data to draw deductions.	1	Will comply with City code requirements.	0
	Does the signage include lighting, LED?	1	Yes	0	Not adequate data	0
	Average	0.8		0.7		0.3

Table A4. Traffic Analysis Criteria and Scores

	Maximum Base Score	Sub-criteria	
Traffic and Parking Evaluation Criteria			
Convenient Regional Highway Access	4	Direct Access To/From Regional Highways	3
		Recommended Improvements	2
		Developer Costs and Responsibility	2
		Action by Other Players	1
		Ease of Implementation	1
		Operating/Maintenance (Annual)	1
		Subtotal	1
		Average	1
Convenient Local Access by Car	3	Existing Local Street Capacity and Level of Service	3
		Future Local Street Capacity and Level of Service	3
		Existing Local Street Operational Efficiency	3
		Future Local Street Operational Efficiency	2
		Recommended Improvements?	3
		Developer Costs and Responsibility	3
		Action by Other Players	1
		Ease of Implementation	2
		Operating/Maintenance (Annual)	2
		Subtotal	2
		Average	2
Accessible by Public Transit	3	Are Existing Public Transit Services Adequate?	5
		Will 2008 Design Public Services be Adequate?	5
		Recommended Public Transit Improvements	1
		Costs and Developer Responsibility	0
		Action by Other Players	1
		Ease of Implementation	1

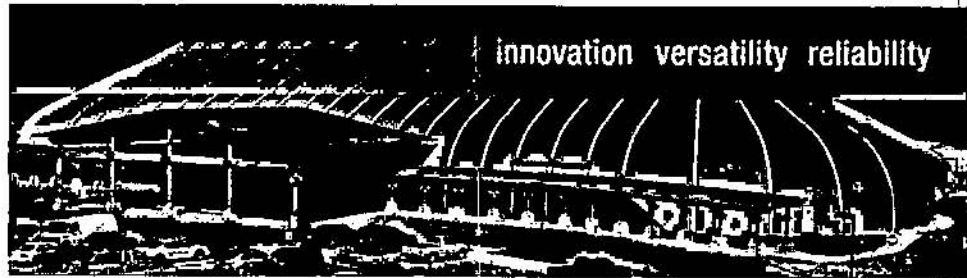
	Maximum Base Score	Sub-criteria
Traffic and Parking Evaluation Criteria		
		Operating/Maintenance (Annual)
		Subtotal
		Average
Accessible to Pedestrians Minimizes Potential for Traffic Congestion	1 4	Are Existing Pedestrian Travel Amenities Adequate?
		Will 2008 Design Year Pedestrian Amenities be Adequate?
		Pedestrian Safety and Circulation Management Plan to Operational Effectiveness
		Costs and Developer Responsibility
		Ease of Implementation
		Action by other players
		Operating/Maintenance (Annual)
		Subtotal
		Average
Provides Adequate Parking On or Off Site	2	Does Parking Supply Comply with Zoning?
		Does Parking Supply Meet Peak Weekday Peak Weekend Demand?
		Is Displacement Parking Identified?
		Is Employee Parking On Site or Off Site?
		Is there any Impact on Adjacent Neighborhood Parking?
		Is Parking Layout and Access Adequate?
		Is There a Parking Management Plan
		Operating/Maintenance (Annual)
		Subtotal
		Average
Adequate Space for Bus, Taxi, and Other Common Carrier Transportation, including Loading and	3	Loading and Unloading On-Site
		Loading and Unloading Off-Site
		Adequate Porte-Cochere Operations on Site,

Table A5. Traffic Analysis Comments

Traffic and Parking Evaluation Criteria	Comments
Convenient Regional Highway Access	All three sites have varying levels of regional highway access, but Isle of Capri has the best access to their site. The Cross Town Expressway (I-579) is the major transportation route. Extending from the Veterans Bridge to the Liberty Bridge, it provides convenient access to SR-376. Access to I-279 and SR-65 requires the use of Grant Street and 7th Avenue. In respect to the Harrah's site, all regional access relies on Carson Street and the West End Bridge. Fort Pitt Bridge ramps provide access from I-376, I-279N, and PA-65. Majestic has direct access to I-279, including the HOV facility. Other routes near the site include SR-28 and the West End Bridge.
Convenient Local Access by Car	Isle of Capri site has many local roads with sufficient excess capacity to accommodate traffic. Avenue, Washington Place, Fifth Avenue, Forbes Avenue, Bedford Avenue, and Carson Street. However, the same roads that provide access to the IOC site have potential for peak period congestion at key intersections, pedestrian/vehicle conflicts, and parking issues. Harrah's site is directly served by Carson Street from the West End Circle, Fort Pitt Bridge. Direct access to the site is limited to a single arterial, Carson Street, which is experiencing peak period and event congestion. Majestic has direct access to the site via Carson Drive, Allegheny Avenue, Fontella Street, Ridge Avenue and Western Avenue. Local access to the MSC site via local roads are the same as those encountered at the IOC site. The various merges and one-way roadway configurations would limit local access.
Accessible by Public Transit	The IOC site is well served by public transit. Directly serving the site on Carson Street are the business district and neighborhoods in the east are three bus routes. Extending from the site on Fifth Avenue and Forbes Avenue. The site is also within a short walking distance to the LRT Station. Twelve percent (12%) of IOC's patrons and employees are expected to use public transportation. The Harrah's site is the best situated for maximum use of public transit with numerous bus routes on Carson Street, an LRT Station, an HOV tunnel, two bus lanes, and HSSC estimates that 15% of their casino patrons and 25% of their employees use public transportation. The Majestic site is not well served by public transit. Current transit is operated by Port Authority of Allegheny County (PAT) and the Beaver County Transit Authority. PAT will have improved transit service in the future with the planned construction of the LRT project.
Accessible to Pedestrians	The Isle of Capri site is the most suitably located for convenient and safe pedestrian access. The majority of pedestrians walking to the IOC site would be downtown, Strip residents and employees. IOC estimates that 2% of patrons and employees use public transit. The site is the second most suitably located site for convenient and safe pedestrian access.

	<p>has assumed that pedestrians would typically come from downtown, Souths Heights. Harrah's estimates that 5% of their patrons and 15% of their employees will walk to the site. The Division believes that this estimate is too high compared with the other sites. Harrah's plans to extend the Three Rivers Heritage Trail along the north shore of the site, that would provide full physical and visual access to the riverfront. MSC estimates that 2% of their patrons and 2% of their employees will walk to the site.</p>
<p>Provides Adequate Parking On or Off Site</p>	<p>IOC estimates that it will need 4,301 parking spaces for its patrons in the PH. The casino would be at an off site location. The casino will displace approximately 1,300 identified 9,837 parking spaces in facilities within a 15 minute walk of the site. In the Uptown and Hill District neighborhoods, this Division is concerned that patrons will be tempted to park for free on these neighborhood streets. Harrah's would construct a separate structure, and 600 spaces below the casino structure. In addition, 600 spaces owned by Forrest City Enterprises with the Station Square Entertainment Center. IOC is concerned that Harrah's may not have sufficient parking spaces to meet patron and employee demands. Majestic will build a new parking garage to meet their employee demands. 600 employee parking spaces will be provided off site at the MSC. The MSC proposal will displace 1,100 current parkers.</p>
<p>Adequate Space for Bus, Taxi, and Other Common Carrier Transportation, including Loading and Unloading</p>	<p>IOC appears to have the most space for truck loading and maneuvering on the right of way. Staging of buses would occur at an off site location to be identified. Buses will be provided on Centre Avenue. Trucks would be required to access the site from Centre Street. Harrah's is presumed to have all truck loading activities on site. In addition, the traffic report regarding traffic access and circulation at the porte-cochere. Majestic would provide separate loading areas for casino and restaurant use. IOC is presumed to take place on the site.</p>
<p>Minimizes Potential for Traffic Congestion</p>	<p>Private automobiles will be the predominant mode of travel to all three sites. IOC has the infrastructure and capacity to accommodate the future casino traffic. There are no major intersections but IOC has recommended roadway physical improvements and traffic signals to address future impacts. Access to the HSSC site is constrained due to only one arterial road at the site. There are serious concerns regarding the future level of service operation at the intersection of Carson Street at Smithfield Street and at Arlington Avenue. MSC is the Lead Agency for local access to the site. Traffic flow on streets near the site is confusing and difficult to navigate. MSC has proposed to reconstruct Reedsdale Street into a 4-lane street with a center turn lane, install and improve traffic signals. The proposal to widen Reedsdale Street and address land use issues to resolve.</p>

Figure 10. Sprung Structure Casino, River Rock, CA



Majestic Star

The Majestic Star team has proposed a temporary riverboat casino operational within eight months of licensing.

Figure 11. Riverboat Casino, Gary Indiana



Finding – Temporary Casino

Based on the assessment above, the net impact of a temporary facility, independent of the site on which it is placed, may be detrimental to the City of Pittsburgh. Although the gaming revenue stream and related jobs would come sooner to the City and state, such a facility may stall or displace the opening of a higher quality, permanent facility and may reduce the construction budget for the permanent facility.

Appendix C. Transportation and Parking Analysis

**Transportation and Parking Analysis
A Comparative Evaluation of Three Casino Gaming Sites in Pittsburgh**

Appendix C

Transportation and Parking Analysis

A Comparative Evaluation of Three Casino Gaming Sites in Pittsburgh

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I Introduction

The following is an analysis and comparative evaluation of existing and 2008 design year traffic, pedestrian, and parking conditions at each of the three remaining potential gaming sites in the City of Pittsburgh. The proposals are the Isle of Capri's Pittsburgh First Master Plan in the Lower Hill District and the Uptown area, the Harrah's Station Square Casino proposal at Station Square along the Monongahela River, and the Majestic City proposal located between the West End Bridge and Heinz Field, along the Ohio River.

Transportation and parking impact studies conducted by Trans Associates Engineering Consultants and the Isle of Capri, GAI Consultants and Harrah's, and the IBI Group and Majestic Star, were required to abide by a scope of work (Form-B) provided by the Department of City Planning. Form-B is a technical guidance document that specifies the study process, study area, study methodology, data collection, data analysis, study findings and recommended improvements, if any, to mitigate the impacts of the project. Each consultant was also provided with additional technical guidance that detailed the City's expectations with respect to the study work program.

The work program specified that each proposal use a 5,000-slot facility for analysis purposes, since the State Legislation permitting casino gaming in Pittsburgh and Philadelphia specified a maximum of 5,000 slot machines for each city:

Review of the traffic and parking impact reports for the Isle of Capri (IOC), Harrah's Station Square Casino (HSSC), and Majestic Star Casino (MSC) leads to the following generalizations about future casino gaming in Pittsburgh.

- ❑ Private automobiles will be the predominant mode of arrival at each of the casino sites.
- ❑ IOC, HSSQ, and MSC will rely, to some extent, on chartered buses, limousines, and taxis to arrive at the venues. HSSC and MSC have the added advantage of being located in close proximity to the river where they can use river taxis to access their sites.
- ❑ The share of patrons and employees using public transit to arrive at each of the casino sites will vary depending on the site location in relationship to dense population and employment centers. The HSSC site is situated to attract more patrons by transit and other non automotive modes because of their close physical proximity to the Port Authority's " T " transit station, numerous bus routes on Carson Street and on the " T ", the Duquesne Incline, and the Monongahela Incline.
- ❑ The IOC site also has great physical proximity to take advantage of numerous PAT bus routes on Centre Avenue, Fifth Avenue and Forbes Avenue; and the physical closeness of PAT'S Steele Plaza Station at Grant Street and Sixth Street.
- ❑ Public transportation service to the MSC site on the North Shore is inadequate. Only three transit routes currently serve this site. However, during Pittsburgh Steelers football games on Sundays, PAT provides additional buses to handle the game-day

demand. With the future construction of the North Shore Connector project, transit services between the Central business District and the North Shore will improve.

- z IOC was the only applicant that conducted a comprehensive traffic and parking study of their master development plan as required by the City. IOC's study included a very expansive study area and a detailed data collection plan.
- z Harrah's and Majestic completed a limited traffic study that did not meet the scope of work outlined and required in Form-B. In separate meetings with officials of both Harrah's and Majestic Star Casino, their representatives stated that it was not possible to complete a comprehensive analysis of their proposals due to the lack of time to meet the deadline established by the State's Gaming Control Board for submission of applications. We agreed, therefore, that if any of them were to become the winner of the lone license in Pittsburgh, a more comprehensive traffic analysis would be prepared.
- z Pedestrian volumes to each casino will be low to moderate and will vary at all three casino sites. The Isle of Capri and Harrah's sites are well situated for a higher level of pedestrian access due to their proximity to many public transit facilities, existing pedestrian friendly amenities and the proximity of the central business district. IOC has a closer physical proximity to downtown and nearby attractions. In contrast, the regional highways that provide access to the Majestic Star site also create immense physical barriers for safe pedestrian travel to and from the site.

