

# Master Plan Phase III – New Open Air NFL Stadium

Atlanta, Georgia

## FACILITY PROGRAM

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**POPULOUS™**



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This program document is intended to be evolutionary over the course of the design of the project. Space requirements and square footage will continue to evolve as conceptual design is progressed.

## Table of Contents

### SECTION

- 1 Executive Summary
- 2 Design Narrative
- 3 Program Area Narrative
- 4 New Stadium
- 5 Stadium Cost Model
- 6 Long Term Georgia Dome Capital Budget: Maintenance and Improvements
- 7 Traffic, Transportation and Parking

## EXECUTIVE SUMMARY

### Study Overview

The goal of this study was to identify the viability and impacts of constructing a New Open Air NFL Stadium on the Georgia World Congress Center (GWCC) Campus, specifically the 28 acres which currently comprise the Yellow Lot and Marshalling Yard.

Included in this study are diagrams representing a contemporary NFL stadium placed on this site showing the corresponding impacts.

As well, a project budget was developed which represents the potential cost to develop the project on this specific site.

### The Site

The Yellow Lot and Marshalling Yard can accommodate the size of a contemporary open air NFL stadium. The site is a rectangle running east/west and is approximately 28 acres. 25 acres is the minimum required for a facility of this type in an urban setting. Because the site size requirement is met, deeper analysis of site conditions were developed. Two primary issues of importance came to the fore. The first is a series of overhead transmission lines running north/south through the center of the site and along the western edge of the site. In order for the stadium to be built these transmission lines must be relocated. Secondly, there exists encapsulated soil located on the northern side of the Yellow Lot. Because the stadium is sited over a portion of this soil, approximately 3.5 acres of this soil will need to be disturbed or removed. The cost of the on-site soil mitigation is explored in Section 5, Stadium Cost Model.

The Marshalling Yard comprises the eastern half of the site and is approximately 16.5 acres. The placement of the NFL stadium will virtually eliminate the usefulness of the Marshalling Yard; therefore it is recommended that it be relocated. The cost of this relocation is explored in Section 5, Stadium Cost Model.

### Traffic/Parking/Transit

Control of urban parking inventories are usually more difficult to achieve than at a suburban green field site. The area around the site does offer an adequate number of parking spaces if the stadium is not used simultaneously with large-scale events at the Georgia Dome and World Congress Center. However, the walk times to this facility versus the Georgia Dome will increase with more than 50% of the customers having walk times of 15 to 20 minutes to the venue from existing parking inventories.

Customers using MARTA will also have longer walk times to the new venue location. However, there are two additional existing stations that customers will be able to use, Civic Center Station and Peachtree Plaza Station, to access the site from the east. Walk times from both of these stations will be between 17 and 22 minutes. The shortest walk will be under 15 minutes from Vine City Station, located south of the venue.

Traffic conditions will be similar to the conditions that are experienced for the Georgia Dome both for ingress and egress but would likely exceed capacity if multiple large-scale events were to occur simultaneously. This report develops several recommendations for traffic and parking related to the new site in Section 5, New Stadium, and for the existing Georgia Dome in Section 7, Traffic, Transportation and Parking.

**Budget**

The budget developed utilizes a 2011 cost basis. The current economy is creating a favorable climate in which to undertake a project of the significance of a new open air NFL stadium. The current project budget is approximately \$700,000,000, including soft costs and fees. A full accounting of the budget can be found in Section 5, Stadium Cost Model.

**The Georgia Dome**

While this report focuses on a new open air NFL stadium on the campus of the Congress Center, it also looks at the importance of continued maintenance and improvement of the Georgia Dome as the customer base may shift if the Falcons are no longer the primary tenant in the building.

In order to maintain the building, a long term capital budget should be developed to determine the maintenance costs over the next 20 years.

Equally important will be the continued improvement of the Georgia Dome. As trends and customer expectations constantly change, so too should the Georgia Dome. Keeping pace with customer expectations has always been hallmark of the Georgia World Congress Center and will continue to be into the future. As the customer base changes from a Falcons-first facility to one oriented toward a growing trade show customer base keeping pace with expectations will become as important as ever and will require the Georgia Dome to adapt to their new base to remain competitive in their market. More detail can be found in Section 6, Long Term Georgia Dome Capital Budget: Maintenance and Improvements.

**Conclusion**

In conclusion, while there are many complex issues that need to be resolved in order to make the stadium work on this site, none seem out of the ordinary for a design and construction project of this magnitude and complexity.

## DESIGN NARRATIVE

### Table of Contents

CONTENT	PAGE
I. General Description	2
II. Facility Systems Requirements	2
III. Classification 1: Spectator Facilities	8
IV. Classification 2: Food Service & Retail Facilities	13
V. Classification 3: Team Facilities	15
VI. Classification 4: Media Facilities	17
VII. Classification 5: Administration Facilities	21
VIII. Classification 6: Service & Operations Facilities	22
IX. Classification 7: Circulation	26
X. Exterior Space Requirements	27

## I. General Description

This ideal stadium will be designed primarily to accommodate an NFL football team.

This venue will seat approximately 65,000 spectators with the ability to expand to 75,000 seats. Portable and removable seating components will be utilized in order to achieve maximum flexibility for various event configurations such as the Super Bowl and FIFA soccer.

The development and design of this facility shall be competitive in all respects with NFL football stadiums recently constructed or under construction, and meet the requirements of all applicable building codes and ordinances, including the ADA (Americans with Disabilities Act). The city of Atlanta has adopted the following building codes:

- International Building Code 2006
- International Plumbing Code 2006

The new facility is to be located on the current Yellow Lot and Marshalling Yards at the north end of the GWCC Campus. The purpose of this programming exercise is to define what the ideal facility needs are and how to accommodate them.

The following pages outline the required spaces, organized per classification as defined in the Section 3, Program Area Summary, for this facility with a description of each space. Refer to the Program Area Summary for all square footage.

## II. Facility Systems Requirements

The following system requirements should be considered for the new NFL football stadium. These systems are not included in the program area summary and include the following:

### **Open Air Stadium**

Provide an open-air stadium which allows flexibility for events while optimizing natural sunlight and ventilation. A full or partial canopy may be desired and will be determined during a detailed design process.

### **Operable Wall(s)**

Operable glass curtain walls may be included in the design at a location such as one of the main club or suites spaces. This will provide a connection to the outdoors, connection to the city or surrounding environment, and flexibility for events providing indoor/outdoor opportunities.

### **HVAC Systems**

The design and installation of mechanical systems will provide facilities that exhibit flexibility of use, provide for a healthful, safe, and comfortable environment while optimizing energy consumption and ongoing maintenance cost, all in accordance with applicable codes and regulations.

### **Electrical Lighting Systems**

Adequate general illumination shall be provided throughout the stadium for concourses, ramps, portals, etc. as well as required emergency lighting.

A complete field lighting system providing adequate illumination for high definition television coverage shall be provided and shall consider the following: players primary and secondary viewing angles; broadcast television; spectator viewing comfort. Well-balanced lighting in coordination of scoreboard, video board and exterior television monitor placement and viewing angles shall be considered. The television networks shall be consulted prior to final design.

Provisions for flexible lighting components that can be adjusted for each event type will be explored throughout the design process.

### **Utility Metering**

Utility usage should be tracked by events to allow appropriate utility charges to be billed to each event. This is referred to as “metering”. The new facility should be capable of metering all utilities used by events. Each utility should be metered separately.

### **Potable Water Systems**

Public restrooms at the general public concourses will have cold water service for lavatories. Hot water may be provided if required by local codes. Hot and cold water will be provided at all suite level restrooms and club level restrooms.

Secured, lockable hose bibbs with removable handles will be distributed at public restrooms, off the event floor, at building exterior and at other locations to be determined to accommodate cleaning requirements.

Non-refrigerated drinking fountains shall be provided at all concourse levels. Fifty percent of the drinking fountains will be accessible. Electric water coolers will be provided at the club and suite level, locker rooms, press, team areas, administrative offices and possibly other locations.

### **Stormwater Drainage System**

Roofs and canopies shall be drained by gravity via roof drains through inside leaders and house drains. Separate overflow drains will be provided adjacent to each roof drain. Each overflow drain will be piped independently to grade. All piping subject to “sweating” or condensation will be insulated. Drains will be provided to drain runoff from the truck dock areas. Appropriate sand/oil interceptors where required will be provided. The seating bowl and playing field will require storm drainage systems.

### **Irrigation Water Systems**

Provide an irrigation system to cover general landscape areas outside the facility. Specific requirements for the facility are yet to be determined. A grey water collection system could be used to supply water to the landscape and should be further explored.

### **Grease Waste Systems**

Provide a centralized underground grease storage system that is designed to receive the gravity flow from all grease receiving kitchen fixtures and drains. Location and size is to be determined. Individual concession stands will have independent point of use grease interceptors.

### **Fire Protection Systems**

Fire protection equipment such as sprinklers, standpipes, etc., shall be provided as required by applicable building and safety codes.

### **Technology and Security Systems**

Technology is continually changing and requires flexibility in the infrastructure design. Patrons desire interactive experience at events such as iPhone applications that determine what restrooms have the shortest lines, instant game statistics, location of where they parked and what contacts are in the facility.

State of the art technology and security systems shall be provided in regard to NFL Security Guidelines and Homeland Security protocol. Full consideration will be given to secure perimeter barricade design and emerging, alternative video and sensory technologies that may be utilized throughout the facility. Integrated security system shall utilize access control, intrusion detection and video surveillance. The security system shall incorporate hardware and software specifically designed to support multi-systems, multi-users, multi-tasking point monitoring, system administration and operation. A physically and electronically secure telephone system will be provided to support all building tenants and applications required in the stadium.

### **Telephone and Data Systems**

Telephone and data systems shall be provided. The new facility shall integrate wireless technology. Full consideration will be given to emerging, alternative technologies that may be utilized throughout.

### **Fire Alarm Systems**

System shall be provided as required by applicable building and safety codes.

### **Communications Infrastructure**

The communications infrastructure system shall support voice and data applications/system operated over a multi-media cabling plant including fiber optics and twisted pair copper. This infrastructure shall be supported by dedicated communications rooms and raceways. Communications infrastructure including cabling and raceways shall provide longevity to ensure future proofing. Cabling plant shall be the latest product available in the market, which meets latest standards with enhanced bandwidth capabilities and overhead. Raceways shall be provisioned to allow for a minimum of 20% spare capacity upon completion of facility. This will require a 30% initial design capacity to accommodate design/program changes.

Dedicated riser closets accommodating vertical cable runs shall connect dedicated communication rooms and server rooms that are adequately distributed within each level to maintain cabling distance limitations to devices throughout the facility. Risers shall be located adjacent to stadium freight and passenger elevator shafts where feasible and shall connect each level of the stadium. A horizontal backbone raceway connecting all communications rooms on each building level shall be included. Cable trays shall be provided throughout the facility for horizontal routing of all communication cabling including, but not limited to: scoreboard, sound, telephone, data, fiber optics and broadcast television and broadcast radio. Technology system cabling including sound system, scoreboard and broadcast cables shall be in conduit where required.

### **Sound Systems**

A complete distributed sound system shall serve the entire facility to include a seating bowl loudspeaker system, auxiliary speakers for concourses, lounges, premium spaces, team store(s), exterior plaza(s), stadium entrances, writing press, post game interview room(s), broadcast booths, lockers, offices, meeting support areas, etc., for

event PA announcing, paging, music, radio and TV broadcasting. The sound system shall be designed to accommodate sporting events and concerts. Video time delay controls shall be provided as part of the scoreboard systems. The entire sound system shall be capable of receiving the main facility PA feed for emergency notification. Portable systems including microphones, speakers and mixer for special events may be considered. ADA compliant hearing assistance system for the seating bowl, writing press and press interview rooms shall be provided. A portable hearing assistance system for club and other meeting spaces for non-football events shall be provided.

Main audio equipment rack rooms shall be provided with 24/7 HVAC. Clubs, novelty stores, party suites and interactive display areas shall have their own independent A/V equipment racks to support localized A/V programming requirements.

### **Distributed Television Systems (DTV)**

The DTV system shall provide video signals to TV sets located throughout the facility, including concessions, bars, concourses, club lounges, suites, designated premium seating areas, office/administrative areas, home team and locker room areas, and broadcast/press areas. The system will be capable of receiving signals from the local cable TV service, commercial satellite service, over-the-air TV broadcasts, feeds from in-house video production (such as in-house commercials, concession menu boards and scoreboard control systems) and mobile broadcast vehicles used for play-by-play game broadcasts. Full consideration will be given to emerging, alternative television distribution technologies such as IPTV.

### **Scoreboards / Videoboards / Ribbonboards**

A complete, electronically operated, remote controlled software driven, LED message display ribbon board system shall be provided along with a large HD screen format, LED or similar video display systems. Consideration for optimum locations and sizes of main scoreboard/video display and ribbon board fascia displays will be given. The control of these systems shall be from an integrated scoreboard control/video facility (typically within or adjacent to the Press Box) and shall be provided with 24/7 HVAC.

Auxiliary scoreboards will be located within the seating bowl to communicate important, but limited information (game clock, score, quarter/period, etc.) to spectators whose attention is not directed towards the large displays. Delay of game clocks and locker room clocks will be provided. Other auxiliary boards shall be capable of providing captioning for hearing impaired patrons.

The production system shall allow for the ability to produce and display programs consistent with the most creative now shown in similar facilities and meet national and local broadcast standards.

### **Advertising**

LED advertising panels associated with scoreboard and display systems may be of various size and illumination types. The configuration, quantity, layout and design of the advertising panels will be coordinated to ensure that the advertising space is consistent with the marketing, sponsorship, revenue and image goals of the facility. The location and size of advertising panels will also be coordinated with spectator sightline considerations, field lighting and loudspeaker locations. Provisions at concourses, club levels and entries for digital signage serving advertising, sponsorship and informational purposes will be provided as necessary. Consideration for IP addressable control for displaying data and images from a centralized control/server location will be given.

### **Naming Rights / Sponsorship Opportunities**

Naming rights and sponsorship packages are integral to the overall financial success of a facility. It is recommended to include the design team throughout the process in determining the levels of potential sponsorships and naming rights as well as communicating what commitments have been secured including the implications of such commitment. Levels of amenities are important to determine for each sponsorship package to create value and different levels of inclusion. Amenities include items such as buffet service, point of sale concessions, alcohol availability, parking number and proximity, club access, seat type, seat location, signage opportunities, level of exclusivity, media rights, logo placement opportunities (event day and website), and level of partnership recognition, team access, field access, away game tickets, memorabilia access, other event ticket access and more. A company that sells naming rights or advises on price points and packages is recommended.

The following is a list of potential naming rights opportunities that GWCCA should consider when developing a strategy to facility naming rights and sponsorships. Other opportunities may develop as the facility is designed. Sponsors will be encouraged to add interior elements and build out to develop a unique experience that conveys their message.

- Entire facility
- Field
- Seating sections
- Building entry gates
- Plazas
- Tailgating zones
- Concourse quadrants at each level
- Premium amenity entrance lobby
- Clubs
- Suite Level
- Hall of Fame
- NFL Play 60 Children's Learning Center
- Exterior balconies
- Concourse bars
- Designated sponsor areas in the bowl and/or concourse
- High School Sports recognition zone
- College Sports recognition zone

### **Broadcast Cabling Systems**

This facility will be pre-wired for play-by-play TV broadcast of football games to accommodate two independent broadcast organizations/crews meeting current NFL requirements. Radio broadcast cabling and booth provisions meeting NFL guidelines shall be provided. Cabling shall support network, local and in-house broadcasting requirements. It is anticipated that NFL broadcasters will provide their own cabling within the stadium providing infrastructure designed to meet their specified requirements. Local, in-house and network camera positions, booths and associated TV truck parking requirements meeting NFL guidelines will be incorporated.

### **Skycam / Cable Cam**

Provisions shall be made for the inclusion of a Skycam/Cable cam system for use by network broadcast media during sporting events. These camera systems are computer-controlled, stabilized, cable-suspended camera systems above the playing field.

### Wayfinding / Graphics

Coordinated exterior and interior wayfinding signage and graphics shall be included for the entire facility within the footprint curb line. The wayfinding signage and graphics will address the functional issues of wayfinding while creating an image for the project that reflects the personality of Atlanta and the architectural design of the facility. At a minimum, directional graphics shall be provided for the entire facility complex as noted below:

- Identification of facility entrances including ticket windows, turnstiles and special entrances
- Signage within the facility to indicate concourse levels, seating section, aisles, rows and seat numbers
- Identification of toilet rooms, first aid, exits, and other public facilities
- Concession identification signage shall be coordinated with total graphics program
- Static and electronic directories shall be provided as appropriate
- Individual room identification signage will be provided for proper operation of the facility
- All signage will meet the requirements of the ADA
- Evacuation graphics will be provided in appropriate locations to meet required codes
- Back of house room identification, code and regulatory signage

Site signage will be as dictated by site requirements. Additional graphics of a promotional or commercial nature will be provided. Provisions for the sign boxes and back lighting for these graphics will be provided as a part of the base building. Power supply, fixtures and connections for illuminated panels will be provided to locations to be determined. This type of graphic may include advertising, specialty signage for novelties or concessions, or facility club identification. Specific signage as follows:

- Building policy signs at each entry
- Graphics/signage for ticket sales identification and information panels. Electronic message centers above individual ticket windows. At main box office a LED ribbon board to display and advertise current and upcoming events will be explored
- Site pedestrian directional signage within the curb line to public and back of house facility entrances

As an option, Naming Rights/Sponsorship Signage may be included and incorporated if desired. This could include signage such as:

- Exterior sponsor/building identification signs
- Building entrance/gate sponsor signage
- Specific sponsored foodservice operations
- Naming rights/sponsor may be incorporated on all or specific interior/exterior wayfinding and other graphic signage elements
- Naming rights of facility painted on hard side of roofs of facility and roofs of ramps (if applicable) for aerial view

Thematic and pageantry graphics will be considered. This would provide thematic signage and graphics that will reflect the character of the facility and underlying thematic community references which will resonate in the facility to create a sense of place. Examples of locations where this could occur:

- Concession stands, bars, clubs, portable carts, dining areas
- Seating bowl
- Premium areas such as suites and clubs

- Retail and merchandise areas
- Concourse and public areas
- Areas celebrating local high schools and/or colleges
- Pageantry graphics such as icons, pylons or signature pieces which are not advertising or sponsor controlled

### **Recycling**

This new facility will implement a recycling program. There will be a trash chute dedicated to recycling. There will be dedicated dumpsters for recycling various materials including organic food waste, paper and metal.

## **III. Classification 1: Spectator Facilities**

### **Spectator Seating - Lower and Upper Bowl**

Approximately 54,000 armchair self-rising seats shall be provided in a combination of fixed, moveable and retractable seats that can be arranged in various configurations, to provide the best sight lines for designated event types. This facility shall be capable of expanding to 75,000 seats. This does not include additional floor chairs which may be used for a stage event and which would increase the overall seating capacity for such an event.

Seating for disabled guests and their companions shall be provided in compliance with the Americans with Disabilities Act (ADA). The ADA seating is to be included in the maximum seat capacity.

Minimum sight line clearance shall be 2 ¼" above the eye level of the spectator in the preceding row. Minimum tread depth in seating areas shall be 33" and the typical seat width shall be 19" for general spectator seating. All seats shall be provided with cup holders.

### **Premium Seating – Club and Suite Seating**

The Georgia World Congress Center Authority is encouraged, due to revenue potential, to commission a market study confirming current and future demand. Final seat count for premium seating is subject to change pending the results of the market study. The market study will assist in determining market demand, price points and amenities. The seat counts and number of suites used in the program are based on NFL stadia averages.

### **Club Seating**

Approximately 7,500 seats shall be located on the sideline. These seats will have direct access to up-scale food and beverage service in club lounges, which are adjacent to the club seats. These seats will be 21" wide minimum with a 36" tread depth. Padded seats with cup holders will be provided. Interactive technology may be integrated into the seating or into other elements of the club lounge, as an added amenity for these premium seat holders.

### **Suite Seating**

111 suites are currently included in the program along with future suite build out for 1,250 seats. Suites shall be located preferably along the sideline. The suites will likely have two rows of field view seats and a third row of seats at bar stool height.

A variety of suite sizes shall be provided, ranging in size from 16 seats to 100 seats. Padded seats with cup holders will be provided at 22" wide on a tread depth of 36-39". The breakdown of suites could be as follows:

Owners Suite – 50 seats

One suite shall be provided for this size. This suite will provide 34 fixed seats and 16 bar stool seats.

Private Suite – 16 seats

Approximately 80 suites shall be provided for this size. This suite will provide 12 fixed seats and 4 bar stool seats. One suite will be designated as the visiting owner's suite.

Private Suite – 24 seats

Approximately 20 suites shall be provided for this size. This suite will provide 16 fixed seats and 8 bar stool seats.

Private Suite – 32 seats

Approximately four suites shall be provided for this size. This suite will provide 24 fixed seats and 8 bar stool seats.

Private Suite – 50 seats

Approximately four suites shall be provided for this size. This suite will provide 32 fixed seats and 18 bar stool seats.

Party Suite – 100 seats

Approximately two suites shall be provided for this size. This suite will provide 78 fixed seats and 22 bar stool seats.

Future Suite build-out – 1,250 seats

An area will be integrated into the early building design to allow for an expansion of suites for approximately 1,250 seats. The suites can be built out at any sizes within the allotted area.

**Temporary Seating**

An area in the bowl adjacent to the concourse should be designated to allow for expansion of approximately 10,000 additional seats to bring the seating capacity up to 75,000 seats. Restrooms, concession points of sale and concourse space will not be increased for the additional capacity. Portable concessions are recommended to assist with the additional patrons.

Temporary seating options can be developed for non-football events such as concerts to allow for optimum seating configurations. The temporary seating will be used for events such as hosting a Super Bowl. When the temporary seating is not constructed the area can be sold or used as standing room only patrons (SRO).

**Camera Locations**

Team camera locations: Space shall be provided at two locations for teams to film games. Locate one area at an endzone and one area on the 50 yard line. Each location shall accommodate two cameras (one for each team).

Broadcast camera locations: The following locations shall be provided to accommodate football broadcast media:

### Field

All of the on-field camera positions are "soft", meaning that they do not require a dedicated position or platform. The commonly seen shoulder and moving truck or cart mounted cameras are connected via cable boxes on the field wall at the 50 yard line and the corners of the facility. Space should be provided between the back of the team area (at least 10 ft.) and the field wall to allow camera trucks to pass through.

### Low End Zone (4 locations)

Two camera platforms in each end zone seating are required. These should be between the numbers and the hash marks, and be outside the goal net. The platform elevation should be about 4 to 5 ft. above the field level. The platform on the press box ("near") side of the field should be 12 ft. wide and 4 ft. deep. The platform on the "far" side need only be 6 ft. wide and 4 ft. deep.

Not all four platforms are used for every game. Portable risers may be purchased to fill half of the near platform and the entirety of the far platform so that these seats may be sold as single game tickets or be placed in the team VIP/complimentary pool for the games when these areas will not be required for cameras.

### Main Follow (3 locations)

These cameras require three locations, with platforms at the 50 yard line and between the 20-25 yard lines. The outboard pair should have the capacity to be 12 ft. wide to accommodate one broadcast camera for each of two broadcast crews (non conference side by side) and one scoreboard camera. The 50 yard line position should be able to accommodate 6 cameras (30 ft. wide).

The most critical aspect of these platforms is their elevation. The platforms shall be no higher than a 20-23° angle to the near side line. In some cases, it may be possible for the 25 yard cameras being higher in elevation than the 50 yard booth and cameras, but it's not recommended. If cameras are located behind spectators, they must be elevated approximately 10 ft. above the tread of the seating row in front so that waving hands do not obstruct the camera's view.

### Slash (4 locations)

These platforms should be located at the corners, on the extended diagonal line through the playing field, at the same elevation as the main follow cameras or slightly below. Slash positions at the front of the upper level seating would probably be accepted. Slash platforms should be 6 ft. wide and 8 ft. deep.

### Reverse Angle (1 location)

Locate one platform at the 50 yard line on the far side of the field from the press box. This platform shall be at the same elevation as the main follow cameras. This location can be at the front of the upper level seating. Platform should be 12 ft. wide and 8 ft. deep.

### High End Zone (2 locations)

Locate a camera platform at each end zone, on the center line of the playing field, at an elevation that allows the goal line to be clear of any obstruction from the goal post cross bar. A typical angle to the goal line from the camera platform is 30-35°. A 12 ft. by 8 ft. platform is sufficient.

### **Suites**

The build-out shall include all wall finishes for a functioning suite. This will include a wet bar with cabinetry, an under-counter refrigerator and icemaker, sink, lounge furniture, TV's, and sound system. Common restrooms and/or private restrooms, with upgraded finishes, will be provided at the suite level, for the exclusive use of suite holders.

Primary access to the suite level(s) shall be by elevator. All suites will have wheelchair access and shall comply with ADA guidelines.

### **Club Lounge**

The club lounge will serve as the lounge space for club seat ticket holders and may serve as meeting/reception space during conventions and for other private functions. The incorporation of movable walls and other flexible components shall be considered in the design of this space.

The club lounge is sized to accommodate a range of guests depending on furniture seating type and layout. The club lounge may have a direct view of the playing field and shall offer an upscale level of food and beverage service that includes upscale foodservice buffet and/or concessions, full service bars and a dining/lounge area. Numerous televisions and video walls shall be incorporated into the design of the lounge space. Novelty sales will be accommodated within the club.

Access to the club level for the club patron shall primarily be by escalator and elevators. There shall be controlled access to this level, type to be determined.

The allocated club space can be divided into multiple clubs at various locations providing a range of uses.

### **Locker Room Club**

The locker room club serves as an exclusive club for members only at the service level with visible access to the home team locker room or to the tunnel where they enter and exit the field. The club may not be connected to a particular location of seats but rather serve more like an "anywhere club". Members' seats could be located anywhere in the stadium and they purchase rights to access the club. The club will be an upscale club with a variety of seating types, buffet service and a bar. The capacity could be anywhere from 200 to 700 and should be confirmed by a market study. The program has assumed 400 patrons at one time in the club.

### **Restrooms**

General seating restroom fixture counts for the facility are based on 54,600 seats. For the few large scale events that will host significantly more people in this facility, provisions, such as portable toilets, shall be provided. There is no potty parity and all fixture counts will meet the minimum requirements of the IBC 2006 and IPC 2006 that have been adopted. Restrooms are divided into the following categories:

#### **Public Restrooms**

Public restrooms shall be located at all levels. There shall be public restroom facilities provided by the main ticket window and ticketing office. Public fixture counts are based on a seating capacity of 54,600 general seats at the lower and upper bowl (reference the *Program Area Summary* for seating capacity). Fixture counts are based on a ratio of 50% male and 50% female attendance. Fixtures shall be provided based on the following ratios at general seating concourses:

	Men	Women
Water Closets	1 per 300	1 per 60
Urinals	1 per 90	n/a
Lavatories	1 per 200	1 per 150

An attendant closet with a service sink providing hot and cold water and storage shall be provided to serve two public toilet rooms. A hose bib shall be provided for general maintenance in each public restroom. All public-level toilet rooms shall include cold water service at the lavatories. Hot water may be provided if required by local codes.

#### Club and Suite Level Restrooms

Club and suite level restrooms will be located at the club and suite levels and will only be accessible to club and suite patrons. Toilet rooms for suite holders may be located along the suite corridors, which will be restricted to suite holders and their guests. These toilet rooms will be located convenient to all suites, at a minimum of one men's and one women's toilet room per quadrant. Restrooms are to be provided with hot and cold water at the lavatories. Higher level of finishes will be provided.

Fixture counts at the club and suite level shall be based on slightly more generous ratios than toilet rooms at public concourses, as follows:

	Men	Women
Water Closets	1 per 200	1 per 50
Urinals	1 per 75	n/a
Lavatories	1 per 125	1 per 125

Mirrors, soap dispensers, changing tables and paper dispensers shall be provided in all restrooms. Feminine product dispensers shall be provided in women's restrooms. All toilet fixtures at public and premium levels of the building shall be fitted with automatic flush valves. All public-level and premium-level toilet rooms shall be accessible to disabled guests, in accordance with the guidelines of the ADA. Unisex/family toilets will be provided at each level of the stadium and will include changing tables and barrier-free design for wheelchair utilization.

#### First Aid

Provide a primary first aid station for spectators' emergency medical treatment, which shall include appropriate areas for entry/waiting area, physician/nurse office, treatment area for two beds, uni-sex restroom, storage closet and upper and lower cabinets with a sink. Location shall allow for nearby ambulance parking through non-public areas.

Provide satellite first aid stations, located at the main and upper concourses. At each location provide a treatment area for one to two beds, uni-sex restroom and upper and lower cabinets with a sink.

#### Concierge Desk / Fan Information Station

Information booths or kiosks shall be provided, located on the main concourse, to provide information and general assistance to spectators. Appropriate space for two staff members shall be included.

### **NFL Play 60 Children’s Learning Center**

Provide a large room for children to visit year round on school trips or with their parents to learn about the NFL’s Play 60 initiative. This program encourages kids to play for 60 minutes daily to prevent childhood obesity. The room potentially could have interactive displays and videos teaching them about nutrition and fitness. Additionally, information about the athletes can be included to teach kids how they train and to become fans at an early age. The learning center should be adjacent to the team store and have a dedicated entrance from the exterior. Provide restrooms within the facility or in close proximity.

### **Hall of Fame**

A hall of fame will be created adjacent to the main team store and preferably at street access. Another option is to integrate history and memorabilia displays throughout the main concourse. The content of the displays will need to be determined but may include video, audio, memorabilia, reader rails, graphics and interactive displays. A dedicated A/V room and storage will be required.

## **IV. Classification 2: Foodservice & Retail Facilities**

### **Main Commissary**

Enclosed space for development of offices, storage facilities and food handling areas shall be provided. Commissary shall be located adjacent to the foodservice loading dock, with direct access to a freight elevator. Include roughed-in electrical and plumbing provisions, for freezers, coolers, and other kitchen equipment.

### **Main Kitchen**

A full-service kitchen, sized to allow the cooking and preparation of catered food to suite and club areas will be located with the commissary. A secondary kitchen may be required adjacent to the club level for better service of food items.

### **Offices**

Offices will be provided for the foodservice provider for year round use and operation. They should be adjacent to the kitchen and commissary.

### **Catering Pantries**

Provide two catering pantries at the club and suite levels. These spaces will serve as a holding area and storage for their relative spaces. Limited to no cooking will occur in these spaces.

### **Concessionaire Lockers**

Provide men’s and women’s locker rooms to hold personal belongings for working staff.

### **Beverage Distribution Room**

Beer storage/pumping rooms will be distributed around the facility, as needed, for dispensing of draft beer.

### **Concessions**

Permanent concession stands shall be located at all concourse levels and appropriately distributed for convenience to spectators. Planning of concession stands shall conform to the following criteria, which is subject to the recommendations and/or reasonable requests of the concessionaire. Concession stands should be designed to showcase the food preparation process to better promote the product to the customer.

The permanent stands will be fully finished, including the following provisions:

- The type of service for all concessions will be “belly-up” service.
- Quantity of stands in public concourses shall be calculated based on a ratio of one point per sale per every 175 spectators, at 5 lineal feet per point of sale.
- Three wall enclosure with access door, ceiling and service counter at concourse side with overhead grille enclosure.
- Each permanent stand shall be provided with floor drains based on the equipment in each stand.
- Each permanent stand shall be provided with electrical and mechanical services, including all power required to operate all equipment and hot and cold water of sufficient volume and pressure to operate all equipment.
- Data/ telecommunications lines, for credit card transactions and for P.O.S. system interface
- Exhaust risers in accordance with local code requirements shall be provided along with complete exhaust systems at each stand labeled “cooking concession”.
- A grease waste system shall be designed in accordance with governing plumbing codes. Point of use grease interceptors will be utilized if permissible.
- Specialty food stands shall be provided at main and upper concourse levels, which is included in the ratio of stands to spectators indicated above.
- Food service equipment (cookers, warmers, etc.) as determined by the concessionaire.
- Other equipment necessary to provide a workable operation shall be provided.
- Provide televisions at queuing area for concession patrons.

Club level concessions, located on the club level concourse shall be appropriately distributed and provided at a ratio of one point per sale per every 75 club patrons, at 5 linear feet per point of sale. These concession stands will have upgraded finishes. Otherwise, their provisions are similar to those above.

Additional portable concession stands will be provided at all concourse levels. Power and data utilities shall be provided throughout concourses to accommodate various portable stands.

Provisions for foodservice setup and equipment shall be considered for the Main Plaza’s (see X. *Exterior Space Requirements – Exterior Plazas* for more information). Electrical, data and water connections shall be provided where appropriate.

### **Vendor Commissaries**

Commissaries will be provided for vendors for food handling and storage at a ratio of one vendor per 200 spectators and a minimum of 10 square feet per vendor. They will be located on main and upper concourse levels and distributed evenly throughout (approximately one per quadrant). The following provisions shall be included:

- Four walls and ceiling, with two pair of double doors
- General lighting, HVAC, water heating equipment, supply and waste plumbing and required electrical service
- Exhaust riser system and required hoods
- Food service equipment (cookers, warmers, etc.) and hook-up of same

**Public Bar(s) at Concourse**

Provide bars at designated areas within the public concourses for general seated patrons. The bars can be sponsorship opportunities and designed to reflect the sponsor. Locations and numbers are to be determined.

**Team Store**

Provide a finished shell condition for the Team. Locate in close proximity to the main entrance and should be accessible from the interior and exterior.

**Auxiliary Team Store**

Permanent retail spaces shall be appropriately distributed throughout the facility. Locate booths at major entry/exit points at each public concourse. Provide booths at the main and upper concourses.

These spaces will serve as the main merchandiser during events (concerts, shows, etc.).

Portable stands shall be provided to supplement the permanent spaces as needed and to provide upscale merchandise in an upgraded setting at the club and suite level.

**Retail Warehouse**

Provide a centralized storage room for all retail and merchandising goods. Within this space shall be a merchandiser office and a secured room for counting money that is not visible by the public. Locate near the loading dock.

**Novelty Stands**

Provide finished shell. Three wall enclosure with access door, ceiling, and service counter at concourse side with overhead grille enclosure. Distribute stands throughout concourse.

**V. Classification 3: Team Facilities****Home Team Locker Room**

Provide a dedicated locker room for the home team's use for game-days. The locker room will have approximately 70 lockers at 42"x48"x96". Marker boards and a projection screen shall be provided. Team facilities should have direct access to the playing field. The locker room will adjoin with the other team support spaces described below, which will not be shared with visiting team facilities.

The grooming area will contain wet facilities for the locker room that includes the following:

- Shower room with 20 wall mounted shower heads
- Drying area adjacent to shower room, with towel stack holder and rods
- Toilet area adjacent to drying area, with 8 water closets, 8 urinals and a vanity counter with 8 lavatories and full-length mirror with 8" wide shelf and electric outlets

**Home Team Coaches Facilities**

The home team coaches' locker room shall provide a locker/dressing area and a grooming area for coaches, located adjacent to player locker room, to accommodate approximately 24 coaches/support staff total (18 lockers at each location). Lockers will be 30" wide. Provide 5 showers, 3 lavatories, 2 urinals, and 2 water closets.

**Home Team Players Lounge**

Provide a dedicated space for players and pre-game team meals. This space will need to accommodate food and beverage service and high end video and audio equipment.

**Family Waiting Areas 1 and 2**

Two family waiting areas will be provided adjacent to the home team locker room. One waiting area will provide for families with children, providing a play area, seating areas, TV's, food area and restrooms. One waiting room will have multiple seating areas, TV's, food area, restrooms.

**Visiting Team Locker Room**

The visiting team locker rooms are sized to accommodate a variety of NFL teams.

The locker room will have approximately 70 lockers 30" wide. Marker boards and a projection screen shall be provided.

The grooming area will contain the wet facilities for the locker room that includes the following:

- Shower rooms with 13 wall mounted shower heads
- Drying area adjacent to shower rooms, with towel stack holder and rods
- Toilet area adjacent to drying area, with total of 8 water closets, 8 urinals and a vanity counters with 8 lavatories and full-length mirrors with 8" wide shelf and electric outlets

The visiting coaches' locker room shall provide a locker/dressing area and a grooming area, located adjacent to the player locker room, to accommodate up to 20 coaches/support staff. A separate locker room and shower to be provided for Head Coach.

**Sports Medicine**

The training room includes treatment, taping, hydrotherapy, OSHA cut room, and work areas for game day use. Provide appropriate space for 10 taping tables, 6 treatment tables and upper and lower lockable storage cabinets with a sink. The hydrotherapy room shall have a visual connection to the training room. The OSHA cut room for treating bleeding wounds shall include a treatment table, medicine cabinet, and floor drain. An exam room will be provided along with a doctors office, head trainer office, trainer lockers, and storage.

**X-Ray Room**

Provide space and x-ray equipment adjacent to team facilities with direct access from the field. X-ray facilities shall have the capability of immediate and complete X-ray processing and must meet current League standards when built.

**Team Equipment**

An equipment room shall provide storage for team equipment and uniforms for game day use, located adjacent to the player locker room. Provide window with roll-down shutter between locker room and equipment room, for easy issuance of equipment to players on game days. Provide a dedicated and secured home team storage room adjacent to the equipment distribution room.

**Meeting Rooms**

Provide three meeting rooms ranging in size for all of the main users. Additionally one of the meeting rooms will serve as emergency operating center for building officials to prepare in case of an emergency disaster. These rooms should be in a visually secure area of the building where press and media do not have easy access.

**Cheerleaders Locker Room**

Provide dedicated area for the cheerleaders to prepare for games. This secured area will include a lobby, office area, locker room, hair and make-up room, secure storage and stretching area. These facilities will not be used by any other user group.

**Green Room**

This room will be utilized as a green room during performance events and as the mascot locker room during games. Shall be located directly adjacent to star dressing room and includes a uni-sex toilet. This room will have share usage as a lounge area to be used for other multipurpose functions.

**Star Dressing Rooms**

Provide four star dressing rooms, to be used by performing groups, bands, etc. Provide a private toilet, shower and vanity. Provide a connection between dressing room and green room to allow use by one group.

**Officials' Locker Room**

Provide two officials' locker rooms, one for men and one for women, to include ten lockers at 18" wide. Provide a grooming area with 3 showers, 2 water closets, 2 urinals and 2 lavatories, mirror and shelf for each locker room. This space can be utilized as auxiliary space for other events.

**Chain Crew Locker Room**

Provide a locker room to accommodate the chain crew for football events or to accommodate other event personnel. Locate adjacent to an officials' locker room and provide the ability to share a grooming area with an officials' locker room. Provide 10 lockers at 18" wide.

## **VI. Classification 4: Media Facilities**

Media facilities accommodating both the print and electronic news media shall be appropriately located and oriented within the facility for stadium and entertainment events. The design of the spaces outlined shall meet national broadcast standards for the NFL.

**Press Box**

The press box contains workspace for writing and broadcast media and is located at an elevated level between the 50 yard line of the field and end zone. Some spaces listed can be located off of the 50 yard line at a separate location. Final location of all spaces shall be determined during design. The press box shall consist of the following spaces:

**Writing Press**

Provide writing stations for approximately 165 writers. Workspaces shall be provided at 30" on center with overflow spacing at 24" on center. This area shall contain built-in writing counters, electrical power outlet for each two stations, two telephone jacks per station, sound system with press box microphone

locations and televisions mounted along the press box perimeter walls, or if possible mounted down into the work counter. Power and data shall be provided at 24" on center to allow for overflow. The field side may have operable glazing. Provide lockable cubby space for writers' personal storage. Consideration shall be given for using the writing press area as a special spectator area during events or for other functions as seen necessary.

#### Radio Broadcast Booths (5)

Provide booths to accommodate home radio, visitor radio, national/extra radio, local television, extra television. Each booth should have 12' of frontage, with 24" deep work counter and operable glazing at field-side of booth and the following features:

- Portable platform at rear of booth, to contain producer's work area
- Open grid at ceiling, for attaching lights and backdrop at two booths for local and extra television.
- TV monitor and lens catcher tray at exterior face of booth, below glazing
- Acoustical treatment on walls and ceiling

Open-tray and enclosed conduit for television cables shall be provided from all television camera and broadcasting booth locations to television van parking locations and satellite connection.

#### Time/Clock Operations Booth

Provide a booth to accommodate four at front to manage time and clock operations during sporting events. This booth should be utilized as an auxiliary booth during other events. Provide an operable field-side window.

#### Public Address Announcer's Booth

This space for the PA announcer and sound engineer will contain a built-in counter and all controls required for a public address system serving the entire facility. The PA booth should have an operable field-side window. Locate adjacent to scoreboard control room.

#### Sound/Video/Scoreboard Control

Provide a raised access floor for all cabling to run under floor. Operations consoles will be custom-designed to accommodate equipment for operations of all scoreboards, video and display boards and audio systems. Provide six to seven lineal feet at the front row for roof operation controls. These controls include computers and screens.

#### Video Control Room

This space will contain all equipment necessary to maintain and operate the scoreboard. This room does not require a view to the event floor and does not need to be within the press box but is preferred.

#### Network Television Broadcast Booth

Provide a booth located at the 50 yard line, between 40 and 80 feet above the field, and a minimum of 20 feet in width. It shall be equipped with a built-in folding counter, acoustical treatment on walls and ceilings, and include provisions for ceiling mounted lighting instruments on an open pipe grid. Windows shall be operable and allow as large an open area as possible to provide unobstructed views for announcers and cameras. Provide a uni-sex restroom for network television personnel only, accessible from within the booth. An auxiliary television booth will be provided adjacent to the network television booth for other needs, such as local broadcast.

Primary network broadcast booth and all other radio and TV broadcast booths shall be pre-wired to all broadcast cabling to be run from the booths to TV truck parking locations. A “lens catcher” tray shall be provided on the exterior face of each booth below the window line.

#### Statisticians Booth

This space for the statisticians will contain a built-in counter with monitors for each person up to 10.

#### Instant Replay Booth

This will be used by NFL officials for officials’ judgments and should accommodate four persons. If not needed for other use, it can serve as an auxiliary booth.

#### Coaches’ Booth (2)

Provide space for up to ten persons in each booth, with writing counter at each seat. Operable glazing at field-side of booth and acoustical treatment on walls/ceiling are to be provided. A standard coaches’ communications system includes booth equipment, sideline equipment headsets, and required stadium equipment. The standard system accommodates eight coaches in the booth and ten field coaches.

#### Security Command Center

Provide a booth for security control that will accommodate approximately ten personnel from various authorities. This booth must have a visual of all spectator seating sections and provide ten telephones and computer screens.

#### Media Work Room

This room will contain workspace for media relations staff to use on game days, including copy machines and storage cabinets. Provide a counter accessible by media for stats.

#### Lounge / Dining

Provide a dining area for media personnel that includes portable buffet line service. Locate adjacent to the media pantry. Provide multiple TV monitors to view other games in progress.

#### Pantry

Locate adjacent to the media dining area. This space will serve as a holding area for food and catering supplies. This pantry will not accommodate cooking.

#### Storage

Provide a lockable storage room for media supplies. Locate in close proximity to the media work room.

#### Restrooms

Toilet facilities for the press shall be provided for men and women and include an attendant closet.

- Provide a men’s restroom with 2 water closets, 5 urinals and 4 lavatories
- Provide a women’s restroom with 4 water closets and 4 lavatories
- Provide a unisex toilet within the National Broadcast Booth

### **Media Check-In**

Provide space for media check-in procedures. All members of the press and broadcast media shall enter through this check point, which is separate from the stadium staff entry and public entries. Location and operation of this space shall be coordinated with requirements for security offices. Elevator access required.

### **Media Work Room**

Provide a large open room for media personnel at event level during NFL games, tournaments and similar events. This room will serve as the working headquarters for media personnel and should be located adjacent to the press conference room, media dining/multipurpose room and media check-in. Provide power and data for approximately 200 people.

This space will service different functions when not utilized by media personnel.

### **Restrooms**

Provide a men's and women's restroom at the event level for use by media personnel and others. Provide 3 water closets and 2 lavatories in each. Locate in close proximity to media rooms at event level.

### **Press Interview Room**

Locate in proximity to the home team locker room. Provide movable seating for 75-100 and a stage for interviews. This room shall have television cable tray access and include electrical requirements for broadcast and radio entities. A local sound system shall be provided for press conference microphone distribution to media. Provide a raised platform at the back of the room for 8-10 cameras at 5' on center.

Consideration shall be given to other potential uses for this space during other events, such as a classroom or meeting room.

### **Visiting Press Interview Room**

Provide three interview rooms in close proximity to visiting team facilities. Visiting teams will use this space for pre and post-game interviews. No platforms are required. The rooms will be used as auxiliary space for other events.

### **Photographers Work Room**

Locate off field tunnel. Fit out with work counters and data/power outlets, to allow downloading of photographer's digital photography.

### **TV Broadcast Truck Parking (exterior space)**

For more information, see *TV Broadcast Truck Parking* under *X. Exterior Space Requirements*.