II Analysis

This report is a technical review of documents submitted by the three casino applicants in support of their proposals. The methodology for the review draws from publications by the Institute of Transportation Engineers, and work performed for the Philadelphia Gaming Advisory Task Force, published in a report to Mayor John F. Street titled: "Final Report, Philadelphia Gaming Advisory Task Force" dated October 27, 2005.

The seven (7) criteria listed below form the basis for the review and analysis of the consultant reports submitted to the department. They are designed to critically evaluate the advantages and disadvantages of each site.

A. Convenient Regional Highway Access

All three casino sites have excellent regional highway access, with varying degrees of proximity and difficulty. The highways that ring the Pittsburgh downtown also serve all the sites. They are I-579, I-279, I-376, State Routes 28, 65 and 51, Cross Town Expressway, Boulevard of the Allies, and Bigelow Boulevard.

1. ISLE OF CAPRI CASINO MASTER PLAN

The site is located on the eastern edge of the central business district in the Lower Hill District and the Uptown retail district. Phase 1 of the proposal is to construct a 3,000 slot machine casino (to be increased to 5,000 slot machines in Phase 2), a 4,301-space parking garage, and incidental entertainment and retail spaces.

Opportunities and Assets

- ☑ The Cross Town Expressway (I-579) is the major transportation artery accessing the site. Extending from the Veterans Bridge to the Liberty Bridge, it provides connections to I-279 to the north, Route 28 to the Allegheny Valley, the Boulevard of the Allies and U.S. 19. Ramps provide direct connections to and from the site to the Cross Town Expressway.
- ☑ The Parkway East and West (I-276), I-279, Routes 65 and 51 provide indirect access to the site from the south and north.
- ☑ These regional highways and bridges provide excellent area wide vehicle access to the site directly and indirectly via local arterial and collector streets near the site.

Challenges and Liabilities

- ☑ Access to the site from the west is problematic but can be achieved via local arterials and collectors in downtown Pittsburgh; including Grant Street, Ross Street, Boulevard of the Allies, and Sixth Street.
- ☑ Significant peak hour congestion is anticipated at the following nearby intersections:

- Washington Place at Bedford Avenue,
 - Cross Town Ramp at the Intersection of Washington Place and Centre Avenue,
 - Liberty Bridge ramps and bridge,
 - Cross Town Expressway between Bigelow Boulevard and the Liberty Bridge,
 - The intersection of Washington Place at Forbes Avenue and Chatham Square, and
 - The intersection of Washington Place at Fifth Avenue.
- ☑ IOC has recommended signal modifications and roadway improvements; including timing and phasing changes to ameliorate the anticipated congestion.

Figure A1 Isle of Capri Regional Highway Access Map

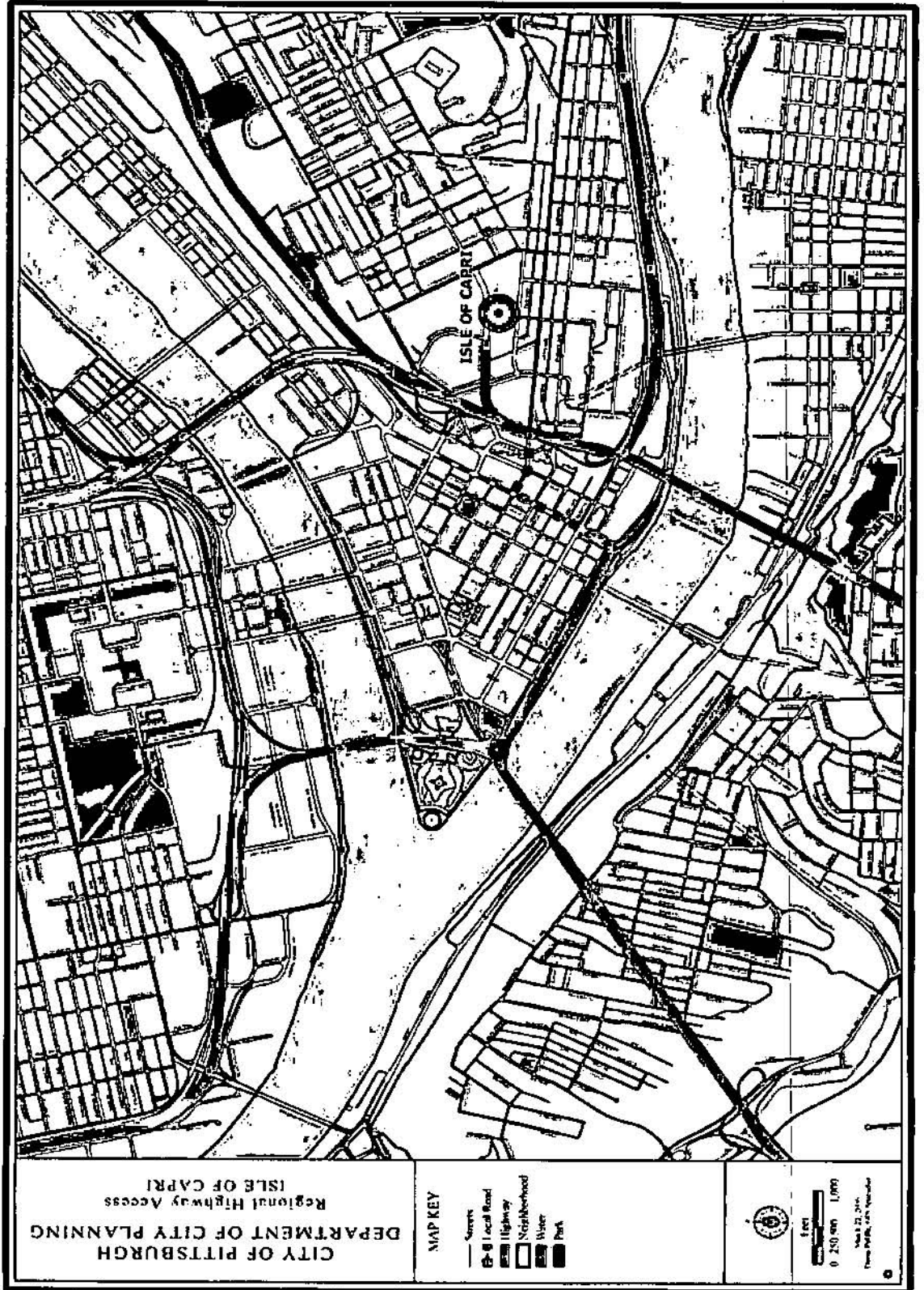
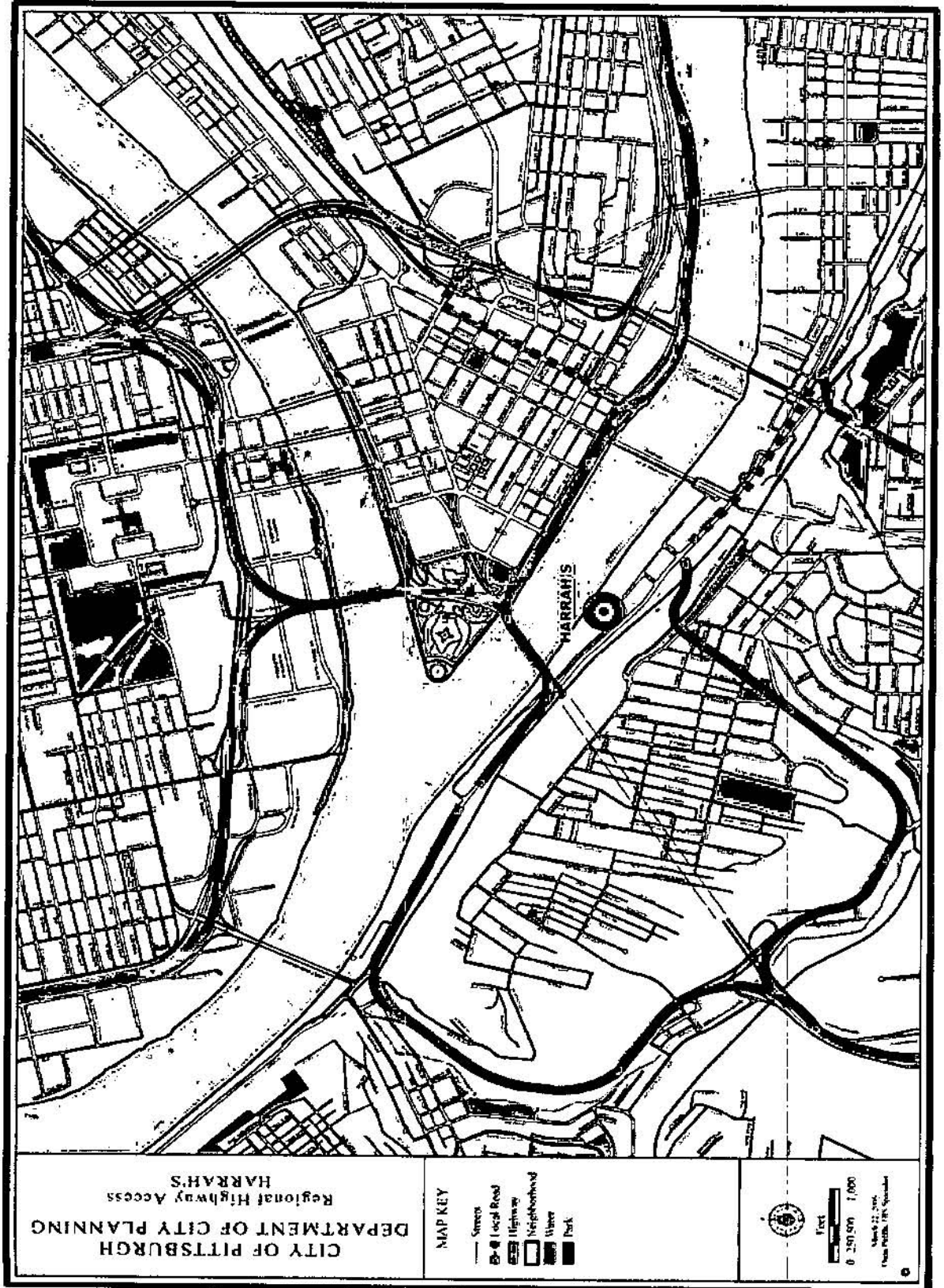


Figure A2 Harrah's Regional Highway Access Map



3. THE MAJESTIC STAR CASINO

The Majestic Star Casino development includes construction of a 3,000 slot machine facility in phase one, with expansion to a 5,000 slots machine facility in Phase 2. The development also includes a 4,186 stall parking garage in phase one, with expansion up to a 5,100 parking stall structure in phase two. Plans also include several public and service areas, including entertainment and restaurant spaces.