### **Crew Break Room**

Provide space for temporary broadcast crew meetings and meals on game day. This space may be combined with others for shared use. Fit out with electrical outlets for catering set-up.

### **Crew Toilet Room**

Men's and women's toilet rooms should be provided, adjacent to break room. Toilets should be made available for media working in temporary space or in trucks immediately outside of the stadium. Provide one men and one women restroom with 1 water closet and 1 lavatory each.

## VII. Classification 5: Administration Facilities

### Facility Operations Offices

Provide finished office space for Facility Operations offices. Administrative facilities shall include complete space provisions for stadium operations, ticketing operations, and security facilities. Administrative space, complete with typical medium level walls, floors, ceilings, general lighting, heating and air conditioning shall be provided. Certain administrative office areas will receive upgraded finishes. Space shall also be available for future development. Provide the following spaces for Facility Operations:

#### Reception

Provide open space to accommodate a reception desk and waiting area.

#### Private Offices

Enclosed office space shall be provided for the Facility Manager, Assistant Facility Manager and other staff.

#### Open Office Work Space

An open work space shall be provided to accommodate additional work stations.

#### Conference Room

A conference room shall be provided to accommodate 16 people. The appropriate technology and accessories shall be provided.

#### Break Room

Provide a space to accommodate movable table and chairs, upper and lower cabinets with a sink, refrigerator and a microwave. Vending machines will be located within this space.

#### Copy Room

Dedicated space shall be provided for a copy machine and other office equipment as necessary.

#### Storage Closet

Provide a storage closet for use by facility operations staff only. This space will serve as storage for office supplies among other things.

#### Restrooms (2)

Provide a men's restroom with 1 water closet, 1 urinal and 1 lavatory. Provide a women's restroom with 1 water closets and 1 lavatory. Each restroom shall be compliant with ADA guidelines.

### Stadium Operations

These spaces will serve as the central office for the show/event manager during an event. They should be designed to facilitate office, meeting and communication functions. The offices should be located to provide direct visual surveillance and access to the playing field.

### **Ticket Office**

The ticket office will include private offices, an open office/work space, vault and ticket storage, computer server room, break room, a work room and other auxiliary support space. Provide a customer service room within the ticketing office.

The ticket office should have direct access from the outside for season ticket holders and the general public. One-way glass shall be provided for private offices to allow viewing of ticket windows. Each ticket window will have bullet-proof glass, a money drawer, storage, printer, panic button, microphone, LED or similar signage on outside and window coverings. Provide security cameras within ticket office as necessary.

## **VIII. Classification 6: Service & Operations Facilities**

### **Building Staff Facilities**

Provide finished locker space for building staff personnel. Provisions shall include 15-20 full height lockers at 18" wide, in both the men's and women's locker rooms. Provide a break room in close proximity to the locker rooms, with tables and chairs, vending machines and a kitchenette.

### **Event Staff Support Facilities**

Provide the following spaces for event staff:

#### Entry / Check-in Area

Provide an area with direct and secure access to the outside, where event staff will check in for duty. This area should be isolated from public entry points and performer dressing rooms/green room and be located in close proximity to event staff locker rooms.

#### Laundry / Uniform Storage and Distribution

Provide secure storage space with a distribution counter and shelving. Provide a space for laundry equipment adjacent to the distribution area.

#### Locker Rooms

Provide facilities for approximately 500 male and 500 female employees. It is anticipated that there will be an equal split between male and female employees.

- Dressing room for 500 men, with 12" wide x 12" high x 12" deep lockers for each employee. Lockers will be stacked 5 high.
- Dressing room for 500 women, with 12" wide x 12" high x 12" deep lockers for each employee. Lockers will be stacked 5 high.

#### Break Room

Provide one break room at the event level. This space will service all event staff for the facility (ushers, ticket takers, foodservice, housekeeping, security, etc.). Provide movable table and chairs, vending machine(s) and cabinets with sink as appropriate.

## **Building Operations**

Provide the following spaces for facility maintenance staff:

### Offices

Two offices shall be provided for maintenance staff, located directly adjacent to or within the maintenance shop. Offices shall be enclosed, finished, heated, air conditioned and lighted. Provide an open work area to accommodate workstations.

### Building Operations Shop

The shop area shall be divided to accommodate all trades within the facility that includes maintenance, plumbing, HVAC, carpentry, paint, and electricians. This area will house all supplies and equipment needed to repair and maintain the facility. Provide 14 full-height metal lockers and shower/toilets for maintenance staff within the shop for both men and women. Provide floor drains.

## **Janitorial**

Provide the following spaces for housekeeping:

### Offices

Two offices shall be provided for cleaning personnel, located directly adjacent to the central supply storage area.

### Central Housekeeping Supply Room

Provide secure storage space for cleaning supplies and equipment. This space shall include floor drains, a washer and dryer, shelving and storage systems and an area to store floor scrubber machines.

### Satellite Housekeeping Storage Rooms

Provide space on each level of the building to store cleaning supplies.

### Trash Holding Rooms

Provide space on each level of the building for the collection of trash. Locate one room per quadrant on each level of the facility. Each trash holding room will house a trash chute. Three trash chutes will be trash only; one trash chute will be recycling only. Rooms should have an exhaust system. Rooms do not need to be conditioned.

### Trash Chutes

Provide space in trash holding rooms for trash chutes, with one chute dedicated to recycling.

### Janitor Closets

Janitor closets shall be appropriately distributed throughout the facility. These spaces will include a mop sink.

## **Grounds Keeping**

Provide facilities for grounds keeping including a work room, office, maintenance, storage, and chemical storage. Rooms for chemicals and vehicles will be appropriately designed and provided for. Provide lockers, showers, and toilets for staff. The break room will be shared with building operations staff.

### **Security**

Provide centralized space immediately accessible from the exterior, with all control and status panels for security and life safety systems in the facility. This space shall serve as security headquarters for this new facility. This space should have a view of key event and non-event access points to the building. Provide a security personnel entrance to this space.

Three offices shall be provided for security personnel to accommodate two full-time staff and one day-of-event manager. Offices shall be enclosed, finished, heated, air conditioned and lighted. Provide general storage that includes a space for radios and other communication equipment, a break room and uni-sex restrooms.

A security control booth shall be located within the press box. See *Press Box under VI. Classification 4: Media Facilities* for more information.

A satellite office and debrief rooms should be located separate from the command center. This space will be used as a holding place for those individuals that are being transported off-site.

### **Storage**

Storage space will be appropriately distributed throughout the facility on all levels. Dedicated storage rooms for facility operations, furniture/movable bleachers, promotions, turf, and playing court equipment will be provided. Storage requiring climate control will need to be identified.

### **Playing Field**

The field will be designed to NFL play standards, which will include the following provisions:

- Direct drive access to field level from loading area (for all truck sizes). Multiple access points may be required for different events.
- Loading dock adjacent to field level, all with dock levelers.
- Provide empty conduits from selected floor boxes to a service area for use by technical support staff to temporarily route controls, microphones, additional power and other cables.
- Water, drains and compressed air should be provided at perimeter walls and in selected floor boxes.

A natural grass turf playing surface, acceptable to the NFL and FIFA, shall be provided.

The football playing field area shall be designed for a football field 53.3 yards wide by 120 yards in length. Minimum distance of the football playing field sideline from the stadium seating shall be 48 feet. A minimum distance of 20 feet shall be provided as clearance at the endzone.

The soccer playing field area shall be designed for an international soccer field 75 yards wide by 110 yards in length by means of removable seating. The overall dimensions needed to support the auxiliary space around the playing field are 85 meters wide by 125 meters in length.

For information regarding the scoreboard and sound system/acoustics refer to *II. Facility System Requirements*.

### **Field Entrances**

A minimum of two openings near the end zone shall provide access to the playing field from within the stadium at the service dock area. The entrance shall be adequate for large trucks with a maximum 16'-0" height clearance. The opening shall be secured with an overhead door. An adjacent pedestrian door shall be provided.

Tunnel exits from playing field and temporary stairs leading to the field seating areas shall be used to provide for field level concert seating exit requirements. One additional field tunnel may be deemed necessary for concerts and other special events, and is included in the program until otherwise determined.

### **Field Toilet**

Provide four field toilets, one located at each corner of the playing field. Locate field toilets adjacent to field access tunnels.

### **Football Game Equipment**

Football goal posts and pads, kicking screens, sideline markers, end zone pylons, personnel vests, coach's intercom, referee mikes and team benches shall be stored in this location.

### **Staging**

There will be approximately six loading docks, all located at the exterior of the facility (no interior space). For more information, see *X. Exterior Space Requirements*. The unloading area directly behind each loading dock shall be a minimum of 25 feet in depth.

Provide a marshalling/staging area adjacent to the main loading dock. This space will be utilized by events for setup/set-down, storage and temporary staging of offices/rooms. This space will have direct access to the field.

### **Utilidor**

The utilidor will house space for panel boards, disconnects, and empty pull port conduits. This area will be located adjacent to the field, and it will run the horizontal length of the facility. The primary purpose of this area is to support quick access to utilities and to set up temporary special services for events. This is a secured space and not a service circulation corridor.

The general arrangement is to place electrical service – transformers and panels – along one side and low voltage and compressed air along the other, using the aisle to maintain the code-required working clearances.

The utilidor should incorporate the following features:

- Rated construction as required by code.
- Fire protection as required by code.
- Provide card access system limited to authorized staff.
- Utilidor minimum width varies from 8 to 10 feet depending on equipment layout.
- 6" pull port empty conduit (PVC) with bell flange at wall 4'-0" above finished floor to serve every other utility box. Provide minimum number of turns, use ells (not tees) for connections.
- Provide 4" concrete housekeeping pads under all floor-mounted equipment.
- Ceiling height shall be 8'-0" minimum, 10'-0" recommended. Ceiling shall be open to structure.
- Floor shall be sealed concrete.
- Wall shall be concrete or CMU.
- Provide floor drainage; can be integrated into break manifold system.
- Convenience outlets; transformers, distribution panels, and load centers. Both 120/208 and 277/480-volt are required.
- Provide fluorescent, strip, hung or surface mounted lighting.
- Provide patch panels for connecting copper and fiber optic horizontal distribution cables to the data backbone.

## IX. Classification 7: Circulation

Pedestrian access to the facility shall be available at multiple locations to allow for convenient access, parking and public transportation stops. At nearly every level of the facility, continuous pedestrian circulation will be provided through the use of ramps and/or stairs. Vehicular access to the event floor/playing field shall be provided. The following circulation components shall be provided:

### Concourses

Public concourses shall serve as main circulation arteries for the seating bowl. They shall be of adequate width to provide safe and convenient access and egress for spectators. Public toilet rooms and concessions will be located along the concourses.

- Power/telephone/data outlets will be located at the concourses, to serve portable stands and exhibits.
- Provide power and connections at all concourses for video monitors. Televisions shall be distributed at all concessions.
- ATM's will be provided at both main and upper concourses and possibly at other circulation areas, to be determined.

There shall be a common corridor at the suite level, providing circulation to suites at that level, of adequate width to provide safe and convenient access and egress.

### Ramps

Pedestrian vertical transportation systems shall be designed for emergency egress and the ease of movement of spectators and for the internal movement of stadium personnel. Ramps shall meet all minimum code requirements for width and distribution. Pedestrian ramps shall have a maximum 1:12 slope and adequate widths to provide easy accessibility to and from all concourse levels. All ramps shall be designed to accommodate vehicles commonly used for stadium maintenance and concession operations.

### Stairs

Stairs will be utilized as emergency egress and as a means of moving spectators vertically. Pedestrian stairs will have a maximum rise of 7" and a minimum tread of 11". All stairs will be equipped with handrails as required by governing building codes. Stairs shall be located to comply with exiting requirements and to facilitate the movement of security and stadium operations personnel throughout the building.

### Elevators

Elevators (freight and passenger) shall serve all levels of the stadium and shall be located to provide for the proper functioning of the facility and to maximize their efficiency. Provide a minimum of two elevators at each side of the building for access to the suite level and access for the disabled to all levels. Provide access to the top of the seating area, catwalks, camera locations, etc., by at least one elevator. Also, there shall be two elevators to the press box.

Passenger traction elevators shall be approximately 5'-4" by 8'-4", 4,500 pound capacity, and 350 f.p.m. and shall be located in pairs to serve suite patrons, club patrons, disabled spectators, and press and service areas.

Freight traction elevators shall be approximately 11'-0" by 15'-0", 10,000 pounds capacity, and 150 f.p.m. speed. Dimensions and capacity in pounds are subject to change. If ramps are not provided to service all levels of the facility adequate to allow passage of pickup truck sized vehicles, one freight elevator shall be sufficient size to accommodate this size of vehicle.

### **Escalators**

Escalators will provide means of access to upper levels of the building. Escalators will be the primary means of vertical circulation for club level patrons.

### **Event Level Service Corridor**

Provide a drive-through service corridor on the event level with 16-foot clear height and 20-foot clear width with truck/bus turn around spaces as required.

### **Event Level Service Tunnel**

A minimum of two openings near the end zone seating shall provide access to the playing field/event floor from within the facility at the service dock area. The entrances shall be adequate for large trucks with a minimum 16-foot height clearance. The opening shall be secured with an overhead door. An adjacent pedestrian door shall be provided.

Tunnel exits from playing field and temporary stairs leading to the field seating areas shall be used to provide for field level concert seating exit requirements. One additional field tunnel may be deemed necessary for concerts and other special events. All field entrances shall have infill seating to completely close the entrance to the field, or lower the clearance height to 8'-0" and maximize seating capacity.

## **X. Exterior Space Requirements**

The following spaces are not considered part of the building Gross Square Footage (GSF) and therefore are not part of the above space classifications (Classifications 1 through 7). These spaces are, however, critical to the design and site layout and must be sized appropriately in order to function properly.

### **General Site Requirements**

A desirable site for an NFL Stadium footprint and site circulation consists of 25 acres. This site is easily accessible to a variety of transportation methods, has parking within a ½ mile to ¾ mile radius of the site, is located in a developed area with hotels, retail and businesses nearby, is a clean site without water table or utility issues and is within a surrounding context that the stadium will have the appropriate scale and fit. Sites will be evaluated by the following parameters:

- Urban design including location, context, scale and fit
- Transportation including parking, public transit, pedestrian connections
- Site factors including size, remediation, zoning, demolition, configuration, infrastructure, etc.
- Cost including land acquisition, facility, parking, site development
- Timing including site preparation, relocation, permits
- Revenue including facility marketability, area economics, City tax, tenants, facility pro forma

The site design will incorporate secure perimeter design and Homeland Security protocols in an integral aesthetic manner such as furnishings, sculptures, fountains, planter walls and landscaping. The site and parking

lots will need to accommodate portable toilets, trash containers, hot coal remnants, queuing of cars at parking toll booths, and possibly permanent restrooms close to the stadium while accessible to tailgating patrons. Restrooms on the exterior of the stadium at street level may be utilized pre-game by tailgating patrons as well.

### **Tailgating Pavilions**

To encourage patrons to arrive early and to enjoy pre-game festivities, tailgate pavilions are recommended. These designated areas can range in sizes and amenities from 10' x 10' open plazas to large 40' x 40' or larger roofed structures. Patrons can bring their own shade canopies, grills and coolers to their reserved plaza area or they can have everything catered and furnished ready for them and their guests to arrive. The pavilions can be sponsored by corporations or patrons as well as provided on a first come first serve basis to encourage early arrivals.

Provide power, data and water to the covered reserved and/or sponsored pavilions. Provide power only to the open plaza tailgate areas. Restrooms should be made available in close proximity by either building a restroom facility on-site or providing access to the street level restrooms within the stadium from the exterior. Just prior to the gates opening the restroom access can be changed to ticketed restrooms accessed from the concourse only.

### **Exterior Plazas**

Provide paved entry plazas at each major entry gate with adequate space for queuing, directional signage, lighting, sound capabilities, power and data. Provide flexibility for integrated sponsors into each major entry plaza. This may include sponsor displays, branding and theming displays, sound, video display, pre-game activities, game promotional give-a-ways and the like. It is recommended to develop compatible stories or themes that will compliment both the sponsor and the event.

### **Suite Holder / Club Parking**

Provide approximately 2,500 parking spaces in close proximity to the stadium in addition to 115 spaces within or directly adjacent to the stadium. It is recommended to provide a dedicated egress system off of the property onto a main arterial system.

### **Public Parking**

There should be approximately 20,000 to 22,500 parking spaces within a ½ to ¾ mile radius proximity of the stadium in addition to a public transportation system such as public buses and a rail system.

### **Main Loading Dock Exterior Bays**

The main loading dock will consist of four to five bays with one-way vehicular circulation to minimize turn around area. All docks will be equipped with dock levelers. Each bay should accommodate a 14' wide by 80' long space. The main loading dock should have direct access to the staging/marshalling area to better serve event setup and logistical procedures.

In addition, provide a foodservice and housekeeping loading dock with two bays. This space is to be located near the foodservice and housekeeping facilities.

Provide two media truck bays.

**TV Broadcast Truck Parking**

Provide parking space immediately adjacent and accessible to the event floor to accommodate television truck parking for the rights-holding television network. This area will accommodate a minimum of three 70-foot expandable TV production studios and two satellite uplink trucks with room for a generator. The number of locations shall be adequate for NFL play-off level production efforts, determined in consultation with NFL and primary broadcasters. Parking shall not impact other stadium operation functions. This shall be a secured space with immediate access to the crew break room and crew toilet.

**Media Truck Parking**

Parking for television and local affiliates' satellite units shall be provided in close proximity to the facility with unrestricted access to the southern sky. If line-of-sight signal transmission to local TV station studios is not possible, provisions including AC power and pre-wired cabling shall be provided for each area local TV station expected to regularly cover NFL games. Additional spaces, not necessarily adjacent to the stadium shall be provided for overflow situations. Space shall be provided for up to 25 up-link units with AC power and empty conduit for cabling provisions.

ENG/Satellite parking area shall be secured and located as close to the television broadcast truck area as is operationally feasible.

## PROGRAM AREA SUMMARY

### Table of Contents

CONTENT	PAGE
Classification 1: Spectator Facilities	2
Classification 2: Food Service & Retail Facilities	3
Classification 3: Team Facilities	3
Classification 4: Media Facilities	4
Classification 5: Administration Facilities	5
Classification 6: Service & Operations Facilities	5
Classification 7: Circulation	7
Summary	7



CLASSIFICATION 1: SPECTATOR FACILITIES						
Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Spectator Seating - a market study is recommended to determine demand	Armchair Seating	54,500	5.5	299,750		
	Club Seating	7,500	7	48,750		Based upon Atlanta Falcons recommendations
	Suite Seating	2,350	8	18,800		Based upon 110 suites, using 16, 24, 32, and 50 person suites
	Wheelchair and Companion Seating	552	18	9,660		For General Seating
	Temporary Seating	10,000	6	55,000		Area can be standing room only when temporary seats are not in use, up to 7,800 @ 7 sq. ft. a person
	Camera Locations	28	50	1,400		28 @ 50 sq. ft. per person
	<b>SUB-TOTAL - SPECTATOR SEATING</b>	<b>75,454</b>		<b>433,360</b>	<b>433,360</b>	
Suites - a market study is recommended to determine demand	Suites - 16 person	80	500	40,000		Includes restroom
	Suites - 24 person	20	750	15,000		Includes restroom, visiting owner suite
	Suites - 32 person	4	960	3,840		Includes restroom
	Suites - 50 person	4	1,500	6,000		Includes 2 restrooms each suite
	Party Suites - 100 person	2	3,000	6,000		Includes 2 restrooms each suite
	Owner's Suite - 50 person	1	1,700	1,700		Includes 2 restrooms, private owner booth
	Future Suites	1	32,500	32,500		Space to expand another 1,250 suite seats, based upon addition of 1/3 more suites
<b>SUB-TOTAL - SUITES</b>	<b>111</b>		<b>105,040</b>	<b>126,048</b>		
Club - a market study is recommended to determine demand	Club Lounge	1	82,230	82,230		Club can accommodate approximately 4,500 for banquet seating, 6,800 for mixed seating, and 11,500 for standing room only. Club may be divided into multiple clubs with different design concepts
	Club Lobby	1	1,000	1,000		may require multiple locations
	Club Level Concessions	100	125	12,500		based upon 1:75 ratio
	Club Level Restroom - Men	63	55	3,465		Based upon ratios of 1:300 water closets, and 1:75 urinals; 2006 IBC code:
	Club Level Restroom - Women	79	55	4,345		Based upon 1:50 ratio; 2006 IBC code:
	Family Toilet	4	70	280		
	Club Storage	2	750	1,500		
	Club Pantry	4	400	1,600		Additional kitchen may be required
	Club First Aid	2	250	500		
	Club Coats	1	3,750	3,750		Assumes 50% usage at 1 s.f. per
	Club Janitor Closet	4	60	240		
<b>SUB-TOTAL - CLUB</b>			<b>111,410</b>	<b>133,692</b>	Based upon 18 gsf per person for 7,500	
Additional Amenities	Club Falcon - Locker Room Club	1	10,000	10,000		located adjacent to Falcons field entrance; serves 400-600 exclusive members with visual access to the team as they enter/exit the field. Club is not assigned to particular seats
	Falcon public bar / exterior balcony	2	4,000	8,000		Exterior space for general tickets patrons
	NFL Play 60 Learning Center	1	5,000	5,000		
	Sponsored Areas	4	1,500	6,000		location and amenities TBD
	<b>SUB-TOTAL - ADDITIONAL AMENITIES</b>			<b>29,000</b>	<b>34,800</b>	
Public Restrooms	Public Restroom - Men	399	55	21,945		Based upon ratios of 1:300 water closets, and 1:90 urinals; 2006 IBC code:
	Public Restroom - Women	460	55	25,300		Based upon 1:60 ratio; 2006 IBC code
	Family Toilet	12	70	840		
	<b>SUB-TOTAL - PUBLIC RESTROOMS</b>			<b>48,085</b>	<b>57,702</b>	
Guest Services	Main First Aid	1	1,000	1,000		
	Satellite First Aids	3	600	1,800		
	Fan Information Station	2	300	600		
	Customer Relations Room	1	120	120		
<b>SUB-TOTAL - GUEST SERVICES</b>			<b>3,520</b>	<b>4,224</b>		
Hall of Fame	Entry	1	1,000	1,000		Hall of Fame to be located adjacent to or within main concourse
	Display Area	1	18,000	18,000		
	Restroom	2	250	500		
	Janitor Closet	1	70	70		
	<b>SUB-TOTAL - HALL OF FAME</b>			<b>19,570</b>	<b>23,484</b>	
<b>SUB-TOTAL (NET AREA)</b>			<b>749,985</b>	<b>813,310</b>		

CLASSIFICATION 2: FOOD SERVICE & RETAIL FACILITIES						
Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Food Service	Main Commissary	1	15,000	15,000		
	Kitchen	2	5,000	10,000		
	Food Service Provider Offices	1	2,400	2,400		
	Catering Pantry	2	2,500	5,000		
	Concessionaire Lockers	2	1,000	2,000		200 lockers at 12"W x 12"D
	Beverage Distribution Room	8	300	2,400		
	Money Counting room	1	900	900		
	Vault Room	1	75	75		
	<b>SUB-TOTAL - FOOD SERVICE</b>			<b>37,775</b>	<b>45,330</b>	
Concession Stands	Main Concourse Level Public Concessions	189	125	23,625		a POS ratio of 1:175 and 60% of bowl population
	Upper Concourse Level Public Concession	126	125	15,750		Assumes a POS ratio of 1:175 and 40% of bowl population
	Concession Storage	8	500	4,000		
	Vendors Commissaries	275	10	2,750		1 vendor per 200 spectators
	<b>SUB-TOTAL - CONCESSION STANDS</b>			<b>46,125</b>	<b>55,350</b>	
Retail Sales	Team Store	1	8,000	8,000		
	Auxiliary Team Store	2	1,000	2,000		
	Retail Warehouse	1	6,000	6,000		
	Novelty Stands	8	750	6,000		
	<b>SUB-TOTAL - RETAIL SALES</b>			<b>22,000</b>	<b>26,400</b>	
<b>SUB-TOTAL (NET AREA)</b>				<b>105,900</b>	<b>127,080</b>	
CLASSIFICATION 3: TEAM FACILITIES						
Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Atlanta Falcons Facilities	Entry	1	500	500		
	Locker Room	1	5,500	5,500		70 custom wood lockers 36"W X 48"D
	Showers / Toilets	1	1,750	1,750		8 lavatories, 8 water closets, 6 urinals, and 20 showers
	Players Lounge	1	1,000	1,000		
	Family Waiting Area 1	1	2,000	2,000		Children oriented, includes child play area
	Family Waiting Area 2	1	2,000	2,000		TV's
	<b>SUB-TOTAL - ATLANTA FALCONS FACILITIES</b>			<b>12,750</b>	<b>15,300</b>	
Atlanta Falcons Coaches	Coaches Locker Room	1	1,000	1,000		20 custom wood lockers 30"W x 30"D
	Atlanta Falcons Head Coach Locker Room	1	450	450		
	Atlanta Falcons Head Coach Showers/Toile	1	300	300		
	Coaches Showers / Toilets	1	500	500		3 lavatories, 2 water closets, 2 urinals, and 5 showers
	<b>SUB-TOTAL - ATLANTA FALCONS COACHES FACILITIES</b>			<b>2,250</b>	<b>2,700</b>	
Visiting Team Locker Room	Entry	1	350	350		
	Locker Room	1	3,500	3,500		70 laminate veneer lockers 30"W x 24"D
	Showers / Toilets	1	1,500	1,500		8 lavatories, 8 water closets, 8 urinals, and 13 showers
	<b>SUB-TOTAL - VISITING TEAM LOCKERS</b>			<b>5,350</b>	<b>6,420</b>	
Visiting Team Coaches	Coaches Locker Room	1	500	500		18 lockers 30"W x 30"D
	Coaches Showers / Toilets	1	350	350		3 lavatories, 2 water closets, 2 urinals, and 5 showers
	<b>SUB-TOTAL - VISITING TEAM COACHES</b>			<b>850</b>	<b>1,020</b>	
Sports Medicine	Training Room	1	1,200	1,200		
	Hydro Room	1	750	750		Warm plunge, cold plunge, ice machine, and 2 hi-boys
	Hydro Mechanical Room	1	200	200		
	Exam Room	2	250	500		
	X-Ray Room	1	300	300		
	Restroom	1	100	100		
	Head Trainer Office	1	200	200		
	General Storage	1	300	300		
	<b>SUB-TOTAL - SPORTS MEDICINE</b>			<b>3,620</b>	<b>4,344</b>	

Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Team Equipment	Equipment Distribution Room	1	650	650		Adjacent to Falcons Locker room and minimum of two auxiliary locker rooms
	Secured Storage (Falcons)	1	200	200		
	Laundry Room	1	500	500		
	Office	1	150	150		
	Restroom	1	70	70		
	<b>SUB-TOTAL - TEAM EQUIPMENT</b>				<b>1,570</b>	
Meeting Rooms	Meeting Room 1	1	1,300	1,300		Seats 75-80
	Meeting Room 2	1	400	400		
	Meeting Room 3	1	800	800		
	<b>SUB-TOTAL - MEETING ROOMS</b>			<b>1,700</b>	<b>2,040</b>	
Atlanta Falcons Cheerleaders Locker Room	Locker Room	1	1,200	1,200		30 custom lockers 36"W x 36"D 8 lavatories, 5 water closets, and 8 showers
	Showers / Toilets	1	1,100	1,100		
	Hair/Make up room	1	320	320		Mirrored walls, stretching bar mounted to wall, and rubber flooring
	Stretching	1	350	350		
	Secured Entry/Lounge	1	500	500		
	Offices	4	120	480		
	Storage	1	300	300		
	<b>SUB-TOTAL - ATLANTA FALCONS CHEERLEADERS LOCKER ROOM</b>			<b>4,250</b>	<b>5,100</b>	
Green Room	Locker Room	1	200	200		6 metal lockers measuring 18"W x 18"D; also used as mascot locker room
	Showers / Toilets	1	70	70		
	Storage	1	30	30		
	<b>SUB-TOTAL - GREEN ROOM</b>			<b>300</b>	<b>360</b>	
Star Dressing Room	Locker Room	4	200	800		
	Showers / Toilets	4	70	280		
	Storage	4	30	120		
	<b>SUB-TOTAL - STAR DRESSING ROOM</b>			<b>1,200</b>	<b>1,440</b>	
Officials	Locker Room	2	300	600		10 metal lockers 18"W x 24"D 3 lavatories, 2 water closets, 2 urinals, and 3 showers
	Showers / Toilets	2	250	500		
	Lounge Area	1	300	300		<b>SUB-TOTAL - OFFICIALS</b>
				<b>1,400</b>	<b>1,680</b>	
Chain Crew Locker Room	Locker Room	2	300	600		10 metal lockers 18"W x 24"D
	<b>SUB-TOTAL - CHAIN CREW</b>			<b>600</b>	<b>720</b>	
<b>SUB-TOTAL (NET AREA)</b>				<b>35,840</b>	<b>43,008</b>	

**CLASSIFICATION 4: MEDIA FACILITIES**

Space Type	Room Description	Recommended Program				Comments	
		Units	SF	Total NSF	Total GSF (*1.20)		
Press Box	Lobby at Press level	1	400	400		30" spacing (200 @ 24" spacing)	
	Writing Press	165	30	4,950			
	Home Radio	2	275	550			
	Visiting Radio	2	225	450			
	Extra Radio	1	250	250			
	Coaches Booth	2	300	600			
	Time / Clock Operations	1	300	300			
	PA Announcer	1	250	250			
	Sound / Video / Scoreboard / Roof	1	400	400			Includes 7 LF area for roof operation. Final location for roof operation TBD.
	Video Control Room	1	1,000	1,000			
	Network Television	1	700	700			
	Extra Television	1	400	400			
	Statisticians	1	250	250			
	Instant Replay	1	200	200			
	Media work room	1	1,000	1,000			
	Security Command Center	1	250	250			
	Lounge / dining	1	1,000	1,000			
	Pantry	1	500	500			
	Storage	1	300	300			
	Men's Restroom	1	300	300			4 lavatories, 2 water closets, and 5 urinals 4 lavatories and 4 water closets
Women's Restroom	1	300	300				
<b>SUB-TOTAL - PRESS BOX</b>			<b>14,350</b>	<b>17,220</b>			

Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Media Facilities	Media Check-in	1	200	200		
	Affiliate Staging Area	1	200	200		
	Media Meeting Room	1	250	250		
	National Media Staging Area	1	300	300		
	Falcons press interview room	1	1,600	1,600		Adjacent to Falcons Locker room
	Visiting press interview Room	1	500	500		
	Equipment Storage	2	200	400		
	Field Level Media Restroom	2	250	500		
	Photographers Work Room	1	750	750		
	<b>SUB-TOTAL - MEDIA FACILITIES</b>			<b>4,700</b>	<b>5,640</b>	
TV Truck Parking Area	Number of TV Truck Locations	6	2,250	13,500		
	Crew Break Room	1	250	250		
	Crew Toilet	2	70	140		1 lavatory, and 1 water closet
	<b>SUB-TOTAL - TV TRUCK PARKING</b>			<b>13,890</b>	<b>16,668</b>	
<b>SUB-TOTAL (NET AREA)</b>				<b>32,940</b>	<b>39,528</b>	
<b>CLASSIFICATION 5: ADMINISTRATION FACILITIES</b>						
Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Facility Operations Offices	Reception	1	250	250		
	Offices	8	150	1,200		
	Conference Room	1	300	300		
	Break Room	1	250	250		
	Open Office Area	1	800	800		
	Copy Room	1	250	250		
	Storage Closet	1	50	50		
	Restroom	2	70	140		
	<b>SUB-TOTAL - FACILITY OPERATIONS OFFICES</b>			<b>3,240</b>	<b>3,888</b>	
	Stadium Operations	Private Office	7	150	1,050	
Reception		1	300	300		
Break Room		1	150	150		
Conference Room		3	200	600		
Open Office Area		1	1,000	1,000		
Restroom		2	70	140		
<b>SUB-TOTAL - STADIUM OPERATIONS</b>			<b>3,240</b>	<b>3,888</b>		
Ticket Office	Work Area	1	900	900		
	Ticket Windows (Will Call and Sales)	1	600	600		9 ticket windows
	Future Sales Windows	1	300	300		3 ticket windows
	Money Counting Room with vault	1	300	300		
	Conference Room	1	200	200		
	Break Room	1	250	250		
	Storage	1	150	150		
	Restroom	2	70	140		
	<b>SUB-TOTAL - TICKET OFFICE</b>			<b>2,840</b>	<b>3,408</b>	
<b>SUB-TOTAL (NET AREA)</b>				<b>9,320</b>	<b>11,184</b>	
<b>CLASSIFICATION 6: SERVICE &amp; OPERATIONS FACILITIES</b>						
Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Building Staff Facilities	Entry / Check-in	1	250	250		
	Laundry / Uniform Distribution	2	600	1,200		
	Men's Locker Room	1	1,200	1,200		
	Men's Showers / Toilets	1	400	400		
	Women's Locker Room	1	1,200	1,200		
	Women's Showers / Toilets	1	400	400		
	Break Room	1	300	300		
	<b>SUB-TOTAL - BUILDING STAFF</b>			<b>4,950</b>	<b>5,940</b>	
Building Operations	Maintenance Shop	1	1,650	1,650		
	Common Shop Area	1	1,200	1,200		
	Electrician Shop	1	1,200	1,200		
	Carpenter Shop	1	1,500	1,500		
	Plumber/HVAC Shop	1	1,200	1,200		
	Paint Shop	1	800	800		
	Men's Shop Locker Room	1	300	300		
	Men's Shop Shower / Toilets	1	400	400		
	Women's Shop Locker Room	1	300	300		
	Women's Shop Shower / Toilets	1	400	400		
	<b>SUB-TOTAL - BUILDING OPERATIONS</b>			<b>8,950</b>	<b>10,740</b>	

Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Janitorial	Offices	2	150	300		
	Cleaning Personnel Office	1	150	150		
	Cleaning Storage	1	1,500	1,500		
	Central Housekeeping Supply Room	1	500	500		
	Satellite Housekeeping Storage Rooms	24	120	2,880		
	Trash Holding Rooms	24	150	3,600		
	Trash Chutes	24	20	480		
	Janitor Closet	24	50	1,200		
	<b>SUB-TOTAL - JANITORIAL</b>			<b>10,610</b>	<b>12,732</b>	
Grounds Keeping	Grounds Keeping Work Room	1	600	600		
	Office	1	150	150		
	Vehicle/Grounds Keeping Maintenance	1	4,000	4,000		
	Locker Room	2	300	600		
	Showers / Toilets	2	300	600		
	Equipment and Bin Storage Area	1	500	500		
	Chemical Storage Room	1	300	300		
	Break Room	1	300	300		
		<b>SUB-TOTAL - GROUNDS KEEPING</b>			<b>7,050</b>	<b>8,460</b>
Security	Security Operations	1	1,200	1,200		
	Manager's Office	1	200	200		
	Security Storage	1	200	200		
	Security Debrief Rooms	4	50	200		
	Observation Post	1	200	200		
	Security Uni-Sex Restroom	1	70	70		
		<b>SUB-TOTAL - SECURITY</b>			<b>2,070</b>	<b>2,484</b>
Playing Field	Playing Field	1	108,000	108,000		
	Field Entrances (Vehicles)	2	2,500	5,000		
	Football Game Equipment	1	500	500		
	Equipment Storage	1	500	500		
	Field Entrances (Players)	2	1,000	2,000		
	Field Toilets	4	70	280		
	<b>SUB-TOTAL - PLAYING FIELD</b>			<b>116,280</b>	<b>139,536</b>	
Storage	Building Operations	1	10,000	10,000		500 SF each for SEC, Chick-fil-A, and GSU
	General Stock Room	1	5,000	5,000		
	Promotions	1	1,000	1,000		
	Field Storage	1	20,000	20,000		
	General	1	2,000	2,000		
	<b>SUB-TOTAL - STORAGE</b>			<b>38,000</b>	<b>45,600</b>	
MEP	Mechanical Room	1	25,000	25,000		
	Main Electrical Room	1	15,000	15,000		
	Chiller Yard	1	7,000	7,000		
	Chiller Pump Room	1	7,000	7,000		
	Emergency Generator Room	1	2,000	2,000		
	Electrical Closets	24	400	9,600		
	Main Tele/data Room	1	1,000	1,000		
	Tele/data Closets	24	400	9,600		
	Fire Pump	1	400	400		
	Domestic Booster Pump	1	200	200		
	Steam Entry	1	200	200		
	Elevator Equipment Closet	1	500	500		
	Computer Server Room	2	500	1,000		
	<b>SUB-TOTAL - MEP</b>			<b>78,500</b>	<b>94,200</b>	
Dock/Staging	Loading Dock	1	3,000	3,000		
	Trash Management	1	1,500	1,500		
	<b>SUB-TOTAL - DOCK/STAGING</b>			<b>4,500</b>	<b>5,400</b>	
<b>SUB-TOTAL (NET AREA)</b>				<b>270,910</b>	<b>325,092</b>	

CLASSIFICATION 7: CIRCULATION						
Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
Concourse	Main Concourse	1	125,000	125,000		
	Suite Concourse	2	20,000	40,000		
	Upper-Concourse	1	100,000	100,000		
	<b>SUB-TOTAL - CONCOURSE</b>			<b>265,000</b>	<b>265,000</b>	
Vertical Circulation	Ramps	6	10,650	63,900		
	Stairs	48	750	36,000		
	Public Elevators	12	60	720		
	Service Elevators	2	192	384		
	Escalators	30	275	8,250		
	<b>SUB-TOTAL - VERTICAL</b>			<b>109,254</b>	<b>131,105</b>	
Parking	Suite Holder Parking	110	400	44,000		
	Owner's Parking	5	400	2,000		
	Player/Staff Parking	50	400	20,000		
	Other	10	400	4,000		
	<b>SUB-TOTAL - PARKING</b>	<b>175</b>		<b>66,000</b>	<b>79,200</b>	
Service Tunnel	Field Level Service Tunnel	1	30,000	30,000		
	Marshalling	1	30,000	30,000		Area for staging before & during events
	<b>SUB-TOTAL - TUNNEL</b>			<b>60,000</b>	<b>66,000</b>	
<b>SUB-TOTAL (NET AREA)</b>				<b>500,254</b>	<b>541,305</b>	
SUMMARY						
Space Type	Room Description	Recommended Program				Comments
		Units	SF	Total NSF	Total GSF (*1.20)	
SUB-TOTAL CLASSIFICATION 1: SPECTATOR FACILITIES				749,985	813,310	
SUB-TOTAL CLASSIFICATION 2: FOOD SERVICE & RETAIL FACILITIES				105,900	127,080	
SUB-TOTAL CLASSIFICATION 3: TEAM FACILITIES				35,840	43,008	
SUB-TOTAL CLASSIFICATION 4: MEDIA FACILITIES				32,940	39,528	
SUB-TOTAL CLASSIFICATION 5: ADMINISTRATIVE FACILITIES				9,320	11,184	
SUB-TOTAL CLASSIFICATION 6: SERVICE & OPERATIONS FACILITIES				270,910	325,092	
SUB-TOTAL CLASSIFICATION 7: CIRCULATION				500,254	541,305	
<b>TOTAL NET SQUARE FOOTAGE (NSF)</b>				<b>1,705,149</b>		
<b>+ NET-TO-GROSS MULTIPLIER (20%)</b>				<b>195,358</b>		
<b>TOTAL GROSS SQUARE FOOTAGE (GSF)</b>				<b>1,900,507</b>	<b>1,900,507</b>	

## NEW STADIUM

### Table of Contents

CONTENT	PAGE
I. Site Narrative	2
II. Site Diagrams	4
Site Boundary	
Slurry Wall and Power Lines	
Marshalling Yard	
Site Analysis	
III. Plan Narrative	8
IV. Plan Diagrams	10
Site	
Service Level	
Main Concourse	
Club Level	
Lower Suite Level	
Upper Suite/Press Level	
Upper Concourse	
Upper Deck Plan	
V. New Stadium Parking and Traffic	19
Parking	
Vehicular Access and Circulation	
MARTA	
Pedestrian Access and Circulation	
Simultaneous Events	
Summary of Recommendations/Application to New Stadium	



## I. Site Narrative

The site for the proposed open air NFL stadium is located to the north of Hall C and Hall B, on the north side of Ivan Allen Boulevard. The site is currently used as game day and event parking on the west side, called the Yellow Lot. The Yellow Lot has space for 1,282 surface parking spaces. The Yellow Lot is approximately 12.50 acres. The east side of the site is the current Marshalling Yard used by the Congress Center. The Marshalling Yard is approximately 16.0 acres.

During the recent realignment of Ivan Allen Boulevard an underpass was created that allows truck traffic to access both Halls B and C without having to cross regular street traffic. It is recommended that this condition be maintained in the new planning process to avoid truck/car conflicts on Ivan Allen Boulevard. The site is depicted in the plan diagram on page of the 4 report.

There are several significant site impacts, among them, traffic and parking (pages 20-37 of this section), existing contaminated soils that are contained with a slurry wall and cap and existing overhead power lines.

### **Contaminated Soil/Power Transmission Lines**

Please reference the Diagram 4-2.

The existing slurry wall contains approximately 6.5 acres of contaminated soils. The area is on the northern section of the Yellow Lot. To understand the relationship between the slurry wall and the stadium please refer to the Diagram 4-2. The western edge of the stadium will overlap the area contained by the slurry wall approximately 3.5 acres.

Overhead power lines were recently routed through the site with a right of way. The lines follow the Yellow Lot/Marshalling Yard entrance drive in a north/south orientation, essentially dividing the site in half. The lines originate west of Northside Drive to the north of Ivan Allen Boulevard. Near the entrance drive the lines split, one line heads north while the other crosses Ivan Allen Boulevard in a southeasterly direction. This line then parallels Simpson Street heading to the east where it crosses the existing railroad tracks before routing back to Ivan Allen Boulevard. If the stadium were located at the very eastern edge of the site, along the railroad tracks the power line could potentially be missed. However it is our recommendation that it be relocated so the full potential of the site and stadium can be realized.

### **Marshalling Yard**

Please reference Diagram 4-3.

The existing Marshalling Yard is located on the east side of the site and is approximately 16.0 acres of surface parking area and is used by the Congress Center to stage trucks for exhibit load-in and load-out operations. The new stadium footprint overlaps almost the entirety of the Marshalling Yard, leaving approximately 2.5 acres of surface area available for marshalling activities. The Congress Center will continue to need approximately the same amount of marshalling space as it currently uses, meaning that an off-site location will need to be acquired for that purpose. While the 2.5 acre area could be reserved for marshalling purposes, for the sake of this report we assumed that the entire surface area would be available for parking on game and event days.

### **Site Analysis**

Please reference the Diagram 4-4.

The primary design opportunities related to building location are described in Diagram 4-4. The west edge of the site, along Northside Drive, faces a low scale neighborhood and needs to respond to that scale. This diagram proposes that the street edge be treated in a park-like fashion. Creating a landscaped buffer between the surface parking, stadium and the neighborhood itself will be an important gesture to make in the final plan. The southern edge of the site, bounded by Ivan Allen Boulevard, has a great potential for becoming a strong urban edge to the stadium. It is also the location that offers the highest degree of connection to the existing Congress Center. The south edge of the new stadium will be a beacon and front door to the facility. However the south side of the street presents the “back side” of the Congress Center. In time, creating a front door to the Congress Center in this location could change the way it is entered and approached.

Connecting this southern edge at both ends are large scale pedestrian plazas. The corner at Ivan Allen Boulevard and Northside will be a major access point for pedestrians approaching from the Vine MARTA Station. Allowing for a major public entrance at this location will be critical. The corner of Ivan Allen Boulevard and Marietta will be equally important as a pedestrian access point.

## II. Site Diagrams



Diagram 4-1. Site Boundary

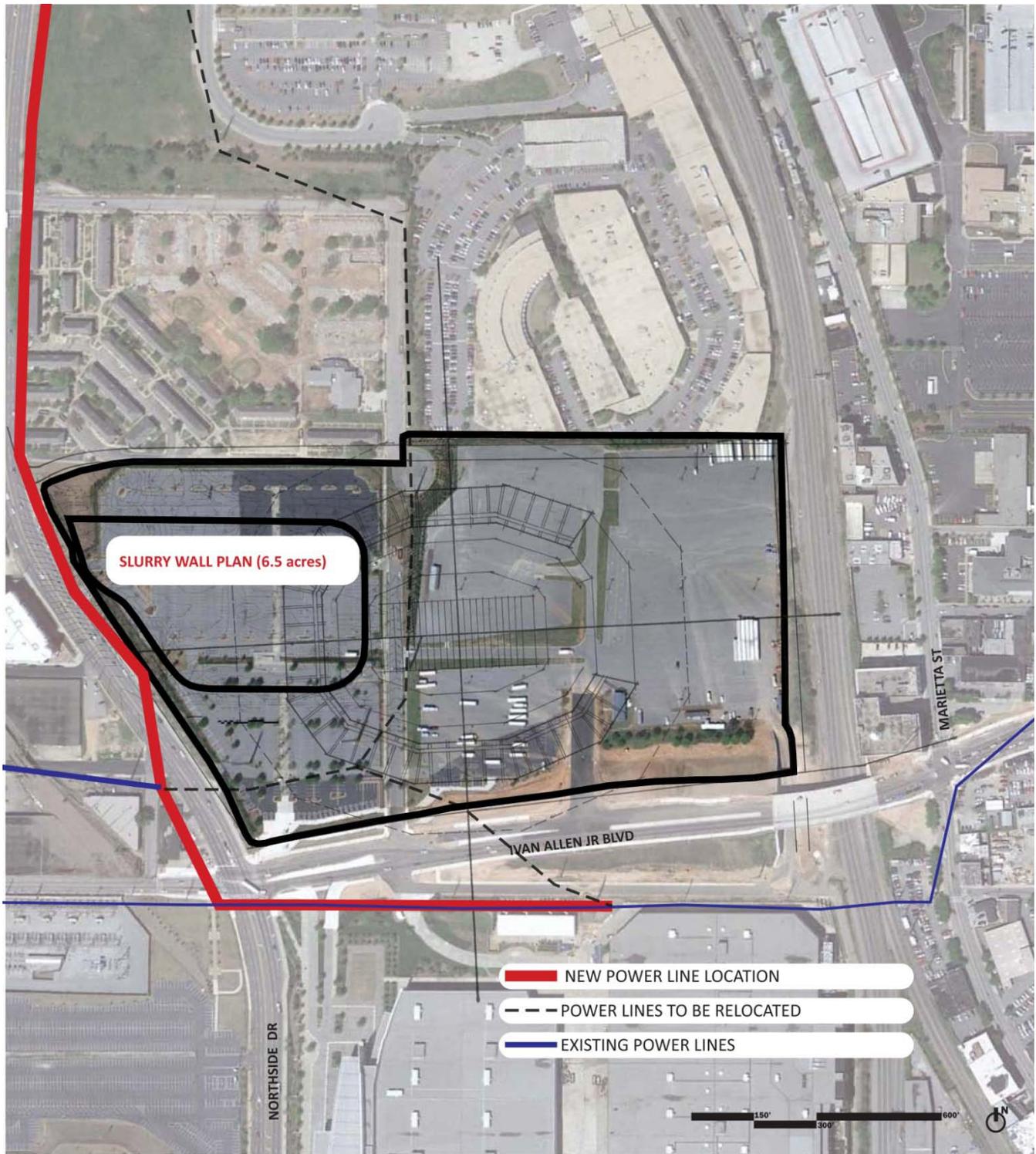


Diagram 4-2. Site impacts, including contaminated soil and overhead power transmission lines



Diagram 4-3. Marshalling Yard

Marshalling Yard connections to streets remain intact. The size of the Marshalling Yard is reduced significantly due to the footprint of the stadium. Approximately 2.5 acres remain of the 16.0 acres that exist today. For this report the surface area was determined to be used as game day and event day parking, requiring that all marshalling activities be relocated to an off-site location to be determined.

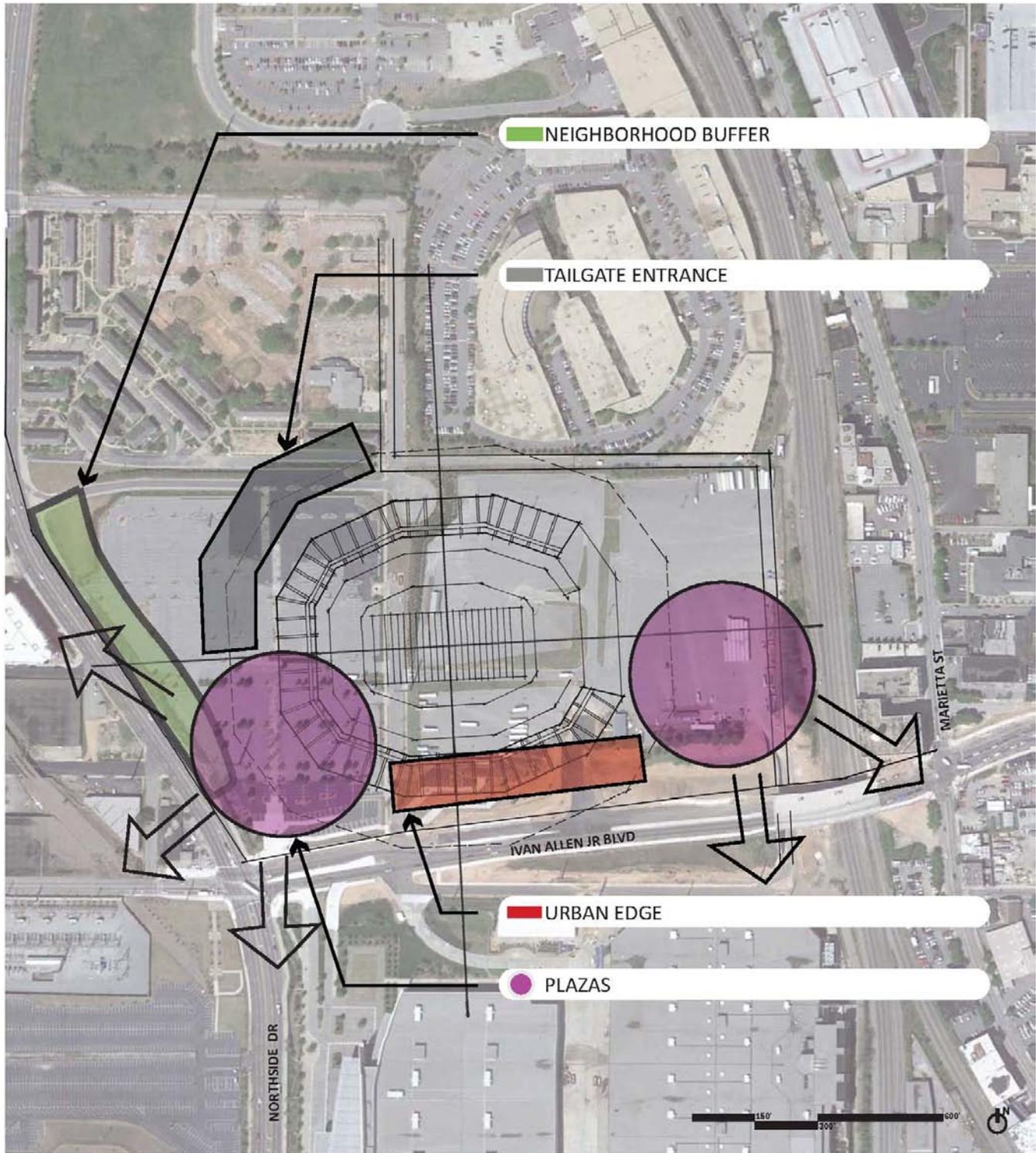


Diagram 4-4. Site Analysis

The site analysis includes key factors such as pedestrian connections to parking inventories, pedestrian circulation and MARTA stations. It also indicates connections to the city and creating appropriate scale responses to the neighborhood to the west of the site using landscape buffers and pedestrian plazas. The southern edge of the site represents a potential to create a relationship to the existing Campus.

### III. Plan Narrative

The Stadium is arranged on six main floor levels; service level, main concourse level, club level, lower suite level, upper suite/press level and the upper concourse level. Each of the levels will be connected vertically with a combination of ramps, stairs, elevators and escalators for pedestrian circulation and building operations. The Design Narrative and Program Area Summary provide detailed information about which building elements are on each level and how they connect to other spaces, their intended use and description. The following building/site diagrams are intended to help describe the overall relationship of the stadium to the surrounding site and the key pedestrian and vehicular connections to it.

#### Site Plan

Please reference the Diagram 4-5.

The site is located to the north of the existing Congress Center and is bounded by Ivan Allen Boulevard on the south, Northside Drive on the west, existing railroad tracks to the east and on the north by two separate private properties.

#### Service Level - Level 1

Please reference the Diagram 4-6.

Located at grade, on the western end of the site will be the team store and hall of fame flanked by a large scale pedestrian plaza, creating the front door for the stadium. The plaza will connect directly to surface parking to the west and building circulation to the east. The team store and hall of fame are both envisioned as multi-story buildings, connecting to the main concourse.

There will be surface parking in the west side of the site for 500 cars, a perfect spot for pregame tailgating. The east side of the site has surface parking for 250. Directly adjacent to the loading dock will be team and player parking for 150. A three level, 675 car, parking deck forms the eastern edge of the site, parallel to the existing railroad tracks. There will be approximately 225 cars per level. The garage will be accessed directly from Ivan Allen Boulevard to the south.

Team facilities, foodservice, building operations, the loading docks and media truck parking will all be located on the service level. The loading dock will be adjacent to the playing field via two large tunnels.

#### Main Concourse - Level 2

Please reference the Diagram 4-7.

The main concourse will connect directly to Ivan Allen Boulevard at the southeast corner of the site. The connection will be made by a large scale elevated pedestrian plaza. The pedestrian plaza will be the front door for those coming from the east and south from Marietta Street via Ivan Allen Boulevard.

There are four pedestrian bridges planned. Two of these bridges originate at Marietta Street, the first at the end of Mills Street and the second at the southwest corner of Ivan Allen Boulevard and Marietta Street. The bridge at Mill Street will capture pedestrians who park in lots and garages north of the site and provide direct access across the railroad tracks to the new stadium venue. The third bridge connects pedestrians walking from parking and MARTA south of the site along Northside Drive directly to the main concourse. The bridge originates at the south side of Ivan Allen Boulevard just to the east of Northside Drive. A fourth bridge is anticipated at the Vine City MARTA station. The bridge would span Northside Drive, allowing vehicular traffic to

flow freely while moving pedestrians to the east side of Northside Drive. This bridge will connect pedestrians to the bridge at Northside and Ivan Allen Boulevard. The two bridges that cross IAB could be eliminated if it is determined that Ivan Allen Boulevard could be closed during events. This determination will take a more in-depth analysis than this master planning effort; therefore, we recommend that all four bridges be included at this time.

### **Club Level - Level 3**

Please reference the Diagram 4-8.

The club level will be primarily premium seating, there will be approximately 7,500 club seats. There will be two primary club spaces at the north and south sideline. The east end zone will have no seating but there is a planned deck at that location. The deck can be used for temporary seating, SRO and other fan amenities. The west end of the club level will be associated with a premium level experience but separate from the sideline clubs. The club spaces will connect vertically to the two suite levels above and will have exclusive entrances separate from the general population.

### **Lower Suite Level - Level 4**

Please reference the Diagram 4-9

There will be two suite levels that accommodate approximately 110 suites. The suites will range in capacity from 16-100 patrons. The majority of suites will be 16 and 24 seat capacity. There will be four suites that accommodate 50 and two party suites that accommodate 100 patrons. The suites will open and connect to the club level below. They will have private vertical access via elevators.

### **Upper Suite Level and Press - Level 5**

Please reference the diagram 4-10

The upper suite level will be similar to the lower suite level, connecting to the club below and having private access via elevators. The press will be located at the west end of this level.

### **Upper Concourse - Level 6**

Please reference the Diagram 4-11.

The upper concourse is arranged in a horseshoe with the east end open to city views beyond. The west end will be closed and provide continuous seating. While there is no seating at the east end of the upper deck the deck does go side to side, creating a platform for SRO, temporary seating and other fan amenities. The concession and toilet facilities, along with other fan amenities, will be located on the outside of the concourse, allowing for views to the field from any location on the concourse.

### **Upper Deck Seating Bowl**

Please reference the Diagram 4-12.

### IV. Plan Diagrams



Diagram 4-5. Site



Diagram 4-6. Service Level



Diagram 4-7. Main Concourse

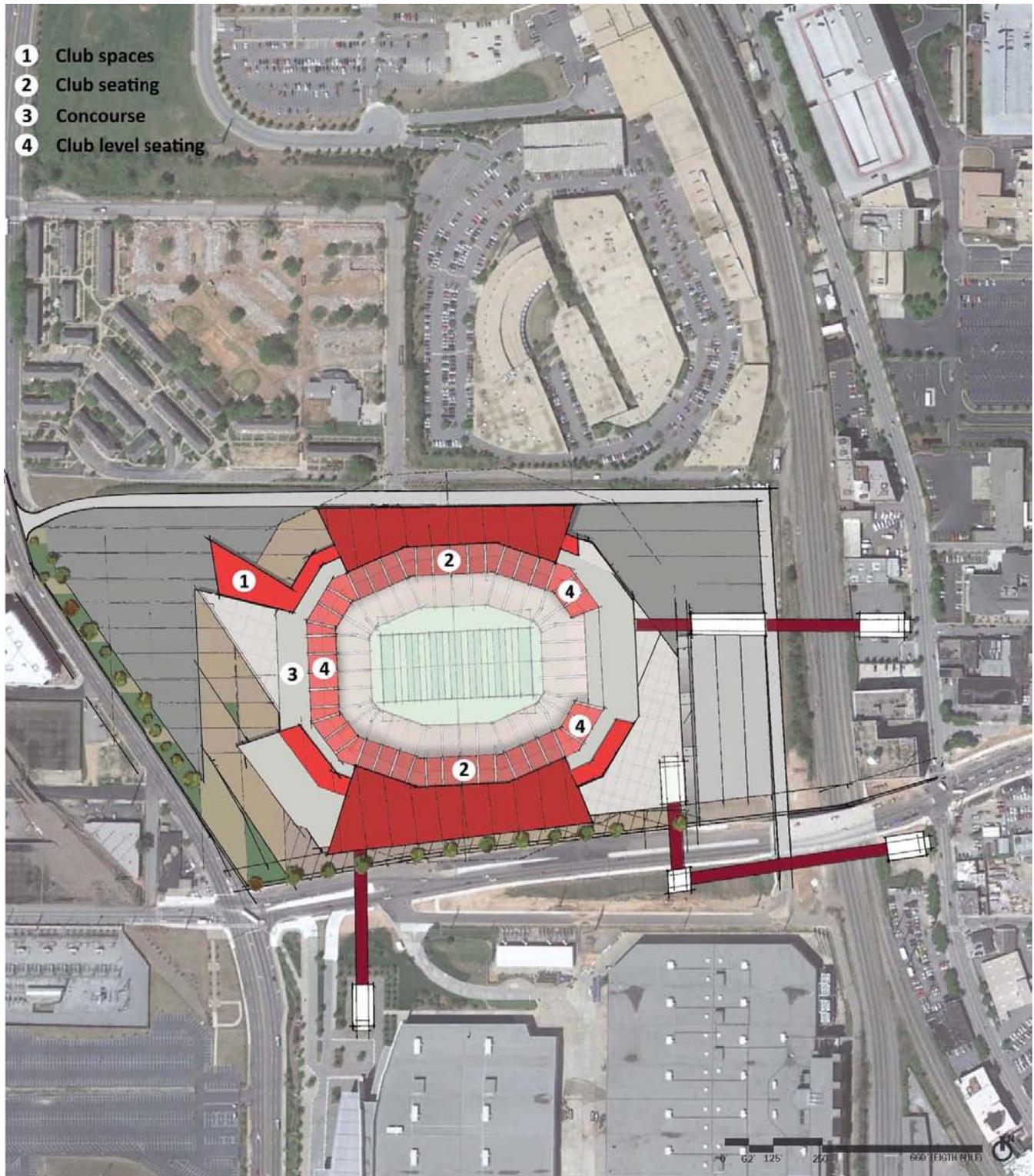


Diagram 4-8. Club Level

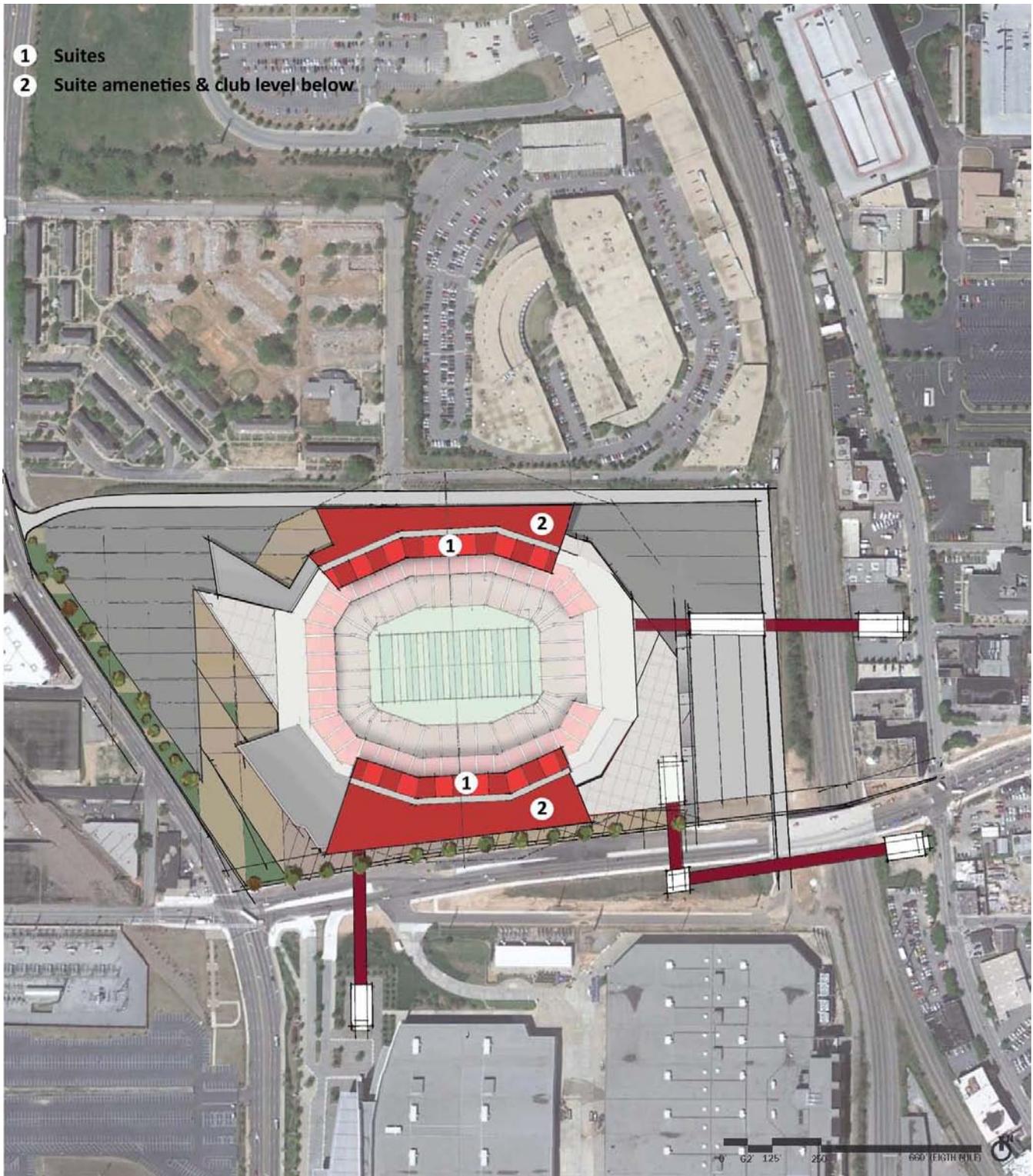


Diagram 4-9. Lower Suite Level



Diagram 4-10. Upper Suite and Press Level

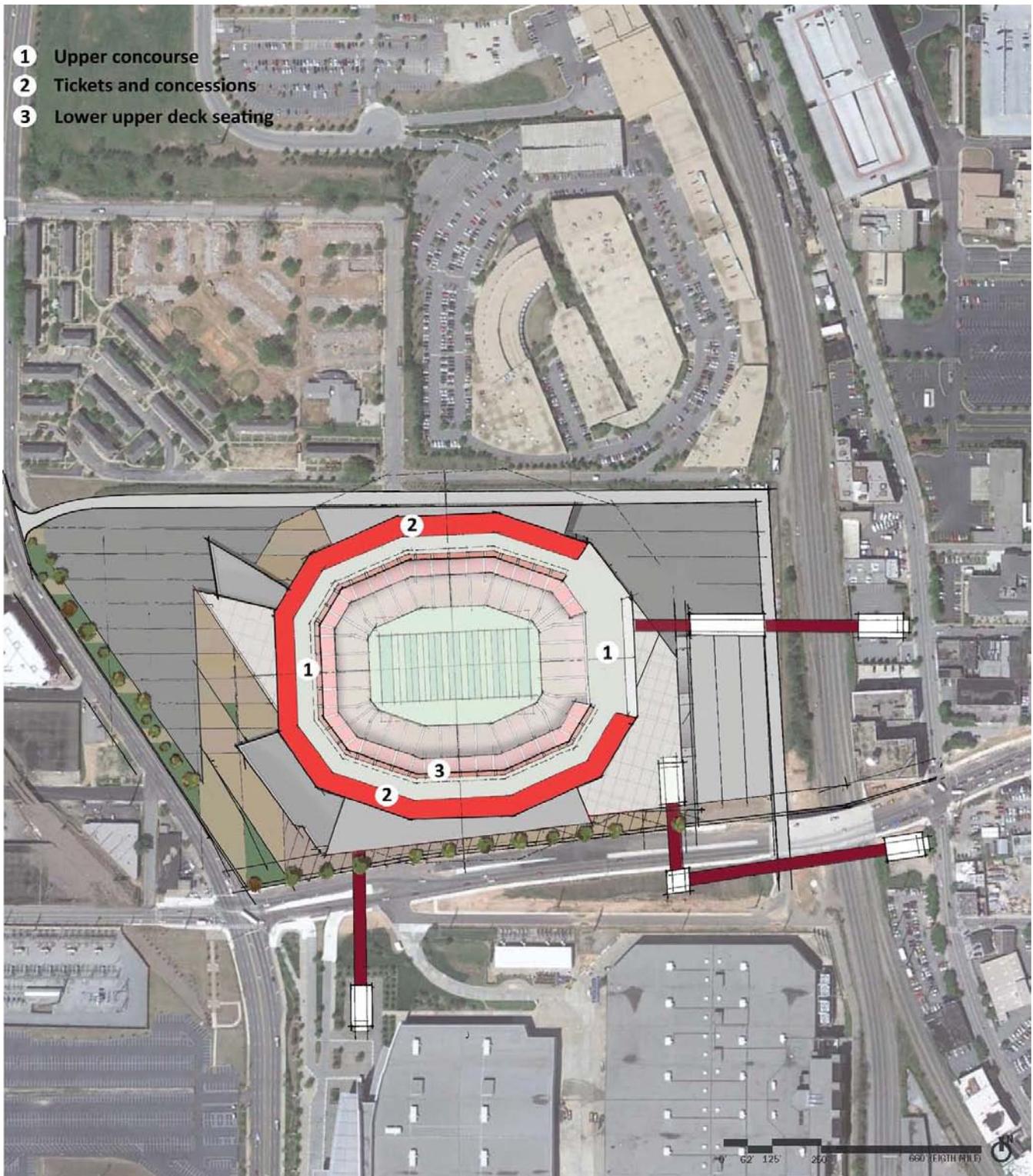
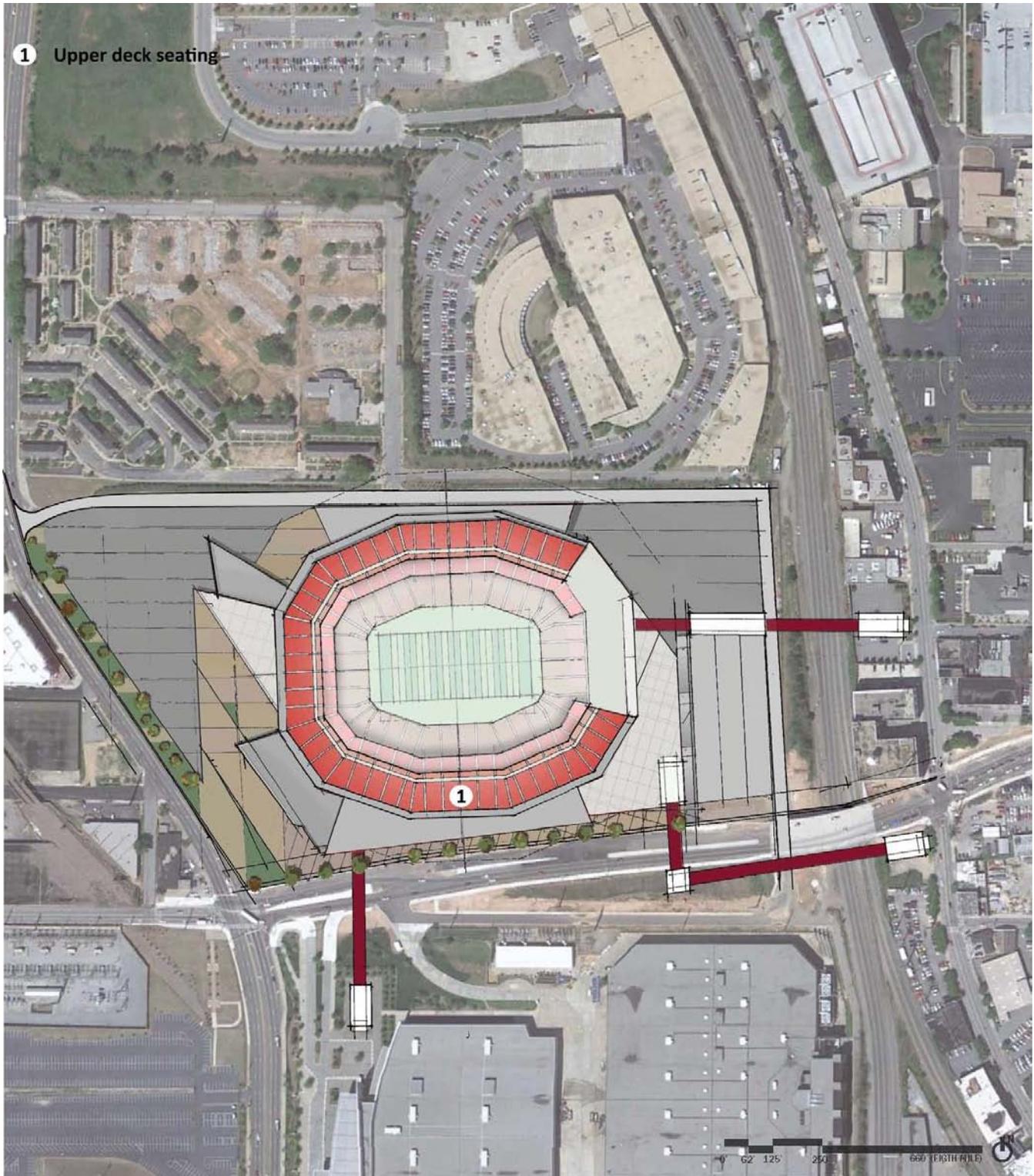


Diagram 4-11. Upper Concourse

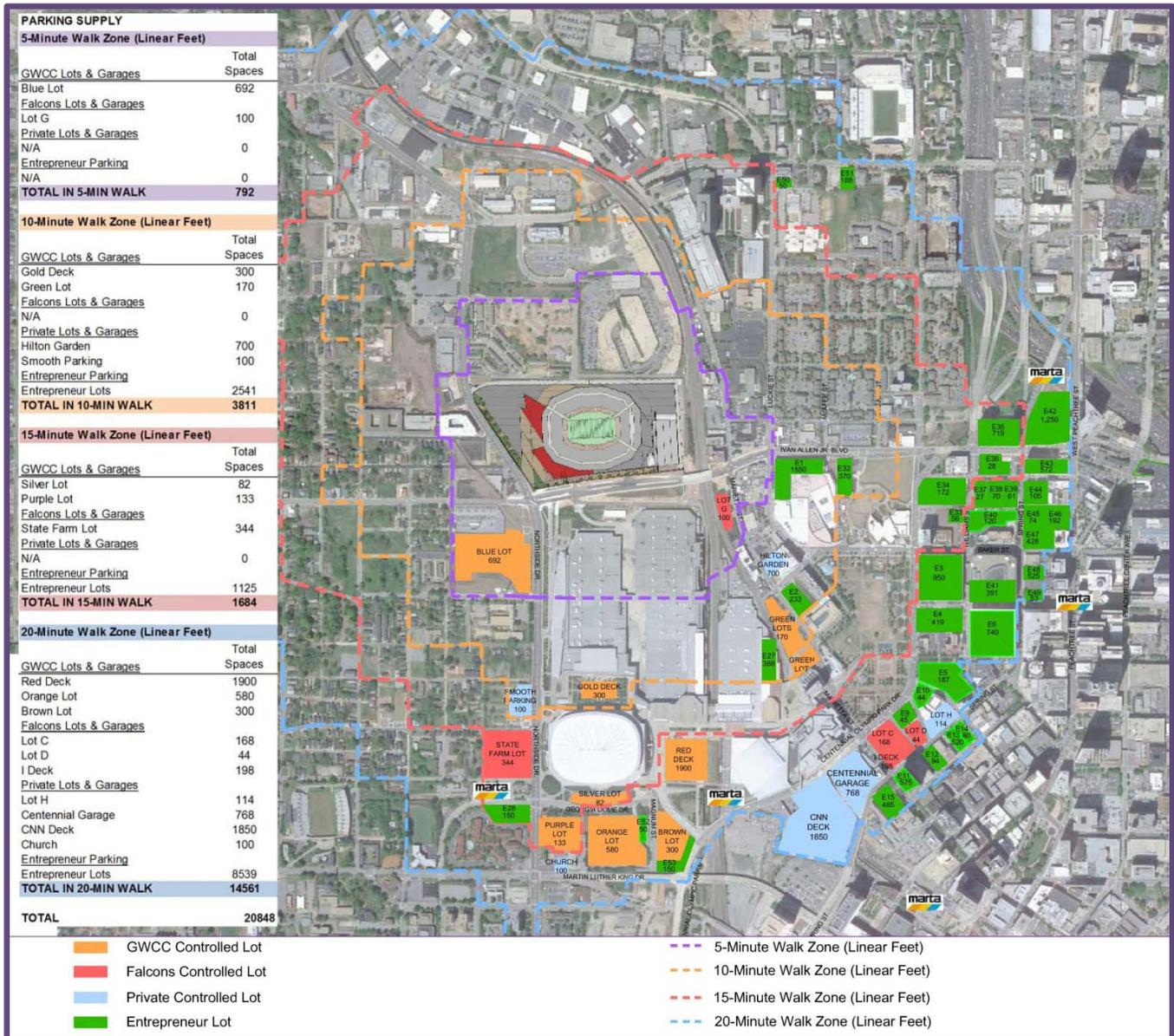


1 Upper deck seating

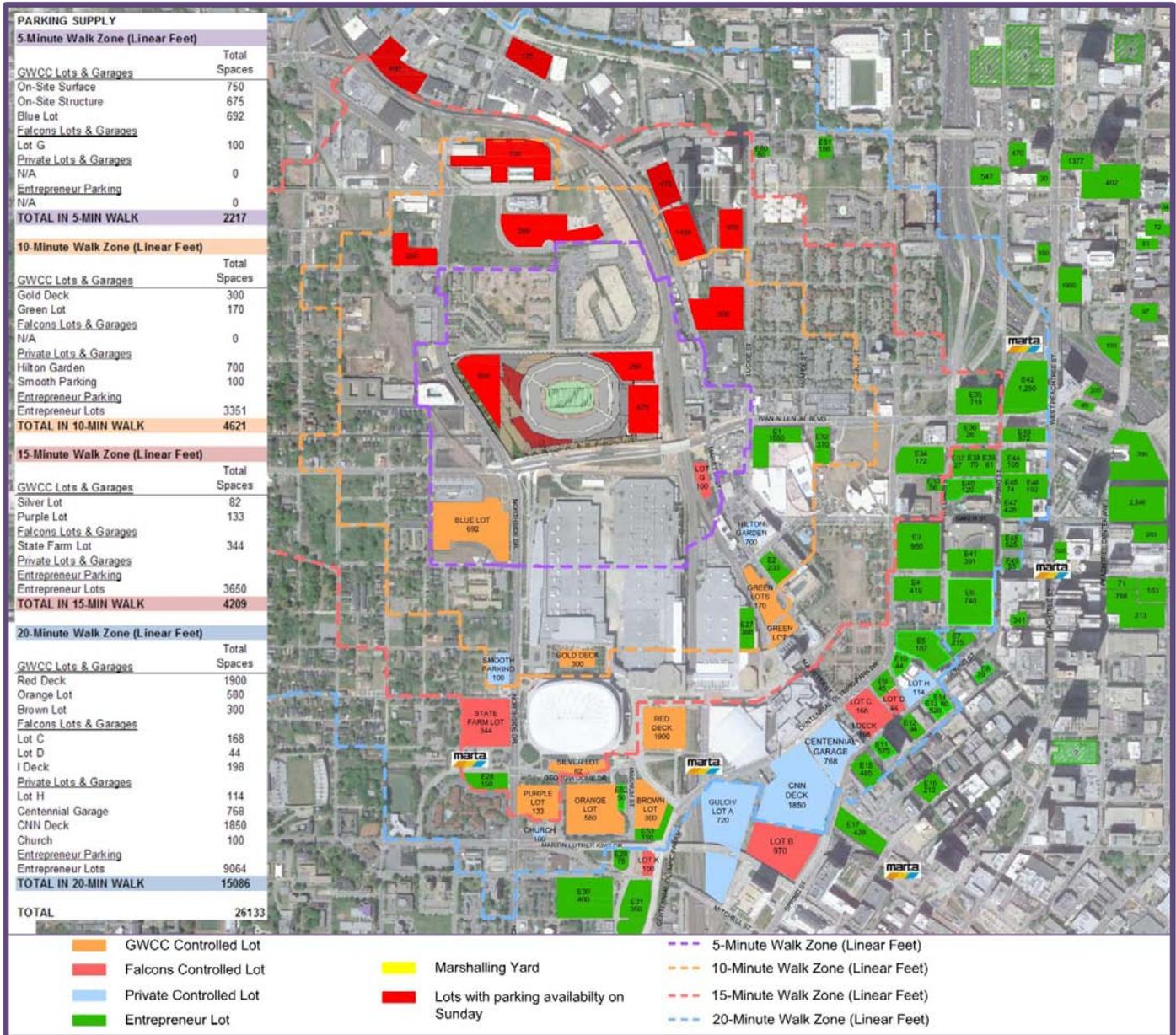
Diagram 4-12. Upper Deck Seating Bowl



V. New Stadium Parking and Traffic

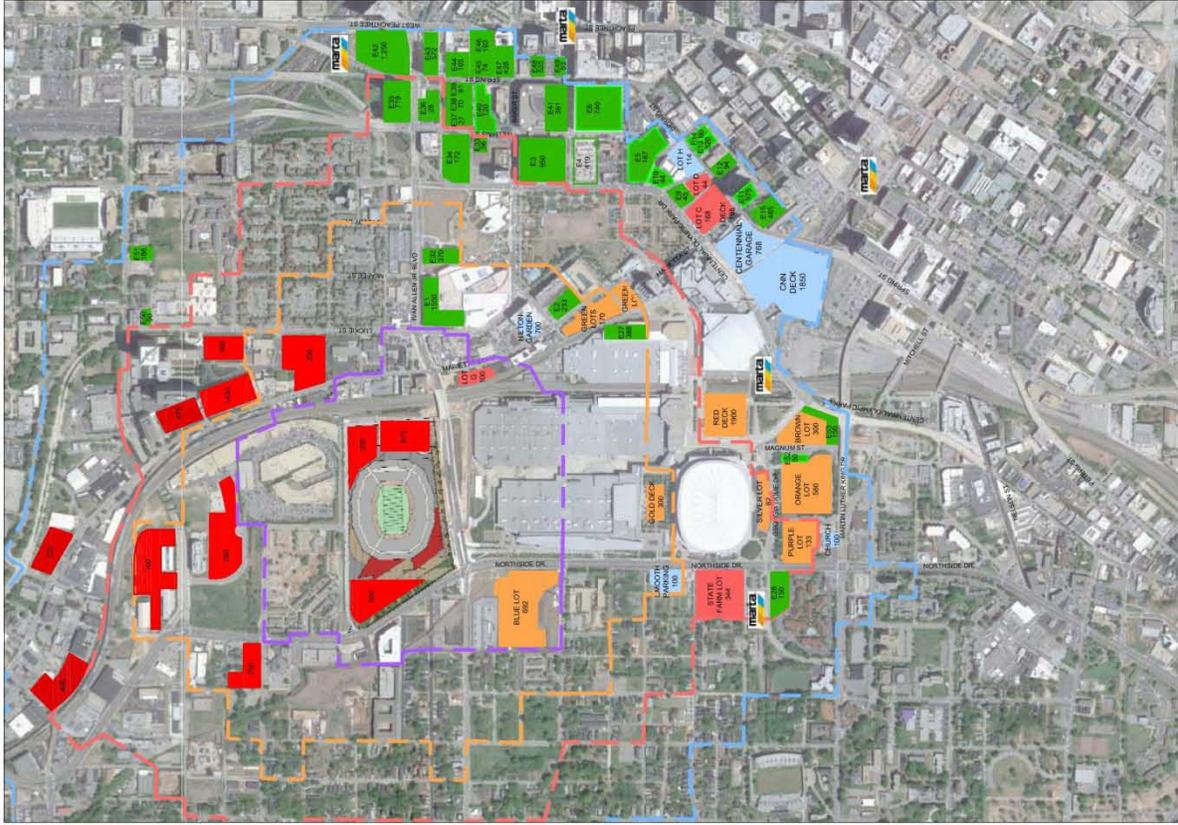


A parking supply and demand analysis was completed to determine if sufficient parking was available within a 20-minute walk of the proposed stadium site. Counting only spaces currently open to the public and used on gameday for events at the Georgia Dome and within a 20-minute walk zone as seen in the figure (GWCCA Controlled Lot, Falcons Controlled Lot, Private Controlled Lots, and Entrepreneur Lots), there is a shortfall of approximately 760 parking spaces. Almost all of these spaces are located south and east of the proposed site.

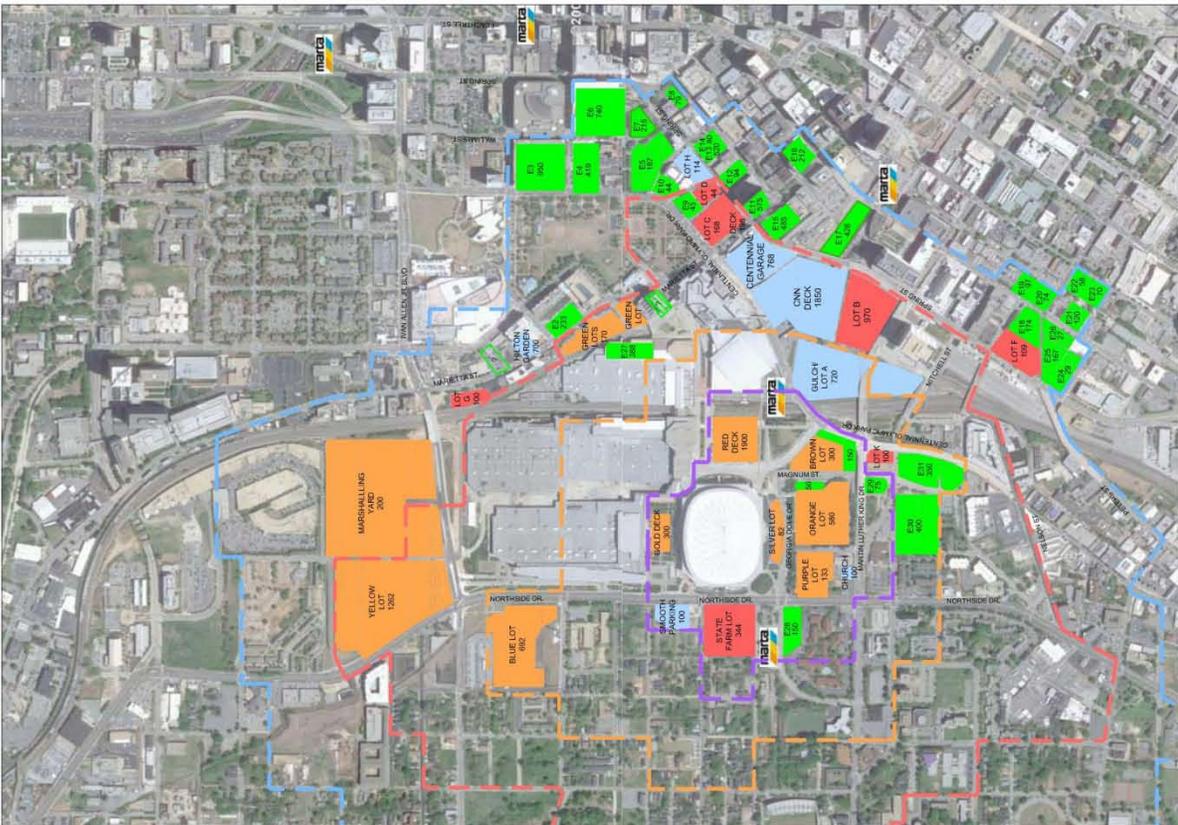


To make up for the parking shortfall that would be experienced with no additional parking facilities, a field study was conducted to identify existing lots and garages located north of the proposed site (shown in red above) that could be used on gameday. Approximately 4,160 parking spaces have been identified north of the site. These lots are currently privately operated with limited or no public access. **Agreements would need to be established to ensure parking availability in these lots during events at the new stadium.** Additionally 1,425 parking spaces have been identified on-site (750 surface parking spaces, 675 structured parking spaces) to provide premium parking and team parking adjacent to the stadium.

PROPOSED STADIUM PARKING SUPPLY WITHIN 20-MINUTE WALK



GEORGIA DOME PARKING SUPPLY WITHIN 20-MINUTE WALK



**Parking Availability Comparison Between Georgia Dome and Potential New Stadium Site**

The following assumptions were used in comparing the parking availability at the new locations

- Stadium Capacity- 71,250 patrons
- Vehicle Occupancy- 3.2 persons per vehicle
- Walking Speed- 3.5 feet per second
- Modal Split- 20% Marta, 80% Personal Vehicles

**Total Parking Supply**

An inventory of total parking spaces located within a 20-minute walk of the Georgia Dome and New Stadium Site show the following number of spaces:

- Georgia Dome- 19,789
- Proposed Stadium (No Additional Spaces On-Site or North of Georgia Dome)- 20,848
- Proposed Stadium (1,425 parking spaces will be available on-site with 150 of these will be used by the team and a minimum of 3,475 parking spaces secured in areas identified north of the site) - 26,133

Since the facilities are located less than a half mile apart, there is an overlap of the parking that would be accessible from each of the venues. Of the 19,780 total spaces currently within a 20-minute walk of the Georgia Dome, 13,850 of these are also within a 20-minute walk of the proposed stadium site.

**Available Parking Supply**

The total parking supply described above assumes that every space in every lot or garage will be available for an event. This will not be the case for certain lots since they are privately owned and may be used for other purposes at the same time as events at the venue. The following parking supply parameters were applied:

- GWCCA Controlled Lots- 100% Event Availability
- Falcons Controlled Lots- 100% Event Availability
- Private Lots and Garages- 100% Event Availability
- Georgia Aquarium Garage- 50% Event Availability
- World of Coke- 75% Event Availability
- Entrepreneur Lots- 90% Event Availability, 80% Utilization

As a result of the availability measures applied, the following are the number of parking spaces available for an event:

- Georgia Dome- 17,814
- Proposed Stadium (No Additional Spaces On-Site or North of Georgia Dome)- 17,051
- Proposed Stadium (1,425 parking spaces will be available on-site with 150 of these will be used by the team and a minimum of 3,475 parking spaces secured in areas identified north of the site) - 21,350

Parking Proximity

Although the total number of parking spaces available within 20-minutes of the proposed stadium is more than the existing facility, a key factor, especially for Premium/VIP patrons, is the proximity of parking to the facility. At the Georgia Dome, 23.6% of parking is available within a 5-minute walk. At the proposed location, only 10.4% of parking will be in this 5-minute threshold and approximately 60% of parking will require walking 15-20 minutes to the stadium which may impact the overall fan experience. Estimated percentages for the proposed stadium include the 1,425 parking spaces available on-site and 3,475 parking spaces secured north of the site in existing lots not currently available on gameday.