Opportunities and Assets

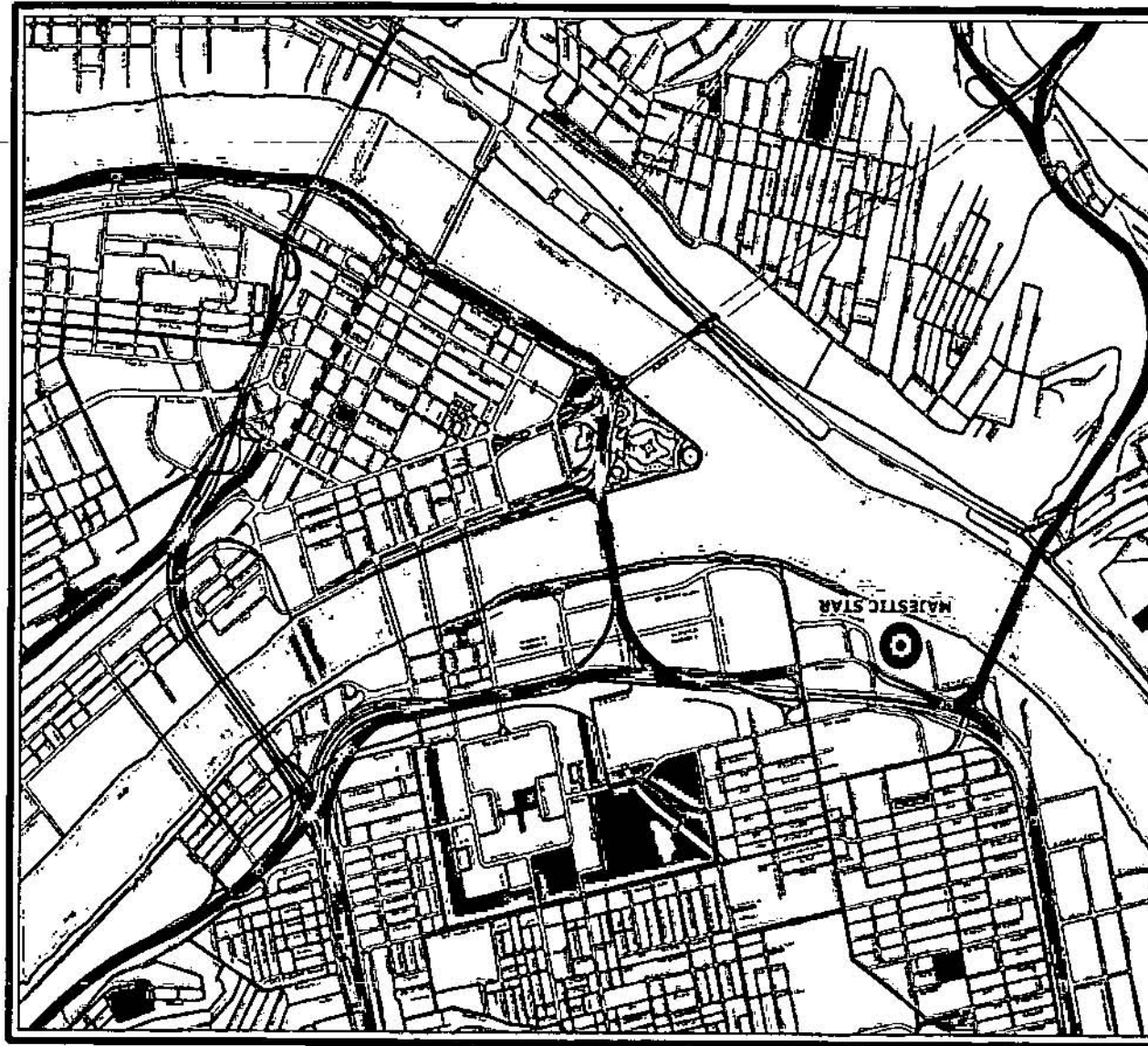
- ✓ The site is located in close proximity to I-279 North and I-279 South (including the HOV facility), State Route 28, State Route 65, the West End Bridge, and I-376 East and I-376 West via the Fort Duquesne Bridge.
- ✓ Inbound access to the site is provided by the West End Bridge, SR 65 and Reedsdale Street via North Shore Drive.
- ✓ The West End Bridge, SR-65 and Reedsdale Street connect directly to North Shore Drive.
- ✓ I-279, including the HOV facility, and I-376 connect directly to the site via the Fort Duquesne Bridge, Reedsdale Street and North Shore Drive.
- ✓ Outbound from the site, the West End Bridge and SR-65 are accessed via northbound Fontella Street or Allegheny Avenue, to westbound Ridge Avenue. The West End Bridge also provides access to Route 19, which links to I-279 South.
- ✓ I-279 South and Fort Duquesne Bridge are accessed via Allegheny Avenue to Ridge Avenue eastbound.
- ✓ I-279 North is accessed via a ramp on East General Robinson Street approximately a half mile east from the site. Access to the HOV lane from the site is provided via General Robinson Street eastbound.

Challenges and Liabilities

- ✓ Route 65 presents significant physical barriers to the site. The adjacent one-way street configuration on Reedsdale Street, Ridge Avenue, North Shore Drive between Reedsdale to Sproat Way, Sproat Way between North Shore drive and Reedsdale Street, and Fontella Street between Reedsdale Street and Northshore Drive limits the access choices to and from the site.
- ✓ Inbound traffic from SR-65 must merge across two lanes of traffic on North Shore Drive to access the site.
- ✓ Inbound traffic, from the West End Bridge, must merge across three lanes of southbound traffic on North Shore Drive to access the site.
- ✓ Inbound traffic, from westbound Reedsdale Street, must cross four lanes of traffic on North Shore Drive to enter the site access driveway.
- ✓ All of these various merge movements present significant physical and mental challenges to motorists and pedestrians alike and are unsafe.

- z) Due to the combination of safety and operational inadequacies, use of the existing street network without significant improvements to accommodate the casino traffic will be highly problematic.

Figure A3 Majestic Casino's Regional Access Highway Map



B. Convenient Local Access By Car

1. ISLE OF CAPRI

Opportunities and Assets

- ❑ The Cross Town Expressway divides the site into two sections with very different roadway configurations.
- ❑ East of the Expressway, the area surrounding the project consist primarily wide roads, including Centre Avenue, Washington Place, and Bedford Avenue.
- ❑ Centre Avenue provides three 12-foot lanes in each direction between Washington Place and Crawford Street and two lanes in each direction between Sixth Street and Washington Place. Parking is permitted in the curb lanes at varying locations.
- ❑ Bedford Avenue is classified as a minor arterial and provides an east-west connection along the northern edge of the site from Washington Place to the Hill District.
- ❑ Washington Place is classified as a collector and is three lanes in each direction from Bedford Avenue/Webster Avenue to Fifth Avenue. It provides connections to and from the site to the Veterans Bridge and Bigelow Boulevard.
- ❑ Mario Lemieux Place extends through the project site from Bedford Avenue to Centre Avenue. It is one lane in each direction with parking on both sides. It provides local access to the existing Mellon Arena.
- ❑ Forbes and Fifth Avenues are parallel streets, classified as principal arterials, and operate as one-way couplets between downtown and the Oakland neighborhood to the east. Forbes avenue operates one-way eastbound with two travel lanes and parking on both sides. Fifth Avenue operates one-way westbound with two travel lanes and parking on both sides.
- ❑ Pride Street, from Crawford Street to Fifth Avenue, is an extension of Crawford Street, and provides access the eastern edge of the site.
- ❑ Colwell Street is a two-way street between Washington Place and Pride Street within the project area. It operates as one lane in each direction with parking on both sides.
- ❑ Seventh Avenue provides an east/west connection between the project site and downtown Pittsburgh. It extends from Bedford Avenue across the Cross Town Expressway on split direction ramps, extending through downtown to Liberty Avenue.
- ❑ Grant Street provides the major north/south connection in downtown Pittsburgh. It extends from the I-376 ramps and Fort Pitt Boulevard at the south to Liberty Avenue and the entrance to the Martin Luther King East Bus Way at the north.

Challenges and Liabilities

- ❑ West of the Cross Town Expressway, the casino influence area consists of part of the central business district (CBD). Roads in the

CBD are generally narrow, with heavy pedestrian volumes, on-street parking and intersection congestion. The Department is of the opinion that these conditions will exacerbate in the future.

- ❑ Chatham Square operates as an extension of Washington Place. It connects Fifth Avenue to Forbes Avenue. It is, however, much narrower and congested during peak travel times. The Department is of the opinion that peak hour congestion on Chatham Square will become worse in the future when the casino is operating.
- ❑ Crawford Street, between Bedford and Centre, provides a north and south connection at the eastern edge of the site. It is one lane in each direction with parking on both sides and is classified as a minor arterial. Because of the residential character of this street, it should not be use as a primary or secondary access to the site.
- ❑ Fifth Avenue, adjacent to the site, operates as a two-lane street westbound into the downtown area. There is parking on both sides of the street with numerous PAT bus stops. Intense truck loading and unloading activities, combined with through traffic, parking and un-parking of cars, and high pedestrian volumes, dominate the street space.

2 HARRAH'S STATION SQUARE CASINO

Opportunities and Assets

- ❑ Carson Street (State Route 837) is the primary access route to the Harrah's casino site at Station Square.
- ❑ Near the project-area between the Fort Pitt Bridge and Arlington Avenue, Carson Street has two lanes in each direction and provides access to the site from the east towards the Southside neighborhoods as well as the west from the West End Circle, the West End Bridge, State Route 51 and State Route 65.
- ❑ A private two lane internal road runs from the Smithfield Street Bridge to the western parking lots. From there, it runs along Carson Street and connects to West Carson Street near the Duquesne Incline. This street provides access to the parking facilities and pedestrian access to the retail and entertainment establishments at Station Square.
- ❑ Another internal access road on the eastern part of Station Square provides access to the east parking lots and to Carson Street at its intersection with Arlington Avenue.

Challenges and Liabilities

- ❑ There is significant peak hour congestion on the Smithfield Street Bridge, the intersection of Smithfield Street and Carson Street, and the intersection of Arlington Street and Carson Street. DCP projects that Harrah's Phase one proposal will worsen traffic conditions at these locations.
- ❑ DCP additionally projects that events at the casino, the North Shore Stadiums, and Phase 2 development will further increase intersection delays and reduce levels of service.

- ❑ DCP disagrees with Harrah's assertion that because Station Square is an established entertainment center for the Pittsburgh metropolitan area, many of the trips generated by the casino will be drawn from existing Station Square patrons and will not be new trips. Harrah's fails to provide documentation to support this thesis.
- ❑ The Smithfield Street Bridge and Smithfield Street separate the eastern half of the site from the western half.
- ❑ The recommended improvements by Harrah's, to widen the Smithfield Street and Carson Street approaches by a lane on each approach, and construct a pedestrian bridge over the western end of Carson Street, does not appear to satisfactorily solve this problem.
- ❑ Harrah's estimates that six percent of casino patrons and other development traffic will arrive and depart the site via East Carson Street. This street is one lane in each direction with center turning lanes at some intersections, between Arlington Avenue and Hot Metal Street, with parking on one or both sides (throughout its length) to the South Side Works. The Department believes that with the proposed casino development, peak hour failures will increase at critical intersections along this stretch of Carson Street resulting in increased peak period delays in the corridor. The traffic study did not include this area in its analysis.

3 MAJESTIC STAR CASINO

Opportunities and Assets

- ❑ North Shore Drive is a wide four-lane road that provides an opportunity to access the porte-cochere entrance of the proposed casino.
- ❑ MSC proposes to install a traffic signal at the porte-cochere entrance and North Shore Drive. This can serve as an alternative access for traffic arriving from the east along North Shore Drive and from the Stadium area.
- ❑ MSC has also proposed improvements to North Shore Drive and Reedsdale Street, including changes in signal phasing and timing. These changes will separate movements from Reedsdale Street, SR-65, and West End Bridge to allow lane changes to occur safely.
- ❑ MSC will further investigate the potential of constructing a ramp directly to the second level of the proposed garage from the West End Bridge ramp to Reedsdale Street. MSC opines that this will have the added advantage of reducing congestion at the North Shore casino access driveway.

Challenges and Liabilities

- ❑ Local street access to the Majestic Star Casino would be provided by North Shore Drive and Reedsdale Street. Reedsdale Street is a two lane street and operates one-way eastbound to North Shore Drive and one-way eastbound from the West End Bridge Ramp to North Shore Drive.

- ❑ Reedsdale Street (westbound) connects to North Shore Drive via a single stop-controlled left turn lane.
- ❑ Without modifications to the intersection of Reedsdale and North Shore Drive, drivers heading to the casino must cross four lanes of southbound traffic on North Shore Drive to access the site.
- ❑ Allegheny Avenue provides direct connections to Reedsdale Street and North Shore Drive, but with no direct access to the site. All access from the east must use Reedsdale Street to get to the site.
- ❑ Ramps from the West End Bridge and SR 65 to North Shore Drive feed into the intersection of Reedsdale Street and North Shore Drive, creating the potential for significant congestion in the future.
- ❑ Inbound drivers from the West End Bridge and SR 65 must merge across two to three lanes of traffic to access the site.
- ❑ Beaver Avenue and Reedsdale Street provide the only access to the west side of the site. They are both one-way streets southbound and eastbound respectively. Access from these streets to the site is hindered by the river and SR 65. Under current physical conditions inbound access to the west side of the site difficult.
- ❑ Under existing physical conditions, direct egress from the site to the west is not possible. All vehicles exiting the site must travel eastbound on Reedsdale Street to North Shore Drive.
- ❑ Game day at Heinz Field presents another set of problems. Game day traffic causes significant traffic congestion on existing local streets; including North Shore Drive, Reedsdale Street, General Robinson Street, Ridge Street, and Western Avenue.
- ❑ The Department believes that the ability of the existing road network to provide safe access to the casino and accommodate game day traffic is improbable.