	Georgia Dome		Proposed Stadium	
	Number	Percent	Number	Percent
<b>5-MINUTE</b>	<b>4,201</b>	<b>23.6%</b>	<b>2,216</b>	<b>10.4%</b>
10-MINUTE	2,152	12.1%	3,219	15.1%
15-MINUTE	5,664	31.8%	3,642	17.0%
20-MINUTE	5,796	32.5%	12,273	57.5%
<b>TOTAL</b>	<b>17,814</b>	<b>100%</b>	<b>21,350</b>	<b>100%</b>

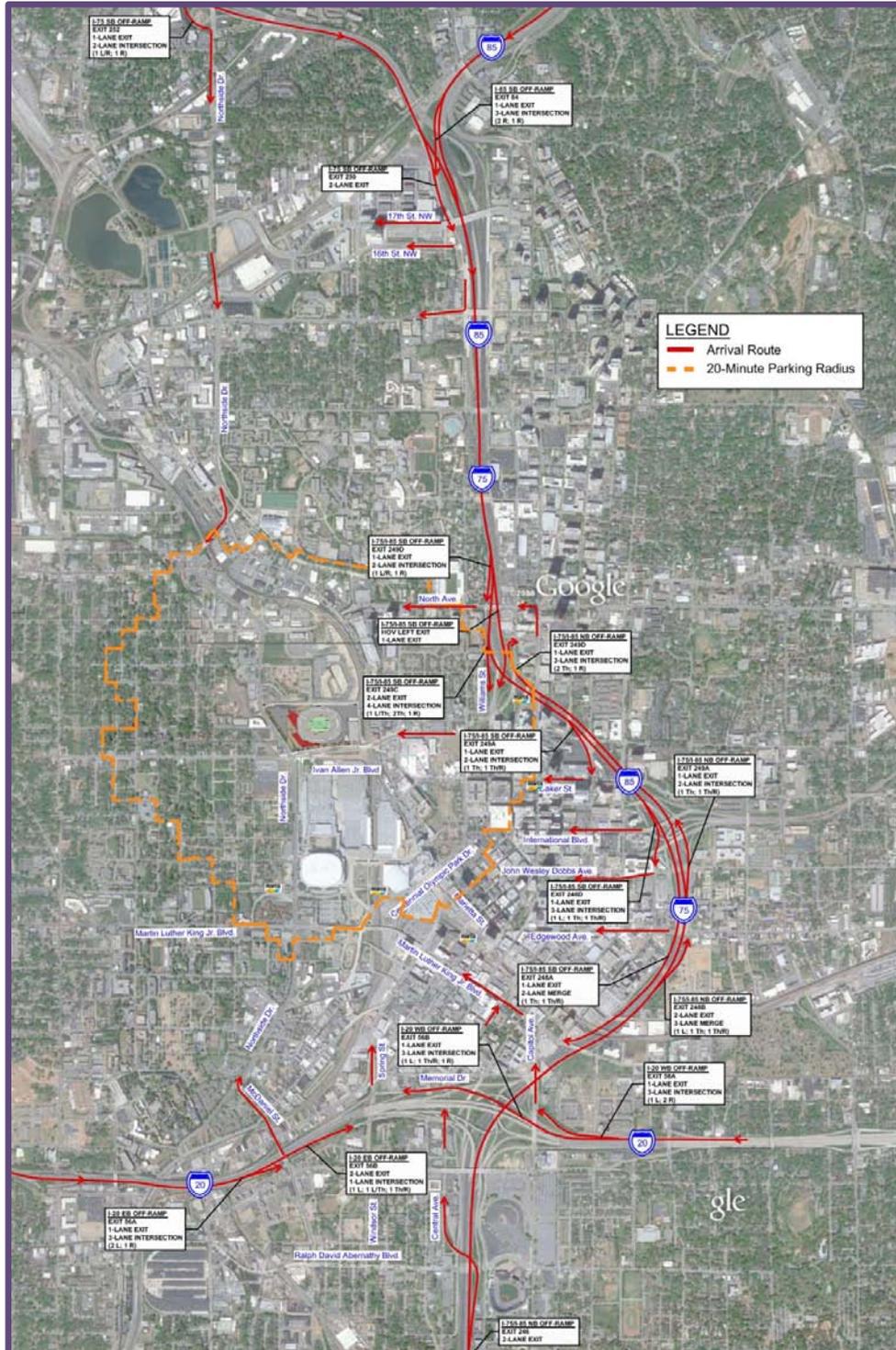
Providing sufficient VIP and Team parking close to the site is also critical. At the Georgia Dome there are currently 3,472 spaces used in the Red Deck, Orange Lot, Blue Lot, and Gold Deck for Suite Holders, Club Members, Team, and other VIP guests. At the proposed location, there are only 2,687 parking spaces within a 10-minute walk that are controlled by the GWCCA or Falcons that could be used for premium parking (On-Site Lot & Structure, Blue Lot, Green Lot, Gold Deck, Lot G). Strategies will need to be developed to determine who will qualify for premium parking, which lots can be used for this purpose, and how the allocation of parking would be assigned in the case of simultaneous events on the GWCC Campus.

	# Spaces	Type of Parkers
Red Deck	1,900	Suite Holders, Club Members, Owner's Club, Handicap
Orange Lot	580	Club Members, Falcons Team, Limo
Blue Lot	692	Club Members, Season Ticket Holders
Gold Deck	300	VIP, Coaches Players
<b>TOTAL</b>	<b>3,472</b>	

The following are the Key Issues that have been identified as a result of the Parking Assessment:

- Premium/VIP parking must be constructed on-site
- Parking in privately operated lots or garages north of the proposed site must be secured
- GWCCA/Falcons should control more parking in the five and ten minute walk zones for premium guests
- This analysis evaluates parking demand for single events only; See Page 33 for simultaneous events analysis

**Vehicular Access and Circulation**



This figure highlights each of the interstate access ramps that provide ingress access to the new stadium site and parking facilities.

**Arrival Routes**

Mapping the arrival routes shows the available capacity of the interstate system that will provide access to the new stadium site. There are nine exit ramps on I-75/I-85 southbound providing a total of 11 exit lanes. There are four exit ramps on I-75/I-85 northbound providing a total of six exit lanes. There are two exit ramps on I-20 eastbound providing a total of three exit lanes, and there are two exit ramps on I-20 westbound providing a total of two exit lanes. Each of these exit lanes has a capacity of 1,200 vehicles per hour.

**Arrival Distribution**

It is assumed that the proposed stadium would attract a similar fan base as the Georgia Dome. The following regional distribution was determined from zip codes of Atlanta Falcons season ticket holders from the 2010-2011 NFL season:

Access Route	Percentage of Patrons Arriving by Route
I-75 SB	16.5%
I-85 SB	30.0%
I-75/I-85 NB	17.4%
I-20 EB	13.6%
I-20 WB	22.5%

**Arrival Capacity**

As described in the existing conditions, the Georgia Dome uses a Google Maps based directions tool that gives patrons a route based on the shortest distance from their origin to destination. The following table demonstrates the need to utilize the existing capacity on all ramps instead of directing all patrons to use the same interstate exit. If one primary exit is used in for all patrons, the I-75/I-85 Connector SB, I-20 EB, and I-20 WB are all over capacity during the peak hour before an event.

The analysis is based on the following assumptions:

Gameday Patrons: 71,250  
 Patrons Arriving by Private Vehicles (80%): 56,982  
 Number of Vehicles (3.2 per vehicle): 17,807  
 Number of Vehicles in Peak Hour (50%): 8,904

Access Route	Closest Exit to Front Door of Stadium	Capacity of Nearest Exit (vehicles/hour)	Percentage of Patrons Arriving by Route	Number of Patrons in Peak Hour	Volume/Capacity Ratio
I-75/I-85 SB	Exit 249C to Williams St.	2,400	46.5%	4,140	<b>1.73</b>
I-75/I-85 NB	Exit 246 to Central Ave.	2,400	17.4%	1,549	0.65
I-20 EB	Exit 56B to Spring St.	1,200	13.6%	1,211	<b>1.01</b>
I-20 WB	Exit 56B to Spring St.	1,200	22.5%	2,003	<b>1.67</b>

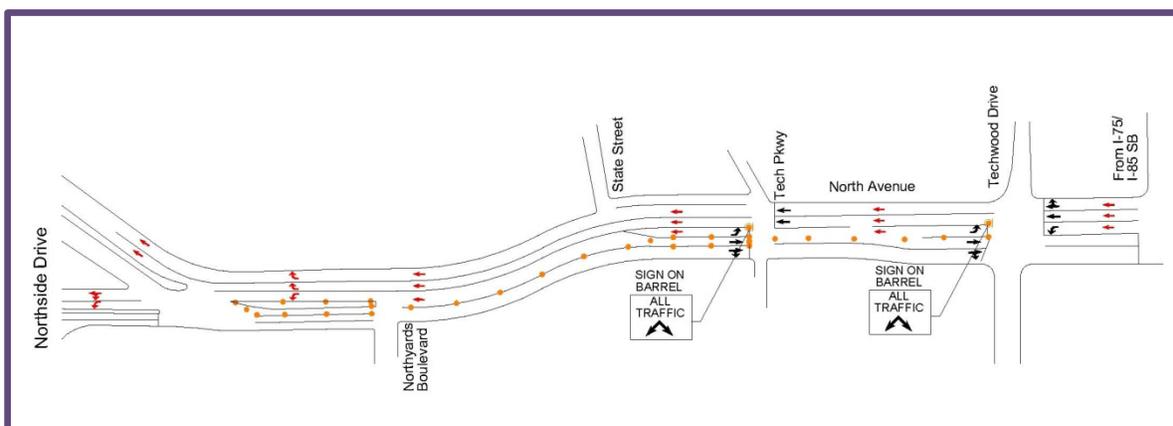
### Recommendations

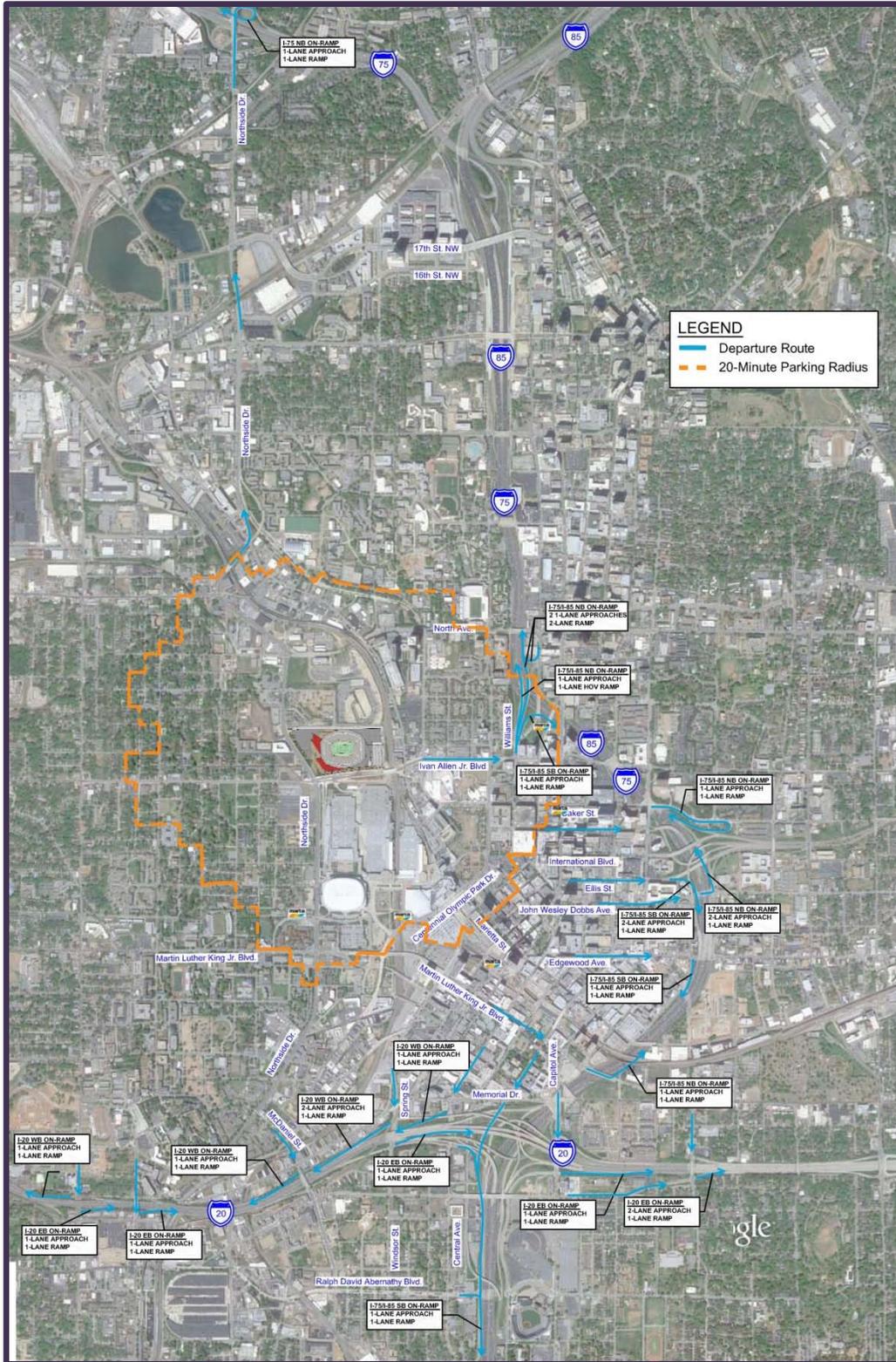
The following are the Key Issues that have been identified as a result of the Access and Circulation Assessment:

- It is critical to direct patrons to parking and not to the front door of the facility. With approximately 60% of the available parking being in the 15-20 minute walk zone, patrons will be inconvenienced by congestion if they attempt to drive to the facility first and then find parking. Online direction tools and social media tools should be developed to help aid in the public outreach process.
- Although Exit 249C from I-75/I-85 SB Connector to Williams Street provides the closest access to the facility, the North Avenue Exit should be promoted to access parking locations north of the site. It will relieve congestion from the interstate and the Williams Street exit and provide closer access to parking facilities.
- The signage and cone placement plan provided in Arrival Recommendations (Arrival Improvement #1) for the Georgia Dome should be in place for events at the new stadium location.
- Permanent interstate signage and local wayfinding signage systems will be required to direct patrons to the site and parking.

### Regional Access

North Avenue will experience an increase in traffic volume compared to the Georgia Dome traffic due to the proximity of parking in lots and garages north of the site. If agreements are made with these lots, it is likely that the increase in traffic will warrant a contraflow lane of North Avenue westbound from I-75/I-85 SB Exit to Northside Drive before an event as seen in the figure below. For this .8 mile section, traffic cones, barrels with signs, and police control would be the minimum equipment required for the lane reversal. Alternatively, North Avenue could be widened by one lane in each direction to increase the overall capacity. While widening North Avenue to have an additional lane in each direction would eliminate the need for temporary event management, this would require additional right-of-way and have a significant cost impact since it would likely require rebuilding the railroad bridge and Marietta Street Bridge that currently constrain the width of North Avenue.





This figure highlights each of the interstate on-ramps that provide access from the new stadium and parking facilities to the interstate.

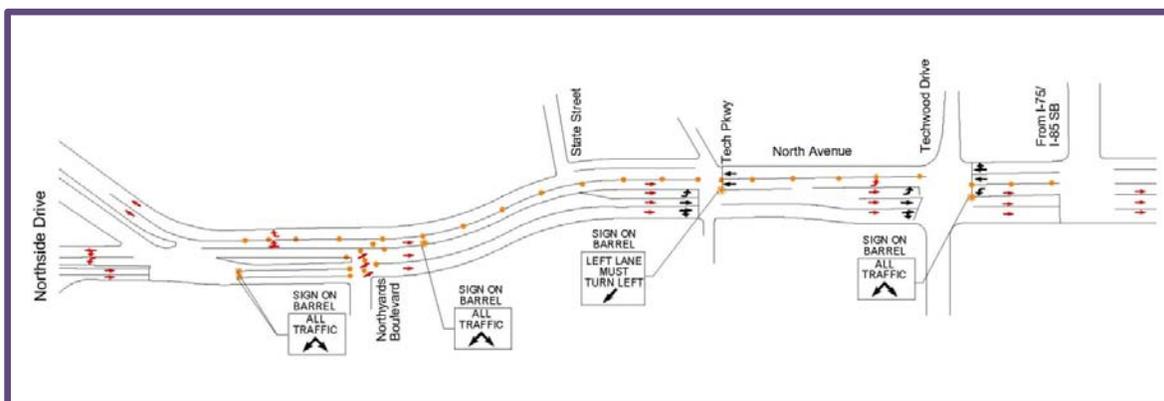
### Departure Routes

Mapping the departure routes shows the available capacity of the all ramps that provide egress access to the interstate system from the proposed stadium site and parking locations. There are six entrance ramps to I-75/I-85 northbound providing a total a total of 7 entrance lanes. There are four entrance ramps to I-75/I-85 southbound providing a total of four entrance lanes. There are five entrance ramps to I-20 eastbound providing a total of five entrance lanes, and there are four entrance ramps to I-20 westbound providing a total of four entrance lanes. Each of these entrance lanes has a capacity of 1,200 vehicles per hour.

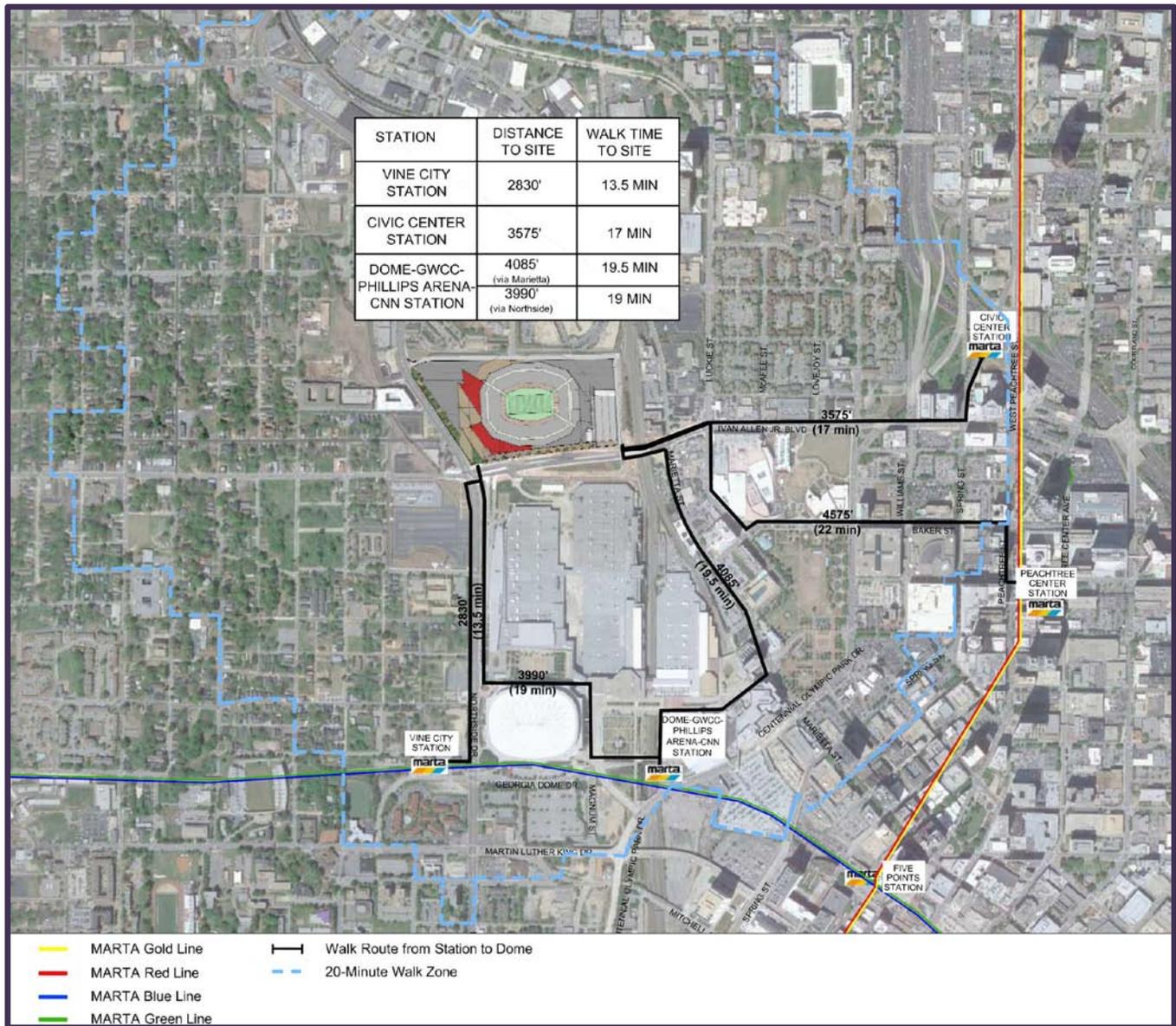
### Recommendations:

If patrons stay until the end of an event, there is a mass departure of everyone leaving at the same time. Strategies should be implemented to maximize capacity on local roads so vehicles can be pushed towards the interstate as quickly as possible. To do this, the following recommendations apply:

- Georgia Dome Recommendation D1- Create a connection on Gray Street between Kennedy Street and Northyards Boulevard. This could provide access to North Avenue for Premium/VIP Patrons.
- Georgia Dome Recommendation D3- Add additional cones and signage on Martin Luther King Jr. Boulevard (MLK) and Spring Street. Instruct patrons on MLK to turn right onto Spring Street to Mitchell Street for interstate access. (Note- This recommendation applies to the temporary closure of Mitchell Street from Techwood Drive to Spring Street)
- Georgia Dome Recommendation D4- Provide a contraflow lane on Northside Drive southbound between Chapel Street and McDaniel Street.
- Provide a contraflow lane on North Avenue eastbound from Northside Drive to I-75/I-85 SB On-Ramp after an event as seen in the figure below. For this .8 mile section, traffic cones, barrels with signs, and police control would be the minimum equipment required for the lane reversal. East of the intersection of the I-75/I-85 SB Exit Ramp, there are three existing eastbound lanes of traffic. After crossing over the interstate, vehicles must turn right onto Spring Street (for eastbound traffic, there is one right turn lane and one shared thru and right turn lane) and then there is one right turn onto the on-ramp to I-75/I-85 NB. With police control, it is possible to turn two right lanes from Spring Street onto the on-ramp during the egress period. This change is not recommended for permanent conditions. During regular peak periods at this location, equal amounts of traffic currently use the southbound right turn lane from Spring Street and the westbound thru lane onto the ramp and use the ramp meter to merge traffic. A second lane would complicate this movement and is unnecessary for daily traffic conditions. Additionally, the loop ramp merges with the ramp from Williams Street before entering I-75/I-85 Northbound, so creating the need for more merging and weaving is not recommended.

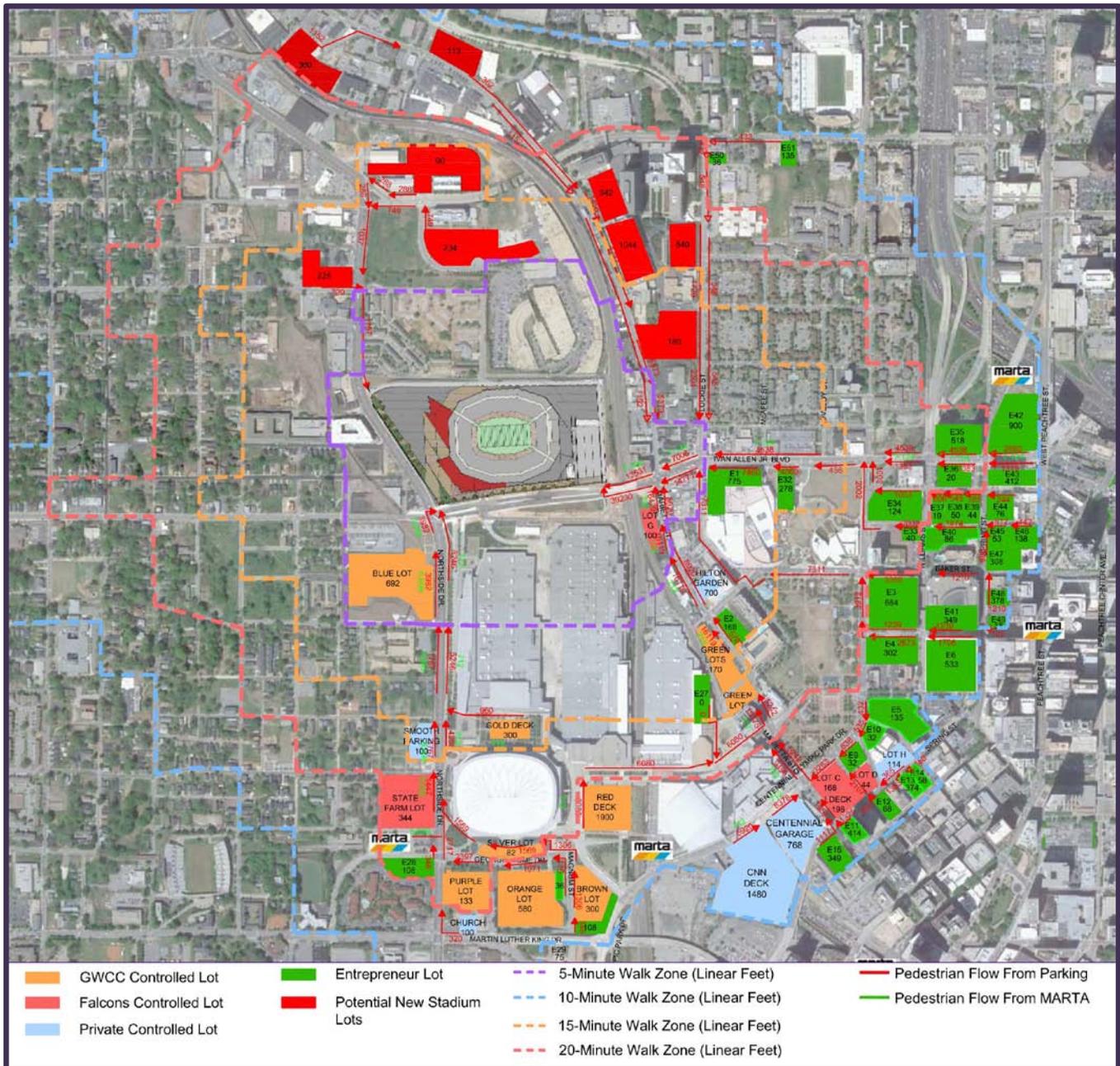


**MARTA**



A proposed stadium on the existing Marshalling Yard/Yellow Lot is accessible by three MARTA stations within a 20-minute walk zone. These station locations relative to the site will result in longer walk times from MARTA to the stadium site than experienced at the Georgia Dome. Once two to four minute walks from MARTA to the Georgia Dome (See Figure 7-3 in Existing Conditions Report), the Vine City Station and Dome-GWCC-Philips Arena-CNN Station on the MARTA Blue and Green Lines would become approximately 13.5-minutes and 19-minute walks respectively. The Civic Center Station would provide access from the MARTA Red and Gold Lines and is approximately a 17-minute walk. If MARTA ridership decreases, an incentive program to ride transit could be necessary to encourage transit usage and relieve congestion on local roads and interstates. A shuttle system is not recommended from MARTA to the site; although walk times are significantly higher than to the Georgia Dome, shuttles would likely be stuck in vehicular traffic on Ivan Allen Boulevard or Northside Drive and would not result in a significant travel time savings.

**Pedestrian Access and Circulation**



A pedestrian analysis was conducted to determine the pedestrian volumes from parking locations and MARTA Stations to the proposed stadium site to evaluate if there are any crowd control and pedestrian safety issues before or after an event. Total pedestrians per lot were calculated based on a vehicle occupancy of 3.2 persons per vehicle and the lots capacities based on availability (See Parking Analysis for Lot Capacity Information). This analysis assumed the following split of MARTA riders:

- Civic Center Station: 50%
- Vine City Station: 40%
- Dome-GWCC-Philips Arena-CNN Station: 10% (5% use Northside Drive and 5% use Marietta Street)

**Pedestrians**

Roadway/Sidewalk	Sidewalk Segment	Estimated Sidewalk Width	Vehicular Lanes	Cumulative Ped Flow	Peak Ped Flow	Flow Rates Based on Sidewalk Width*												
						5-Min	10-Min	15-Min	20-Min	25-Min	30-Min	35-Min	40-Min	45-Min	50-Min	Greater than 50		
Ivan Allen Blvd (N Sidewalk)	W Peachtree to Spring St.	17	2EB/2WB	10004	5002	1530	3060	4590	6120	7650	9180	10710	12240	13770	15300			
	Spring St. to Williams St.	9.5	2EB/2WB	11662	5831	855	1710	2565	3420	4275	5130	5985	6840	7695	8550			
	Williams St. to COP	9.5	2EB/2WB	11752	5876	855	1710	2565	3420	4275	5130	5985	6840	7695	8550			
	COP to McAfee St.	8	2EB/2WB	11662	5831	720	1440	2160	2880	3600	4320	5040	5760	6480	7200			
	McAfee St. to Luckie St.	8	2EB/2WB	11662	5831	720	1440	2160	2880	3600	4320	5040	5760	6480	7200			
Ivan Allen Blvd (S Sidewalk)	Luckie St. to Marietta St.	8.5	2EB/2WB	14130	7065	765	1530	2295	3060	3825	4590	5355	6120	6885	7650			
	Marietta St. to SE Stadium Site	11	2EB/2WB	20475	10238	990	1980	2970	3960	4950	5940	6930	7920	8910	9900			
	W Peachtree to Spring St.	12	2EB/2WB	1319	660	1080	2160	3240	4320	5400	6480	7560	8640	9720	10800			
	Spring St. to Williams St.	10	2EB/2WB	1383	692	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	Williams St. to COP	10	2EB/2WB	1383	692	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
Northside Dr. SB (E Sidewalk)	COP to McAfee St.	11	2EB/2WB	4980	2490	990	1980	2970	3960	4950	5940	6930	7920	8910	9900			
	McAfee St. to Luckie St.	10	2EB/2WB	7460	3730	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	Luckie St. to Marietta St.	9	2EB/2WB	14771	7386	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Marietta St. to SE Stadium Site	10	2EB/2WB	39230	19615	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	North Ave. NW to Kennedy St.	6.5	3NB/3SB	1037	519	585	1170	1755	2340	2925	3510	4095	4680	5265	5850			
Northside Dr. NB (E Sidewalk)	Kennedy St. to NW Stadium Site	6	3NB/3SB	1757	879	540	1080	1620	2160	2700	3240	3780	4320	4860	5400			
	MLK to GA Dome Dr.	6	2NB/3SB/1TWLTL	320	160	540	1080	1620	2160	2700	3240	3780	4320	4860	5400			
	GA Dome Dr. to Silver Lot	12	2NB/3SB/1TWLTL	2717	1359	1080	2160	3240	4320	5400	6480	7560	8640	9720	10800			
	Silver Lot to Gold Deck	12.5	2NB/3SB/1TWLTL	4998	2499	1125	2250	3375	4500	5625	6750	7875	9000	10125	11250			
	Gold Deck to Ivan Allen Blvd	12	2NB/3SB/1TWLTL	5958	2979	1080	2160	3240	4320	5400	6480	7560	8640	9720	10800			
Northside Dr. NB (W Sidewalk)	MLK to GA Dome Dr.	10	2NB/3SB/1TWLTL	346	173	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	GA Dome Dr. to Magnolia St.	6	2NB/3SB/1TWLTL	7146	3573	540	1080	1620	2160	2700	3240	3780	4320	4860	5400			
	Magnolia St. to Thurmond St.	6	2NB/3SB/1TWLTL	7466	3733	540	1080	1620	2160	2700	3240	3780	4320	4860	5400			
	Thurmond St. to Ivan Allen Blvd.	6	2NB/3SB/1TWLTL	9681	4841	540	1080	1620	2160	2700	3240	3780	4320	4860	5400			
	Haynes St. to Northside Dr.	9	2EB/3WB/1TWLTL	288	144	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
Mangum St. NB (E Sidewalk)	Mitchell St. to Brown Lot	7	2NB/2SB	346	173	630	1260	1890	2520	3150	3780	4410	5040	5670	6300			
	Brown Lot to GA Dome Dr.	7	2NB/2SB	1306	653	630	1260	1890	2520	3150	3780	4410	5040	5670	6300			
	Mitchell St. to GA Dome Dr.	8	2NB/2SB	115	58	720	1440	2160	2880	3600	4320	5040	5760	6480	7200			
	Mangum St. to Silver Lot	12	2NB/2SB	1306	653	1080	2160	3240	4320	5400	6480	7560	8640	9720	10800			
	Silver Lot to Northside Dr.	12	2NB/2SB	1569	785	1080	2160	3240	4320	5400	6480	7560	8640	9720	10800			
GA Dome Dr. WB (S Sidewalk)	Mangum St. to Orange Lot	8	2NB/2SB	1971	986	720	1440	2160	2880	3600	4320	5040	5760	6480	7200			
	Orange Lot to Northside Dr.	7.5	2NB/2SB	2397	1198	675	1350	2025	2700	3375	4050	4725	5400	6075	6750			
	Baker St. to Simpson St.	9	4NB	986	493	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Harris St. to Baker St.	9	4NB	1210	605	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Lot E15 to Marietta St.	9	4NB	1117	559	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
Spring St. NB (E Sidewalk)	Luckie St. to Walton St.	9	4NB	365	183	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Luckie St. to Lot E13	9	4NB	186	93	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Lot E13 to Poplar St.	9	4NB	1383	692	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Poplar St. to Walton St.	9	4NB	1601	801	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Walton St. to Marietta St.	9	4NB	1325	663	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
Walton St. NB (E Sidewalk)	Spring St. to COP	9.5	2SB	2107	1054	855	1710	2565	3420	4275	5130	5985	6840	7695	8550			
	AVI Blvd. to Luckie St.	16	4SB	432	216	1440	2880	4320	5760	7200	8640	10080	11520	12960	14400			
	Luckie St. to Nassau St.	10	4SB	535	268	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	Nassau St. to Walton St.	14	4SB	638	319	1260	2520	3780	5040	6300	7560	8820	10080	11340	12600			
	Walton St. to Marietta St.	8.5	4SB	3283	1642	765	1530	2295	3060	3825	4590	5355	6120	6885	7650			
COP SB (E Sidewalk)	CNN Deck to Centennial Garage	8.5	4SB	6632	3316	765	1530	2295	3060	3825	4590	5355	6120	6885	7650			
	Centennial Garage to Marietta St.	8.5	4SB	9090	4545	765	1530	2295	3060	3825	4590	5355	6120	6885	7650			
	W Peachtree St. to Ivan Allen Blvd.	10	5SB	1003	502	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	Harris St. to Baker St.	10	5SB	3912	1956	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	Simpson St. to Ivan Allen Blvd.	12	5SB	2002	1001	1080	2160	3240	4320	5400	6480	7560	8640	9720	10800			
COP NB (E Sidewalk)	Spring St. to Williams St.	9	4EB	1706	853	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Williams St. to COP	9	4EB	2673	1337	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Peachtree St. to Spring St.	9	4EB	122	61	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Spring St. to Williams St.	9	4EB	1239	620	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Williams St. to COP	9	4EB	1239	620	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
Harris St. WB (S Sidewalk)	COP to Marietta St.	8.5	2EB/2WB	6080	3040	765	1530	2295	3060	3825	4590	5355	6120	6885	7650			
	Luckie St. NB (W Sidewalk)	9	1NB/1SB	7311	3656	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Luckie St. SB (E Sidewalk)	7	2NB/2SB	548	274	630	1260	1890	2520	3150	3780	4410	5040	5670	6300			
	Luckie St. SB (W Sidewalk)	9	2NB/2SB	2034	1017	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	Spring St. to Williams St.	10	4WB	1210	605	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
Baker St.	Williams St. to Luckie St.	10	4WB	3399	1700	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	Luckie to International	24	4WB	7311	3656	2160	4320	6480	8640	10800	12960	15120	17280	19440	21600			
	W Peachtree St. to Spring St.	10	1EB	244	122	900	1800	2700	3600	4500	5400	6300	7200	8100	9000			
	Spring St. to Lot E39	6.5	2EB	385	193	585	1170	1755	2340	2925	3510	4095	4680	5265	5850			
	Lot E39 to Lot E38	6.5	2EB	545	273	585	1170	1755	2340	2925	3510	4095	4680	5265	5850			
Simpson St. WB (S Sidewalk)	Lot 38 to Williams St.	6.5	2EB	606	303	585	1170	1755	2340	2925	3510	4095	4680	5265	5850			
	Williams St. to COP	6.5	2EB/1TWLTL	1003	502	585	1170	1755	2340	2925	3510	4095	4680	5265	5850			
	W Peachtree St. to Lot E45	6	1EB/1WB	442	221	540	1080	1620	2160	2700	3240	3780	4320	4860	5400			
	Lot E45 to Spring St.	6	1EB/1WB	612	306	540	1080	1620	2160	2700	3240	3780	4320	4860	5400			
	Spring St. to Williams St.	6	1EB/1WB	1874	937	540	1080	1620	2160	2700	3240	3780	4320	4860	5400			
Marietta St. NB (W Sidewalk)	Williams St. to COP	8	1EB/1WB	2002	1001	720	1440	2160	2880	3600	4320	5040	5760	6480	7200			
	Spring St. to COP	9	3NB/2SB	1117	559	810	1620	2430	3240	4050	4860	5670	6480	7290	8100			
	COP to International	9	2NB/2SB/TL	10207	510													

After calculating the pedestrians per lot, the total pedestrian volume per roadway segment were determined to estimate pedestrian flow rates on each route from parking and MARTA to the stadium. Segments in green have sidewalk widths that can accommodate projected pedestrian flows, segments in orange may require additional sidewalk width, and segments in red demonstrate that there is a crowd control issue and additional sidewalk width is required.

#### Findings from Pedestrian Analysis

The peak hour pedestrian flow volumes highlight four areas where there are crowd control or safety issues that require additional sidewalk width. These segments are:

- 1) West Sidewalk of Northside Drive from Thurmond Street to Ivan Allen Boulevard
- 2) North Sidewalk of Ivan Allen Boulevard from Centennial Olympic Park to the Southeast Corner of the Stadium Site
- 3) South Sidewalk of Ivan Allen Boulevard from Luckie Street to the Southeast Corner of the Stadium Site
- 4) West Sidewalk of Marietta Street from Andrew Young International Boulevard to Ivan Allen Boulevard

As a result, the following table describes the pedestrian issues and mitigation measures that can be applied:

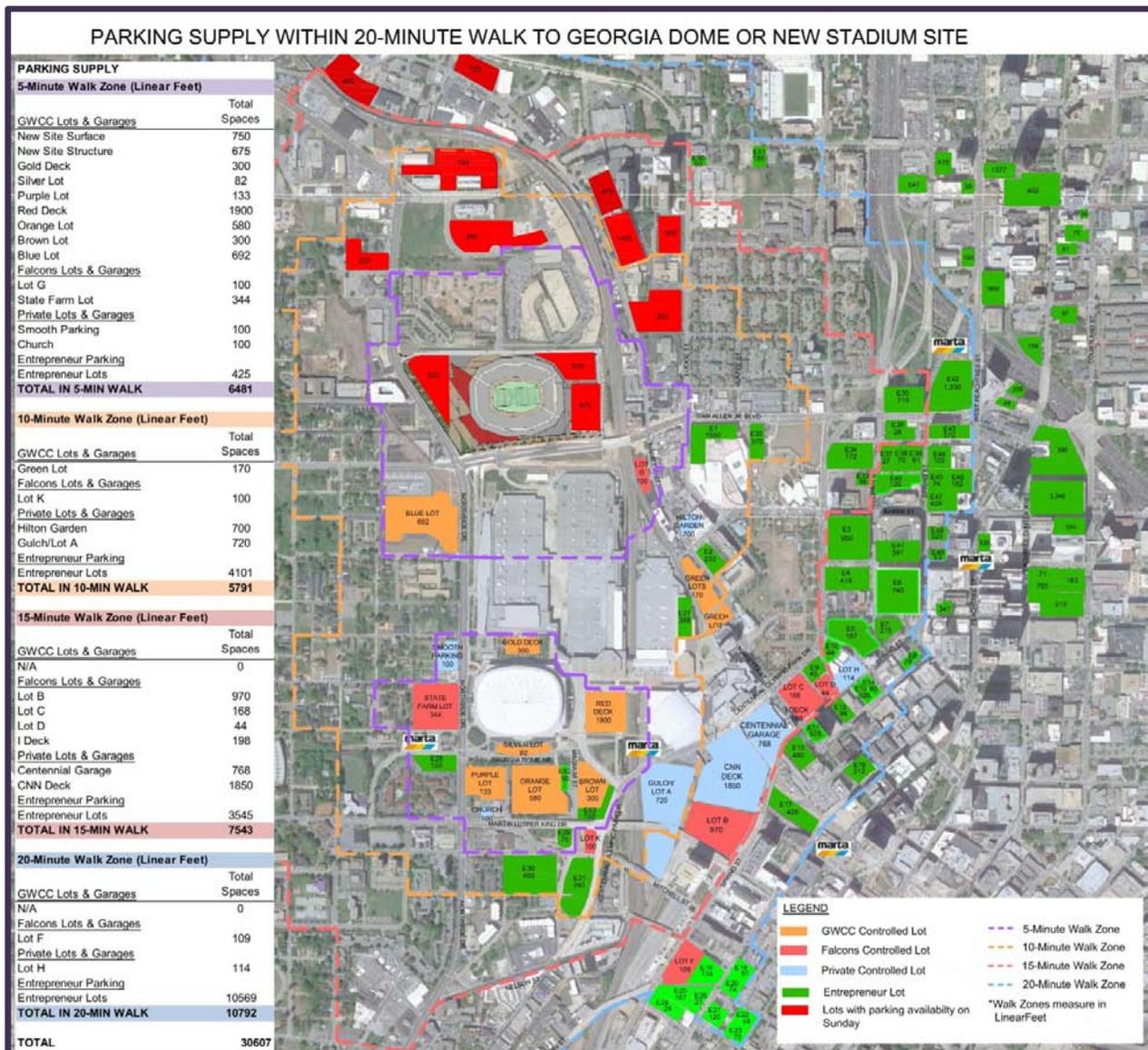
Pedestrian Issue	Explanation	Mitigation Alternative 1	Mitigation Alternative 2
1) West Sidewalk of Northside Drive from Thurmond Street to Ivan Allen Boulevard	5,700 patrons are arriving at the Vine City MARTA Station and Narrow Sidewalks on the West Side of Northside Drive	Provide an elevated pedestrian walkway from the Vine City MARTA Station across Northside Dr. to the northeast corner of Northside Dr. and Georgia Dome Dr. At Northside and Ivan Allen Blvd., provide an elevated pedestrian walkway from the southeast corner of Northside Dr. and Ivan Allen Blvd. to the site or close Ivan Allen Blvd. between Northside Dr. and Marietta St.	Widen the west sidewalk on Northside Dr. and provide an elevated pedestrian walkway from the southwest corner of Northside Dr. and Ivan Allen Blvd. to the site
2) North Sidewalk of Ivan Allen Boulevard from Centennial Olympic Park to the Southeast Corner of the Stadium Site	Over 7,000 patrons are arriving at the Civic Center MARTA Station, combining with pedestrian coming from parking East and North of the site.	Provide an elevated pedestrian walkway along Mill Street (North of Ivan Allen Blvd) to capture pedestrians parked north of the site before they reach Ivan Allen Blvd.	Widen sidewalk on Ivan Allen Blvd.
3) South Sidewalk of Ivan Allen Boulevard from Luckie Street to the Southeast Corner of the Stadium Site	A majority of parking is located southeast of the site, so there are heavy pedestrian volumes in this area	Provide an elevated pedestrian walkway from the southwest corner of Marietta Street and Ivan Allen Blvd. to the site and widen sidewalk between Luckie St. and Marietta St.	Widen sidewalk from Luckie St. to Marietta St. and close Ivan Allen Blvd from Marietta St. to Northside Dr.
4) West Sidewalk of Marietta Street from Andrew Young International Boulevard to Ivan Allen Boulevard	A majority of parking is located southeast of the site, so there are heavy pedestrian volumes in this area	Widen the west sidewalk of Marietta St. to at least 12 feet to accommodate pedestrian volumes.	Close one lane of Marietta Street before and after an event and cone off for pedestrian access only.

Based on the high pedestrian volumes at the intersections of Marietta Street and Ivan Allen Boulevard and Northside Boulevard and Ivan Allen Boulevard, it is recommended that a traffic model be run to understand the impact of closing Ivan Allen Boulevard between Northside Drive and Marietta Street during events. This would improve safety and reduce unwanted thru traffic adjacent to the site. Vehicles can be detoured to North Avenue or Martin Luther King Jr. Boulevard.

Without having this in-depth analysis, the ‘Mitigation Alternative 1’ in the previous table provides recommended mitigation measures. These alternatives provided benefits beyond solely pedestrian capacity improvements for the proposed site. The walkway over Northside Drive will also benefit events at the Georgia Dome since traffic can flow freely without stopping for pedestrian phases. The pedestrian bridge at Mill Street will also decrease the walk time from the potential lots north of the site, increasing the number of parking spaces in close proximity to the site.

If a traffic study is completed and Ivan Allen Boulevard can be closed between Northside Drive and Marietta Street, it would eliminate the need for two of the elevated pedestrian walkways (one from southeast corner of Northside Dr. and Ivan Allen Blvd. to the site and one from southwest corner of Marietta Street and Ivan Allen Blvd. to the site). If Ivan Allen Boulevard is closed to non-permitted traffic, the northern marta lane of Ivan Allen Boulevard would be used as a VIP access lane to provide patrons with on-site parking access parking facilities.

**Simultaneous Events**



A parking supply and demand analysis was completed to determine if sufficient parking was available within a 20-minute walk of both the Georgia Dome and the proposed stadium site for simultaneous events at the venues. As discussed for the new stadium site, lots have been identified north of the new stadium site as having availability, although they do not currently have public access on weekends. **Agreements would need to be established to ensure parking availability in these lots during events at the new stadium.** Including these lots, there are 30,607 parking spaces available within a 20-minute walk to the venues. Applying an assumption that 100% of parking is available at GWCCA, Falcons, and Private Lots currently used by the Georgia Dome, 50% of parking is available at the Georgia Aquarium, 75% at the World of Coke, and 90% available at all other Entrepreneur Lots, there would be 27,568 parking spaces available for dual events.

### **Parking Supply and Demand Analysis**

The following assumptions were used to determine the number the maximum size of dual events based on parking availability:

- Vehicle Occupancy- 3.2 persons per vehicle
- Walking Speed- 3.5 feet per second
- Modal Split- 20% Marta, 80% Personal Vehicles
- Available Parking Spaces- 27,568

Applying these factors, the maximum number of patrons that could be accommodated within a 20-minute walk from parking and transit is approximately 110,270 (22,054 by MARTA, 88,216 by Personal Vehicle). An additional 8,060 parking spaces would be required to have a maximum capacity event (71,250 people at each venue) at the same time. If additional land was acquired, construction of additional spaces would run at approximately \$2,500-\$3,000 a space for surface parking and \$20,000-\$25,000 for structured parking, excluding the cost of land.

This analysis does not include concurrent events at the Convention Center or Philips Arena. To include these, an in-depth study of Convention Center and Philips Arena traffic (parking demand, vehicle occupancy factors, the frequency and size of events) would be required. If an event at the Convention Center occurred simultaneously, it is estimated that a medium size event at the dome (1/2 capacity) is the largest event that could be supported by existing parking facilities, although further analysis is required to predict the maximum size of the event.

To perform this type of study would depend on the depth and scope of the analysis. A planning level study that evaluates the type and frequency of events and estimates regional traffic as a result would generally cost \$20,000-\$25,000 and take one month to complete. To have a more in-depth analysis, a full engineering study would be completed that uses traffic counts and Synchro to model the traffic operations in the downtown area. This type of study would look at several scenarios for overlapping events, predict traffic congestion throughout the downtown that includes background traffic, and recommend mitigation measures. The cost for this analysis is approximately \$100,000 and would take 3-4 months of effort to complete.

### **Simultaneous Event Parking Considerations**

- Approximately 60% of this available parking is Entrepreneur Parking with cash transactions. This means that 16,540 vehicles will be arriving at the GWCC campus without a known destination.
- Extending the walk zone to 30-minutes could make up for the parking shortfall, but the potential for a shuttle service from remote locations would need to be studied.
- Event time periods should be staggered to reduce the impact to reduce the required parking demand.
- Additional analysis would be required to project estimates for events occurring at the Convention Center or Philips Arena.

**MARTA Analysis**

The maximum number of patrons that can be accommodated by MARTA is limited by the size and capacity of vehicles. Currently, MARTA is running 8-car trains with six minute headways for events. MARTA cars have a maximum capacity of 160 people per car, equating to 1,280 people per eight-car train. In the two hour arrival period before an event, 20 trains could operate (assuming a 6 minute headway is maintained), meaning each line could accommodate 25,600 patrons. We have estimated the following demand per station if sold out events at both facilities occurred (71,250 people at each venue):

Civic Center Station (0% Georgia Dome Traffic, 50% of New Stadium Traffic)- 7,125 patrons  
Vine City Station (30% Georgia Dome Traffic, 40% of New Stadium Traffic)- 9,975 patrons  
GWCC Station (70% Georgia Dome Traffic, 10% of New Stadium Traffic)- 11,400 patrons

Based on this analysis, the Blue/Green Line would expect 21,375 patrons per simultaneous event (Vine City and Philips Arena Stations) and the Red/Gold Line would expect 7,125 patrons per event (Civic Center Station). This would suggest there is sufficient capacity for the arrival period on MARTA, although this does not account for any MARTA riders that are not event attendees and does not account for the volume of patrons on one line that transfer between lines to reach stations.

If simultaneous events at the Georgia Dome and the proposed stadium were to end at the same time it would create an increased demand for transit compared to events at the Georgia Dome only. In a multi-event scenario the Civic Center MARTA Station will help spread out added demand as it will be used heavily by those attending events at the new stadium. The station that will have the biggest dual event impact is the Vine City Station due to its proximity to the two venues. Larger platforms or modifications to the existing station are not recommended since the station is limited by the capacity of each train. Exterior improvements such as queuing stalls can be implemented at the Vine City Station to help organize patrons and get them thru the entry gates in a more organized manner. In order to get more capacity at each station, the only improvement can be to run a shorter headway, so there is more train capacity in the hour after an event.

**Access and Circulation Analysis**

Access and circulation was studied to understand the impacts of simultaneous events with the same arrival period on the interstate ramps. The analysis of maximum capacity events at both venues is based on the following assumptions:

Event Patrons: 142,500 (71,250 at Georgia Dome, 71,250 at Proposed Site)  
Patrons Arriving by Private Vehicles (80%): 114,000  
Number of Vehicles (3.2 per vehicle): 35,625  
Number of Vehicles in Peak Hour (50%): 17,813  
Capacity per Exit Lane: 1200 vehicles/hour

Access Route	Percentage of Patrons Arriving by Route	Number of Patrons in Peak Hour	Number of Lanes Required	Number of Exit Lanes Available
I-75/I-85 SB	46.5%	8,194	7	11
I-75/I-85 NB	17.4%	3,100	3	6
I-20 EB	13.6%	2,423	3	2
I-20 WB	22.5%	4,008	4	3

This demonstrates the need to determine methodologies to utilize all of the available ramp capacity and that the I-20 EB and I-20 WB ramps do not have enough capacity within the vicinity of the sites. To hold simultaneous events with the existing infrastructure, the maximum number of patrons is limited by the I-20 WB ramps. If the maximum number of vehicles that can be processed at this ramp is 3,600 in the peak hour (3 lanes with capacity of 1200 vehicles per lane), the maximum number of patrons that could be accommodated based on the interstate system and regional distribution is approximately 128,000. Again, this analysis does not include concurrent events at the Convention Center or Philips Arena. To include these, an in-depth study of Convention Center and Philips Arena traffic (parking demand, vehicle occupancy factors, the frequency and size of events) would be required.

#### **Simultaneous Event Access Considerations**

- Event arrival and departure time periods should be staggered to reduce the impact to the interstate ramps and reduce the occurrence of back-ups onto the interstate.
- To increase the capacity of I-20 ramps in the vicinity of the GWCC facilities, additional lanes would need to be constructed. On I-20 EB, the most convenient location for an additional lane of traffic would be at the I-20 EB Exit 56B to Spring Street. Since this exit ramp is not at grade, it would likely be unfeasible to add an additional lane at this location. The Exit 57 to Capital Avenue is also not recommended since it would increase the volume of traffic having to use the downtown street network that is limited by the intersection capacities and signal timing. Therefore, the best solution may be communication to encourage use of Exit 55B to Lee Street. Although this is not the direct route it could provide a connection to Northside Drive and currently has low traffic volumes. For I-20 WB traffic which would also require an additional lane of traffic, the Spring Street ramp is currently two lanes, so an additional lane is not recommended. An additional lane could be added to I-20 WB Exit to McDaniel Street if there is sufficient right-of-way. This exit is currently constrained by the railroad tracks to the south. If an additional lane could be added at this location, it would cost approximately \$1 million for one twelve foot lane for 1000' of ramp.

**Summary of Recommendations / Application to New Stadium**

Arrival Recommendations	For Events at Georgia Dome	For Events at Proposed Stadium	For Dual Events at Georgia Dome and Proposed Stadium
A1- I-75/I-85 SB to Williams Street Signage and Cone Plans	X	X	X
A2- Variable Message Signs for Parking in Yellow & Marshalling Lot	X		
A3- Signage at GWCC MARTA Station	X		X
A4- Signage and Cone Plan for Georgia Dome Drive	X		X
A5- Wayfinding/VMS Signage on Central Avenue Corridor	X	X	X
A6- Signage for use of Techwood Drive to parking east of the Dome	X	X	X
Contraflow Lane on North Avenue		X	X
Close Ivan Allen Boulevard for all traffic except VIP patrons parking on-site		X	X

Departure Recommendations	For Events at Georgia Dome	For Events at Proposed Stadium	For Dual Events at Georgia Dome and Proposed Stadium
D1- Gray Street Extension	X	X	X
D2- Signage and Cone Plan for Georgia Dome Drive	X		X
D3- Cones and Signage for Mangum Street Departure to Interstate and provide additional capacity on Spring St.	X	X	X
D4- Contraflow Lane on Northside Dr. between Chapel Street and McDaniel Street	X	X	X
Contraflow Lanes on North Avenue		X	X
Close Ivan Allen Boulevard for all traffic except VIP patrons parking on-site		X	X

## STADIUM COST MODEL

NEW OPEN-AIR NFL STADIUM			
COST BASIS			2011 DOLLARS
	UNIT	COST	TOTALS
New Open Air Stadium	1,900,000 s.f.	\$245/s.f.	\$465,000,000
Stadium Plaza - On-Grade	130,000 s.f.	\$50/s.f.	\$6,500,000
Stadium Plaza – Elevated Deck	70,000 s.f.	\$100/s.f.	\$7,000,000
<b>Subtotal</b>			<b>\$478,500,000</b>
Soft Costs – Fees – Other (20%)			\$95,700,000
<b>Stadium Construction Budget</b>			<b>\$574,200,000</b>

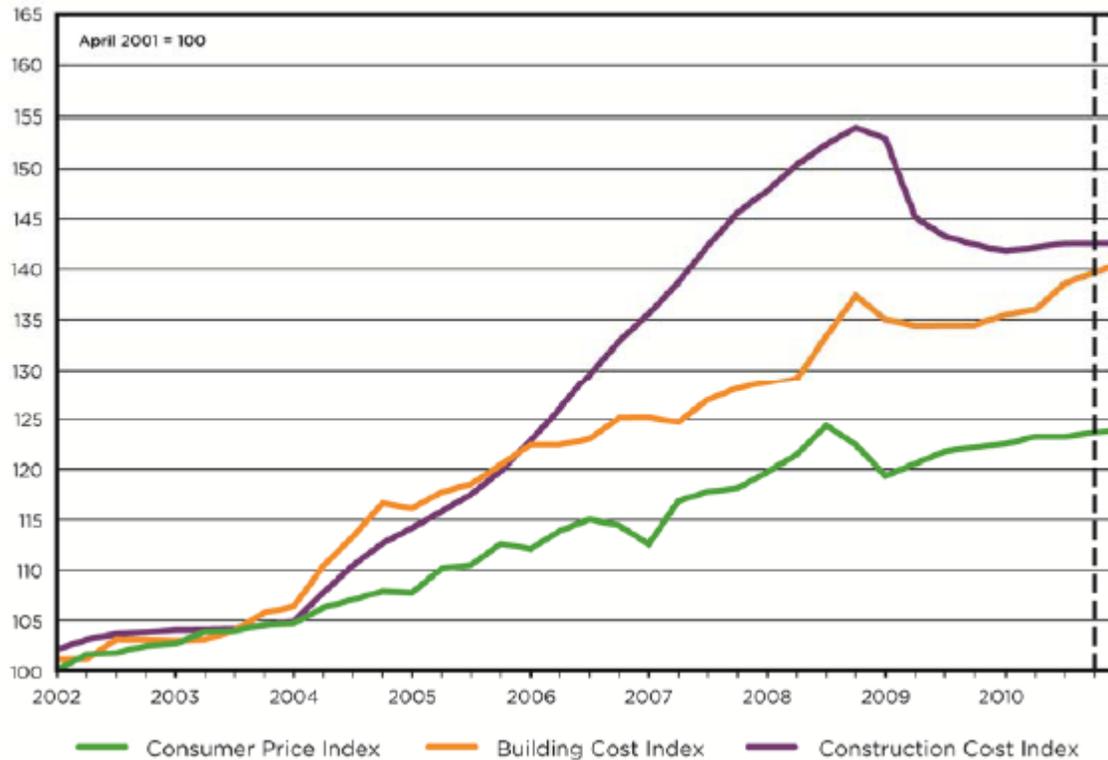
OTHER ON-SITE DEVELOPMENT COSTS			
	UNIT	COST	TOTALS
Surface Parking	750 cars	\$4,000/car	\$3,000,000
Structured Parking	675 cars	\$18,000/car	\$12,000,000
Soil Mitigation	200,000 cubic yards	\$50 CY	\$10,000,000
Power Transmission Line Relocation	3,000/l.f.	\$5,000/l.f.	\$15,000,000 *
<b>Subtotal</b>			<b>\$40,000,000</b>
Soft Costs – Fees – Other (20%)			\$8,000,000
<b>Budget for Other On-Site Project Costs</b>			<b>\$48,000,000</b>

OTHER OFF-SITE COSTS			
	UNIT	COST	TOTALS
Pedestrian Bridge	4 locations	\$6,000,000/each	\$24,000,000
Land Cost to Relocate Marshalling Area	16.5 acres	\$30/sf – land \$20/sf - improvement	\$21,600,000 \$14,400,000
Off-Site Contingency		Lump sum	\$10,000,000
<b>Subtotal</b>			<b>\$60,000,000</b>
Soft Costs – Fees – Other (20%)			\$12,000,000
<b>Budget for Other Off-Site Project Costs</b>			<b>\$72,000,000</b>

<b>PROJECT BUDGET</b>			<b>\$694,200,000</b>
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\*footnote on page 2

## CONSTRUCTION COST ESCALATION HISTORY 2002-2010



RLB | Rider Levett Bucknall

\*Subject to final detailed engineering plans and assessments, relocation of the existing power transmission lines should be estimated at a range of \$10.0 - \$15.0 million. This rough estimate does not include any right of way/property acquisition that may need to be initiated by the developer to accommodate the relocation process. This project scope assumes that a suitable right of way can be provided to Georgia Power by the developer.

Regarding, the potential for placing the power transmission lines below grade, current technology coupled with the priority status attendant to the power distribution associated with these lines, will require further analysis before a more definitive estimate can be provided.

# **LONG TERM GEORGIA DOME CAPITAL BUDGET: MAINTENANCE AND IMPROVEMENTS**

## **Table of Contents**

<b>CONTENT</b>	<b>PAGE</b>
I. Georgia Dome Maintenance	2
II. Architectural / Interiors / Equipment	3
III. Structure	3
IV. Major System (Mechanical, Electrical, Plumbing)	4
V. Technology	4
VI. Roof	5
VII. Foodservice	5
VIII. Georgia Dome Improvements	6



## I. Georgia Dome Maintenance

### Overview

As part of the Phase 3 Master Plan, Populous has been asked to review capital expenditures for the Georgia Dome and to provide general commentary on the breadth of categories currently being used. Populous has significant experience in conducting facility assessments which typically conclude with the same type of budget document currently being used by Dome management for their planning purposes.

The purpose of the review is to utilize Populous' Facility Assessment experience so that Georgia Dome officials can minimize the chance of major capital projects being overlooked.

### Methodology

Populous reviewed capital expenditures from 1996 through 2010, as well as projected expenses from 2010 through 2020, for a total period of time of 24 years. This review is coupled with our own facility condition assessment capital expense matrices. We have analyzed primary building systems categories suitable for a domed stadium of NFL quality. This report represents our opinions of the Georgia Dome capital expense categories and individual items as they exist today and includes suggestions for Dome management to consider.

As Georgia Dome management implements its future capital plan more detailed analysis will be required to establish appropriate project scopes.

### Summary

As Georgia Dome management implements the capital plan, Populous' experience in budget refinement may be beneficial in supporting the development of information that could be used by venue management during the budget request phase. Populous' budget refinement process takes into account the venue life cycle and project costs by using a base year with an inflation factor, the budget can be considered a "living" document – it can be easily altered as financial situations change. By providing the science to support the budget, management is in the best position to secure the requested funding. For the purpose of this report, Populous used existing documentation, past expenses and forecasted budgets to assess future needs.

There are two main areas for capital expenditures; Maintenance and Improvement. The following six categories; Architectural/Interiors/Equipment, Structure, Major Systems, Technology, Roof, and Foodservice were used to define ongoing maintenance projects. The last section provides ideas and concepts for capital expenditures related to venue improvement projects.

From 1995 to present the capital expenses for maintenance at the Georgia Dome equate to \$20,000,000, representing 16 years of maintenance and operational history. More recently the Georgia Dome has undergone several major improvement projects with a capital expenditure of \$51,430,000 since 2007. Combined, maintenance projects and improvement projects at the Georgia Dome equal \$71,430,000 over the last 16 years.

From 2011 to 2020 it is expected that \$44,500,000 will be needed to maintain the Georgia Dome (cost is based on 2011 dollars, there is no escalation included), which allow the Dome to retain "today's" level of quality and operation. In the same time period it is expected that \$35,000,000-\$70,000,000 will be needed for capital improvements. These capital expenditures will allow the Georgia Dome to continue as a competitive venue over the next decade.

## II. Architectural / Interiors / Equipment

In the review of capital expenses for the architecture and interiors of a facility, we focus on items such as flooring, wall coverings, ceiling treatments, light fixtures, fixed seats, wayfinding and graphics, doors, glazing, vertical transportation, platforms, items affecting décor, and significant pieces of event-related equipment.

### Georgia Dome Evaluation

The capital expenses that were provided, both past and projected, are extremely detailed and meet typical Populous guidelines. There have been, and are, significant funds identified for seating, carpet, and field.

Expenditures 1995-2010: \$11,000,000

### Recommendations

With regard to actual categories and capital maintenance projects the Georgia Dome capital plan is generally complete.

Projected Expenditures 2011-2020: \$10,500,000

## III. Structure

In review of capital expenses for the structural elements of a facility, we focus on concrete, coatings and sealants, the condition of structural beams, CMU, joints (control and expansion), observed cracks, ramps and bridges, and the condition of anchor points between the building structure itself and removable equipment (e.g. seating bolted to precast, air handlers anchored to flooring).

### Georgia Dome Evaluation

The capital expenses that were provided, both past and projected, are extremely detailed and meet typical Populous guidelines. The venue staff has identified repairs and replacements for a variety of concrete surfaces, including expansion joint repairs, as well as areas that would need to be re-sealed.

Based on our review, there are no major items that have been left out. We do presume that items requiring annual work, such as minor patching of concrete or repairing expansion joint material, are part of the facility's operating budget, and are intended to be omitted from the documents Populous has reviewed.

Expenditures 1995-2010: \$1,034,000

### Recommendations

With regard to actual categories and capital maintenance projects the Georgia Dome capital plan is generally complete. However, we recommend a further review of the frequency of the items listed. For example, it appears the bowl floor was sealed twice prior to 2010, but there is not a line item for sealing it between now and 2020.

Projected Expenditures 2011-2020: \$3,500,000

## **IV. Major System (Mechanical, Electrical, Plumbing)**

In the review of capital expenses for the major systems of a facility, we focus on air conditioning, heating, plumbing, electrical, and lighting systems. Specific pieces of equipment include, but are not limited to, chillers, air handlers, boilers, pumps, restroom fixtures, sports lighting, panel boards, and building controls.

### **Georgia Dome Evaluation**

The capital expenses that were provided, both past and projected, are extremely detailed and meet typical Populous guidelines. Items that we specifically did not observe were the replacement of multiple chiller units (we observed that 1 chiller was replaced; this could have fallen under the line item “Central Plant Systems Upgrades” at \$850,000), infrared thermal imaging of electrical panel boards, replacement or rebuild of any pumps, replacement of air handling units, and replacement of restroom plumbing fixtures with low flow/waterless units.

Expenditures 1995-2010: \$2,346,000

### **Recommendations**

With regard to actual categories and line items, we recommend adding the items from above into future capital budgets.

Projected Expenditures 2011-2020: \$3,500,000

## **V. Technology**

In the review of capital expenses for the technology of a sports and entertainment facility, we focus on PA systems, scoreboards and ribbon boards, telecommunications, video displays and distribution, security/CCTV systems, and computer network system infrastructure.

### **Georgia Dome Evaluation**

The capital expenses that were provided, both past and projected, are extremely detailed and meet typical Populous guidelines. The breadth of the Dome items include scoreboard components, multiple expenditures related to sound systems, ticketing technology, access control, television replacement, and the POS system.

Items that we specifically did not observe were the installation of wireless infrastructure in non-bowl areas (such as locker/dressing/event office rooms), conversion to IPTV infrastructure and upgrades or replacement of the telecommunication (i.e. telephone) system.

Expenditures 1995-2010: \$1,586,000

### **Recommendations**

Projected Expenditures 2011-2020: \$4,600,000

## **VI. Roof**

In the review of capital expenses for the roof of a sports and entertainment facility, we focus on the condition of the roof's surface material, the condition of any penetrations, and any observed drainage issues.

### Georgia Dome Evaluation

The capital expenses that were provided, both past and projected, are extremely detailed and meet typical Populous guidelines. The venue staff has identified repairs and replacements, although not broken out by specific location (e.g. high/main roof, lower roofs, canopies, etc).

Without knowing the roof types and typical life expectancies, we cannot comment on the frequency of replacement or significant repairs.

Expenditures 1995-2010: \$3,116,000

### Recommendations

By 2020 the fabric roof of the Georgia Dome will be nearly 30 years old. A complete roof replacement should be considered within the next ten years. Fabric replacement is estimated to cost \$18,000,000. Additional roof repairs/maintenance for flat roof areas, flashings and canopies will account for an additional \$1,500,000 over the next decade.

Projected Expenditures 2011-2020: \$19,500,000

## **VII. Foodservice**

In the review of capital expenses for the foodservice operations of a facility, we focus on items such as cooking, warming and cleaning equipment, portable stands, countertops, coiling doors, refrigeration equipment, small wares, beverage dispensing systems, point of sale system, menu boards, hot water supply, and storage capabilities.

### Georgia Dome Evaluation

The information we have reviewed provides for a few broad, general categories. "Kitchen Equipment" and "Concession Equipment" comprise 6 of 9 foodservice related line items. The dollar amounts assigned to each line item are significant, and therefore we presume they include a great many items that Populous would typically include in a capital expense budget. This evaluation can only be considered partial, as there was not enough information available to determine if the categories of budget items are similar to what Populous would typically identify.

We acknowledge the possibility that the agreement with the foodservice provider requires some level of commitment in terms of furnishing certain pieces of equipment, which would be kept out of the Georgia Dome capital expense budget.

Expenditures 1995-2010: \$1,010,000

### Recommendations

Projected Expenditures 2011-2020: \$2,900,000

## VIII. Georgia Dome Improvements

The maintenance efforts outlined in the previous section are imperative to keep the venue operating properly and efficiently. Improvements on the other hand are often times seen as optional. The following section defines areas that should be considered for improvements at the Georgia Dome. While not implementing improvements wouldn't affect the venues operational efficiency, the improvements outlined would be designed to ensure its ongoing competitiveness in the market place.

In a post Falcons Georgia Dome, there will be a continued need to improve the venue in order for it to remain a valuable and contributing component to the overall success of the Georgia World Congress Center. To do so the Dome must remain a competitive venue for hosting football competitions as well as other sporting and entertainment events. While the Falcons may not be primary tenants, the Dome will continue to be the home field of Georgia State football, the Chick-fil-A Bowl, SEC and NCAA sporting events. The Dome will need to shift focus from that of primarily the home field for the Atlanta Falcons to that of a primarily multi-tenant venue. Developing a strategy to embrace adaptations and changes that reflect the new multi-tenant nature of the facility is the purpose of this section of the Master Plan.

The cost of these types of added value changes to the Dome could potentially add capital needs to the budget annually with even more significant investment needed every 3-5 years for larger scale improvement projects detailed in the following diagrams. Many of these are projects require in-depth analysis based on user needs and detailed programming to verify need. While some of the ideas below would not require significant investment others do.

If current trends remain, competition to host collegiate competitions, championship games and bowl games will become only more intense requiring facilities that desire to host such events to stay competitive by constantly improving, always staying ahead of customer expectations. This will require continued investment in the Dome's technology infrastructure, its physical plant and most important to the customer; the fit, finish, look and feel, the building elements that define the customer experience. Over the next 10-20 years the Dome should expect to allocate capital expenditures of \$35,000,000 - \$70,000,000.

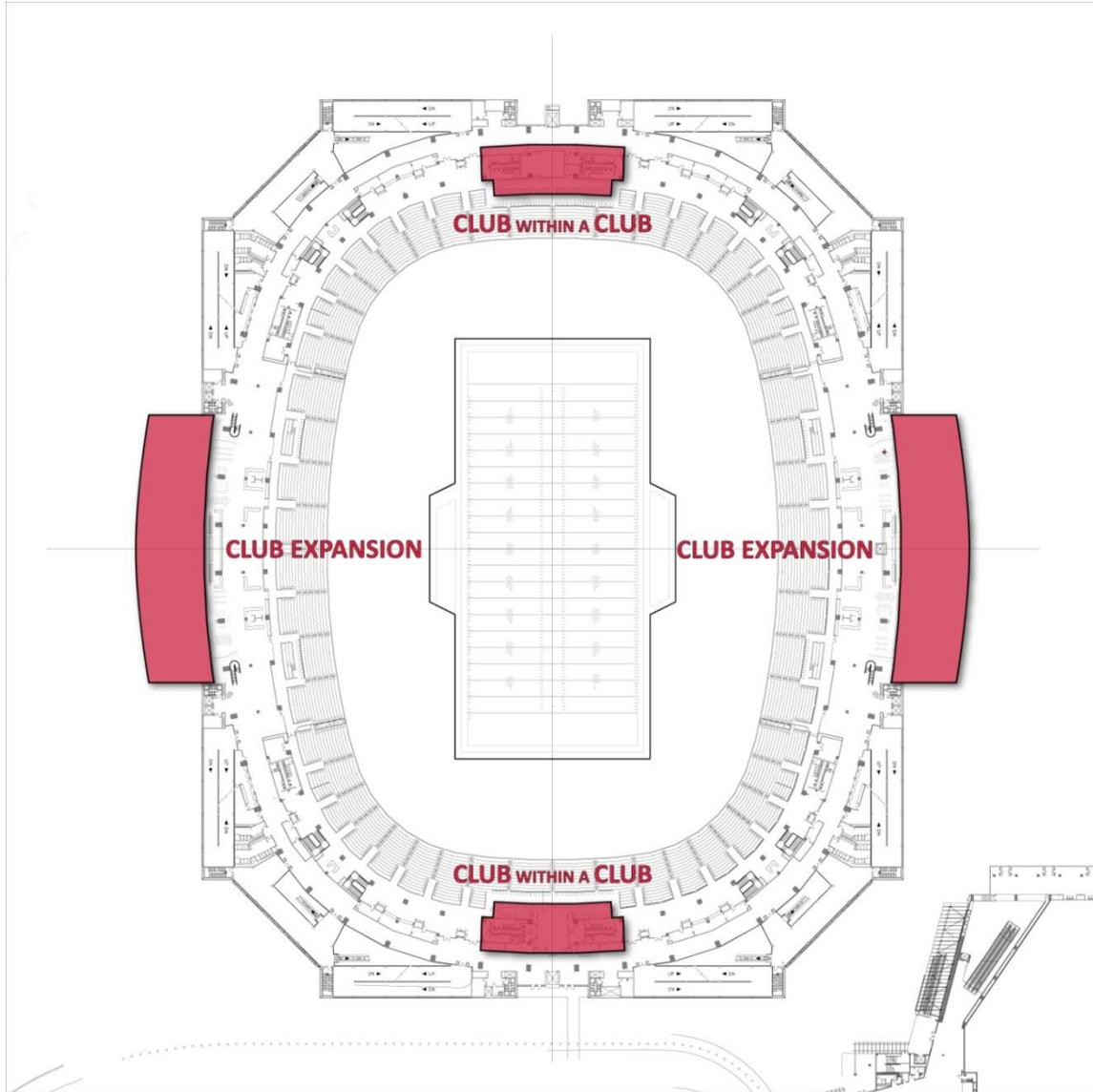
### **Club Spaces**

Club spaces become pivotal in terms of providing high end finished spaces for various types of events and meeting configurations. More and more large scale NFL type stadium facilities require that the club spaces have flexibility and adaptability so that they can be utilized during non-football events. The foodservice requirements for football will adequately provide for most any other function. The finishes and furniture are usually of high quality and are appropriate for corporate business gatherings and luncheons. The same space can be transformed for the use as a wedding space, lecture hall or plenary hall. In other words, increased area allows for greater flexibility in event type and variety, both critical factors when trying to diversify the offerings of the facility to attract a broader client base in the future.

The following list is a partial look at some of the possibilities for the future of the club spaces at the Georgia Dome. The cost for these various concepts ranges at the low side for loge seating to expanding the club floor area and creating new field clubs along the north side line adjacent to the existing field access at Gate E.

- Increase the size of the sideline clubs by expanding floor plate (diagram on page 10)
- Introduce loge seating areas

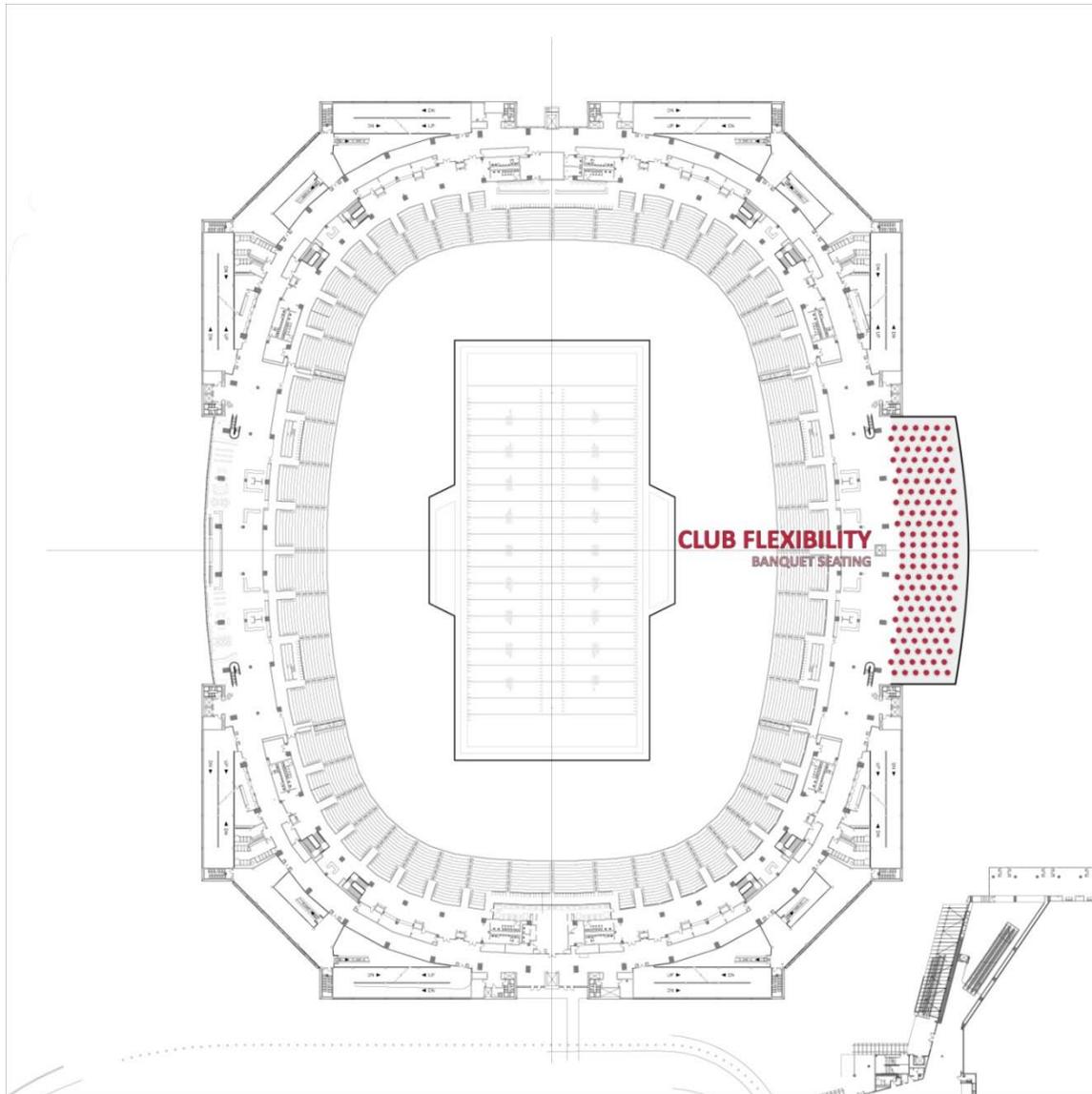
- Club-in-a-club concept located at the end zone club areas (Diagram on page 10)
- Large scale team spaces for university representation
- Adaptable and flexible spaces offering multi-use flexibility
- Create a sideline field club (Diagram on page 15)



Club expansion to create flexible space

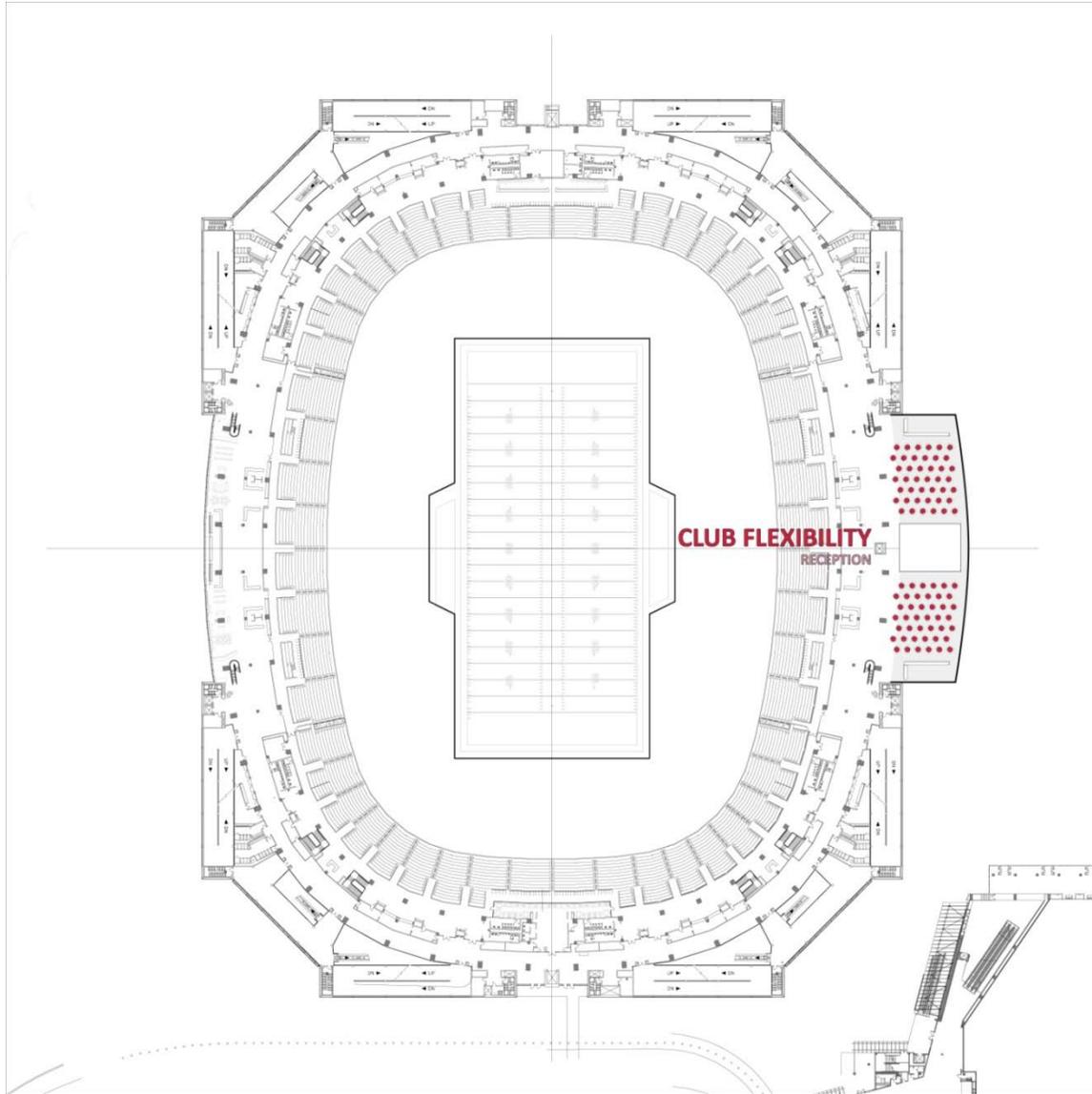
This diagram shows the concept of increasing floor area for the primary sideline clubs. This increase could be as much as 15,000 square feet per side. The additional area would create an increase in flexibility and adaptability for a variety of uses and clients. The end zones are shown with club-within-a-club concept, designating more premium space at the club level. These added features benefit the already robust list of activities and functions hosted by the Dome including soccer games, large and small concerts, motor sports shows, band competitions, trade shows, general sessions, seminars, religious services and general sessions.

The following diagrams show various configurations that support the additional square footage at the sideline clubs.



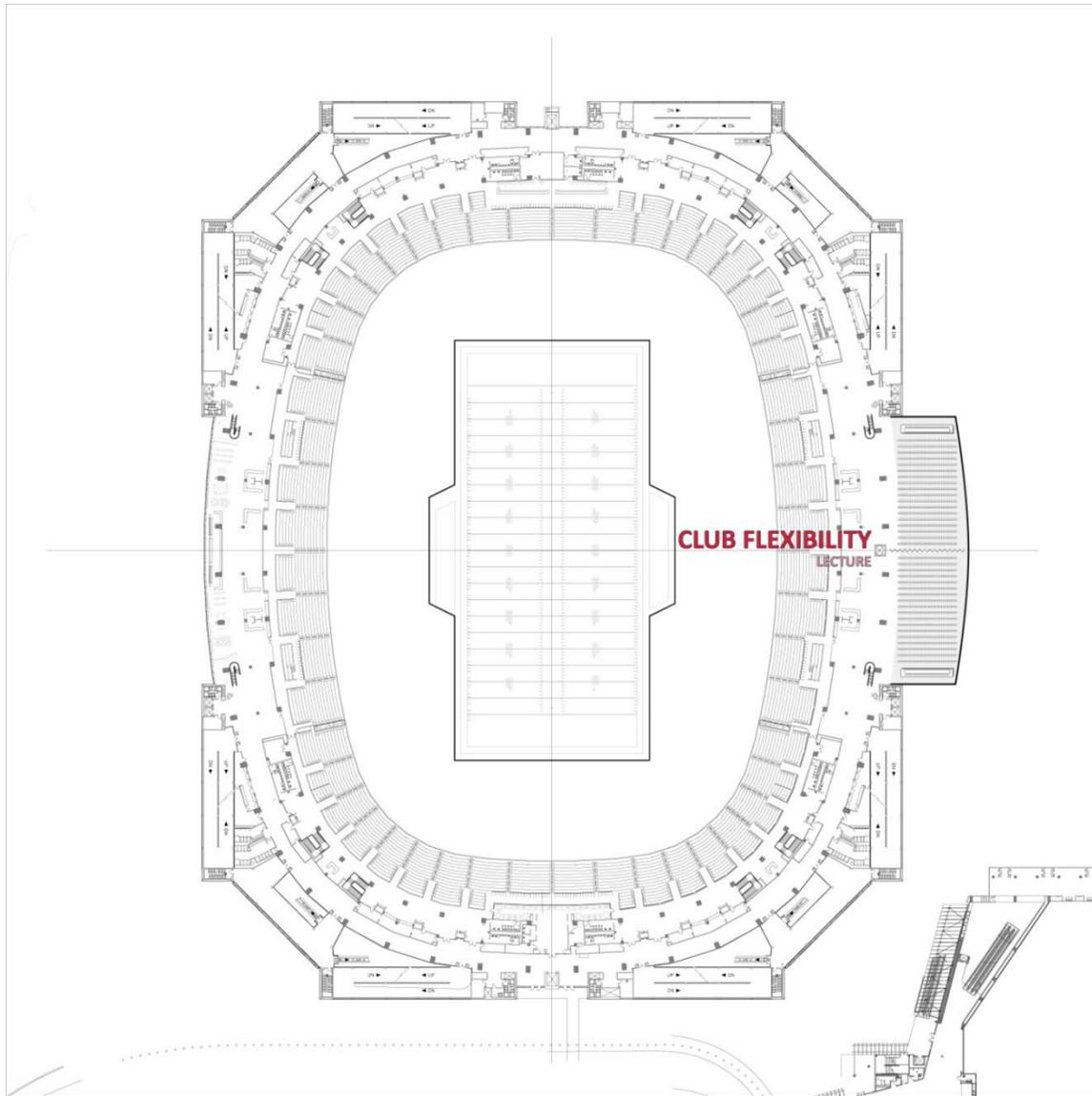
Flexible Space

In the diagram above the sideline club becomes a banquet space for up to 800 patrons, reinforcing the importance of having flexible and adaptable spaces within the Dome to provide multiple functionality.



Flexible Space

This diagram depicts an event configuration using banquet seating flanked by large format bars/buffet areas in combination with a central stage. This might be a configuration for corporate holiday functions, business meetings, trade show, and exhibitor functions. This configuration allows up to 500 patrons in a single setting or can be divided into two separate spaces for concurrently operating smaller scale functions of 250 each.



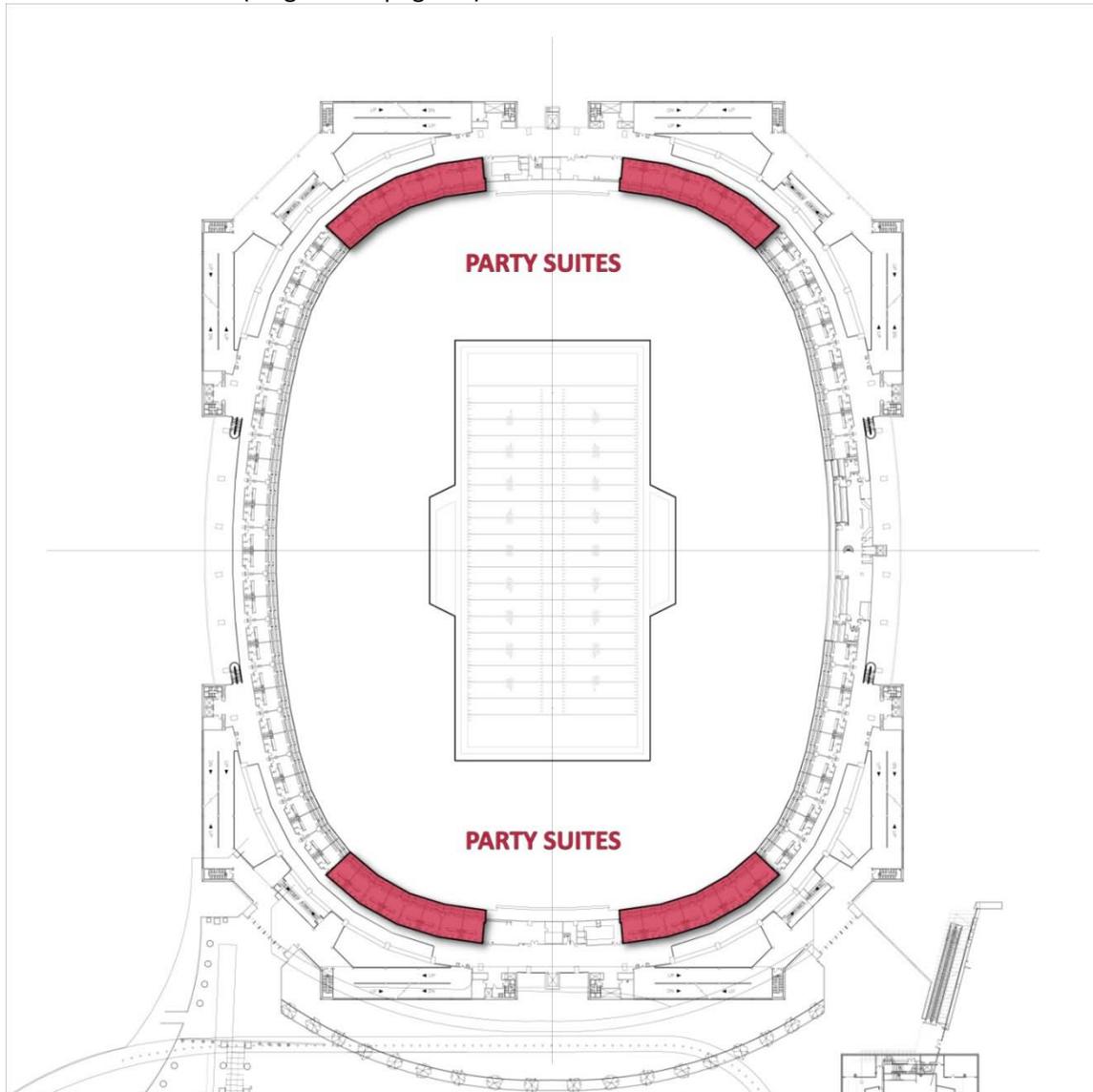
Flexible Space

In this expanded club configuration the increased floor area of the club is ideal for large scale lecture and seminar layouts. This is an ideal plan for corporate presentations. If the concepts in diagrams 3 and 4 were overlapped the configuration can be divided and on one side host banquets with bar and buffet set ups and the opposite side could host the lecture format creating a single location for a large scale business function.