C The Site Must Be Accessible By Public Transit

1. ISLE OF CAPRI

Opportunities and Assets

- ❑ The proposed Isle of Capri site is well served by public transportation provided by the Port Authority Transit (PAT)
- ❑ Directly serving the site on Centre Avenue, between the central business district and neighborhoods in the east end of the city, are three routes (the 81A, 81B, and 81C).
- ❑ Extensive transit service is also available on Forbes Avenue and Fifth Avenue. PAT bus routes 61A, 61B, 61C, 71A, 71C, 71D serve both Forbes and Fifth Avenues.
- ❑ These routes have a combined headway of approximately 2 minutes during peak periods and are directly within walking distance of the proposed site.
- ❑ The site is also within short walking distance of the Steel Plaza Station of the Port Authority's Light Rail Transit System (T). A station

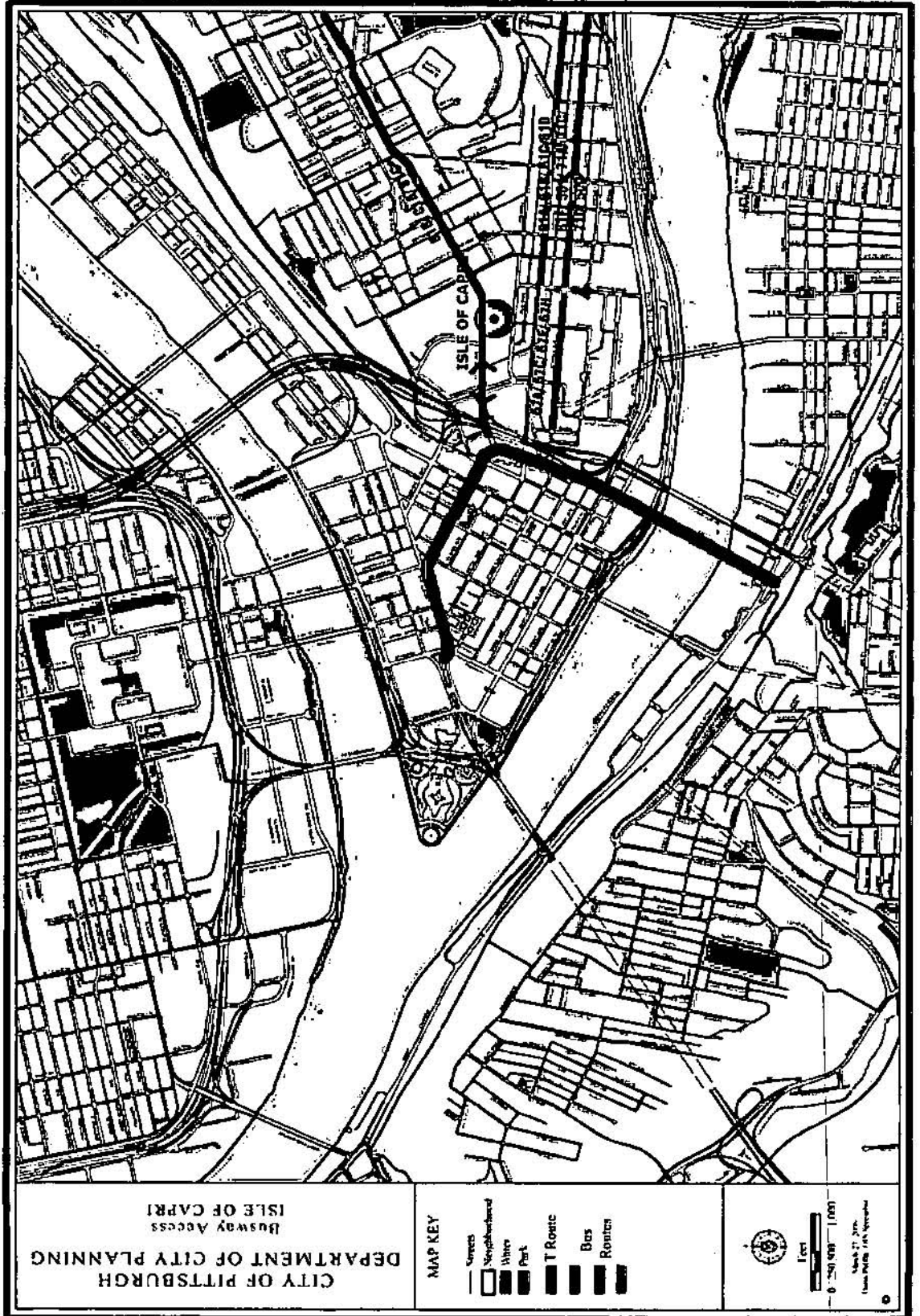
entrance is located at Sixth Street/Ross Street intersection and another at Grant Street in the Mellon Bank Building.

- ✓ The "T" provides vital public transit service to downtown from local neighborhoods in the city and southern suburbs. PAT has plans to extend this service to the North Shore near Heinz Field and PNC Park via an underwater tunnel.
- ✓ The IOC site is within a short walking distance from downtown Pittsburgh and the Fifth Avenue retail district.
- ✓ The traffic impact analysis has determined that 12 percent of casino patrons and employees will arrive at the site via public transportation.

Challenges and Liabilities

- ✓ Too many bus routes on Fifth Avenue contribute to peak hour congestion and unsafe conditions for pedestrians. There are significant conflicts between buses, trucks, cars and pedestrians.
- ✓ The proposed casino truck access on Fifth Avenue will add to this congestions and vehicular/pedestrian conflicts, increasing the probability of accidents.
- ✓ No buses currently provide service to the site between the southern edge on Forbes/Fifth Avenues and the northern edge on Bedford Avenue.

Figure C1 Isle of Capri Public Transit Map



2. HARRAH'S STATION SQUARE CASINO

The Harrah's site at Station Square presents the greatest public transportation options for casino patrons and employees to access the site. Station Square is the most accessible site by public transportation by virtue of its close proximity to several bus routes, the Light Rail Transit Service and nearby "T" Station, the Monongahela and Duquesne Inclines, and the Monongahela River itself.

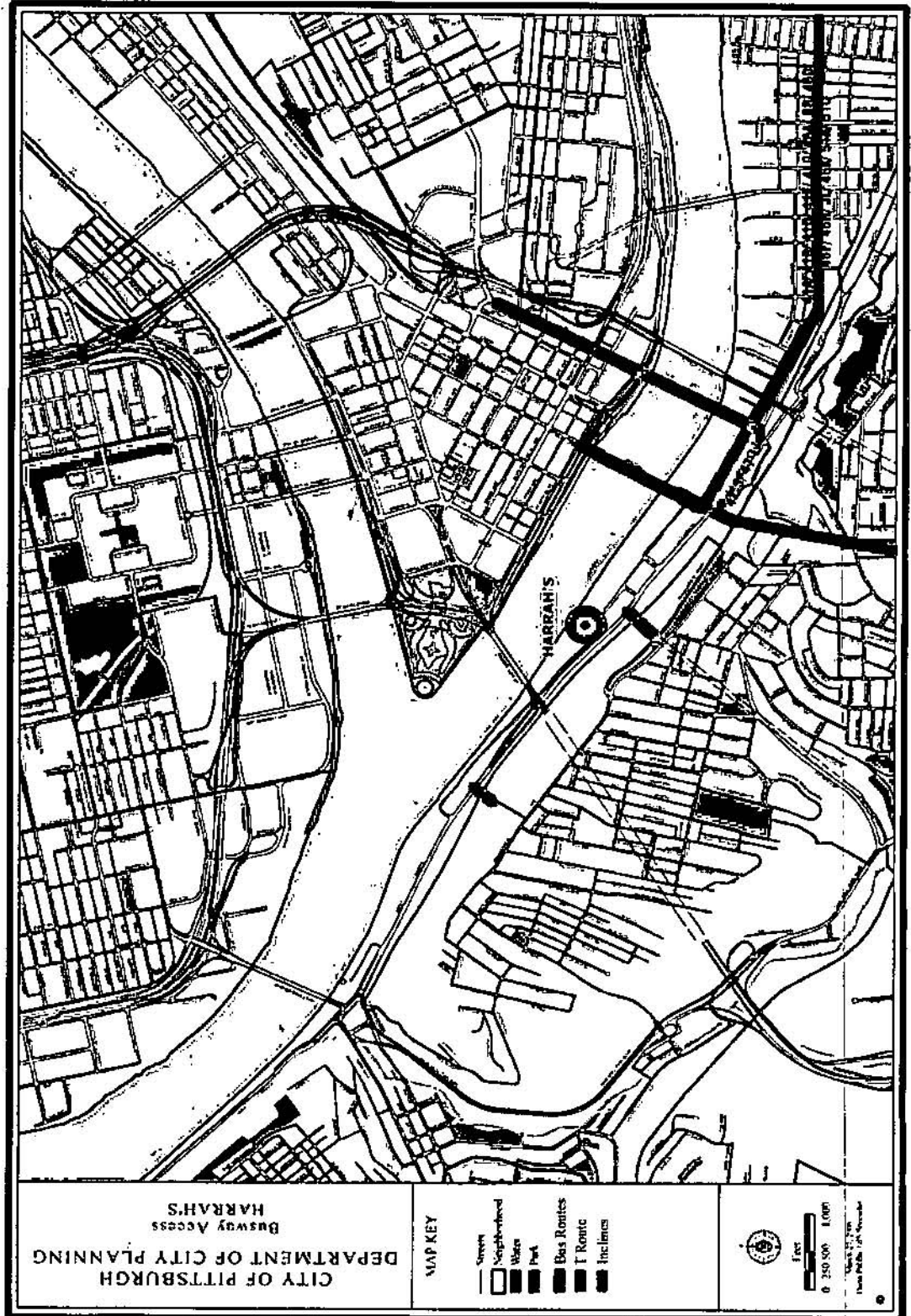
Opportunities and Assets

- ❑ Three public service modes serve this site: The public railroads, Fort Pitt and Fort Duquesne Inclines, PAT buses, and the Light Rail Transit.
- ❑ PAT bus service in the area consists of fourteen bus routes that serve neighborhoods and suburbs in the southern part of the City and County. They include the 41-A Pioneer Avenue, 41-B Bower Hill, 41-D Brookline, 41-E Mount Washington, 41-G Dormont, 46-A Brentwood, BR-Brentwood Flier, 46-D Curry, 46-F Baldwin Highlands, 46-H Pleasant Hills, JL-Jefferson-Large, 46-K Beltzhoover-Knoxville, 51-A Arlington Heights, and 51-C Carrick.
- ❑ The "T" Routes include the 42-S South Hills Village via Beechview, the 47-L Library, and the 42-S South Hills Village. These routes connect downtown to Station Square to suburban communities in the south of Pittsburgh.
- ❑ According to Harrah's, Station Square currently has three water transportation components. They include the Gateway Clipper Fleet, public docking facilities, and water taxi service.
- ❑ All of the above services will be of immense help and an asset to the proposed gaming facility.
- ❑ There is also a complimentary shuttle bus service provided by the Sheraton Hotel. Harrah's believes that this service may expand in the future.

Challenges and Liabilities

- ❑ The Smithfield Street Bridge operates as two lanes southbound and one lane northbound. During the peak hours, there is significant queuing of busses on the bridge and at the intersections at the northern and southern termini of the bridge.
- ❑ Buses also form long cues on Carson Street adjacent to the "T" Station; and this the potential for pedestrian/bus and bus/vehicular conflicts.
- ❑ The Department questions the utility of a river taxi service beyond providing connections to the stadiums on the North Shore.

Figure C2 Harrah's Public Transit Map



3. THE MAJESTIC STAR CASINO

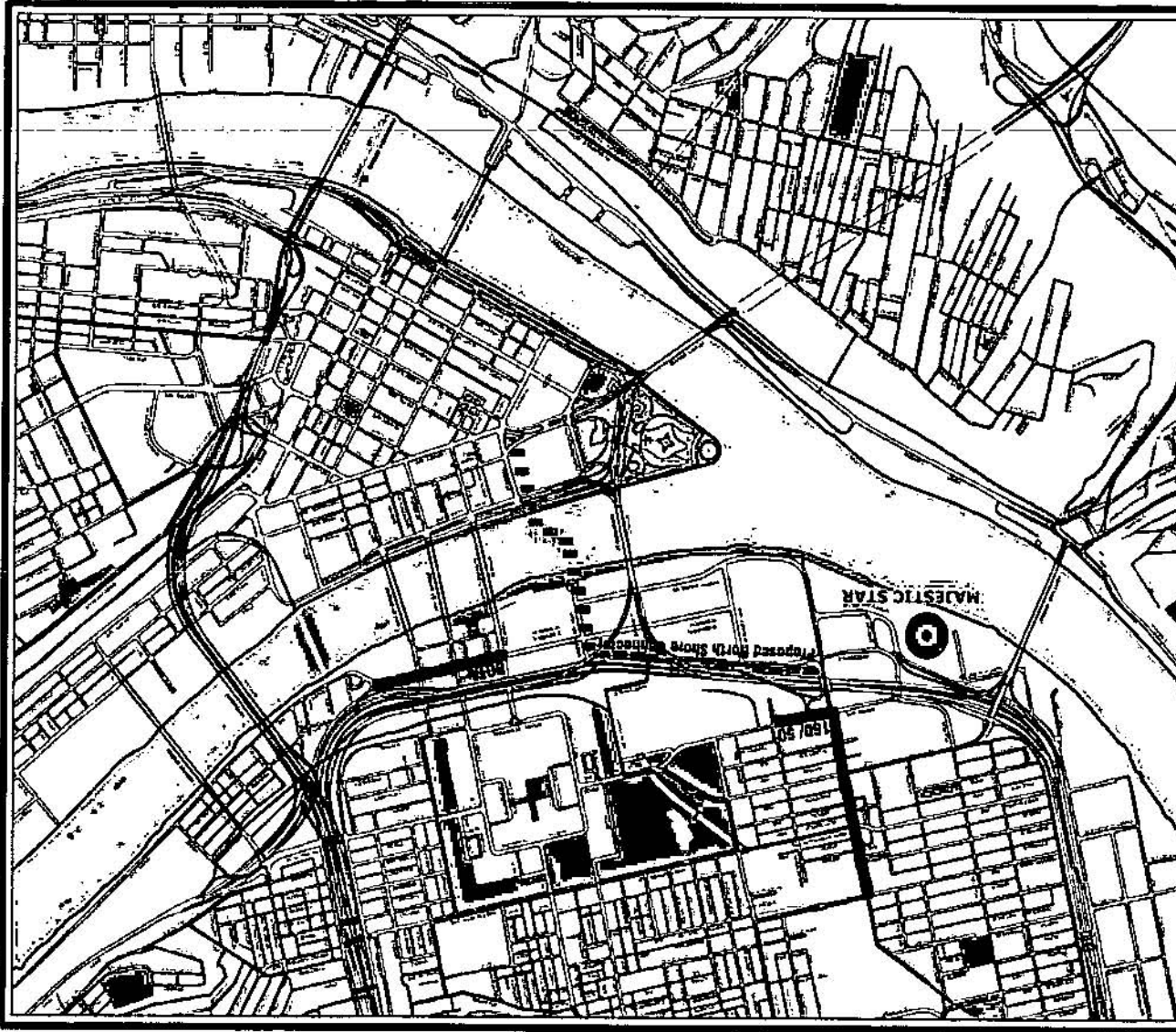
Opportunities and Assets

- ✓ Current transit services include three routes provided by the Port Authority and one route operated by the Beaver County Transit Authority (BCTA).
- ✓ Only one PAT route (the Route 16A Ohio River Boulevard) provides direct service to the site.
- ✓ On Steelers home games at Heinz Field, however, PAT provides additional special buses to accommodate the game-day demand.
- ✓ The site will have good transit service in the future with the planned construction of the North Shore Connector project. The project will have a station at the intersection of Reedsdale Street and Allegheny Avenue. However, the station will be approximately 1,200 feet from the primary casino access.
- ✓ The river frontage will provide opportunities to provide a mooring area for a water taxi facility, ferry services and personal boat docking facilities.