Creating more flexible multi-use spaces will be an important element to the long term use and development of the Georgia Dome.

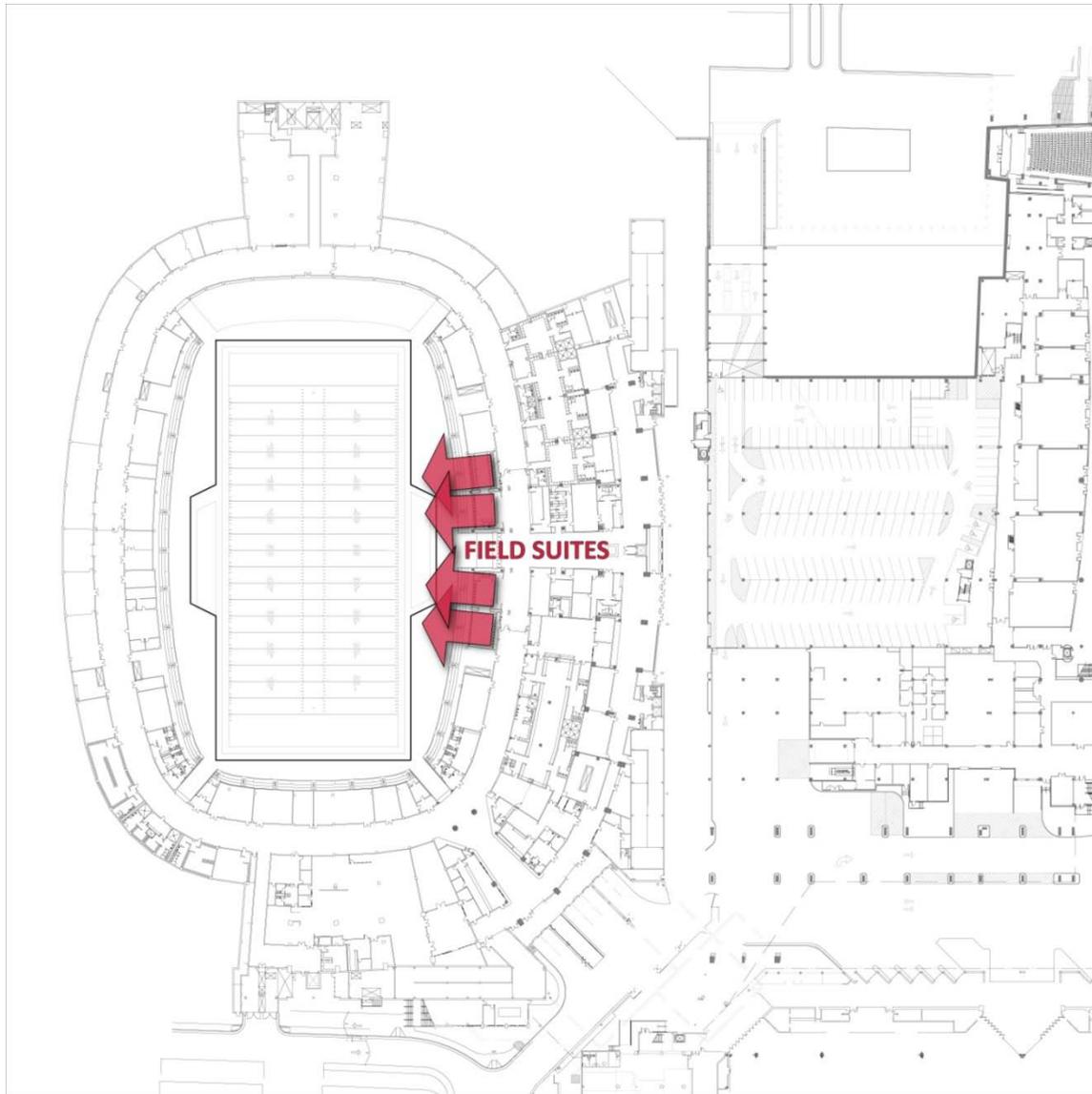
## Suites

- Large party suite configurations designed specifically for Bowl and Championship games (diagram on page 14) in addition to the existing 8 party suites at both suite levels
- Suite/Club configurations
- Potential field suites (diagram on page 15)



Party Suites

The diagram above shows the concept of combining end zone centric suites into single larger suite. These are ideal for university activities and offer an alternative to the private suite experience, something that will be important to analyze once the Falcons are no longer driving the premium spaces.

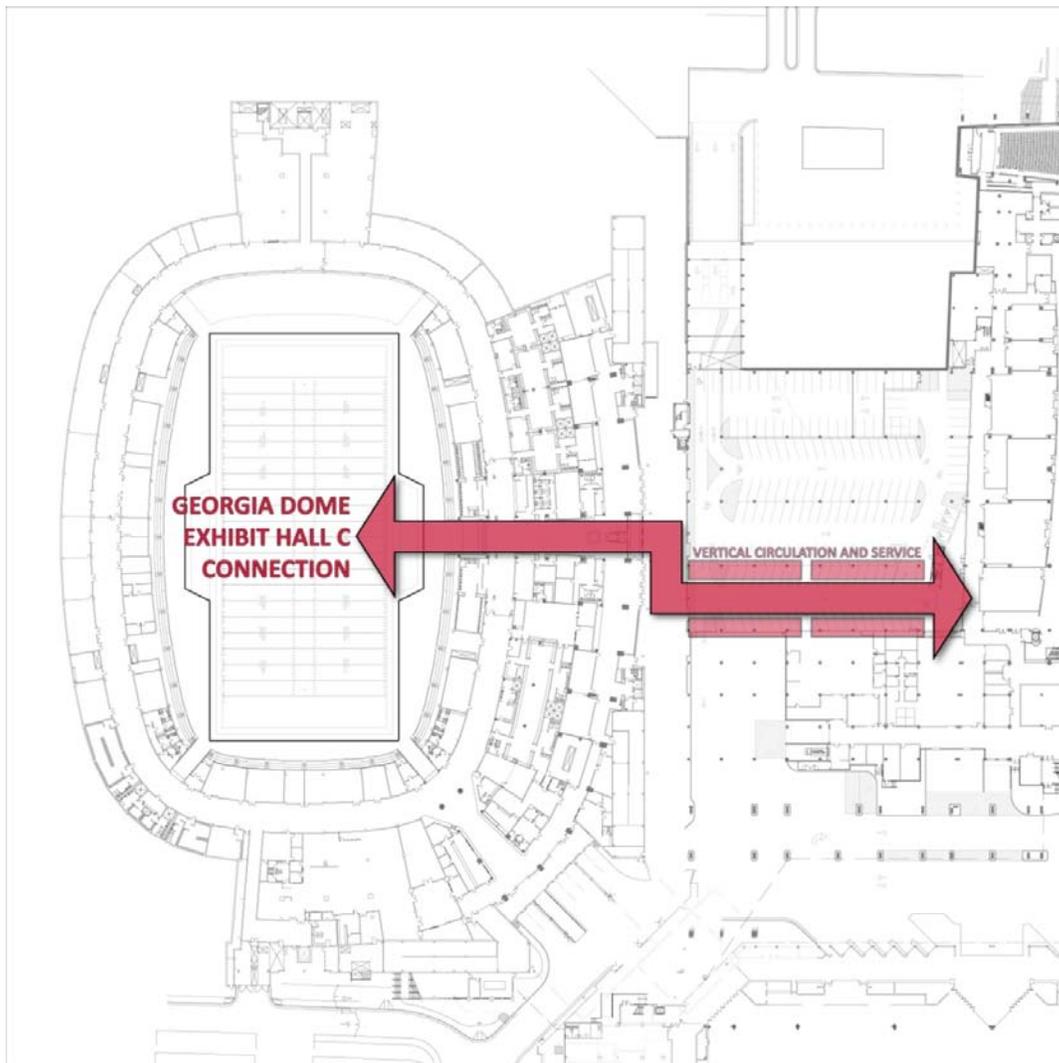


Field Suites and other flexible event level space

Field Suites and Field Clubs are becoming very popular premium seating alternatives. In the diagram above the concept of field clubs is explored on the north side line adjacent to the field access tunnel. These could potentially have seating above in the existing seating areas or at field level. In either approach the clubs would be accessed directly from the existing service tunnel giving those patrons unparalleled access to the players as they enter the field from the same tunnel. While the concept of 'field suites' is taking hold in both professional and collegiate facilities it's important to think of this space as another flexible area that could be used by various customers for a variety of purposes; pre-game staging, premium space, green rooms and other uses.

**Service Level**

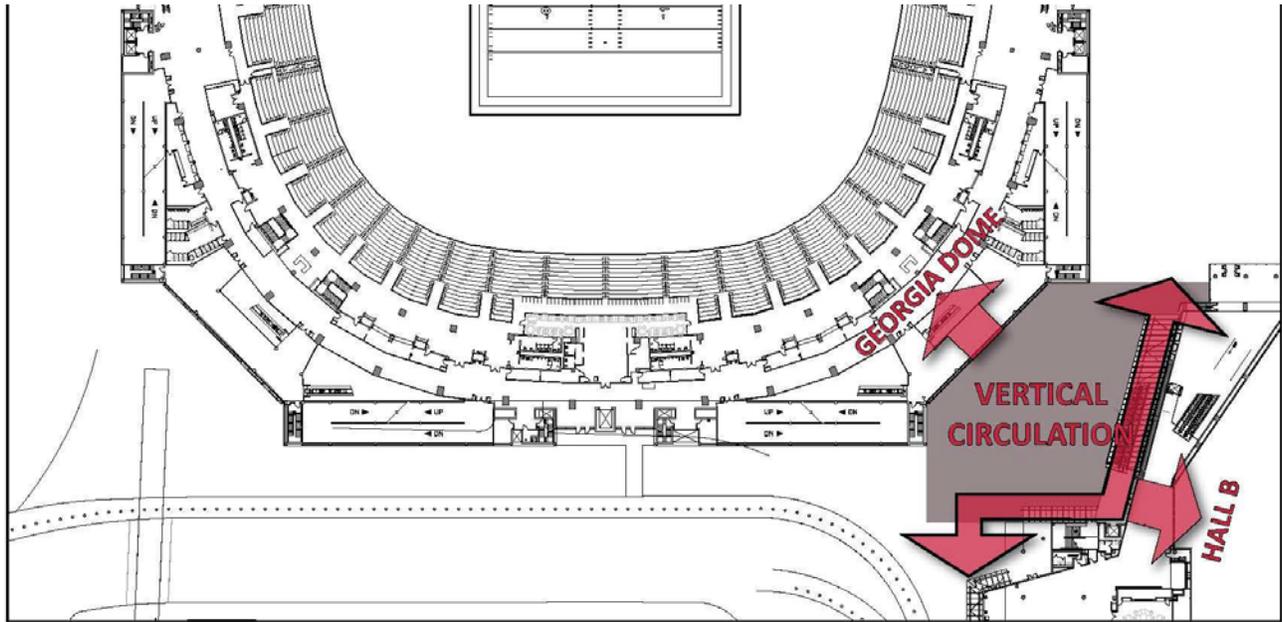
- Create a unique and permanent connection from Hall C to the Dome through the existing Gold parking deck. This might include a large pre-function hall, foodservice, toilet facilities (see the diagram below)
- Reconfigure the service level so that the floor area of the Dome becomes more suitable to hosting large scale exhibition needs
- Potentially reconfigure the service level to allow for more GWCC storage and use
- Introduce more temporary seating to increase the reconfiguration of the floor area for more floor events
- Develop permanent recycling center with access to the dock area
- Reconfigure team areas to become more adaptable to promote multi-team use
- Update/renovation of office and back of house workshops and storage areas



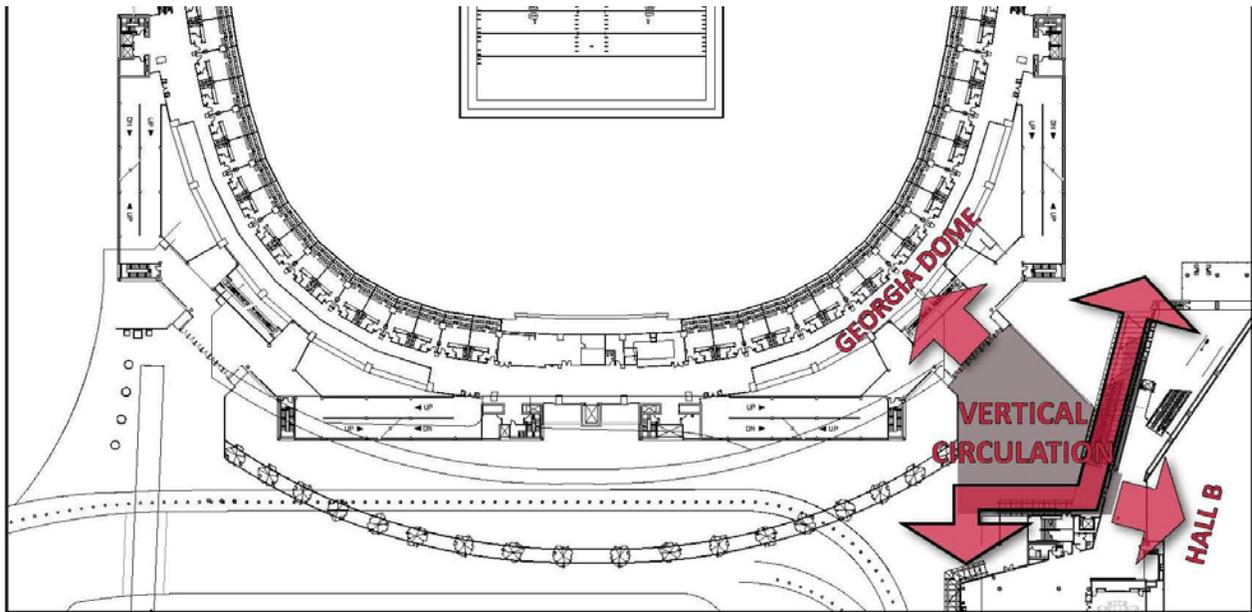
Permanent connection between Georgia Dome and Hall C through the existing Gold Deck

**Exterior Connections**

The area between Lower and Upper Gate C and Hall B is an important location to consider a permanent interior connection. The flexibility created by this connection would benefit the users of the Congress Center by allowing for an immediate and weather protected connection to the Dome. The existing connection to the West Plaza should remain in place.



Lower Gate C Connection to Hall B



Upper Gate C Connection to Hall B

**Food Service**

- New and improved main kitchen at service area
- Improved food service provisions at club and suite levels
- Implementation of a composting center

**Seating Configuration**

- Develop special seating zones within the general seating to better define zones that could be used by specific colleges during Regional and Championship series events
- Create zones within the seating specifically for university bands

## **TRAFFIC, TRANSPORTATION, AND PARKING**

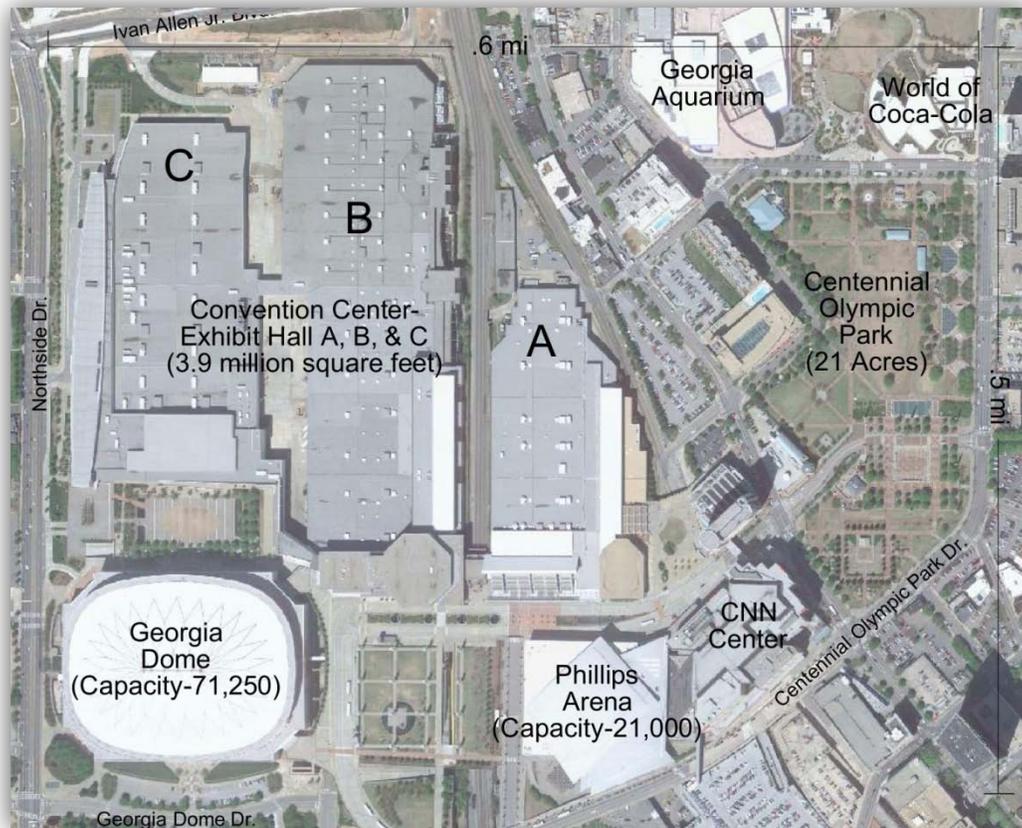
### **Table of Contents**

<b>CONTENT</b>	<b>PAGE</b>
I. Overview	2
II. Existing Operations	3
III. Review of Gameday Transportation Operations with Traffic Control Recommendations	17
IV. Review of Gameday Transportation Operations with General Recommendations	32



## I. Overview

The Georgia World Congress Center, consisting of the Convention Center, the Georgia Dome, and Centennial Olympic Park, and located adjacent to Philips Arena, CNN Center, the Georgia Aquarium, and the World of Coca-Cola, as seen in Figure 7- 1, are major traffic generators located in close proximity to downtown Atlanta.



**Figure 7-1. GWCCA and Adjacent Traffic Generators**

The Georgia Dome has a capacity of 71,250, the Convention Center is the 4<sup>th</sup> largest such facility in the United States at 3.9 million square feet, Centennial Olympic Park is 21-acres, and the neighboring Philips Arena can hold up to 21,000 based on the type of event. Based on these capacities and the potential for overlapping events at multiple venues, a large volume of traffic is generated by these attractions. As a result, it is critical to understand how patrons arrive at each facility, where parking is available, and how pedestrian flow is maintained in order to ease congestion and ensure public safety. Evaluating transportation and traffic operations on the GWCC campus during Atlanta Falcons NFL games at the Georgia Dome requires understanding how the facility currently operates for events. To assess existing operations three tasks were undertaken:

1) Review the existing Transportation Management Plans

Two documents that represent the GWCCA's Transportation Management Plan were provided to and reviewed by the PB/Populous:

- Georgia Dome- Atlanta Falcons 2010-2011 Game Day Traffic Plan by GWCC
- Georgia Dome and World Congress Center- *Traffic Impact Study of Event Vehicles on Downtown Streets* (December, 1991) by Wilbur Smith Associates

2) Meet with GWCC/Georgia Dome Staff

Meetings were arranged on September 17 and November 10 of 2010. These meetings were attended by PB, Populous, GWCC Management, Georgia Dome Management, Security, and Parking, Atlanta Falcons Management, Atlanta Police Department, and MARTA. This series of fact finding meetings provided insight into how the game day plan was developed and strategies used for implementation.

3) Attend events at the Georgia Dome to see how the Transportation Management Plan is implemented on Gameday

PB attended two Atlanta Falcons games and hired a flight videographer to record traffic conditions from a helicopter before and after the event to understand access routes, corridor and intersection congestion, parking, and pedestrian circulation during different ingress and egress circumstances.

The first game was a 1:00 PM kickoff on Sunday September 19, 2010 and was the only event at the GWCC Campus. Aerial video was recorded from 11:00 AM to 1:00 PM for the arrival period and 3:45 PM to 4:45 PM for the departure period. Since the Falcons were winning, fans began leaving after the third quarter, spreading out the departure period.

The second game on Thursday November 11, 2010, was an 8:20 PM kickoff where the arrival period coincided with the departure from a Convention Center event, normal evening rush hour traffic, and the arrival for a 7:00 PM Atlanta Thrashers game at Philips Arena. Aerial video was recorded from 6:15 PM to 8:15 PM for the arrival period and 11:45 PM to 12:45 AM for the departure period. Since the Atlanta Falcons' game went down to the last minute, everyone stayed until the end, resulting in a major egress.

## **II. Existing Operations**

An existing conditions study was performed to identify existing infrastructure, how patrons access the venue, and how patrons park at the venue. This included a Zip Code Analysis of season ticket holders, a Modal Split Investigation, an Arrival and Departure Route Study, a Parking Supply and Demand Analysis, and a Pedestrian Analysis.

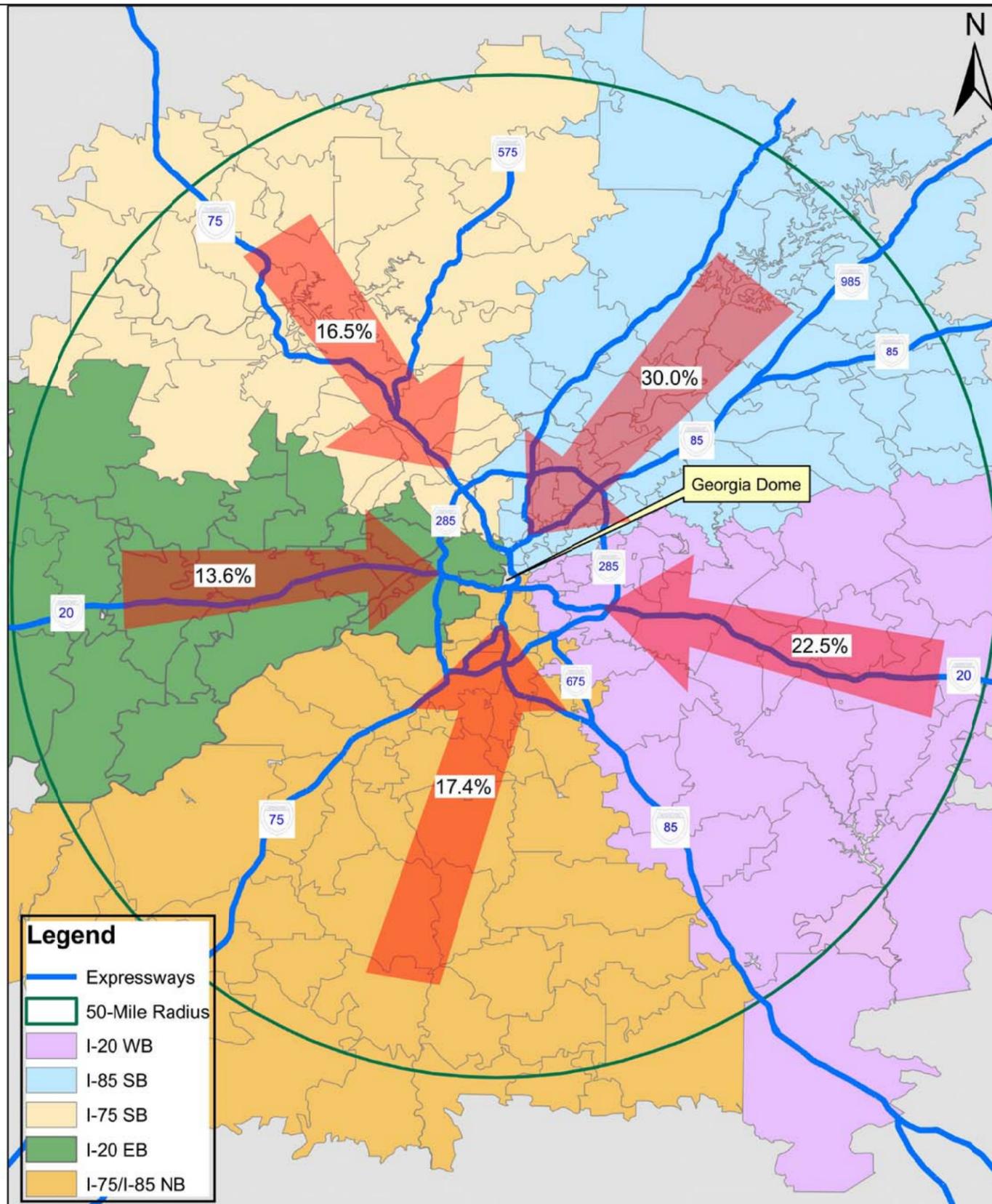
### **Zip Code Analysis**

The first step in determining how patrons arrive at a venue was to identify where their trip begins. To determine the origin of Georgia Dome patrons, PB was provided zip code data for Atlanta Falcons season ticket holders for the 2010-2011 season. This list was sorted to look at ticket sales in the State of Georgia, specifically those zip codes within 50-miles of the Georgia Dome, since these tickets holders are most likely to be driving to

the stadium from the zip code where the tickets were purchased. After determining the ticket sales per zip code, the next step in the analysis is to assess how this relates to the roadway network surrounding the venue. Five primary interstate access routes exist to/from the Georgia Dome: I-75 Southbound, I-85 Southbound, I-75/I-85 Northbound, I-20 Eastbound, and I-20 Westbound. Figure 7-2 shows the distribution of season ticket holders on each of the access routes. As seen in the percent breakdown in Table 7-1, heavy volumes of patrons (46.5%), arrive from the north via the I-75 and I-85 southbound interstate access route which merge to from the I-75/I-85 “Connector” east of the Georgia Dome. Analysis in the *Arrival and Departure Routes* and *Parking Analysis* sections below further addresses the relationship between the zip code distribution to ramp capacities and parking availability for events.

<u>Route</u>	<u>Percentage of Patrons Arriving by Route</u>
I-75 SB	16.5%
I-85 SB	30.0%
I-75/I-85 NB	17.4%
I-20 EB	13.6%
I-20 WB	22.5%

**Table 7-1. Arrival Distribution**



### Zip Code Analysis

Zip code data of Atlanta Falcons season ticket holders for the 2010-2011 NFL season were analyzed to determine the origin of Georgia Dome patrons. This list was sorted to look at ticket sales within 50-miles of the Georgia Dome, since these season tickets holders will be the most likely to drive to the stadium from the zip code where the tickets were purchased.

After determining the ticket sales per zip code, the next step in the analysis is to understand how this relates to the roadway network surrounding the venue. Five primary interstate access routes were identified to and from the Georgia Dome: I-75 Southbound, I-85 Southbound, I-75/I-85 Northbound, I-20 Eastbound, and I-20 Westbound. The following table describes the arrival distribution of season ticket holders on each of the access routes:

ACCESS ROUTE	PERCENTAGE OF PATONS ARRIVING BY ROUTE
I-75 SB	16.5%
I-85 SB	30.0%
I-75/I-85 NB	17.4%
I-20 EB	13.6%
I-20 WB	22.5%



## TRANSPORTATION ASSESSMENT

### Zip Code Analysis

PREPARED BY:



PB AMERICAS, INC.  
Boston, MA 02116  
Atlanta, GA 30326

FIG NO. 7-2

1/23/2011

IN ASSOCIATION WITH POPULOUS

### **Modal Split Investigation**

Discussions with the GWCC staff and MARTA staff took place to understand modal split for events at the Georgia Dome. MARTA estimates that approximately 20% of Falcons game patrons arrive by MARTA. With a sell-out event at the Georgia Dome, this results in approximately 14,250 attendees arriving by transit. As seen in Figure 7-3, the Georgia Dome is currently served by three stations within a 20-minute walk from the Dome. Walk zones were estimated based on a 3.5 ft/sec walking speed (*Pedestrian Planning and Design* by John Fruin) and linear distance along the sidewalk from a specified location to the closest gate at the Georgia Dome.

- The MARTA Five Points Station is located on the Red and Gold Lines and is approximately a 17.5-minute walk from the Dome. It is closest stop to the GWCC/Georgia Dome on the Red and Gold Lines without transferring to the Blue or Green Line.
- The GWCC-Philips Arena-CNN Center MARTA Station is located on the Blue and Green Line and is approximately a 4-minute walk to the Georgia Dome D-Gate entrance. This station has 14 entry/exit gates on the east platform and 5 entry/exit gates on the west platform.
- The Vine City MARTA Station is located on the Blue Line and Green Line and is approximately a 2 -minute walk to the Georgia Dome A-Gate entrance. It has four entry/exit gates that are accessed from Georgia Dome Drive.

MARTA ridership was estimated from gate statistics during the 2009-2010 and 2010-2011 seasons. For the arrival period, the total number of patrons existing at GWCC and Vine City Stations in the three hours before each game was determined. For the departure, the busiest two hours entering the station after the game started were determined since patrons departure patterns can vary based on the time of the game or the score. This analysis, showed 70% of transit patrons arrive/depart the GWCC-Philips Arena-CNN Center Station (since it has more stalls and is the first stop if transferring from the Red/Gold Lines) and 30% of event transit patrons arrive/depart the Vine City Station.

In addition to transit, the remaining 80% of patrons arrive by personal vehicles. Based on historical and similar-site statistics, the arrival period for NFL games is generally four hours before kick-off, with 50% of all traffic arriving within a peak one hour period. GWCCA management indicated that a very limited number of patrons arrive by taxis, shuttles, or charter buses for NFL Events at the Georgia Dome.



**MARTA ACCESS**

The Georgia Dome is currently accessible by three MARTA Stations within the 20-minute walk zone (based on walk speed of 3.5 ft/sec). The following table describes each of these stations (Vine City, Dome-GWCC-Phillips Arena-CNN, Five Points), their distance to the Georgia Dome, and the walk time to the Georgia Dome after exiting the station:

STATION	DISTANCE TO GA DOME	WALK TIME TO GA DOME
VINE CITY STATION	470'	2 MIN
DOME-GWCC-PHILLIPS ARENA-CNN STATION	770'	4 MIN
FIVE POINTS STATION	3680'	17.5 MIN

The Vine City Station and Dome-GWCC-Phillips Arena-CNN Station are on the MARTA Blue Line and Green Line. Five Points Station is located on the Gold Line and Red Line, so it requires a 17.5 minute walk to the Georgia Dome or a transfer to the Blue/Gold Lines. An additional station located in the vicinity of the Georgia Dome but outside the 20-min walk zone is Peachtree Center Station, a 23 minute walk.

The following describes the estimated percent and number of transit patrons using each of the stations for a sellout Sunday event at the Georgia Dome with 20% transit ridership:

STATION	PERCENT OF TRANSIT PATRONS	NUMBER OF TRANSIT PATRONS
VINE CITY STATION	40%	5,700
DOME-GWCC-PHILLIPS ARENA-CNN STATION	60%	8,550
FIVE POINTS STATION	0%	0

**TRANSPORTATION ASSESSMENT**

**MARTA ACCESS**

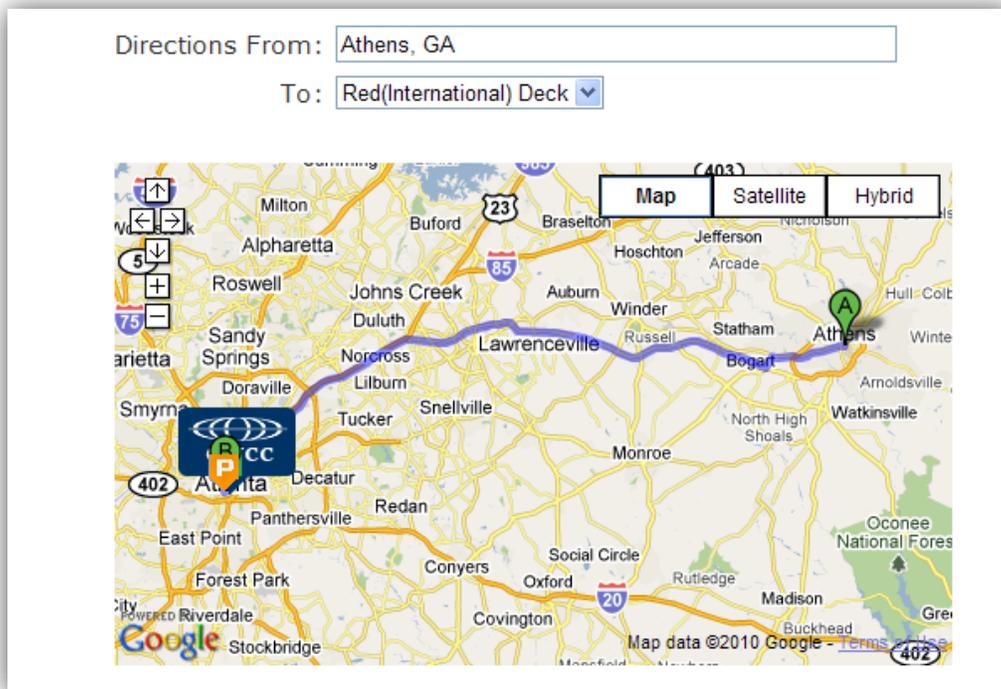
PREPARED BY:  
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 Boston, MA 02116  
 Atlanta, GA 30326  
 IN ASSOCIATION WITH **POPULOUS**

FIG NO. **7-3**  
 1/23/2011

**Arrival and Departure Routes**

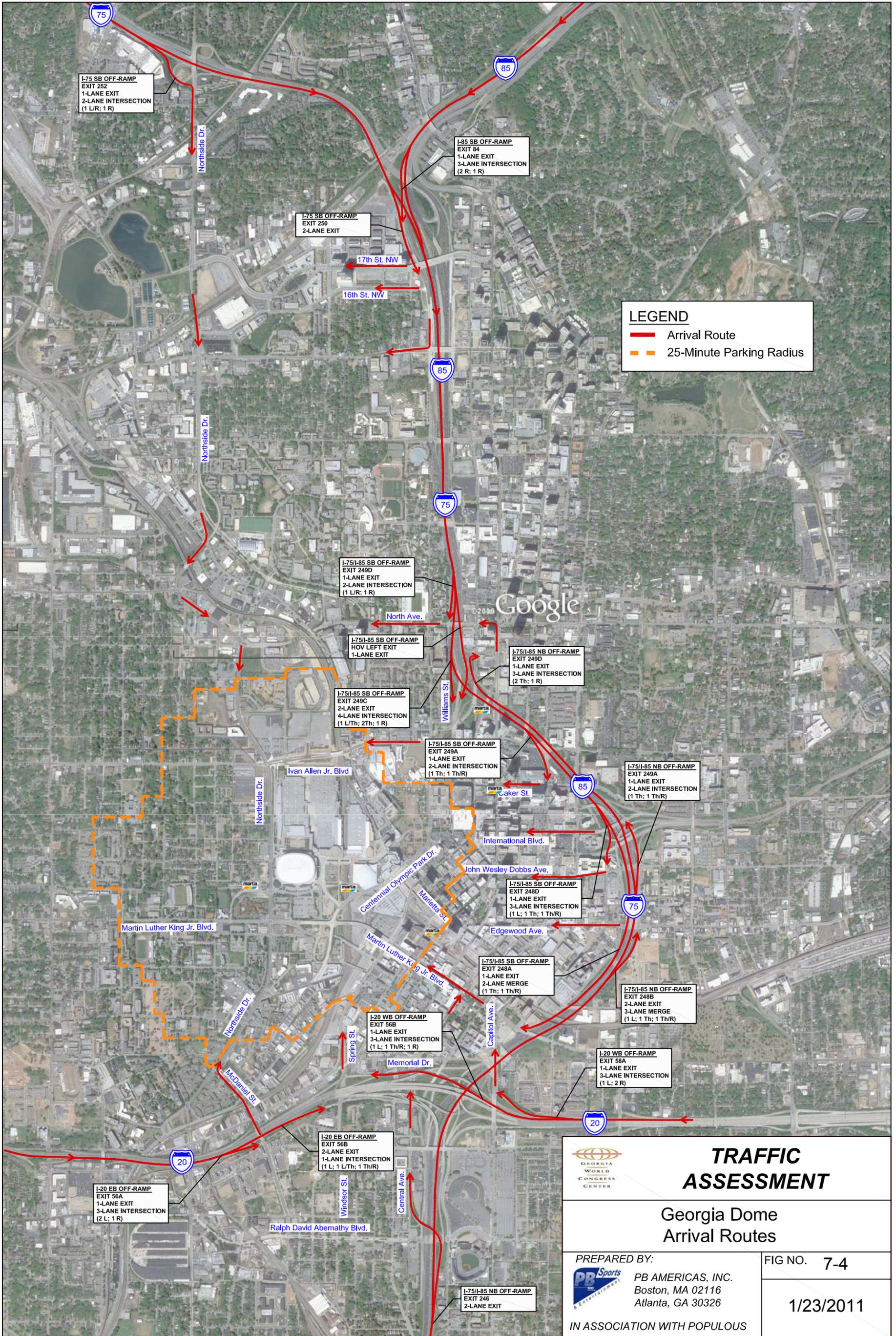
Figure 7-4 highlights all the interstate ramps that provide ingress access to the GWCC and parking facilities. There are nine exit ramps on I-75/I-85 southbound providing a total of 11 exit lanes. There are four exit ramps on I-75/I-85 northbound providing a total of six exit lanes. There are two exit ramps on I-20 eastbound providing a total of three exit lanes, and there are two exits ramps on I-20 westbound providing a total of two exit lanes. Each of these exit lanes has a capacity of 1,200 vehicles per hour.

Although these ramps exist and are capable of providing access to the venue, they are not all utilized for event traffic. The GWCC Directions to Parking Website, <http://www.gwcc.com/directions/parking>, provides the option for patrons to enter their starting location and their GWCC pre-paid parking lot as seen in Figure 7-5. It then provides a map and step-by-step driving directions based on a Google Maps application. This is based on a shortest path algorithm, so it will not take into account gameday traffic and will instruct all patrons coming from the same direction to use the same exit since it is the shortest point to point distance.



**Figure 7-5. GWCCA Parking Directions Tool**

By instructing patrons to use the route with the shortest distance, it does not take advantage of the available roadway capacity at other interstate exits or local roadways with access to the Georgia Dome. Table 7-2 demonstrates the need to utilize the existing capacity; if one primary exit is used for all patrons, the I-75/I-85 Connector SB, I-20 EB, and I-20 WB are all over capacity during the peak hour before an event.



**LEGEND**

- Arrival Route
- 25-Minute Parking Radius

 <h2 style="margin: 0;">TRAFFIC ASSESSMENT</h2>	
<h3 style="margin: 0;">Georgia Dome Arrival Routes</h3>	
PREPARED BY:  <b>PB AMERICAS, INC.</b> Boston, MA 02116 Atlanta, GA 30326	FIG NO. <b>7-4</b>  <b>1/23/2011</b>
IN ASSOCIATION WITH <b>POPULOUS</b>	

The analysis is based on the following assumptions:

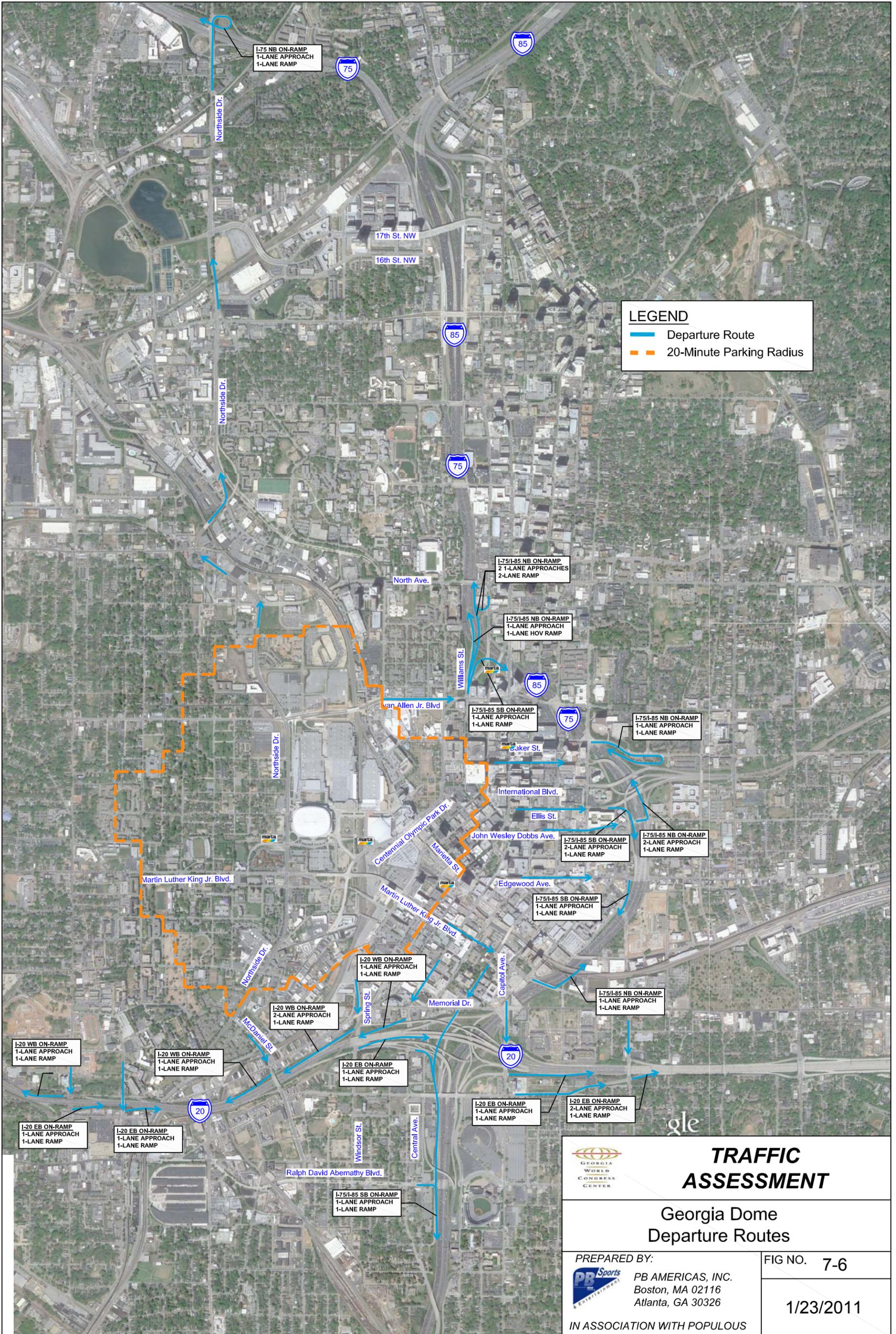
- Gameday Patrons: 71,250
- Patrons Arriving by Private Vehicles (80%): 56,982
- Number of Vehicles (3.2 per vehicle): 17,807
- Number of Vehicles in Peak Hour (50%): 8,904
- Capacity per Lane: 1,200 vehicles per hour

Access Route	Closest Exit to Front Door of Stadium	Capacity of Nearest Exit (vehicles/hour)	Percentage of Patrons Arriving by Route	Number of Patrons in Peak Hour	Volume/Capacity Ratio
I-75/I-85 SB	Exit 249C to Williams St.	2,400	46.5%	4,140	1.73
I-75/I-85 NB	Exit 246 to Central Ave.	2,400	17.4%	1,549	0.65
I-20 EB	Exit 56B to Spring St.	1,200	13.6%	1,211	1.01
I-20 WB	Exit 56B to Spring St.	1,200	22.5%	2,003	1.67

**Table 7.2. Entrance Ramp Capacity Analysis**

This analysis demonstrates the importance of utilizing multiple exit ramps to take advantage of additional capacity that is located in close proximity to parking.

Similar to arrivals, Figure 7-6 highlights all the ramps that provide egress access to the interstate system from the GWCC and parking facilities. There are six entrance ramps to I-75/I-85 northbound providing a total of seven entrance lanes. There are four entrance ramps on I-75/I-85 southbound providing a total of four entrance lanes. There are five entrance ramps to I-20 eastbound providing a total of five entrance lanes, and there are four entrance ramps to I-20 westbound providing a total of four entrance lanes. Each of these entrance lanes has a capacity of 1,200 vehicles per hour.



**Parking Supply and Demand Analysis**

Parking information received from the GWCCA Parking Lot Management staff, observations during the attended events, and a field study of lot availability were completed in assessing the existing parking supply and demand within a 20-minute walk for events at the Georgia Dome as seen in Figure 7-7. The GWCCA currently controls 5,619 spaces in the ten lots identified in Table 7-3. Of these spaces, 5,619 are presold, 1,734 are gameday cash transactions, and the remainder are for employee parking or overflow.