Challenges and Liabilities

- ✓ Under existing conditions, public transit service to the Majestic Star Casino is poor and inadequate. In fact, it is the least served by public transit.
- ✓ Two out of the three PAT routes that provide service to the area (the 16D Manchester and 501 Manchester-Wilkinsburg) provide access to Allegheny Avenue only. This bus stop location is several hundred feet away from the proposed entrance to the casino.
- ✓ The BCTA route provides service from Chippewa to downtown Pittsburgh and travel from SR 65 to General Robinson Street.
- ✓ The Department questions the utility of a river taxi service beyond providing connections to Station Square.

Figure C3 Majestic Public Transit Map



D The Site Must Be Accessible To Pedestrians

1. ISLE OF CAPRI CASINO

Opportunities and Assets

- ✓ The Isle of Capri Casino is the most suitably located site for safe pedestrian access and circulation.
- ✓ The percentage of pedestrian trips to the proposed casino is estimated at 2 percent of the total trips on any given weekday or weekend. This is within normal averages for pedestrians for this location.
- ✓ The majority of pedestrians walking to the site on a weekday will be downtown employees. The weekends will comprise downtown employees and residents; including residents of the nearby Hill District and Uptown areas.
- ✓ IOC has recommended pedestrian improvements at critical intersections near the site; including new pedestrian signal heads and more green time for pedestrians to cross the street.

Challenges and Liabilities

- ✓ The front entrance of the IOC casino will be on Centre Avenue. A walk from the central business district to this location may prove challenging for some people because of the up hill terrain.
- ✓ Access the site from Fifth and Forbes Avenues presents another set of challenges due to the peak hour pedestrian/vehicle conflicts on Fifth and at the Fifth Avenue and Washington/Chatham Square intersection.
- ✓ The intersection of Bedford Avenue and Washington Place is not a hospitable environment for pedestrians to cross safely. This condition will exacerbate in the future when casino traffic is added to the intersection.
- ✓ Pedestrian travel along the north curb face of Fifth Avenue will become less safe and problematic due to the increased number of truck traffic accessing the site from Fifth Avenue.

2. HARRAH'S CASINO AT STATION SQUARE

Opportunities and Assets

- ✓ HCSS is the second most suitably located site for safe pedestrian access and circulation.
- ✓ Harrah's has assumed that pedestrians coming to their casino would typically come from the downtown, Southside, Mt. Washington and Duquesne Heights, and patrons to and from Pittsburgh Steelers football games.

- ❑ Harrah's estimates that 5 percent of their patrons and 15 percent of their employees will walk, take the Inclines, or ride a bicycle to access the site. This estimate is slightly higher than IOC.
- ❑ Harrah's estimates that the proposed casino will generate approximately 24,000 patrons on a weekday and 40,000 on a Saturday. Five percent or 1,200 to 2,000 will walk to the casino.
- ❑ Harrah's estimates that 1,200 to 2,200 employees will work at the casino on a daily basis (albeit in staggered shifts). Fifteen percent or approximately 180 to 330 will walk to the site daily.

Challenges and Liabilities

- ❑ The site is a fifteen to twenty minute walk from the center of downtown Pittsburgh. This can be a daunting task for anyone on a brisk winter day or evening.
- ❑ The Southside is at least a mile away from the site. This makes walking to the site improbable.
- ❑ Harrah's estimate of pedestrians walking to the site is higher than normal. The site is isolated; with the mountain on the south and the river on the north forming distinct physical barriers to pedestrian access.
- ❑ The only pedestrian access from downtown Pittsburgh is a sidewalk on the Smithfield Street Bridge and sidewalks along Carson Street. There is, however, no sidewalk on northern side of Carson Street fronting Station Square, between the Smithfield Street Bridge and the Fort Pitt Bridge.

3. MAJESTIC STAR CASINO

Opportunities and Assets

- ❑ The Three Rivers Heritage Trail currently provides pedestrian and bicycle travel along the north shore of the Allegheny and Ohio Rivers from the Carnegie Science Center to the west past the stadium area to the east.
- ❑ The Majestic proposal plans to extend the trail system through the site with considerable pedestrian improvements through their site that will provide full physical and visual access to the riverfront.
- ❑ The Riverlife Task Force is planning to improve a pedestrian connection across the West End Bridge to improve accessibility through the Three Rivers Park.

Challenges and Liabilities

- ❑ The Majestic site is the least suitably situated site for safe pedestrian access, hemmed in by the Ohio River to the south, the I-279 highway to the north, North Shore Drive to east, and Beaver Avenue and PA 65 to the west.
- ❑ Together, they present huge physical barriers to direct and safe pedestrian access to the site from all directions.

E. There Must Be Adequate Parking On or Adjacent to the Site

Each of the consultants for the casino developers has conducted a parking demand and supply analysis of the casino portion of their development under existing and design year conditions. All profess to provide ample parking for their patrons and employees in garages on the site, adjacent to the site, or in remote locations.

1. ISLE OF CAPRI

Opportunities and Assets

- ✔ Based on information provided, the Isle of Capri intends on meeting all of their parking needs for casino patrons on the site and nearby parking facilities.
- ✔ IOC will provide employee parking at off site locations, with a shuttle bus service between the parking areas and the casino.
- ✔ Parking demand and supply comparisons were carried out for a weekday daytime, weekday evening time with maximum arena event, Friday evening with maximum arena event, and Saturday evening with maximum arena event (See appendix).
- ✔ Based on operational data provided by IOC on their other facilities, IOC has estimated that the 5,000 slot machine casino will require a 4,301-parking garage.
- ✔ IOC has identified 9,837 alternate parking spaces in facilities within a fifteen-minute walk of their site for use by both patrons and employees (See appendix).

Challenges and Liabilities

- ✔ The estimated 4,301 parking supply for the 5,000 slot machine casino is slightly lower than the 1.0 to 1.5 spaces per gaming position recommended by the casino industry. This means that a parking garage with 5,000 to 7,500 spaces may be required for the IOC garage. The opposite argument of this is that as the garage becomes bigger with more parking spaces, streets and intersections serving the casino become more congested.
- ✔ Although IOC has identified ample parking in and around the CBD for use by parkers displaced by the casino, there is no certainty that they will use these spaces en mass.
- ✔ There is a possibility that some of these parkers may infiltrate the Crawford Square and Hill District neighborhoods looking for parking spaces on the street during peak casino hours on Friday and Saturday, or during arena events.

Table E1 (a) IOC On-Site Parking Supply/Demand Comparison

PARKING PEAK PERIOD	TOTAL PARKING SUPPLY ⁽¹⁾	PARKING DEMAND ⁽²⁾		PARKING SURPLUS OR (DEFICIT) ⁽³⁾
		PATRONS	EMPLOYEES	
ON-SITE PARKERS				
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

2. HARRAH'S STATION SQUARE CASINO

Opportunities and Assets

- ✓ HSSC and Forrest City Enterprises own and control the entire site. This provides them with an opportunity to provide all required parking on site for both patrons and employees.
- ✓ If Harrah's can not provide this parking on the site, alternate parking and shuttle bus arrangements for employee parkers should be explored.

Challenges and Liabilities

- ✓ Harrah's has estimated parking demand for the casino based on current usage of existing parking facilities on peak design days at Station Square; excluding events at the Amphitheater.
- ✓ Peak parking for the casino is expected to be Saturday evenings. This is also currently the highest peak parking period for entertainment events at Station Square.
- ✓ To accommodate the Saturday peak demand, the analysis recommends a parking supply of approximately 3,100 for both patrons and employees. However, this does not appear to be sufficient to meet the demand.
- ✓ The parking demand for the casino on a Saturday evening is approximately 3,100 spaces; 2,700 spaces for patrons and 400 spaces for employees or a parking rate of .78 spaces per slot machine or per gaming position. This is below industry standards based data shown through independent research. Industry standards show a parking rate of 1.0 to 1.5 parking spaces per gaming position.
- ✓ This means that a parking garage with 5,000 to 7,500 spaces may be required for the HSSC garage. The opposite argument of this is that as the garage becomes bigger with more parking spaces, Smithfield

Street, Carson Street, and Station Square driveways serving the site will become more congested.

Table E2 Harrah's Parking Table

The development plans show that Station Square will have approximately 5500 parking spaces, provided in four parking areas.

East Parking Lots	1185 parking spaces
Central Garage	1210 parking spaces
Under Casino	600 parking spaces
New Garage	2500 parking spaces
TOTAL	5495 parking spaces

3. THE MAJESTIC STAR CASINO

Opportunities and Assets

- ✓ The parking demand for the Majestic is estimated to be 4,186 spaces for the phase one development (which includes the 3,000-slot casino with some specialty restaurants).
- ✓ Phase two of the development will include an additional 2,000 slot machines and it would require additional parking spaces.
- ✓ The total parking demand for the full 5,000 slot machine casino is approximately 5,100 spaces.
- ✓ MSC is taking advantage of an opportunity to park most of the casino employees in remote parking areas and use shuttle buses to transport them to and from the site.
- ✓ The parking demand estimate by Majestic is in line with industry standards and provides the patron parking demand on the site.
- ✓ MSC's proposed parking garage will meet the Department's parking requirements as shown in the table below.

Challenges and Liabilities

- ✓ Employee parking for 600 spaces will, however, be provided at an off-site location yet to be identified. These employees will be transported to and from the casino by chartered shuttle buses. This parking should not be located in or near residential areas on the North Side.
- ✓ Design of the parking garage and site access points is incomplete.

Table E2 (a) MSC Parking Demand/Supply Comparison

Parking Type	Supply	Peak Demand
Patrons	4,186*	4,000
Employees	600*	600

*on-site parking initially at 4,186 but expandable to meet demand
 *off-site parking provided to meet demand

F. There Must Be Adequate Space For Bus, Taxi, And Other Common Carrier Transportation (Including Loading And Unloading).

1. ISLE OF CAPRI

Opportunities and Assets

- ✔ The preliminary site plan for the casino shows a 700-foot loading dock area. This will provide enough dock space to stage all trucks internally instead of on the public street.
- ✔ The loading dock area will include two separate loading areas. The first will serve the casino and have twelve loading docks. The second loading area will serve the new arena. The design of the loading docks will accommodate a maximum WB-40, WB50 and WB67 trucks.
- ✔ The loading dock is large enough that trucks can circulate and turn around within the facility.
- ✔ The casino will be designed to have a porte-cochere with entrance and exit on Centre Avenue.
- ✔ Tour or charter buses will access the site via Fifth Avenue and public bus service via Centre Avenue and Fifth Avenue.
- ✔ The porte-cochere entrance will be located on Centre Avenue and will serve taxis, limousines, and drop offs.

Challenges and Liabilities

- ✔ A preliminary truck loading management plan will have to be finalized by IOC.
- ✔ Truck and charter bus access via Fifth Avenue could exacerbate congestion. Conflicts will increase between PAT buses, trucks loading and unloading activities, casino trucks and charter buses, and pedestrians on Fifth Avenue.

2. HARRAH'S STATION SQUARE CASINO

Opportunities and Assets

- ✔ The Harrah's site plan shows porte-cochere operations at the casino on Carson Street side.
- ✔ All truck operations are presumed to take place on the site.