Parking Lot	# Spaces	# Pre-sold	# Cash	Employee Parking	Cost	Type of Parkers
Red Deck	1,900	1,699	120	Yes	\$15	Suite Holders, Club Members, Owner’s Club, Disabled
Orange Lot	580	580	0	Yes	\$15	Club Members, Falcons Team, Limo
Blue Lot	692	692	0	Yes	\$25	Club Members, Season Ticket Holders
Gold Deck	300	300	0	No	\$0	VIP, Coaches, Players
Brown Lot	300	300	0	No	\$30	Season Ticket Holders
Silver Lot	82	0	82	No	\$15	Disabled, Satellite Trucks
Purple Lot	133	0	0	Yes	\$0	Employee Parking
Yellow Lot	1,262	100	1,162	No	\$15	General Admission, Falcons Staff
Marshalling Yard	200	0	200	No	\$15/\$25	General Admission/RV
Green Lot	170	0	170	No	\$15	General Admission
TOTAL	5,619	3,671	1,734			

**Table 7-3. GWCCA Controlled Parking Summary**

In addition to GWCCA Lots, the Falcons control eight lots during events. These are Lot B, Lot C, Lot F, Lot G, I Deck, Lot F, State Farm Lot, and Lot K. This accounts for 1,989 spaces, of which 1,635 are pre-sold and 367 spaces are cash transactions. These are used for season ticket holders and general admission and range from \$10-\$50.

The remainder of the lots have been identified by the Georgia Dome as Privately Controlled Lots used for general admission (4,396 spaces, all cash transactions) or Entrepreneur Lots which are lots independently operated within 20-minutes of the Georgia Dome and sell parking on days of events (7,785 spaces). Observations on non-event days show that approximately 90% of the spaces in the Entrepreneur Lots would be available during events. Since a majority of these spaces are in the 15-20 minute walk zone, they are less desirable than closer spaces; as a result, a utilization of 80% of these spaces was applied.

To perform the parking supply and demand analysis (as seen in Figure 7-7), the available parking supply was determined based on availability and utilization, resulting in 17,814 parking spaces. For a sell-out event with 80% of patrons arriving by vehicle, and utilizing typical average auto occupancy for NFL events of 3.2 persons per vehicle, the parking demand is 17,807 parking spaces. This analysis demonstrated that there is sufficient parking within a 20-minute walk of the stadium.

Comparing the location of parking spaces to the directional distribution developed from the Zip Code Analysis, there are more vehicles arriving from locations north of the Georgia Dome than there are parking spaces as seen in Table 7-4. If vehicles are instructed to exit at ramps north of the Georgia Dome, they will have to circulate on local roads to areas south of the Georgia Dome, creating unnecessary congestion while searching for available parking.

	Available Parking Supply	% Distribution	Parking Demand	Surplus/Deficit
North of Georgia Dome	7,172	46.5% <sup>1</sup>	8,280	-1,108
South of Georgia Dome	10,642	53.5% <sup>2</sup>	9,527	+1,115

**Table 7-4. Comparison of Parking Supply and Zip Code Distribution**

<sup>1</sup>Percent Distribution North of Georgia Dome based in I-75 SB and I-85 SB

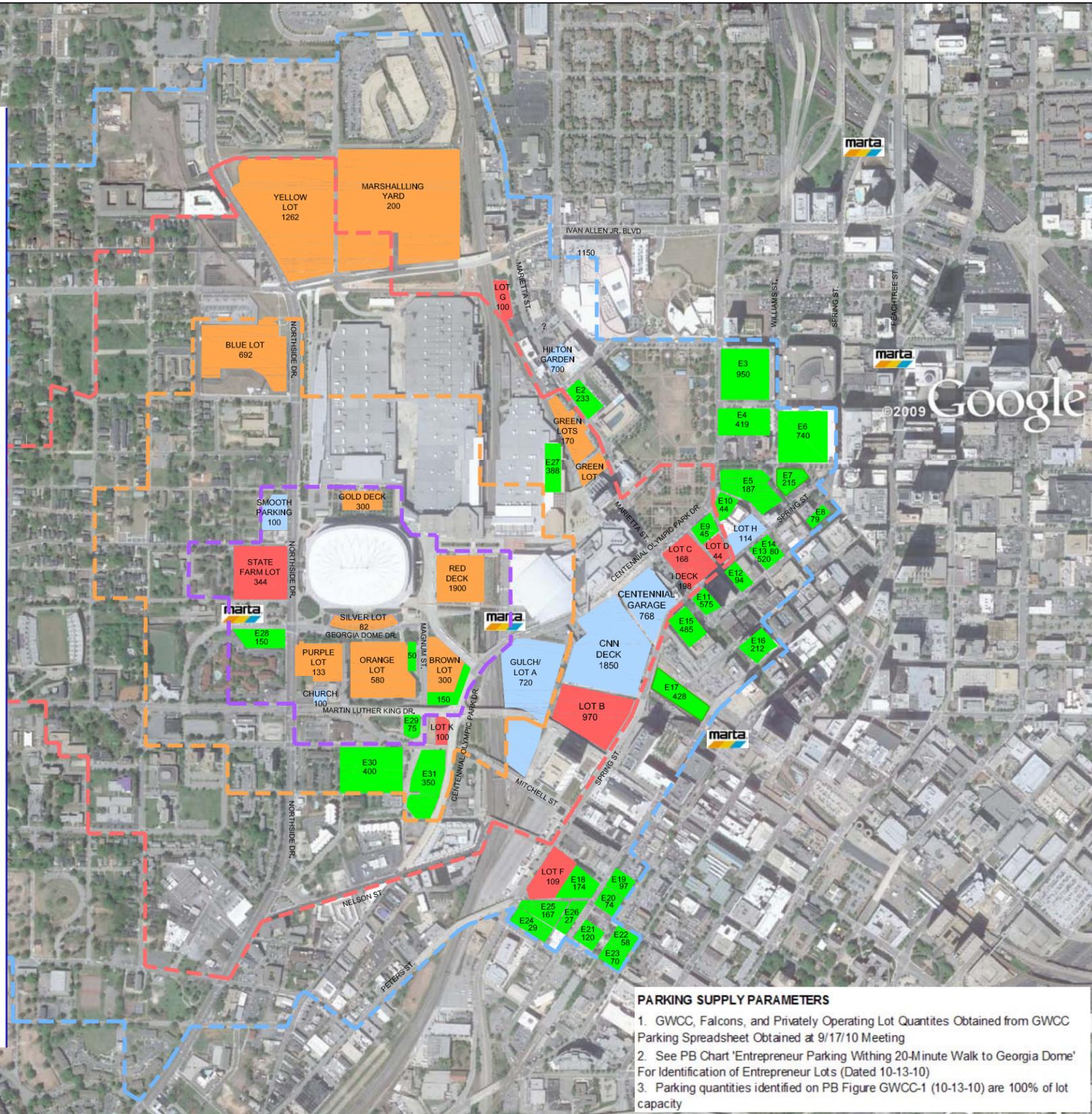
<sup>2</sup>Percent Distribution South of Georgia Dome based in I-75/I-85 NB, I-20 EB, and I-20 WB

**Pedestrian Analysis**

A pedestrian analysis was conducted to determine pedestrian volumes from parking locations and MARTA Stations to the Georgia Dome to determine if there are any crowd control and pedestrian safety issues during the arrival and departure periods. Gate entry reports show more than 90% of patrons entering the gates in the one-hour time period before the event, so heavy pedestrian volumes are expected in this time frame. Figures 7-8 and 7-9 show the pedestrian volumes and assessment.

One roadway segment fell under the category “Crowd Control/Safety Issue” during the peak hour period. This was the south sidewalk of Centennial Olympic Park SB between the CNN Deck and Andrew Young International Boulevard. Video surveillance from the September 19, 2010 game shows that despite parking (CNN Deck and Centennial Garage) being on the south side of the road, almost all pedestrians are crossing Centennial Olympic Park and walking on the north sidewalk (in front of Philips Arena) where there is sufficient capacity to handle event demands. This should be monitored to ensure the pedestrian crossing occurs, and no other mitigation measures are required.

5-Minute Walk Zone (Linear Feet)	
	Total Spaces
<b>GWCC Lots &amp; Garages</b>	
Gold Deck	300
Red Deck	1900
Silver Lot	82
Purple Lot	133
Orange Lot	580
Brown Lot	300
<b>Falcons Lots &amp; Garages</b>	
State Farm Lot	344
<b>Private Lots &amp; Garages</b>	
Smooth Parking	100
Church Lot	100
<b>Entrepreneur Parking</b>	
Entrepreneur Lots (Mangum St)	425
<b>TOTAL IN 5-MIN WALK</b>	<b>4264</b>
10-Minute Walk Zone (Linear Feet)	
	Total Spaces
<b>GWCC Lots &amp; Garages</b>	
Blue Lot	692
<b>Falcons Lots &amp; Garages</b>	
Lot K	100
<b>Private Lots &amp; Garages</b>	
Gulch/Lot A	720
<b>Entrepreneur Parking</b>	
Entrepreneur Lots	850
<b>TOTAL IN 10-MIN WALK</b>	<b>2362</b>
15-Minute Walk Zone (Linear Feet)	
	Total Spaces
<b>GWCC Lots &amp; Garages</b>	
Yellow Lot	1262
Green Lots	170
<b>Falcons Lots &amp; Garages</b>	
Lot B	970
Lot C	168
<b>Private Lots &amp; Garages</b>	
Lot D	44
Centennial Garage	768
CNN Deck	1850
<b>Entrepreneur Parking</b>	
Entrepreneur Lots	433
<b>TOTAL IN 15-MIN WALK</b>	<b>5665</b>
20-Minute Walk Zone (Linear Feet)	
	Total Spaces
<b>GWCC Lots &amp; Garages</b>	
Marshall Yard	200
<b>Falcons Lots &amp; Garages</b>	
Lot F	109
Lot G	100
I Deck	198
<b>Private Lots &amp; Garages</b>	
Lot H	114
Hilton Garden	700
<b>Entrepreneur Parking</b>	
Entrepreneur Lots	6077
<b>TOTAL IN 20-MIN WALK</b>	<b>7498</b>



**PARKING SUPPLY PARAMETERS**

1. GWCC, Falcons, and Privately Operating Lot Quantities Obtained from GWCC Parking Spreadsheet Obtained at 9/17/10 Meeting
2. See PB Chart 'Entrepreneur Parking Within 20-Minute Walk to Georgia Dome' For Identification of Entrepreneur Lots (Dated 10-13-10)
3. Parking quantities identified on PB Figure GWCC-1 (10-13-10) are 100% of lot capacity

- GWCC Controlled Lot
- Falcons Controlled Lot
- Private Controlled Lot
- Entrepreneur Lot
- 5-Minute Walk Zone (Linear Feet)
- 10-Minute Walk Zone (Linear Feet)
- 15-Minute Walk Zone (Linear Feet)
- 20-Minute Walk Zone (Linear Feet)

**Parking Assessment**  
 The following plan details parking lots controlled by the GWCCA, Atlanta Falcons, and Private owners within a 20-min walk of the Georgia Dome.

**PARKING DEMAND & SUPPLY SUMMARY**

Transit Ridership	Parking Demand	Available Parking Supply	Parking Deficiency/ Surplus
20%	17807	17814	7

**PARKING DEMAND ANALYSIS**

Demand Assumptions

Stadium Seating Capacity	71,228
Attendance	100%
No Shows	0%
<b>Total Patrons</b>	<b>71228</b>

Average Auto Occupancy 3.2

Transit Ridership	Attendees Using Transit	Attendees Using Auto	Parking Demand
20%	14246	56982	17807

**TOTAL PARKING SUPPLY SUMMARY**

	5-MIN	10-MIN	15-MIN	20-MIN	TOTAL
GWCC Lots & Garages	3295	692	1432	200	5619
Falcons Lots & Garages	344	100	1138	407	1989
Private Lots & Garages	200	720	2662	814	4396
Entrepreneur	425	850	433	6077	7785
<b>TOTAL</b>	<b>4264</b>	<b>2362</b>	<b>5665</b>	<b>7498</b>	<b>19789</b>

**AVAILABLE PARKING SUPPLY SUMMARY**

	5-MIN	10-MIN	15-MIN	20-MIN	TOTAL
GWCC Lots & Garages	3295	692	1432	200	5619
Falcons Lots & Garages	344	100	1138	407	1989
Private Lots & Garages	200	720	2662	814	4396
Entrepreneur	362	640	432	4375	5810
<b>TOTAL</b>	<b>4201</b>	<b>2152</b>	<b>5664</b>	<b>5796</b>	<b>17814</b>



## PARKING ASSESSMENT

### Event Parking Availability By Walk Zones

PREPARED BY:  
**PR Sports & Entertainment**  
 PB AMERICAS, INC.  
 Boston, MA 02116  
 Atlanta, GA 30326

FIG NO. **7-7**  
  
**1/23/2011**

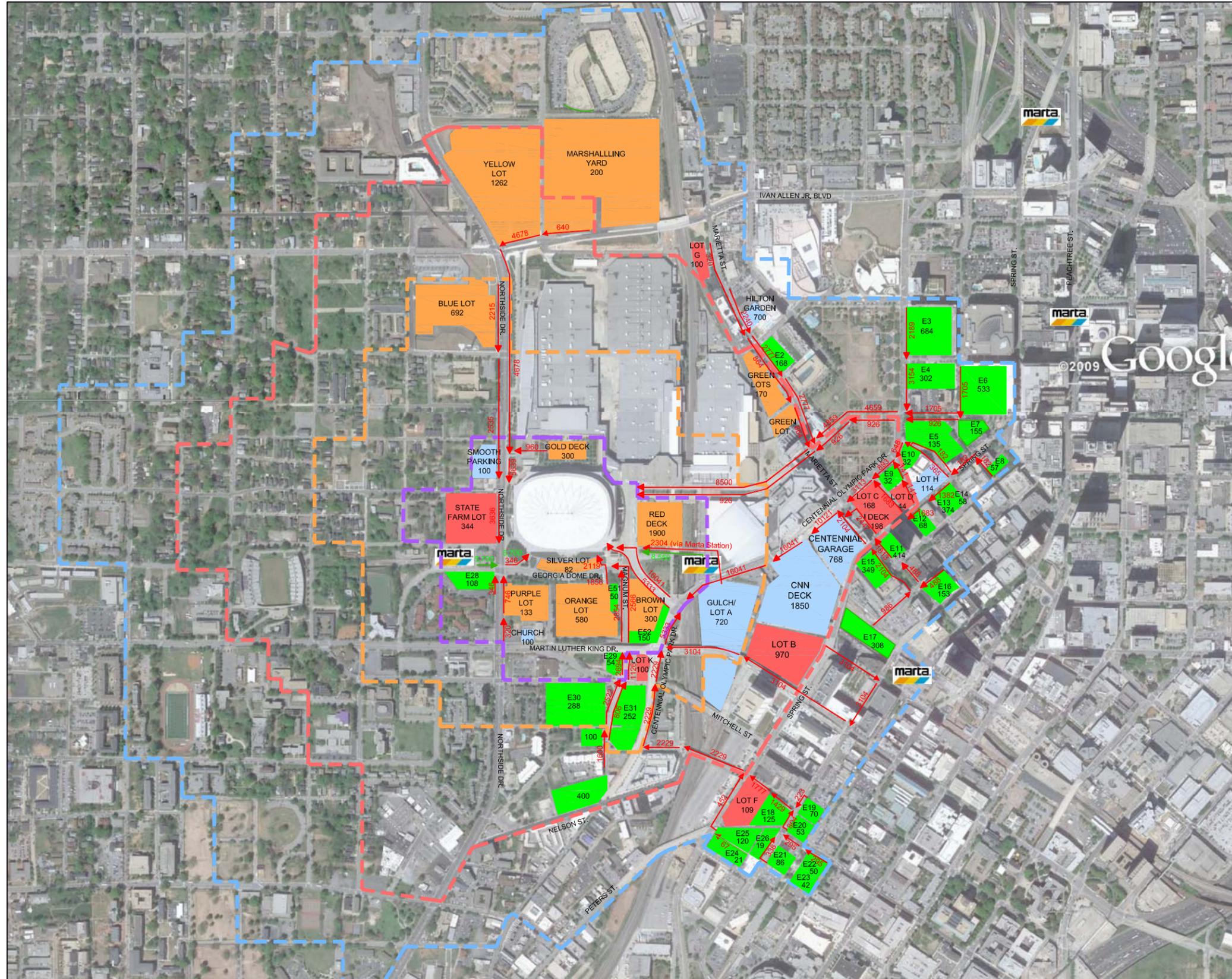
IN ASSOCIATION WITH **POPULOUS**

**Pedestrian Flow Analysis**

The following plan identifies pedestrian volumes from parking locations and MARTA Stations to the Georgia Dome gates.

Pedestrian volumes from parking locations are based on vehicle occupancy of 3.2 persons per vehicle. Pedestrians are routed on the shortest path to the Georgia Dome, where there are existing sidewalks and crosswalks.

See Figure 7-9 for analysis of these pedestrian volumes.



**TRANSPORTATION ASSESSMENT**

**Arrival Pedestrian Flow Analysis**

PREPARED BY:  
 **PB AMERICAS, INC.**  
 Boston, MA 02116  
 Atlanta, GA 30326

FIG NO. **7-8**

**1/23/2011**

IN ASSOCIATION WITH **POPULOUS**

- GWCC Controlled Lot
- Falcons Controlled Lot
- Private Controlled Lot
- Entrepreneur Lot
- Potential New Stadium Lots
- 5-Minute Walk Zone (Linear Feet)
- 10-Minute Walk Zone (Linear Feet)
- 15-Minute Walk Zone (Linear Feet)
- 20-Minute Walk Zone (Linear Feet)
- Pedestrian Flow From Parking
- Pedestrian Flow From MARTA

Roadway/Sidewalk	Sidewalk Segment	Estimated Sidewalk Width	Vehicular Lanes	Cumulative Ped Flow	Peak Ped Flow	Flow Rates Based on Sidewalk Width*										
						5-Min	10-Min	15-Min	20-Min	25-Min	30-Min	35-Min	40-Min	45-Min	50-Min	Greater than 50
Ivan Allen Blvd (N Sidewalk)	Marshalling Yard to Northside Dr.	10	2EB/2WB	4678	2339	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	
Northside Dr. SB (E Sidewalk)	Ivan Allen Blvd to Gold Deck	12	2NB/3SB/1TWLTL	4678	2339	1080	2160	3240	4320	5400	6480	7560	8640	9720	10800	
	Gold Deck to GA Dome NW	12.5	2NB/3SB/1TWLTL	5638	2819	1125	2250	3375	4500	5625	6750	7875	9000	10125	11250	
Northside Dr. SB (W Sidewalk)	Ivan Allen Blvd to Gold Deck	6	2NB/3SB/1TWLTL	2214	1107	540	1080	1620	2160	2700	3240	3780	4320	4860	5400	
	Gold Deck to GA Dome NW	6	2NB/3SB/1TWLTL	2534	1267	540	1080	1620	2160	2700	3240	3780	4320	4860	5400	
	State Farm Lot to GA Dome Dr.	6	2NB/3SB/1TWLTL	1101	550	540	1080	1620	2160	2700	3240	3780	4320	4860	5400	
Northside Dr. NB (E Sidewalk)	MLK to GA Dome Dr.	5.5	2NB/3SB/1TWLTL	746	373	495	990	1485	1980	2475	2970	3465	3960	4455	4950	
Northside Dr. NB (W Sidewalk)	MLK to GA Dome Dr.	10	2NB/3SB/1TWLTL	346	173	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	
Mangum St. NB (E Sidewalk)	Chapel St. to Mitchell St.	7	1NB/1SB	806	403	630	1260	1890	2520	3150	3780	4410	5040	5670	6300	
	Mitchell St. to MLK St.	7	2NB/2SB	1126	563	630	1260	1890	2520	3150	3780	4410	5040	5670	6300	
	MLK St. to GA Dome Dr.	7	2NB/2SB	2566	1283	630	1260	1890	2520	3150	3780	4410	5040	5670	6300	
Mangum St. NB (W Sidewalk)	Chapel St. to Mitchell St.	7	1NB/1SB	2522	1261	630	1260	1890	2520	3150	3780	4410	5040	5670	6300	
	Mitchell St. to MLK St.	8	2NB/2SB	2694	1347	720	1440	2160	2880	3600	4320	5040	5760	6480	7200	
	MLK St. to GA Dome Dr.	6.5	2NB/2SB	2854	1427	585	1170	1755	2340	2925	3510	4095	4680	5265	5850	
Spring St. NB	Peters St. to Nelson St.	8	2NB/2SB	452	226	720	1440	2160	2880	3600	4320	5040	5760	6480	7200	
Nelson St. WB	Forsyth St. to Spring St.	7.5	1EB/1WB	1777	889	675	1350	2025	2700	3375	4050	4725	5400	6075	6750	
	Spring St. to COP	9	1EB/1WB	2229	1114	810	1620	2430	3240	4050	4860	5670	6480	7290	8100	
COP NB	Nelson to Mitchell St.	8	2NB/2SB	2229	1114	720	1440	2160	2880	3600	4320	5040	5760	6480	7200	
	Mitchell St. to MLK St.	8	2NB/2SB	2229	1114	720	1440	2160	2880	3600	4320	5040	5760	6480	7200	
MLK St. WB	MLK to Andrew Young International	8	5SB	5333	2666	720	1440	2160	2880	3600	4320	5040	5760	6480	7200	
	Forsyth St. to Spring St.	12	2EB/2WB	3104	1552	1080	2160	3240	4320	5400	6480	7560	8640	9720	10800	
Spring St. SB	Spring St. to COP	8	2EB/2WB	3104	1552	720	1440	2160	2880	3600	4320	5040	5760	6480	7200	
	Williams St. to Luckie St.	9.5	4SB	182	91	855	1710	2565	3420	4275	5130	5985	6840	7695	8550	
	Luckie St. to Nassau St.	9	4SB	1382	691	810	1620	2430	3240	4050	4860	5670	6480	7290	8100	
Luckie St. (N Sidewalk)	Nassau St. to Walton St.	10	4SB	1683	842	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	
	Spring St. to COP	9	2WB	182	91	810	1620	2430	3240	4050	4860	5670	6480	7290	8100	
Luckie St. (S Sidewalk)	Spring St. to COP	7	2WB	365	182	630	1260	1890	2520	3150	3780	4410	5040	5670	6300	
Nassau St. (S Sidewalk)	Spring St. to COP	8	1WB	141	70	720	1440	2160	2880	3600	4320	5040	5760	6480	7200	
Walton St. (S Sidewalk)	Spring St. to COP	9.5	2EB	1683	842	855	1710	2565	3420	4275	5130	5985	6840	7695	8550	
Marietta St. NB (E Sidewalk)	Fairlie St. to Cone St.	7	3NB/2SB	488	244	630	1260	1890	2520	3150	3780	4410	5040	5670	6300	
	Cone St. to Spring St.	9	3NB/2SB	1813	907	810	1620	2430	3240	4050	4860	5670	6480	7290	8100	
	Spring St. to COP	5.5	3NB/3SB	2447	1223	495	990	1485	1980	2475	2970	3465	3960	4455	4950	
Marietta St. NB (W Sidewalk)	Fairlie St. to Cone St.	9	3NB/2SB	986	493	810	1620	2430	3240	4050	4860	5670	6480	7290	8100	
	Cone St. to Spring St.	8.5	3NB/2SB	2104	1052	765	1530	2295	3060	3825	4590	5355	6120	6885	7650	
	Spring St. to COP	8.5	3NB/3SB	2104	1052	765	1530	2295	3060	3825	4590	5355	6120	6885	7650	
COP SB (S Sidewalk)	Baker St. to Harris St.	10	5SB	2189	1094	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	
	Harris St. to Andrew Young International	10	5SB	3154	1577	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	
	Andrew Young International to Luckie St.	10	4SB	0	0	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	
	Luckie St. to Nassau St.	10	4SB	648	324	900	1800	2700	3600	4500	5400	6300	7200	8100	9000	
	Nassau St. to Walton St.	14	4SB	893	446	1260	2520	3780	5040	6300	7560	8820	10080	11340	12600	
	Walton St. to Marietta St.	8.5	4SB	3113	1557	765	1530	2295	3060	3825	4590	5355	6120	6885	7650	
	Marietta to CNN Deck	8.5	4SB	10121	5061	765	1530	2295	3060	3825	4590	5355	6120	6885	7650	
Marietta St. SB (E Sidewalk)	CNN Deck to Andrew Young International	9	4SB	16041	8021	810	1620	2430	3240	4050	4860	5670	6480	7290	8100	
	Ivan Allen Blvd to Baker St.	5.5	2NB/2SB	2240	1120	495	990	1485	1980	2475	2970	3465	3960	4455	4950	
Marietta St. SB (W Sidewalk)	Baker St. Andrew Young International	9.5	2NB/2SB	2777	1388	855	1710	2565	3420	4275	5130	5985	6840	7695	8550	
	Ivan Allen Blvd to Baker St.	7	2NB/2SB	320	160	630	1260	1890	2520	3150	3780	4410	5040	5670	6300	
Andrew Young International WB (N Sidewalk)	Baker St. Andrew Young International	7	2NB/2SB	864	432	630	1260	1890	2520	3150	3780	4410	5040	5670	6300	
	Spring St. to COP	14	3EB	1705	852	1260	2520	3780	5040	6300	7560	8820	10080	11340	12600	
	COP to Marietta St.	8.5	1EB/1WB	4859	2430	765	1530	2295	3060	3825	4590	5355	6120	6885	7650	
Andrew Young International WB (S Sidewalk)	Marietta St. to GA Dome NE	15	2EB/2WB	8500	4250	1350	2700	4050	5400	6750	8100	9450	10800	12150	13500	
	Spring St. to COP	8	3EB	926	463	720	1440	2160	2880	3600	4320	5040	5760	6480	7200	
	COP to Marietta St.	15	1EB/1WB	926	463	1350	2700	4050	5400	6750	8100	9450	10800	12150	13500	
	Marietta St. to GA Dome NE	15	2EB/2WB	926	463	1350	2700	4050	5400	6750	8100	9450	10800	12150	13500	

**Pedestrian Flow Analysis**

The following plan identifies all sidewalks that currently accommodate pedestrian flows before and after an event. This plan details the sidewalk width, the number of vehicular lanes, the lot capacities of adjacent lots and resulting pedestrian flow from the lots. As a result of the cumulative pedestrian flows, the flow rates were determined based on the sidewalk width. Flow rates are categorized into three groups:

- Sidewalks Can Accommodate Projected Flow
- Additional Walkway Width May be Required
- Crowd Control/Safety Issue- Additional Sidewalk Width Required

One roadway segment fell under the category "Crowd Control/Safety Issue" during the peak hour: the south sidewalk of Centennial Olympic Park SB between the CNN Deck and Andrew Young International Boulevard. Video surveillance from the September 19, 2010 game was observed in the peak hour before the event to determine if crowd control issues exist. The screen capture below shows that despite parking (CNN Deck and Centennial Garage) being on the south side, all pedestrians are crossing Centennial Olympic Park and walking on the north sidewalk (in front of Phillips Arena) where there is available capacity. This should be monitored to ensure the pedestrian crossing occurs, and no other mitigation measure is required.



**TRANSPORTATION ASSESSMENT**

**Arrival Pedestrian Flow Rates**

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FIG NO. 7-9  
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- Sidewalks Can Accommodate Projected Flow
- Additional Walkway Width May be Required
- Crowd Control/Safety Issue- Additional Sidewalk Width Required

### **III. Review of Gameday Transportation Operations with Traffic Control Recommendations**

Aerial video and field observations were used to develop recommendations for modifying or supplementing the existing Event Transportation Management Plan for the arrival and departure time periods.

#### **Arrival Routes**

Figure 7-10 provides a key plan identifying six locations where improvements to the arrival routes are recommended, and Figure 7-11 thru 7-16 explain these existing pre-event issues and potential solutions in detail. The issues identified include:

- I-75/I-85 SB Exit to Williams Street and alternate corridors
- Dynamic Message Sign (DMS) for GWCC Yellow Lot and Marshalling Yard
- MARTA Platform Signage
- Georgia Dome Drive
- Wayfinding Signage from I-75/I-85 NB Exit 246 to Central Avenue
- DMS at the split of Northside Drive SB and Techwood Parkway

#### **Departure Routes**

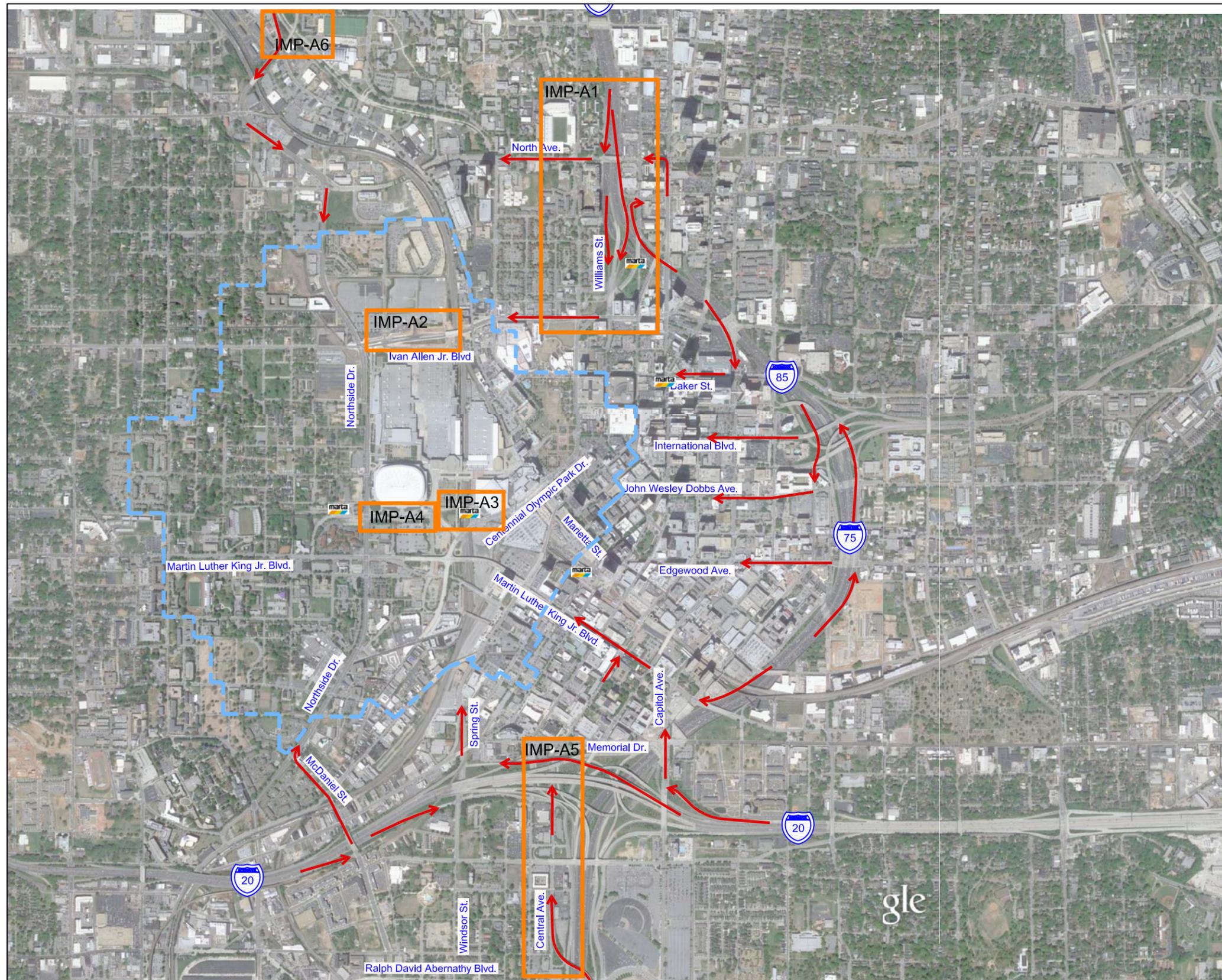
Figure 7-17 provides a key plan identifying four locations where improvements to the departure routes are recommended, and Figure 7-18 thru 7-22 explain these existing post-event issues and potential solutions in detail. The issues identified include:

- Yellow Lot/Marshalling Yard Exit to North Street
- Exit on Martin Luther King Jr. Boulevard to Spring Street
- Georgia Dome Drive
- Northside Drive Southbound

**Arrival Route Recommendations Key Plan**

Six locations have been identified as areas where modifications can be made to improve gameday traffic for the arrival period. These locations are described in detail on the following identified plans:

- IMP-A1: Improved Interstate VMS Signage for I-75/I-85 SB HOV Exit and use of traffic control devices (Local VMS and Cones) to utilize existing capacity at the I-75/I-85 SB Williams St. Exit at Ivan Allan Jr. Blvd. (See Figure 7-11)
- IMP-A2: Use of VMS Signage on Ivan Allan Jr. Blvd and Northside Dr. to inform patrons when the Yellow/Marshalling Lots are full and where alternative parking is available. (See Figure 7-12)
- IMP-A3: Install temporary sandwich board signage at the GWCC Marta Station to inform patrons to use exits at both ends of the platform. (See Figure 7-13)
- IMP-A4: Install signage on barrels on Georgia Dome Dr. so drivers know they can use the reversed lane of traffic. (See Figure 7-14)
- IMP-A5: Install temporary VMS or permanent wayfinding signage at I-75/I-85 NB Exit 246 to the Georgia Dome. (See Figure 7-15)
- IMP-A6: Install temporary VMS at the split of Northside Drive SB and Techwood Parkway to encourage patrons to use Techwood Parkway to parking locations East of the Georgia Dome. (See Figure 7-16)



- - - 20-Minute Walk Zone (Linear Feet)
- Arrival Route
- Arrival Route Improvement Location



**TRANSPORTATION ASSESSMENT**

**Arrival Route Recommendations Key Plan**

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FIG NO. 7-10

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## EXISTING CONDITIONS



Figure 1: I-75/I-85 SB Exit to Williams Street

- One Lane Left HOV Exit
- Two Lane Exit 249C
- Four Lane Intersection (1 Left/Thru, 2 Thru, 1 Right)



Figure 2: Single Right Turn onto Ivan Allen Boulevard creates long queues on I-75/I-85 Off-Ramp

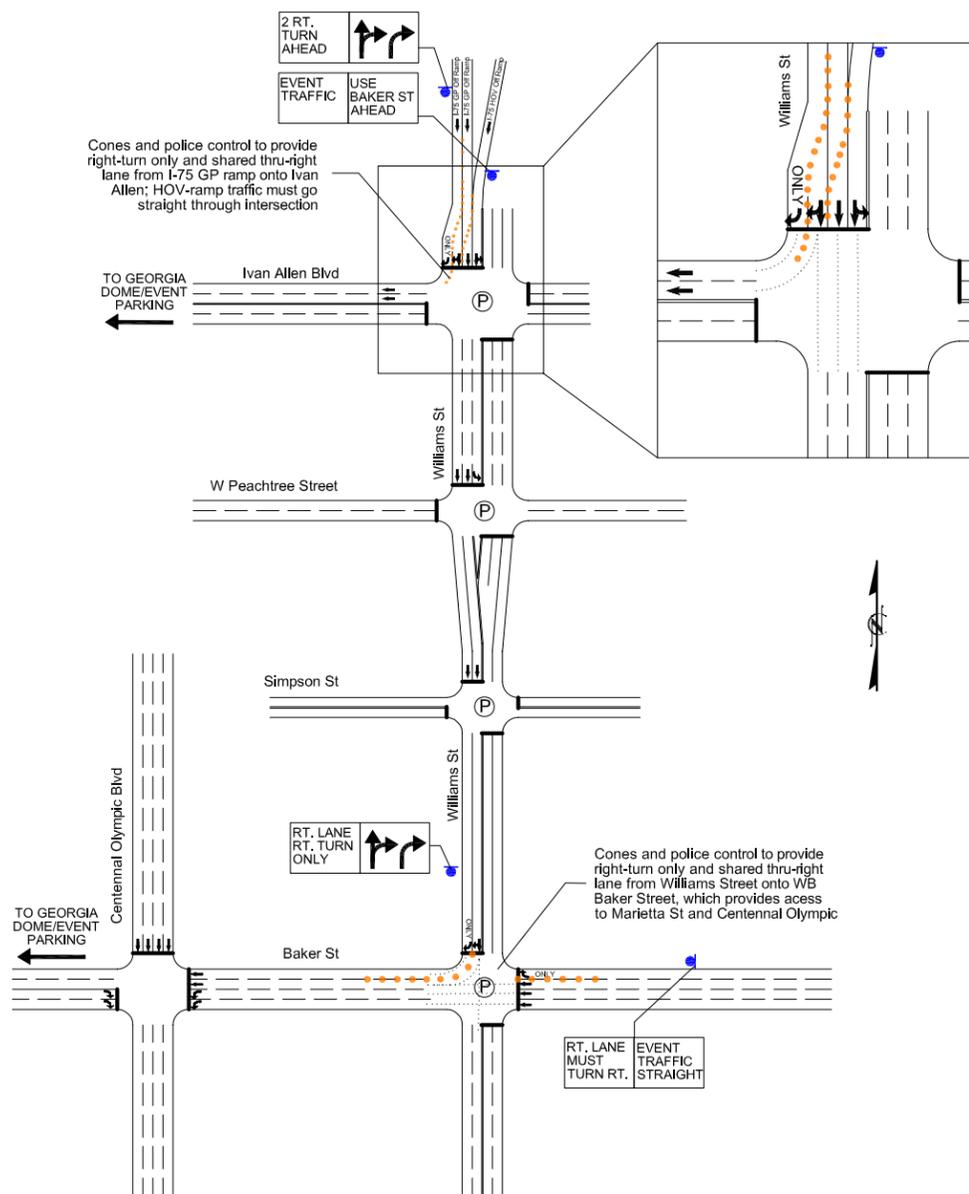


Figure 3: Heavy volume using I-75/I-85 SB Right Exit (249C) to Williams Street. Very little use of Left HOV Exit to Williams Street



Figure 4: I-75/I-85 Backups to 17th Street

## RECOMMENDATIONS



### Arrival Route Recommendations- Improvement #1

The following plan identifies improvements for the I-75/I-85 SB Exit at Williams Street. The 'Existing Conditions' (Figure 1) identifies the current configuration at the off-ramp and intersection of Ivan Allen Jr. Boulevard, and the three time-stamped aerial photographs show traffic conditions before the September 19th Atlanta Falcons game with kick-off at 1:00 PM. For the November 11th game, some cones were set up from the Williams Street Ramp, although vehicles still predominately used the right turn lane closest to the curb.

#### Pre-Game Issue:

A vast amount of traffic uses the Williams Street access corridor for ingress. This two lane ramp at Exit 249C plus one-lane HOV ramp access funnels into one right turn lane onto Ivan Allen Boulevard. Very few vehicles want to go straight (even though it provides access to GWCCA facilities and Entrepreneur Parking Lots), and therefore traffic backs up on the ramp and onto the interstate. At its peak, it backs up approximately 1.5 miles to the I-75/I-85 merge point.

#### Potential Solutions:

- 1) Provide two dedicated right turn lanes at Williams Street; direct HOV traffic south on Williams Street to Baker Street. Four Variable Message Signs (VMS) would be needed as shown at the following locations:
  - I-75/I-85 SB Off-Ramp at Exit 249C
  - I-75/I-85 SB HOV Off-Ramp
  - Williams St. SB at Baker St.
  - Baker St. WB at Williams St.
- 2) Provide Advance VMS Signage on I-75 and I-85 encouraging use of HOV Ramp to access parking areas east of the Georgia Dome
- 3) Provide advance VMS signage on I-75 SB to encourage motorists from I-75 north of the Georgia Dome to use the Northside Drive exit (which is wide open during the entire ingress on weekends)



## TRANSPORTATION ASSESSMENT

### Arrival Route Recommendations Improvement #1

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FIG NO. 7-11

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- Cone
- Ⓟ Variable Message Sign (VMS)
- Ⓟ Police

## EXISTING CONDITIONS



Figure 1. The Yellow Lot (1262 Parking Spaces) and Marshalling Lot (200 Parking Spaces) were full over 1 hour and 20 minutes before kickoff. These lots are GWCC Operated and present 89% of the non-handicap only cash transactions in GWCC-Controlled Lots.



Figure 2. Queues forming in the left turn lane on Northside Drive SB to Ivan Allen Jr. Boulevard after the GWCC lots are already full.

### Arrival Route Recommendations- Improvement #2

The following plan identifies improvements for the queues that result from the GWCCA Yellow Lot and Marshalling Lot reaching capacity.

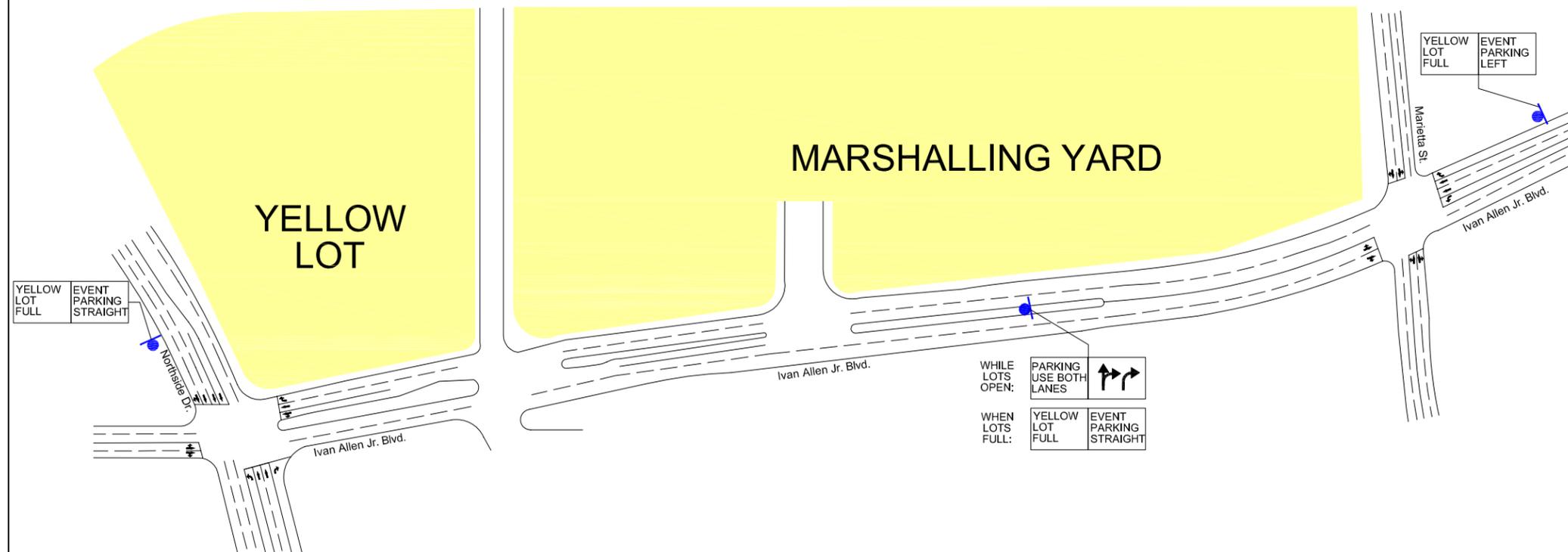
#### Pre-Game Issue:

Of the ten GWCCA-Controlled parking lots, only three are not presold for events and allow cash transactions at driveways for non-handicap patrons. For the Atlanta Falcons Game on September 19, 2010, The Yellow Lot (1262 Parking Spaces) and the Marshalling Lot (200 Spaces), which account for 89% of the non-handicap only cash transactions in GWCCA-Controlled Lots, were filled almost two hours before kickoff (See Figure 1). Queues continued to form on Northside Drive (See Figure 2) and on Ivan Allen Jr. Boulevard since drivers are not informed that the lots are full.

#### Potential Solutions:

- 1) Add Variable Message Signs on major access routes at Ivan Allen Jr. Boulevard WB at Marietta Street and Northside Drive SB at Ivan Allen Jr. Boulevard that can be turned on when the lots are full and instruct patrons to the nearest lots with available spaces.