Challenges and Liabilities

- ✔ No information is provided on truck arrivals, circulation and docking operations at the casino.
- ✔ No truck loading management plan is provided.
- ✔ Insufficient information is provided to evaluate porte-cochere operations.

3. MAJESTIC STAR CASINO

Opportunities and Assets

- ✓ Majestic will provide separate loading areas for the casino and restaurant uses on the site.
- ✓ Trucks will access the loading area via Reedsdale Street.
- ✓ The proposed site plan shows casino truck loading docks for two semi-trailer trucks and three large single unit trucks.

Challenges and Liabilities

- ✓ No analysis is shown in the report to document how the number of dock space was determined.
- ✓ MSC claims that the proposed truck loading area will accommodate the truck loading demands of the casino and food court, buffet, and entertainment areas. The report fails to show any analysis documenting how the number of dock spaces was determined.
- ✓ No truck loading management plan is submitted in the report. Majestic promises to prepare one if awarded the gaming license.

G. The Casino Development Must Minimize the Potential For Traffic Congestion

The following is a detailed assessment of each of the development proposals and their impact on existing and design year traffic conditions on the City's transportation infrastructure and nearby residential neighborhoods. This assessment is based on an overview of the three potential sites and analysis of the transportation impact study submitted by each applicant to support their development proposal. Each traffic consultant collected field data that was analyzed to represent a broad assessment of Level of Service (LOS) and capacity conditions at critical intersections and roadway links accessing the site. The field data were also used to analyze future design year traffic conditions with and without the casino development using a 0.5 percent traffic growth factor supplied by the Southwestern Pennsylvania Commission.

1. Level of Service

Each roadway link or intersection was evaluated using procedures established by the Transportation Research Board (TRB) contained in the Highway Capacity Manual, HCM 2000. The Level of Service of a roadway link or intersection is a qualitative and quantitative evaluation of the traffic operation of a given intersection using these procedures. They range from LOS A (a condition of little or no delay) to LOS F (a condition of capacity breakdown represented by heavy delay and congestion). Level of Service B is characterized as stable flow. Level of Service C is also characterized by stable flow but there is some congestion with declining levels of comfort and convenience. Level of Service D is characterized by unstable flow with severe restrictions on speed and

maneuverability. Level of Service E represents unstable flow with the intersection, at or near capacity, and characterized by poor levels of comfort and convenience. The table below demonstrates the levels of service models described above.

Table G1 Level of Service Criteria

SIGNALIZED INTERSECTION	
Level of Service	Stopped Delay per Vehicle (Sec)
A	Less than 10 sec
B	Greater than 10 sec and less than 20 sec
C	Greater that 20 sec and less than 35 sec
D	Greater than 35 sec and less than 55 sec
E	Greater than 55 sec and less than 80 sec
F	Greater than 80 sec

SIGNALIZED INTERSECTION	
Level of Service	Stopped Delay per Vehicle (Sec)
A	Less than 10 sec
B	Greater than 10 sec and less than 15 sec
C	Greater than 15 sec and less than 25 sec
D	Greater than 25 sec and less than 35 sec
E	Greater than 35 sec and less than 50 sec
F	Greater than 50 sec

2. CASINO TRIP DISTRIBUTIONS

Understanding existing trip making characteristics into and out of the Pittsburgh downtown is a critical first step in assessing the potential traffic impacts associated with the proposed casino development. The Southwestern Pennsylvania Commission was asked to provide technical guidance in estimating existing trip distributions to downtown Pittsburgh from potential market areas, in the Pittsburgh region, including Allegheny County, Armstrong County, Beaver County, Butler County, Washington County, Westmorland County, and external counties in Ohio and West Virginia. Table G2 below further explains this distribution.

Table G2 Trip Distribution Matrix

TRIP DISTRIBUTION MATRIX		
ORIGIN	TOTAL BASE TRIPS	Average %
ZONE	PITTSBURGH	DISTRIBUTION
Allegheny	20,413	89.73
Armstrong	135	0.59
Beaver	309	1.36
Butler	415	1.82
Washington	510	2.24
Westmorland	673	2.96
External Counties	295	1.30
TOTAL	22,750	100.00

All of the transportation consultants for casino developers were required to apply the above table to distribute casino trips to the regional highway system.

3. ISLE OF CAPRI SITE

This site is located in the Lower Hill District and Uptown Area with frontages on Centre Avenue, Washington Place and Fifth Avenue (See Figure G3). The phase one casino site is 9.2 acres. IOC has complete property control.

LOCATION	DIRECTION	NUMBER OF TRIPS					
		2008 BASE CONDITIONS ¹¹		MASTER PLAN TRIPS ²²		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
Wyle Avenue (From Arthur Street to Roberts Street)	Eastbound	574	496	Neg.	Neg.	574	496
Wyle 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
Dinwiddle Street (From Centre Avenue to Rose Street)	Northbound	2,079	1,922	Neg.	Neg.	2,079	1,922
Dinwiddle 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

LOCATION	DIRECTION	NUMBER OF TRIPS					
		2008 BASE CONDITIONS ¹¹		MASTER PLAN TRIPS ²²		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

b. Trip Generation

Opportunities and Assets

☑ IOC estimated trip generation for the proposed 5,000 slot machine casino based upon data for a similar facility in Kansas City, Missouri. It is an urban casino with 1,555 slot machines. Based on the trip distribution matrix provided by the City, site generated traffic was assigned to the roadway network.

☑ There is area wide access to the site via the Cross Town Expressway, I-279, I-376 and SR-19.

☑ Secondary vehicular access is provided via Washington Place, Forbes/Fifth Avenues, Centre Avenue, Bedford Avenue, Grant Street, Sixth Street and Crawford/Pride Streets.

☑ The trip generation table below shows that the 5,000 slot machine casino will generate over 50,000 vehicle trips on a weekday and over 51,000 vehicle trips on a Saturday weekend.

☑ Intersection capacity calculations show that most intersections in the study area will operate at acceptable levels of service with few exceptions.

☑ IOC has recommended roadway physical changes and signal modifications to mitigate the traffic impacts of the casino as shown. The table of recommended improvements is included in this report.

Challenges and Liabilities

☑ Future peak hour traffic congestion at on Chatham Square, Bedford Avenue between Chatham Court and Washington Place, Fifth Avenue at Washington Place/Chatham Square, and the Liberty bridge ramps.

- Increased congestion is anticipated in the future. Conflict between casino traffic and PAT buses, truck loading and unloading on Fifth Avenue, pedestrian circulation, and parking and un-parking of cars will degrade the level of service on Fifth Avenue, Washington Place, and Pride Street.

Table G3 (b) Summary of Trip Generation

LAND USE	SIZE	ITE LAND USE	FRIDAY CASINO PEAK				SATURDAY CASINO PEAK			
			ENTERING	EXITING	TOTAL	AVERAGE DAILY TRIPS	ENTERING	EXITING	TOTAL	AVERAGE DAILY TRIPS
PITTSBURGH FIRST MASTER PLAN										
Casino	5,000 slots	10	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	264	183	447	10,023
Retail	71,200 S.F.	820	29	28	57	3,057	36	59	95	3,558
Office	200,000 S.F.	710	Neg.	Neg.	0	2,275	Neg.	Neg.	0	Neg.
Subtotal, Master Plan			2,506	2,049	4,557	67,891	2,015	2,197	4,212	67,460
ISLE OF CAPRI CASINO										
Casino	5,000 slots	10	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

c. Future Levels of Service

Opportunities and Asset

- With the exception of a few minor streets, nearly every intersection in the IOC study area is signalized.
- Using accepted analysis methodologies, intersection levels of service were determined for all of the study intersections under future 2008 conditions.
- The city operates a central computerized traffic control system that includes signals within the central business district. In the future, the city will extend this system to signals within the IOC project area.
- The City has extended CBD standards for signal design to the IOC study area, which includes special aesthetic mast arms, pedestrian signals and all wiring underground.
- Most of the intersections in the IOC study area will operate at acceptable levels of service in the future with the exception of a few critical intersections along Centre Avenue, Washington Place, Grant Street and Fifth Avenue.

Challenges and Liabilities

- Signal equipments and standards in the IOC study area are very old and have signals mounted on span wire on poles on the side of the road.
- Signal installations in the IOC study area generally do not include pedestrian signals.
- In the future, low levels of service will occur at the following intersections:

Table G3 (c) Future Intersection Level of Service

INTERSECTION/APPROACH/ MOVEMENT	LEVELS OF SERVICE (Do by In seconds) ^{1,2}			
	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'12.3	-	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'30.1
• Approach	C'21.7	C'21.2	C'23.1	C'30.1
Northbound Washington Place				
• Approach	C'22.7	F'140.3	C'22.4	D'41.9
Northbound Crossdown Boulevard Off Ramp				
• Approach	C'25.4	B'38.5	C'25.3	B'62.3
Southbound Washington Place				
• Detach Left Turns	-	F'39.7	-	B'67.1
• Left Turns, Throughs	C'20.9	C'41.4	C'20.7	C'33.8
• Right Turns	B'19.8	D'30.5	B'19.9	C'32.7
• Approach	C'20.8	F'128.9	C'20.6	D'31.9
OVERALL INTERSECTION	C'22.3	F'83	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'12.1	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'19.4	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'34.6	B'12.9	C'27.7

d. Recommended Improvements

Opportunities and Assets

- Δ Based on the documented future impacts of IOC's 5,000 slot machine casino on the City's transportation infrastructure in the area, several roadway improvements have been recommended.
- Δ Generally, the roadway network in the IOC study area has the capacity to carry heavy traffic flows.
- Δ The site has excellent access to I-579, adjacent bridges, and the entire regional highway system.
- Δ The traffic signals adjacent to the site are recommended to be integrated into the City's computerized traffic control system.

- ❑ IOC will provide a traffic operations plan for review and adoption by operators.
- ❑ Off duty police officers will be used to manage traffic during peak hours.
- ❑ The City's Wayfinder signage system can be expanded and modified to direct visitors to the casino and parking areas.

Challenges and Liabilities

- ❑ Based on queuing analysis, significant queuing is expected to occur at the following locations during peak hours:
 - Washington Place/Bedford Avenue/Bigelow Boulevard during the PM peak hour.
 - Centre Avenue/Washington Place/I-579 northbound ramp during the arena event peak hour and Friday casino peak hour.
 - Bedford Avenue/Mario Lemieux Place/Seventh Avenue on-ramp/HOV Lane during the AM peak hour.
 - Centre Avenue and the casino site driveway intersection during the PM peak hour, Friday casino peak hour and Saturday casino peak hour.

Table G3 (d) Recommended Improvements

INTERSECTION	IMPROVEMENT
Centre Avenue - Washington Place to Crawford Street	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Construct right turn lane into site driveway in addition to two through lanes.
Fifth Avenue & Magee Street Site Driveway	<ul style="list-style-type: none"> • Signalize driveway approach.
Fifth Avenue & Stovenson Street/Loading Dock Driveway	<ul style="list-style-type: none"> • Upgrade traffic signal to CBD standards. • Signalize driveway approach.
Crawm Street & First Avenue	<ul style="list-style-type: none"> • Add northbound right turn overlap phase.
Centre Avenue & Washington Place	<ul style="list-style-type: none"> • 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 lanes. • Upgrade traffic signal equipment to CBD standards. • Install detection equipment on all approaches to permit fully-actuated operation.
Bedford Avenue & Crawford Avenue	<ul style="list-style-type: none"> • Re-stripe eastbound approach to include a shared left/through lane and exclusive right turn lane.
Bedford Avenue & Lemieux Place/HOV Ramp	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.

INTERSECTION	IMPROVEMENT
Fifth Avenue & Washington Place Chatham Place	<ul style="list-style-type: none"> Upgrade traffic signal to CBD standards. Prohibit parking for at least 150 feet along north curb line on westbound approach and install an exclusive north turn lane.
Forbes Avenue & Armstrong Tunnel 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	<ul style="list-style-type: none"> Upgrade existing traffic signal to provide pedestrian signals on all crossings.
Bedford Avenue & Crawford Street Centre Avenue & Ellis 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	<ul style="list-style-type: none"> Install fiber optic interconnect. Upgrade signal controller. Integrate into City's computerized traffic control system.
All Study Area Intersections	<ul style="list-style-type: none"> Optimize traffic signal timings. Provide at least 6 timing plans compatible with City's control system.
General Study Area	<ul style="list-style-type: none"> 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.

4. Harrah's Station Square Casino

Data Collection

Opportunities and Assets

- ✓ The roadway system at the HSSC site currently operates at acceptable levels of service with the exception of the intersection Carson Street and Smithfield Street, and the intersection of Carson Street and Arlington Avenue.
- ✓ Primary access to the HSSC casino will be via East and West Carson Street (PA-837) and the Smithfield Street Bridge.
- ✓ Secondary access via SR 51, SR-65, West End Circle, I-376 and I-279, Fort Pitt Boulevard, and Smithfield Street Bridge.
- ✓ Excellent public transit access with bus routes on Carson Street. It is also within walking distance of the Port Authority Transit Station Square T Station, Duquesne Incline, and HOV Tunnel.
- ✓ Data collection included 24-hour average daily traffic (ADT) counts on Carson Street, Smithfield Street Bridge, and Arlington Avenue. These counts are summarized in Table G4 (a).
- ✓ Peak period turning movement counts were taken at the intersections of:
 - Station Square Access Road at West Carson Street (Western Entrance/Exit);
 - Commerce Drive at West Carson Street;
 - Smithfield Street/PAT Access at Carson Street;
 - East Station Square drive/Arlington/PAT Bus way at East Carson Street; and
 - Smithfield Street Ramp/Valet Drive at West Station Square Drive.

Challenges and Liabilities

The Harrah's traffic study was inadequate in terms of the area studies, critical intersections and roadway links analyzed, amount and quality of data collected, study assumptions made, methods of analysis, and study conclusions.

- ✓ Data collection for the HSSC study was limited to the Carson Street Corridor and Smithfield Street. It did include the wider influence area of the project, including East Carson Street beyond Arlington Avenue, West End Circle, and arterials in the central business district.
- ✓ Existing peak period congestions on the Smithfield Street Bridge, Carson Street at Smithfield Street, Carson Street at Arlington Avenue, and Smithfield Street at Fort Pitt Boulevard.

Table G4 (a) Average Daily Traffic Counts

Weekday Average Daily Traffic (ADT) Volumes			
Location	2004	2008	2008
	Existing	Base	Build
West Carson Street east of Station Square Access Road	34500	35800	32700
West Carson Street west of Station Square Access Road	34400	35700	40200
West Carson Street Ramp to I-279	10100	10500	11700
West Carson Street Ramp from I-279	6200	6500	7600
West Carson Street west of Proposed Main Entrance	15100	18800	21400
West Carson Street west of Commerce Drive	15100	18800	23700
West Carson Street west of Smithfield Street Bridge	12200	20700	26200
East Carson Street east of Smithfield Street Bridge	23200	24000	26500
East Carson Street east of Arlington Avenue	16200	16800	19000
Arlington Avenue south of East Carson Street	12400	12800	14000
Smithfield Street Bridge north of Carson Street	14200	15500	18500

Table G4 (a) Average Daily Traffic Counts

Saturday Average Daily Traffic (ADT) Volumes			
Location	2004	2008	2008
	Existing	Base	Build
West Carson Street east of Station Square Access Road	14100	14800	19700
West Carson Street west of Station Square Access Road	14300	14900	22300
West Carson Street Ramp to I-279	4300	4500	6500
West Carson Street Ramp from I-279	1500	1500	3000
West Carson Street west of Proposed Main Entrance	8600	9200	11200
West Carson Street west of Commerce Drive	8600	9200	18300
West Carson Street west of Smithfield Street Bridge	12200	12600	21600
East Carson Street east of Smithfield Street Bridge	13200	13600	15600
East Carson Street east of Arlington Avenue	9000	9300	10400
Arlington Avenue south of East Carson Street	5800	6100	7200
Smithfield Street Bridge north of Carson Street	8800	9300	15700

• Harrah's claims that Station Square draws approximately 2.5 million visitors per year and that many of these visitors (20

Percent) will become patrons of the casino. No back-up information is provided to verify projections.

- ❑ Harrah's claims that many of the casino generated trips will use other modes and not private automobiles. No documented evidence is provided to support this projection. The DCP is of the opinion that the modal split shown in the table below is too optimistic with respect to the use of public transportation modes to access the site.
- ❑ The assumptions are not comparable with those provided by Isle of Capri and Majestic and are not sustainable.
- ❑ Harrah's contention that installation of Intelligent Transportation Systems (ITS) devices will improve the efficiency and operation of the streets and parking facilities serving Station Square is no more than a claim that has yet to be designed and tested. The Department of City Planning believes that ITS technology will have little or no effect on peak hour congestion and traffic operation to and from the casino garages.

Table G4 (b) Modal Split Assumptions

Harrah's Station Square Casino Weekday Modal Split:		Daily 24 Hours		(Peak Hour) (4:30 - 5:30 PM)	
Patrons by:	%	Inbound		Outbound	
Public Transit					
Light Rail and Public Bus	10% (15%)	2,200	(195)	2,200	(218)
Tour Bus, Charter Bus and Shuttle	5% (8%)	1,100	(130)	1,100	(145)
Inciner, Boat, Bicycle and Walk	5% (5%)	1,100	(65)	1,100	(73)
By Taxi and Limousine Service	10% (10%)	2,200	(130)	2,200	(145)
By Private Automobiles	70% (60%)	15,400	(778)	15,400	(871)
Total		22,000	(1,298)	22,000	(1,452)
Employees by:	%				
Public Transit					
Light Rail and Public Bus	25% (35%)	450	(123)	450	(88)
Employee Shuttle Bus	10% (10%)	180	(35)	180	(25)
Inciner, Boat, Bicycle and Walk	5% (5%)	90	(17)	90	(12)
By Taxi and Limousine Service	0% (0%)	0	(0)	0	(0)
By Private Automobiles	60% (50%)	1,080	(175)	1,080	(125)
Total		1,800	(350)	1,800	(250)

Table G4 (b) Modal Split Assumptions

Harrah's Station Square Casino Friday Modal Split		Daily 24 Hours		(Peak Hour) (4:30 - 5:30 PM)	
Patrons by:		Inbound		Outbound	
	%				
Public Transit					
Light Rail and Public Bus	10% (15%)	2,760	(244)	2,760	(273)
Tour Bus, Charter Bus and Shuttle	5% (10%)	1,380	(163)	1,380	(182)
Inclines, Boat, Bicycle and Walk	5% (5%)	1,380	(81)	1,380	(91)
By Taxi and Limousine Service	10% (10%)	2,760	(163)	2,760	(182)
By Private Automobiles	70% (50%)	19,320	(977)	19,320	(1,094)
Total		27,600	(1,628)	27,600	(1,822)
Employees by:		Inbound		Outbound	
	%				
Public Transit					
Light Rail and Public Bus	25% (25%)	500	(140)	500	(96)
Employee Shuttle Bus	10% (10%)	200	(40)	200	(28)
Inclines, Boat, Bicycle and Walk	5% (5%)	100	(20)	100	(14)
By Taxi and Limousine Service	0% (0%)	0	(0)	0	(0)
By Private Automobiles	60% (50%)	1,200	(200)	1,200	(137)
Total		2,000	(400)	2,000	(275)
Harrah's Station Square Casino Saturday Modal Split					
		Daily 24 Hours		(Peak Hour) (6:00 - 7:00 PM)	
Patrons by:		Inbound		Outbound	
	%				
Public Transit					
Light Rail and Public Bus	10% (15%)	3,700	(433)	3,700	(383)
Tour Bus, Charter Bus and Shuttle	5% (10%)	1,850	(289)	1,850	(255)
Inclines, Boat, Bicycle and Walk	5% (5%)	1,850	(144)	1,850	(128)
By Taxi and Limousine Service	10% (10%)	3,700	(289)	3,700	(255)
By Private Automobiles	70% (50%)	25,900	(1,731)	25,900	(1,532)
Total		37,000	(2,866)	37,000	(2,553)
Employees by:		Inbound		Outbound	
	%				
Public Transit					
Light Rail and Public Bus	25% (25%)	550	(0)	550	(0)
Employee Shuttle Bus	10% (10%)	220	(0)	220	(0)
Inclines, Boat, Bicycle and Walk	5% (5%)	110	(0)	110	(0)
By Taxi and Limousine Service	0% (0%)	0	(0)	0	(0)
By Private Automobiles	60% (50%)	1,320	(0)	1,320	(0)
Total		2,200	(0)	2,200	(0)

Trip Generation

Opportunities and Assets

- ☑ The proposed HSSC 5,000 slot machine casino will include related retail, restaurant and operations spaces.
- ☑ This development will be supported by approximately 3,100 parking spaces located in two separate parking garages.
- ☑ Harrah's hopes to capture up to 20 percent of existing station Square patrons to visit the casino. Harrah's hopes that many of these current patrons will extend their stay and visit the casino as part of their Station Square experience.
- ☑ Harrah's estimates that approximately 2.5 million visitors per year currently visit Station Square, 10,000 daily visitors on a peak day, 12,000 daily visitors on a peak Friday, and 15,000 daily visitors on a peak Saturday.

- z Harrah's assumes that the 5,000 slot machine casino will generate 24,000 patrons on a design weekday, 30,000 patrons on a design Friday, and 50,000 patrons on a design Saturday. These daily trips were converted to vehicle trips as shown in Table G4 (c) below.

Table G4 (c) Trip Generation Tables

Patrons by:	Weekday Persons/Veh	Daily 24 Hours		(Peak Hour) (4:30 – 5:30 PM)	
		New Vehicles			
		Inbound	Outbound	Inbound	Outbound
Patrons by:					
Public Transit:					
Light Rail and Public Bus	NA	0	(0)	0	(0)
Tour Bus, Charter Bus and Shuttle	20	55	(8)	55	(8)
Inclines, Boat, Bicycle and Walk	NA	0	(0)	0	(0)
By Taxi and Limousine Service	2.5	880	(52)	880	(58)
By Private Automobiles	2.5	6,160	(312)	6,160	(349)
Total		7,095	(372)	7,095	(415)
Employees by:					
Public Transit:					
Light Rail and Public Bus	NA	0	(0)	0	(0)
Employee Shuttle Bus	10	18	(4)	18	(4)
Inclines, Boat, Bicycle and Walk	NA	0	(0)	0	(0)
By Taxi and Limousine Service	NA	0	(0)	0	(0)
By Private Automobiles	1.1	982	(159)	982	(114)
Total		1,000	(163)	1,000	(118)

Table G4 (c) Trip Generation Tables

	New Vehicles Generated	
	Inbound	Outbound
Design Weekday (24 Hours)		
Casino Patrons	7,095	7,095
Casino Employees	1,000	1,000
Total	8,095	8,095
Design Weekday (4:30 – 5:30 PM)		
Casino Patrons	372	415
Casino Employees	163	118
Total	535	533
Design Friday (24 hours)		
Casino Patrons	8,901	8,901
Casino Employees	1,111	1,111
Total	10,012	10,012
Design Friday (4:30 – 5:30 PM)		
Casino Patrons	467	521
Casino Employees	186	129
Total	653	650
Design Saturday (24 Hours)		
Casino Patrons	11,933	11,933
Casino Employees	1,222	1,222
Total	13,155	13,155
Design Saturday (6:00 – 7:00 PM)		
Casino Patrons	824	730
Casino Employees	0	0
Total	824	730

Challenges and Liabilities

- z Harrah's modal split assumptions are not comparable with modal split assumptions made by Isle of Capri and Majestic Star.
- z DCP is of the opinion that the HSSC will generate more vehicular trips than the report has estimated. This will adversely impact the level of service of intersections and Driveways on Carson Street and Smithfield Street.

Intersection Levels of Service

Opportunities and Assets

- ✓ Harrah's conducted capacity analysis to determine future traffic conditions under build and no build scenarios.
- ✓ Harrah's analysis shows that, under 2008 future conditions, critical study intersections will operate at acceptable levels of service (LOS) A through E.
- ✓ HSSC has recommended improvements to Smithfield Street and Carson Street to improve the operations efficiency of critical study area intersections. Tables G4 (d) and G4 (e) below show the future 2008 LOS and recommended improvements.

Challenges and Liabilities

- ✓ DCP is of the opinion that there will be significant degradation in levels of Service at the Intersection of Carson Street and Smithfield Street, Carson Street and Arlington Street, and operations at the porte-cochere, contrary to what the report shows.

Table G4 (d) Intersection Level of Service

Harrah's Station Square Casino

Weekday PM Peak Hour Signalized Intersection Volumes/Level of Service								
Location	2004		2032		2038		2095	
	Existing		Base		Build		Build/Improved	
	Vol.	LOS	Vol.	LOS	Vol.	LOS	Vol.	LOS
West: Carson Street and Station Square Access Road	3527	B	3001	B	3565	E	3525	C
West: Carson Street and Proposed Main Entrance	-	-	-	-	1933	A	1933	A
West: Carson Street and Commerce Drive/Parking Lot	1717	B	1765	B	2277	B	2277	B
West: Carson Street and Wabash Tunnel	1572	A	1745	A	2263	A	2263	A
Carson Street and Smithfield Street/Port Authority Access	2256	C	2575	C	2874	E	2874	C
East: Carson Street and Busway/Arlington Avenue/ East: Station Square Drive	2165	D	2270	D	2632	E	2632	D

Harrah's Station Square Casino

Saturday PM Peak Hour Signalized Intersection Volumes/Level of Service								
Location	2004		2032		2038		2095	
	Existing		Base		Build		Build/Improved	
	Vol.	LOS	Vol.	LOS	Vol.	LOS	Vol.	LOS
West: Carson Street and Station Square Access Road	1191	A	1234	A	2095	C	2095	B
West: Carson Street and Proposed Main Entrance	-	-	-	-	1346	A	1346	A
West: Carson Street and Commerce Drive/Parking Lot	1055	B	1072	B	1853	B	1853	B
West: Carson Street and Wabash Tunnel	1064	A	1102	A	1879	A	1879	A
Carson Street and Smithfield Street/Port Authority Access	1239	A	1252	A	2001	C	2001	B
East: Carson Street and Busway/Arlington Avenue/ East: Station Square Drive	1222	C	1262	C	1440	C	1440	C

Recommended Improvements

Table G4 (e) Recommended Phase 1 Improvements

Harrah's Station Square Casino

Recommended Phase One Improvements and Cost Estimates		
Location	Improvements	Cost Estimate
The existing east access driveway at Arlington Avenue and Carson Street	<ul style="list-style-type: none"> Widened to accommodate three exit lanes 	\$44,500
The intersection of Carson Street and Smithfield Street	<ul style="list-style-type: none"> A pedestrian overpass across Carson Street An exclusive westbound right turn lane An additional southbound right turn lane 	\$3,609,000
The existing Station Square entrance only driveway on Smithfield Street	<ul style="list-style-type: none"> The existing Station Square entrance widened for two lanes at its intersection with Station Square Drive 	\$6,000
The existing Commerce Street driveway on Carson Street	<ul style="list-style-type: none"> The center median in the driveway (Commerce Street) will be closed and relocated to the east to accommodate a single entry lane and three southbound exit lanes The traffic signal phasing will be converted to a split phase operation for the northbound and southbound movements 	\$16,500
The existing access driveway west of the parking garage	<ul style="list-style-type: none"> The existing access driveway will be widened to accommodate three northbound entrance lanes and one southbound exit lane Carson Street will be widened at this intersection to accommodate an eastbound left turn lane Signalization 	\$169,500
New exit only driveway on Carson Street (approximately 1000 feet west of Commerce Street)	<ul style="list-style-type: none"> The driveway will have two southbound exit lanes Signalization 	\$81,500
New entrance only driveway on Carson Street (approximately 1600 feet west of Commerce Street)	<ul style="list-style-type: none"> The driveway will have two northbound entry lanes Carson Street will be widened at this intersection to accommodate an eastbound left turn lane 	\$35,500
The existing west access driveway at Carson Street	<ul style="list-style-type: none"> The driveway will be reconfigured for one inbound lane and three outbound lanes at Carson Street 	\$50,000
Traffic control system and intelligent transportation system upgrades		\$900,000

Note: This cost estimate does not include costs associated with acquiring R/W and performing utility relocations or those associated with roadway / traffic signalization design or design of the pedestrian overpass.

5. MAJESTIC STAR CASINO

Site Location and Data Collection

Opportunities and Assets

- ✓ Primary access via Reedsdale Street and North Shore Drive.
- ✓ Secondary access via SR 51, SR-65, SR-28, I-279, and HOV Lane to North Shore Drive or Reedsdale Street.
- ✓ Public transit access is problematic and inadequate.
- ✓ MSC staff conducted field studies, including observations along the frontage of the site and at adjacent intersections to review general traffic operations, sight distance at existing and potential driveway access locations and intersection operations.
- ✓ Traffic count data at adjacent intersections were obtained from manual turning movement counts.
- ✓ Seven day ATR counts were also conducted on Reedsdale Street between Allegheny Avenue and Fontella Street

Challenges and Liabilities

- ✓ Pedestrian access is unsafe and problematic.
- ✓ The MSC site is near SR-65, I-279, SR-28, SR-51, and the West End Bridge, but direct access is problematic due to existing roadway physical geometrics and directional flow.
- ✓ A key constraint is that Reedsdale Street and North Shore Drive (along the frontage of the site) are currently one-way eastbound streets. In addition, there are currently four lanes on North Shore Drive adjacent to the site. North Shore Drive is fed by West End Bridge, Reedsdale Street, and SR-65.
- ✓ There is currently a significant difference between peak AM traffic volumes and peak Pm traffic volumes. In the AM, approximately 1,000 southbound vehicles pass the site on North Shore Drive. In the PM, this trend is reversed with only 300 vehicles per hour passing the site.
- ✓ Traffic volumes from a Pittsburgh Steelers game were obtained for future analysis purposes.

Trip Generation

Opportunities and Assets

- ✓ Person Trip generation for the MSC proposal was estimated using various principles, including Institute of Transportation Engineers (ITE) trip generation factors.
- ✓ Daily attendance estimates were derived from attendance data at another MSC site and Trump Casino in Indiana.

- z Vehicle trip generation was calculated based on 90 percent arrival via private automobile and 10 percent via other modes, including transit, taxi, walk, and charter bus.
- z Vehicle occupancy was estimated at 1.5 persons per auto on weekdays and 2.0 persons per auto on Fridays and Saturdays.
- z Below are tables showing the number of patrons and employees for a 5,000 slot casino, and the corresponding vehicle trips for a Friday and Saturday for a 24-hour day and peak period.

Challenges and Liabilities

- z MSC has used conservative estimated to generate trips for this site, so there are no obvious challenges or liabilities associated with this approach. Table G5 (a) below shows trip generations for a typical weekday and weekend conditions.

Table G5 (a) Trip Generations

Daily Patrons	Estimated Daily Visits Per 5000 Slots	Daily Visit Design Levels	Estimated Daily Vehicle Trips
Weekday	17,611	20,000	24,000
Friday	25,268	30,000	36,000
Saturday	30,934	36,000	32,400

Peak Hour Persons		Peak Hour Vehicle Trips		
Peak Period	Inbound	Outbound	Inbound	Outbound
A.M. Friday	420	350	210	180
P.M. Weekday	2,690	2,100	1,350	1,050
P.M. Saturday	4,010	2,940	2,000	1,470

- z The table below show weekday vehicle volumes for 2005 existing conditions and 2008 design year conditions.

Location	2005 Weekday ADT	2008 Weekday ADT	2008 Total Weekday ADT with Casino
Reedsdale Street	1,740	1,770	13,290
Allegheny Avenue	4,425	4,500	14,760
North Shore Drive	6,370	6,470	21,230

- Table below shows the assumed mode split for Majestic Star patrons and employees.

Mode	Employees	Patrons
Pedestrians	2%	2%
Taxis	0%	3%
Limousines	0%	1%
Public Transit	10%	2%
Charter Buses	0%	2%
Private Auto	88%	90%

Future 2008 Intersection Levels of Service

Opportunities and Assets

- ☑ Under existing conditions, the morning weekday peak hour experiences higher traffic demand than the P.M. peak hour.
- ☑ There does not appear to be any capacity issues at adjacent signalized intersections during the A.M., P.M. or Saturday peak hours under existing 2005 and design year 2008 conditions without the casino.
- ☑ During the weekday peak period, MSC avers that casino traffic can be accommodated without any significant problems.

Challenges and Liabilities

- ☑ With the casino in place, the project area intersection will still operate at an acceptable level of service except the intersection of Reedsdale northbound on Allegheny, and Reedsdale at North Shore Drive. Significant peak hour queuing is anticipated in the future.
- ☑ On a Steelers football Sunday, there will be significant traffic congestion with complete failure conditions at the intersections of Allegheny/Reedsdale, and Allegheny/North Shore. There will also be significant degradation in the level of service at the intersection of Reedsdale/North Shore Drive. The future 2008 LOS is shown below.
- ☑ The tables on the following page show that with Saturday peak hour trip generation assumed at approximately 4,000 two-way trips, Reedsdale Street would begin to experience capacity problems.

Weekday Total 2008 Intersection Operations

Intersection	Period	Total Int. Volume	Overall LOS	Critical		Comments
				LOS	V/C	
Allegheny/Reedsdale	A.M. Peak	1892	A	C	0.60	No significant delays
Allegheny/North Shore		887	A	B	0.36	No significant delays
Reedsdale/North Shore		1738	B	C	0.53	No significant delays
North Shore/Porte Cochere		1298	A	C	0.34	Delay for eastbound traffic exiting casino
Reedsdale/Lighthill		853	C	D	0.62	Westbound left delay
Allegheny/Reedsdale	P.M. Peak	2499	C	E	0.85	Northbound through delay
Allegheny/North Shore		1585	A	B	0.59	No significant capacity issues
Reedsdale/North Shore		2947	B	C	0.82	Eastbound left queuing 200 feet
North Shore/Porte Cochere		1827	B	C	0.58	No significant capacity issues
Reedsdale/Lighthill		2035	B	D	0.68	Westbound left delay

Note: Critical movements generally defined as V/C > 0.85

Saturday P.M. Total Peak Hour Intersection Operations

Intersection	Period	Int. Volume	Overall LOS	Critical		Comments
				LOS	V/C	
Allegheny/Reedsdale	Saturday Evening Peak	2945	D	E	1.00	Westbound through operating at capacity
Allegheny/North Shore		1772	B	B	0.62	No significant capacity issues
Reedsdale/North Shore		3482	D	E	1.02	Eastbound left queuing 600 feet
North Shore/Porte Cochere		2231	B	D	0.69	No significant capacity issues
Reedsdale/Lighthill		2674	C	D	0.83	Westbound left delay

Recommended Improvements

Opportunities and Assets

- ❑ With modifications to the roadway network and installation of new signals at key intersections, Majestic Star claims that it will have minimal impact on the City's transportation infrastructure.
- ❑ MSC will provide westbound traffic on North Shore Drive access to the porte-cochere and will install a new signal at the intersection of North Shore Drive with the porte-cochere. The table below shows the recommended improvements and associated costs.
- ❑ MSC recommends a new traffic signal installation and reconfigurations at the Reedsdale Street/North Shore Drive intersection.
- ❑ MSC recommends a new traffic signal installation and intersection reconfiguration at the proposed porte-cochere entrance and North Shore Drive. The recommended improvements and associated costs are shown below

- z MSC has an opportunity in the future to design a ramp connection from the West End Bridge ramp directly to the second level of the proposed parking garage.

III. Finding

Based on the above review and analysis of the comparative advantages and liabilities of the three casinos, further technical analysis was undertaken to weigh each casino proposal with respect to the seven criteria stated in this document. They are:

- ❑ Regional highway access.
- ❑ Convenient local access by car.
- ❑ The site must be accessible by public transit.
- ❑ The site must be accessible to pedestrians.
- ❑ There must be adequate parking on or adjacent to the site.
- ❑ There must be adequate space for bus, taxi, and other common carrier transportation, including loading and unloading, and
- ❑ The casino development must minimize the potential for traffic congestion.
- ❑ Each criterion was given a weight based on its relative contribution to the City's transportation infrastructure versus the cost to the City in implementing and maintaining the new infrastructure improvements.
- ❑ Regional highway access was given a score of 0-4, convenient local access, 0-3; accessible by public transit, 0-3, accessible to pedestrians, 0-1; provides adequate parking, 0-2; adequate space for bus and other common carrier loading and unloading, 0-3; minimize traffic congestion, 0-4.
- ❑ Sub-elements were developed for each criterion and scored from 0-5 based on its significance to the other sub-criteria.
- ❑ There are two tables showing this ratings structure. Table F1 shows the criterion and scores. Table F2 shows the weighted average for each casino proposal with respect to the seven criteria.
- ❑ The average score for each casino proposal was multiplied by the score assigned each criterion to derive the weighted average.

As shown on the Table F2, the Isle of Capri proposal would provide the most benefit to the city in terms of existing transportation infrastructures to access the site and in terms of recommended public infrastructure improvements and pedestrian amenities.

Table F2 Comparative Ratings

**TRANSPORTATION AND
PARKING ANALYSIS**

CASINO EVALUATION CRITERIA	WEIGHT	ISLE OF CAPRI		HARRAH'S STATION SQUARE		MAJESTIC STA	
		AVG.	WEIGHTED SCORE	AVG.	WEIGHTED SCORE	AVG.	WEIGHTED SCORE
CONVENIENT REGIONAL HIGHWAY ACCESS	4	2.17	8.68	1.67	6.68	1.33	5.32
CONVENIENT LOCAL ACCESS BY CAR	3	3.22	9.66	2.44	7.32	2.33	6.99
ACCESSIBLE BY PUBLIC TRANSIT	3	1.79	5.37	2.07	6.21	1.21	3.64
ACCESSIBLE TO PEDESTRIANS	1	3.29	3.29	3.07	3.07	1.86	1.86
PROVIDES ADEQUATE PARKING ON OR ADJACENT TO THE SITE	2	3.63	7.26	3.25	6.50	3.38	6.76
ADEQUATE SPACE FOR BUS, TAXI, AND OTHER COMMON CARRIER TRANSPORTATION, INCLUDING LOADING AND UNLOADING	3	3.40	10.20	3.20	9.60	3.20	9.60
MINIMIZES POTENTIAL FOR TRAFFIC CONGESTION	4	3.00	12.00	2.11	8.44	2.00	8.00
			56.46		47.82		42.17