## RECOMMENDATIONS



Variable Message Sign (VMS)



## TRANSPORTATION ASSESSMENT

### Arrival Route Recommendations Improvement #2

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FIG NO. 7-12

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# MARTA GWCC STATION- PLATFORM LEVEL

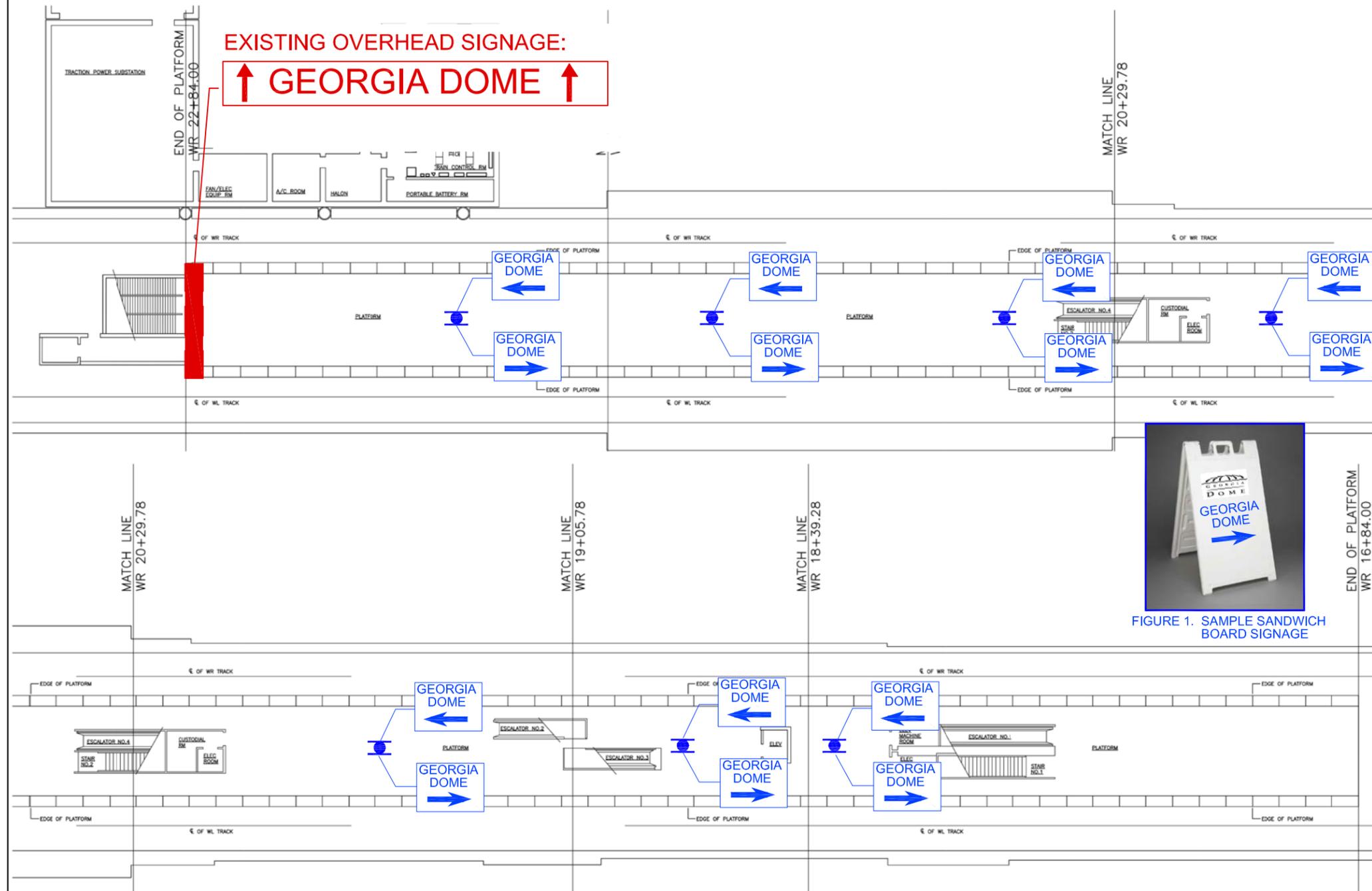


FIGURE 1. SAMPLE SANDWICH BOARD SIGNAGE

-  Existing Overhead Signage
-  Proposed Temporary Sandwich Board Signage

## Arrival Route Recommendations- Improvement #3

The following plan identifies improvements for the Dome-GWCC-Phillips Arena-CNN Marta Station.

### Pre-Game Issue:

Based on observations from the Sept. 19, 2010 Atlanta Falcons game, the Dome-GWCC-Phillips Arena-CNN MARTA Station has sufficient train and platform capacity before an event since patrons arrive at the station in a four hour time period before the event. Currently, the station has one overhead sign at the West side of the platform directing patrons to the Georgia Dome.

After an event, when patrons leave the stadium at the same time, there are large pedestrian surges that cannot be processed quick enough with the five entry gates at the West Entrance. There are 14 entry gates at the East Entrance that are under utilized. Announcements are made at the end of the game and extra signage has been added to encourage use of the Dome-GWCC-Phillips Arena-CNN MARTA East Entrance.

### Potential Solutions:

- 1) Since patrons are likely to want to exit the way they entered, signage should be added on the platform at the Dome-GWCC-Phillips Arena-CNN MARTA Station to encourage patrons use the East Exit when they arrive at the station. By educating them upon arrival that the East Entrance is a viable option with close proximity to the Georgia Dome, they will be more likely to use this after an event. For short term improvements, seven sandwich boards (See Figure 1 for sample) are recommended to capture the attention of patrons arriving from both directions.



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### Arrival Route Recommendations Improvement #3

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FIG NO. 7-13

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## EXISTING CONDITIONS

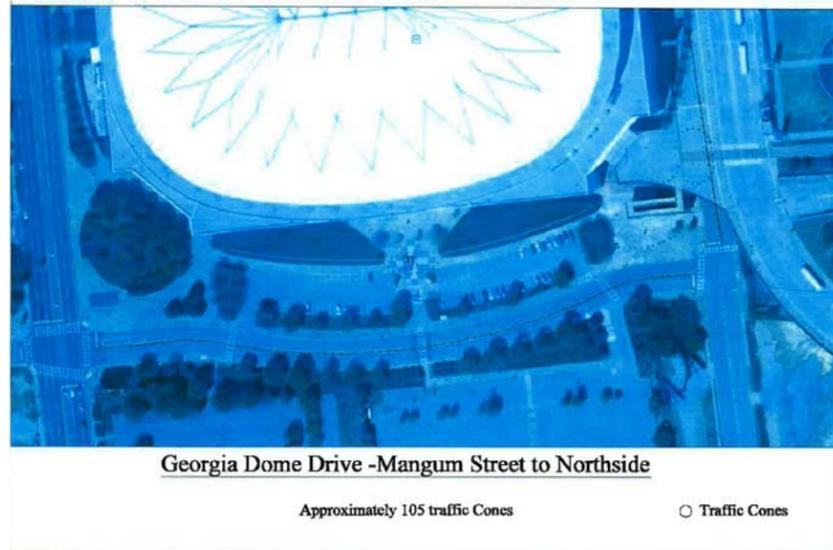


Figure 1. Cone Plan for Georgia Dome Drive for the 2010 NFL Season



Figure 2. Queues in Right Two Lanes of Georgia Dome Drive while very few drivers use the reversed lane.

### Arrival Route Recommendations- Improvement #4

The following plan identifies improvements for traffic flow on Georgia Dome Drive.

Pre-Game Issue:

Georgia Dome Drive provides access to Silver Lot Parking driveways, as well as parking in GWCCA and Entrepreneur Lots off Mangum Street (Red Deck, Orange Lot, Brown Lot). As a result of traffic demands, the GWCCA/Atlanta Falcons developed a cone plan to reverse one lane of traffic before an event as seen in Figure 1. Since patrons have to drive on the wrong side of the double yellow stripe to use this lane, very few choose to drive in the reversed lane as seen in Figure 2.

Potential Solutions:

1) Add signage mounted on barrels (See Figure 3 for sample) that inform drivers that all traffic can use the two eastbound lanes on Georgia Dome Drive as well as the the westbound lane that is coned off for eastbound traffic.

## RECOMMENDATIONS

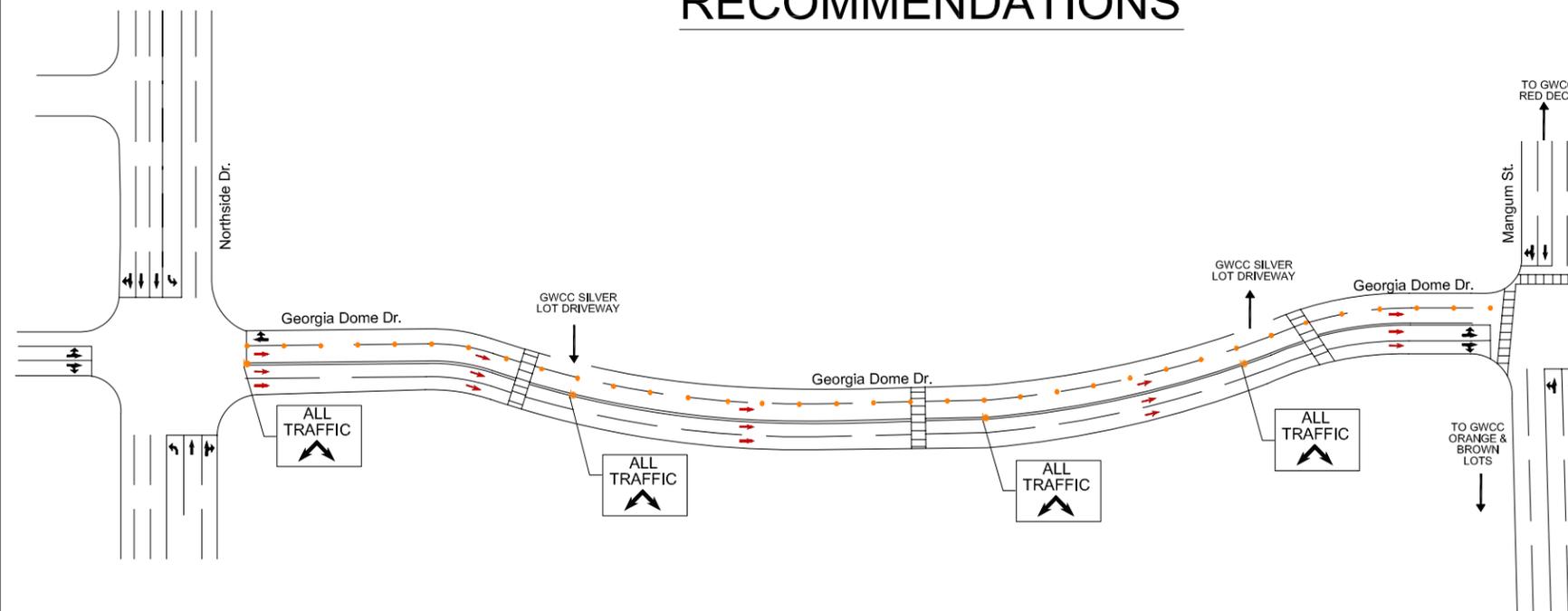


Figure 3. Sample Sign Mounted on Barrel

 Sign Mounted on Barrel



## TRANSPORTATION ASSESSMENT

### Arrival Route Recommendations Improvement #4

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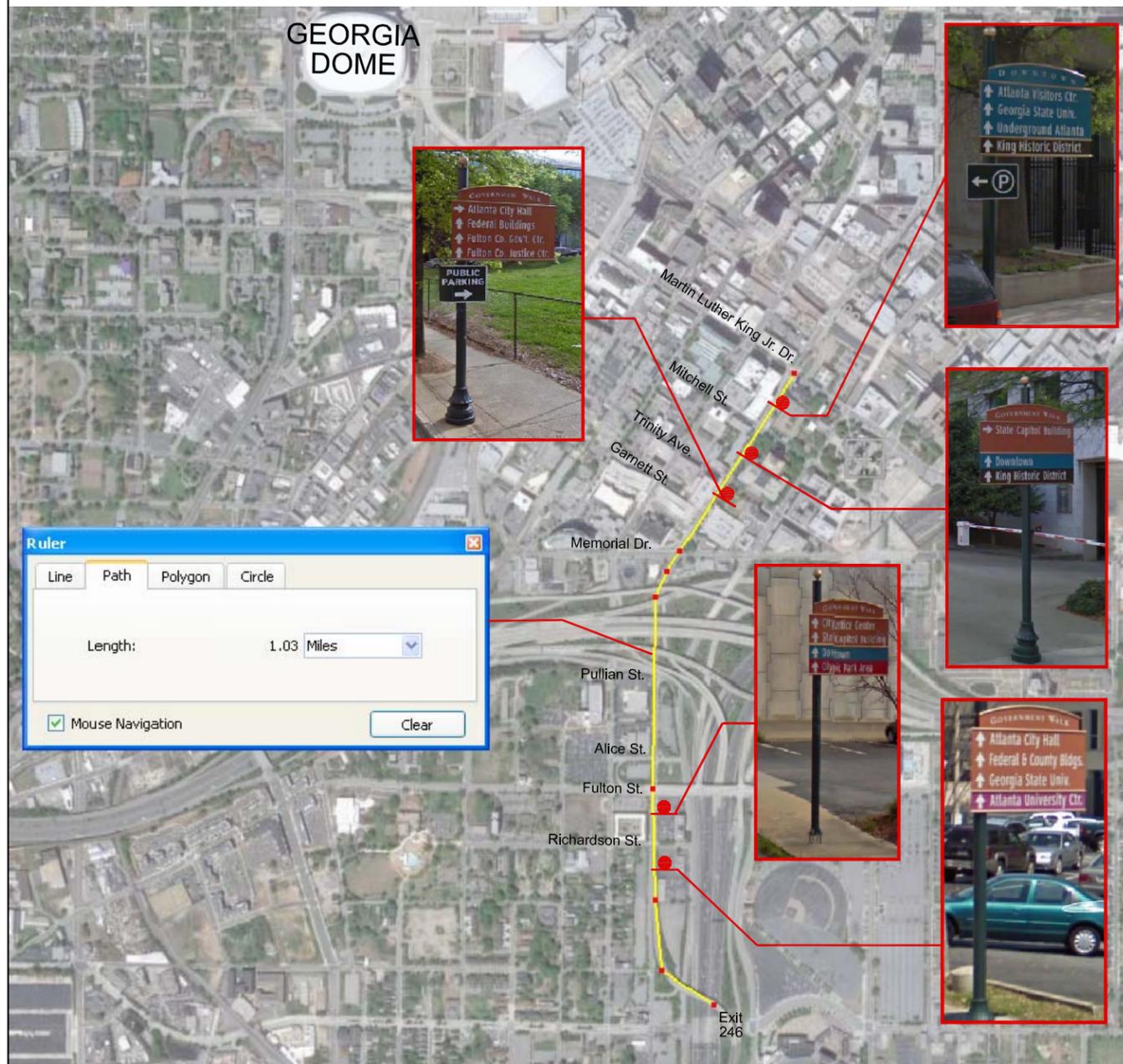
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FIG NO. 7-14

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## EXISTING CONDITIONS



## RECOMMENDATIONS



### Arrival Route Recommendations- Improvement #5

The following plan identifies improvements for the I-75/I-85 NB Exit 246 to Central Avenue.

#### Pre-Game Issue:

GWCCA Online Directions on I-75/I-85 NB to the Georgia Dome inform patrons to use Exit 246 to Central Avenue and continue to Martin Luther King Jr. Drive. After exiting, there is one mile until Martin Luther King Jr. Drive with eight intersections in between. Each intersection serves as a decision point where drivers need to decide which direction they should proceed. Currently, there are five local wayfinding signs within this one mile segment. As seen in the Existing Conditions Figure, none of these signs provide directions to the Georgia Dome.

#### Potential Solutions:

- 1) Temporarily, Variable Message Signs (VMS) can be used at key intersections to provide drivers information on their route choice. As seen in the Recommendations Figure, two VMS signs would help eliminate confusion on gameday.
- 2) Permanent Wayfinding Signage can be installed before each of the eight intersections to inform patrons which way to proceed.

-  Existing Wayfinding Signage
-  Proposed Variable Message Signage (VMS)



## TRANSPORTATION ASSESSMENT

### Arrival Route Recommendations Improvement #5

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FIG NO. 7-15

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## EXISTING CONDITIONS

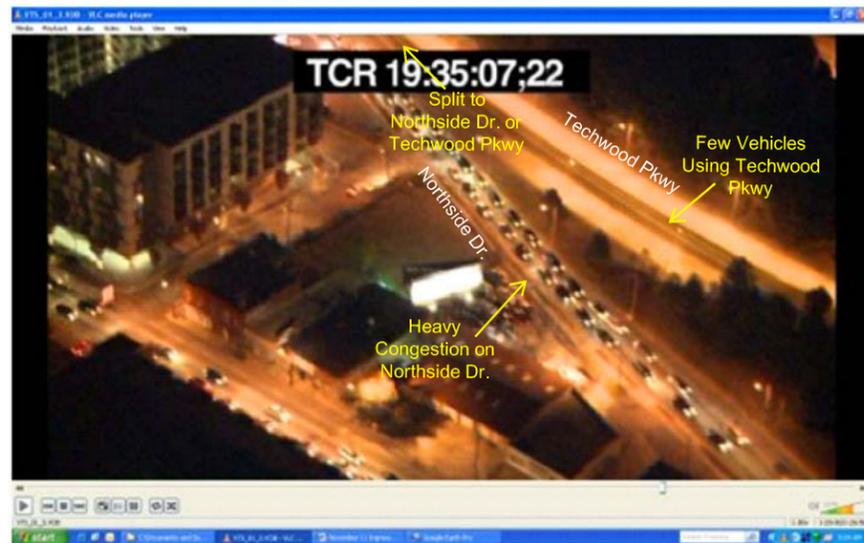


Figure 1. Vehicles traveling Southbound on Northside Drive have the option at the split to stay on Northside Drive or continue on Techwood Parkway. Almost all vehicles choose to stay on Northside Drive resulting in heavy congestion.

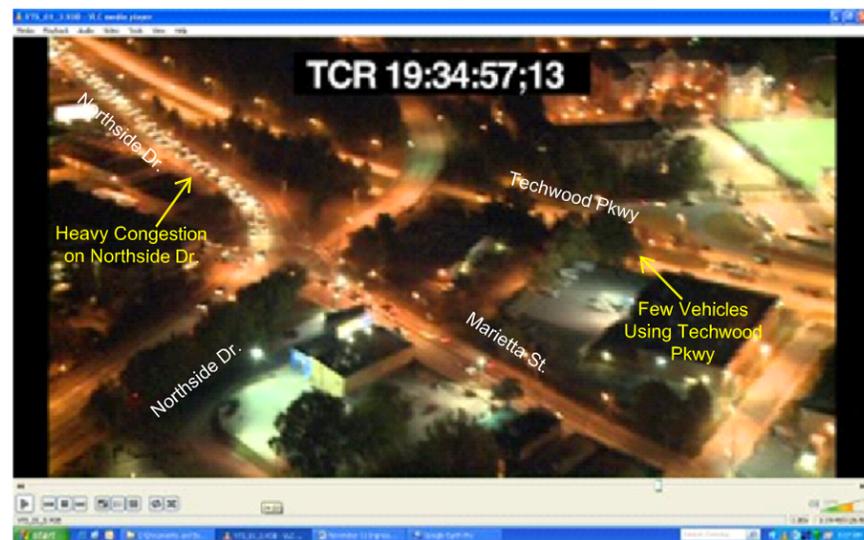
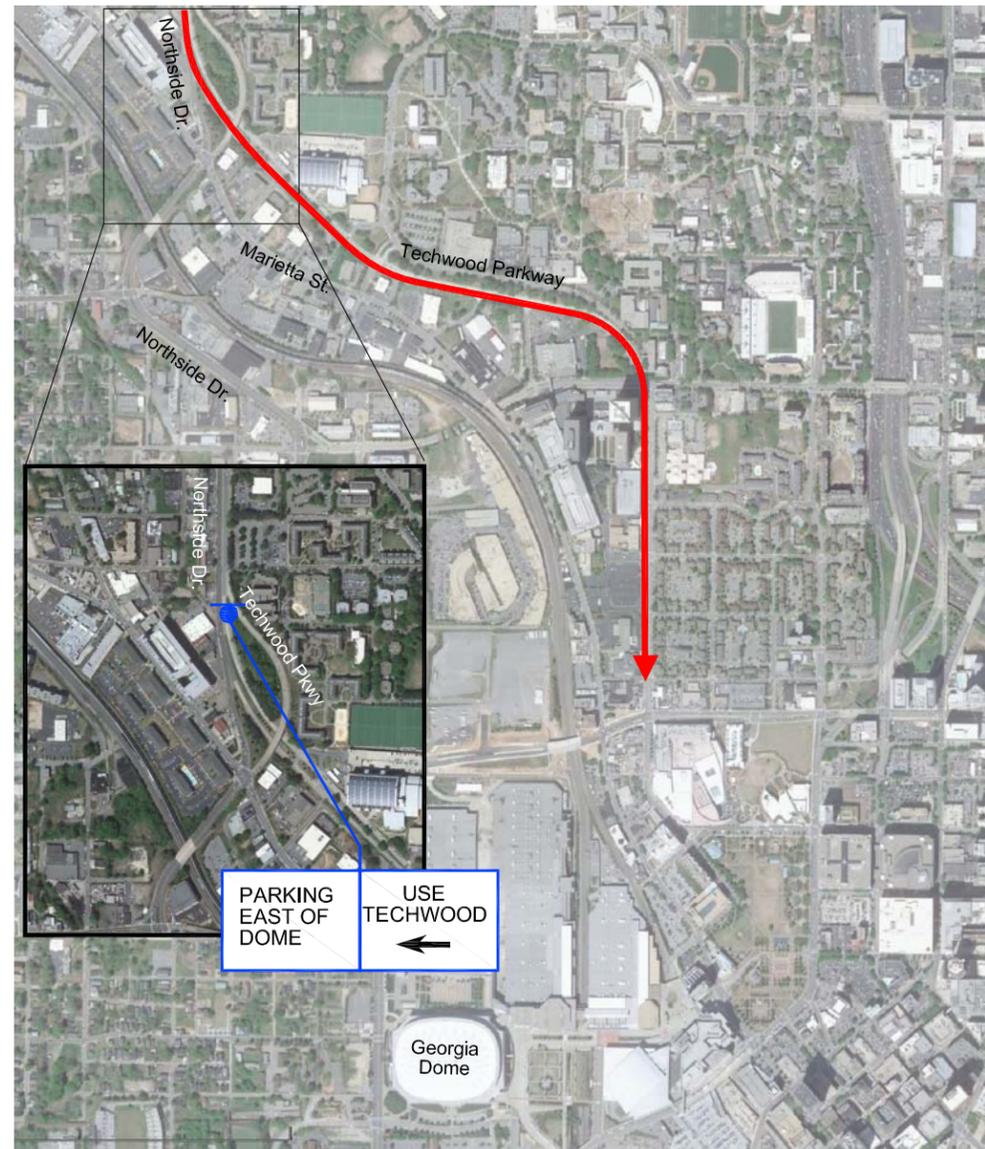


Figure 2. Northside Drive south of the split, remains congested while Techwood Parkway remained congestion-free during the ingress.

## RECOMMENDATIONS



### Arrival Route Recommendations- Improvement #6

The following plan identifies existing conditions and recommended improvements on Northside Drive Southbound during the ingress.

#### Pre-Game Issue:

During the November 11, 2010 game, more patrons chose to exit I-75 on the Northside Drive exit to avoid the I-75/I-85 Connector during PM rush hour. As a result, heavy traffic volumes were experienced on Northside Drive SB.

#### Potential Solutions:

- 1) Provide a Dynamic Message Sign (DMS) at the split of Northside Drive and Techwood Parkway to inform drivers they can access parking East of the Georgia Dome by using Techwood Parkway. This corridor is currently congestion-free during ingress, while Northside Drive traffic was bumper to bumper.
- 2) Ensure that the intersections along Northside Drive between I-75 and Ivan Allen Boulevard have police control that maximizes traffic flow in the southbound direction for ingress.

-  Recommended Alternative Route
-  Variable Message Sign (VMS)
-  Police



## TRANSPORTATION ASSESSMENT

### Arrival Route Recommendations Improvement #6

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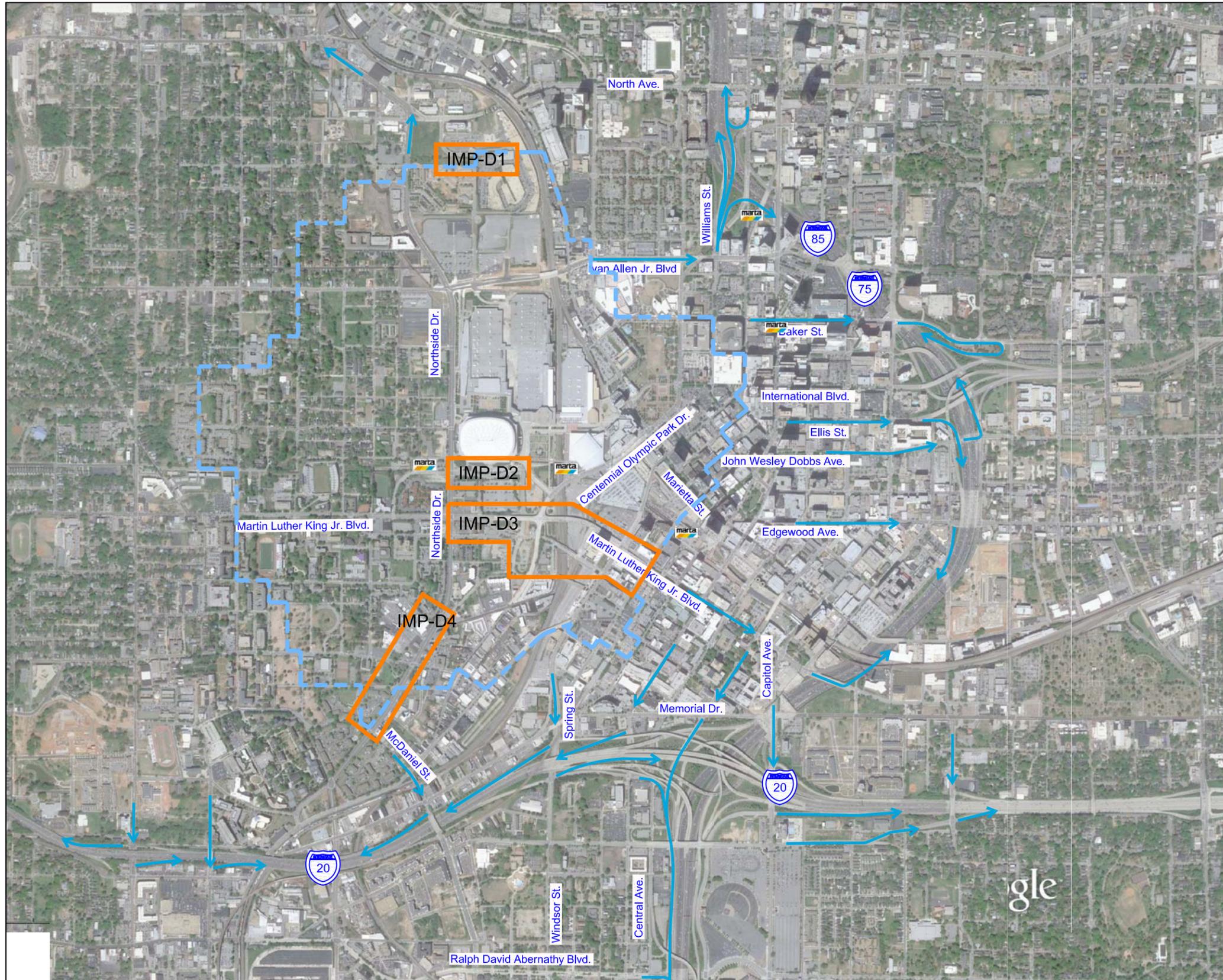


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FIG NO. 7-16

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- - - 20-Minute Walk Zone (Linear Feet)
- Departure Route
- Arrival Route Improvement Location

Departure Route Recommendations Key Plan

Four locations have been identified as areas where modifications can be made to improve gameday traffic for the departure period. These locations are described in detail on the following identified plans:

- IMP-D1: Complete the roadway segment on Grey St. that is missing from Kennedy St. to Northyard Blvd. adjacent to the Herndon Homes property. (See Figure 7-18)
- IMP-D2: Install signage on barrels on Georgia Dome Dr. so drivers know they can use the reversed lane of traffic. (See Figure 7-19)
- IMP-D3: Install permanent signage and striping and provide additional temporary traffic control devices (VMS, Cones, Signage on Barrels) to improve traffic flow to the interstate, primarily from the Mangum St. Lots after an event. (See Figure 7-20 & 7-21)
- IMP-D4: Provide a contraflow lane on Northside Drive from Chapel Street to McDaniel Street. (See Figure 7-22)



**TRANSPORTATION ASSESSMENT**

**Departure Route Recommendations Key Plan**

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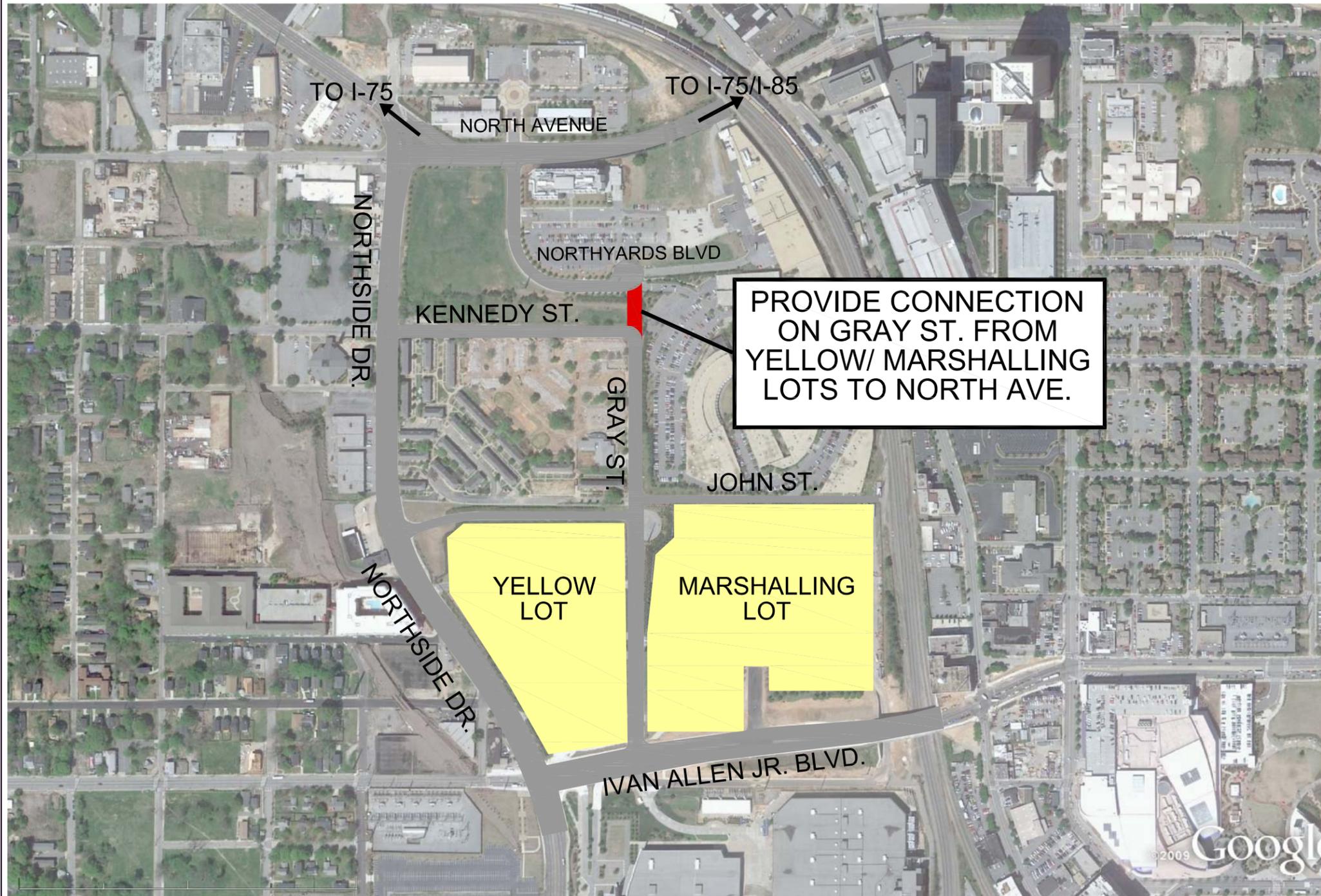
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FIG NO. 7-17

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# GRAY STREET EXTENSION



## Departure Route Recommendations- Improvement #1

The following plan identifies improvements for the departure from the Yellow Lot and Marshalling Lot to I-75 and I-85.

### Post-Game Issue:

The Yellow Lot and Marshalling Lot are located in close proximity to the I-75 and I-85 interchanges off of North Avenue. Without the connection on Gray Street between Kennedy Street and Northyards Boulevard, vehicles have to exit to Ivan Allen Jr. Boulevard or Northside Drive where there are existing queues from other lots.

### Proposed Solutions:

Create the connection on Gray Street between Kennedy Street and Northyards Boulevard. This will provide access to North Avenue for Yellow Lot (1262 Spaces) and Marshalling Lot (200 Spaces) patrons. If traffic volume on local streets is a concern, this connection can be gated so it can be closed during non-event periods.



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### Departure Route Recommendations Improvement #1

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FIG NO. 7-18

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-  Existing Roadway
-  Proposed Roadway

## EXISTING CONDITIONS

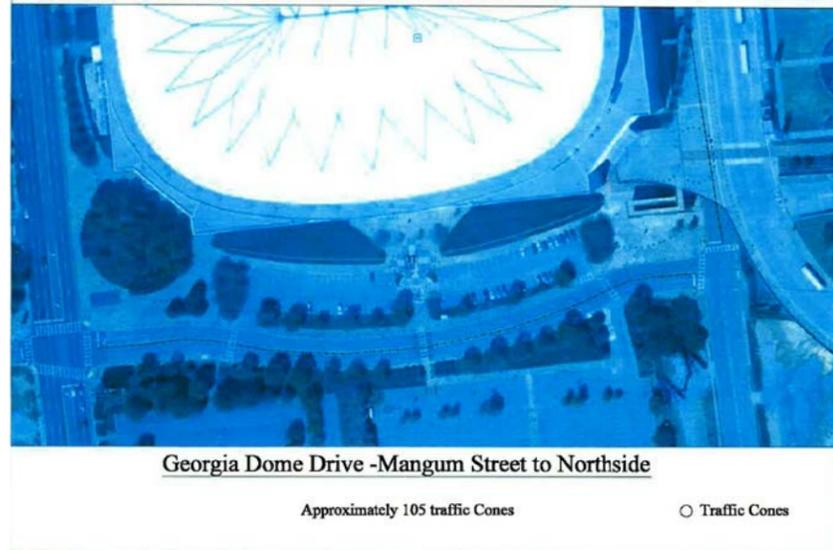


Figure 1. Cone Plan for Georgia Dome Drive for the 2010 NFL Season



Figure 2. Queues in Right Two Lanes of Georgia Dome Drive while no drivers use the reversed lane.

### Departure Route Recommendations- Improvement #2

The following plan identifies improvements for traffic flow on Georgia Dome Drive.

#### Post-Game Issue:

Georgia Dome Drive provides access from Silver Lot Parking driveways, as well as GWCCA and Entrepreneur parking Lots off Mangum Street (Red Deck, Orange Lot, Brown Lot). As a result of traffic demands, the GWCCA/Atlanta Falcons developed a cone plan to reverse one lane of traffic after an event as seen in Figure 1. Since patrons have to drive on the wrong side of the double yellow stripe to use this lane, very few choose to drive in the reversed lane as seen in Figure 2.

#### Potential Solutions:

- 1) Add signage mounted on barrels (See Figure 3 for sample) that inform drivers that all traffic can use the two westbound lanes on Georgia Dome Drive as well as the the eastbound lane that is coned off for westbound traffic.

## RECOMMENDATIONS

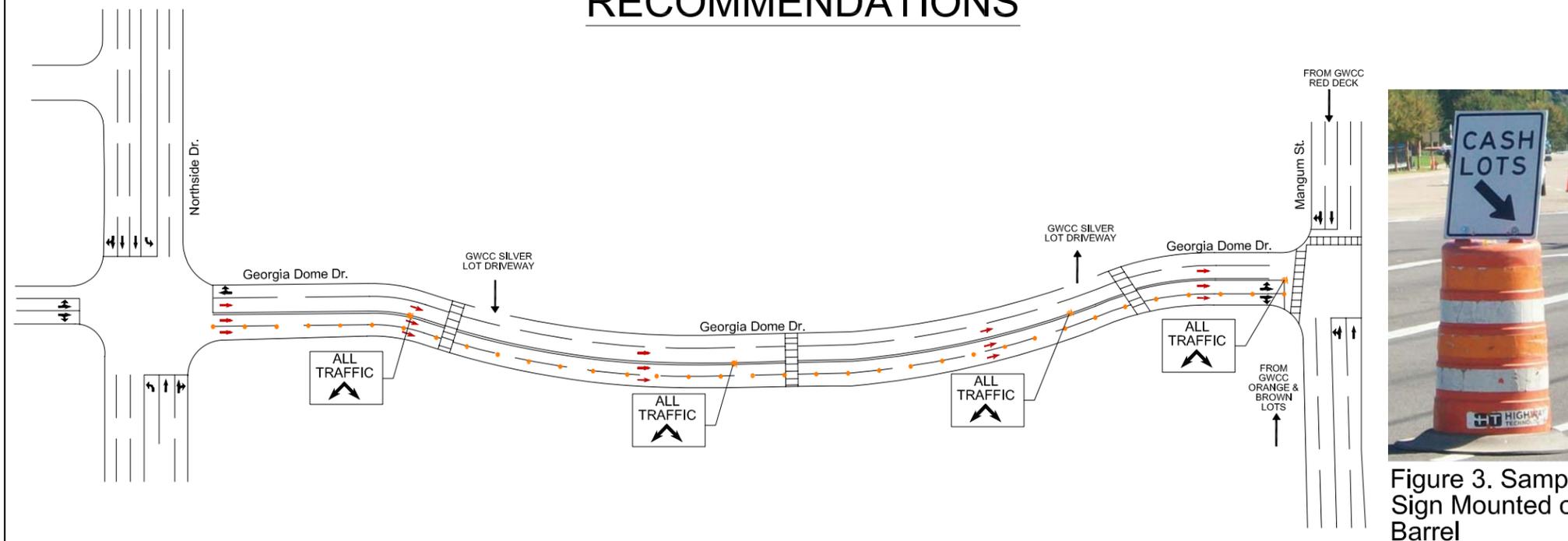


Figure 3. Sample Sign Mounted on Barrel

 Sign Mounted on Barrel



## TRANSPORTATION ASSESSMENT

### Departure Route Recommendations Improvement #2

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FIG NO. 7-19

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# EXISTING CONDITIONS



Figure 1. Queues form on Martin Luther King Jr. Drive and Techwood Drive.



Figure 2. Queues form on Martin Luther King Jr. Drive and Techwood Drive.

## Departure Route Recommendations- Improvement #3

The following plan identifies existing conditions for the departure to the interstate, primarily serving traffic from the Mangum Street lots. See Figure 7-21 for Recommendations.

### Post-Game Issue:

- 1) Martin Luther King Jr. (MLK) Drive consistently backs up from the intersection at Spring Street (See Figure 1), which is exacerbated by the closure of the Mitchell Street Bridge. MLK Drive is one-way westbound east of Spring Street, so motorists must turn right (two left turn lanes, one right turn lane)
- 2) On Mangum Street SB, a majority of vehicles want to turn left onto Chapel Street to access Techwood Drive to area freeways. When only one lane is allowed to turn left, long queues form on Mangum Street from all the the lots emptying onto limited capacity (See Figure 2).



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### Departure Route Recommendations Improvement #3

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FIG NO. 7-20

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# RECOMMENDATIONS

## Departure Route Recommendations- Improvement #3

The following plan identifies improvements for the departure to the interstate, primarily from Mangum Street lots. See Figure 7-20 for Existing Condition Figures.

### Post-Game Issue:

1) Martin Luther King Jr. (MLK) Drive consistently backs up from the intersection at Spring Street, which is exacerbated by the closure of the Mitchell Street Bridge. MLK Drive is one-way westbound east of Spring Street, so motorists must turn right (two left turn lanes, one right turn lane)

2) On Mangum Street SB, a majority of vehicles want to turn left onto Chapel Street to access Techwood Drive to area freeways. When only one lane is allowed to turn left, lone queues form from all the the lots emptying onto Mangum Street.

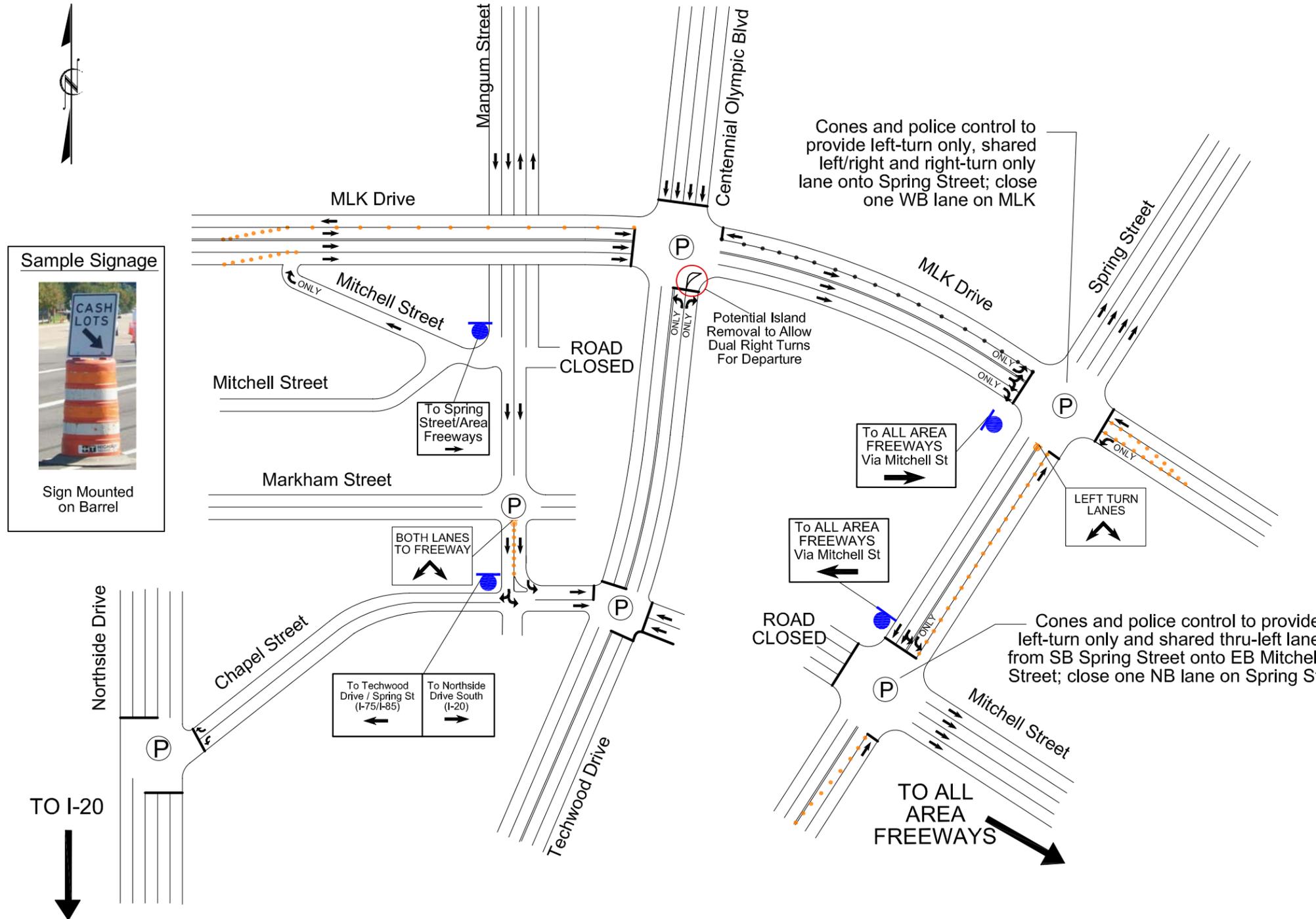
### Potential Solutions:

1) Allow vehicles on Mangum Street SB to turn Right onto Mitchell Street WB and add signage as shown. Add additional cones on MLK Drive West of Mangum Street to allow a free right turn for traffic from Mitchell Street onto MLK Drive.

2) Add cones on Mangum Street South of Markham Street to define the two roadway lanes. Add a barrel with signage at the beginning of the segment to instruct patrons they can use both lanes to turn left and access to the freeway. Allow two left turns onto Chapel Street and provide signage as shown.

3) Eliminate the porkchop island on Techwood Drive NB at MLK Drive and replace with striping to allow dual right turns onto MLK Drive.

4) Convert the inside Spring Street NB lane to SB between MLK Drive and Mitchell Street using cones and use this lane for an exclusive left turn lane onto Mitchell Street. Add cones and signage as shown.



- Proposed Cones
- Sign Mounted on Barrel
- Existing Gameday Cones
- T Permanent Static Signage
- P Police


**TRANSPORTATION ASSESSMENT**

## Departure Route Recommendations Improvement #3

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FIG NO. 7-21  
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# EXISTING CONDITIONS

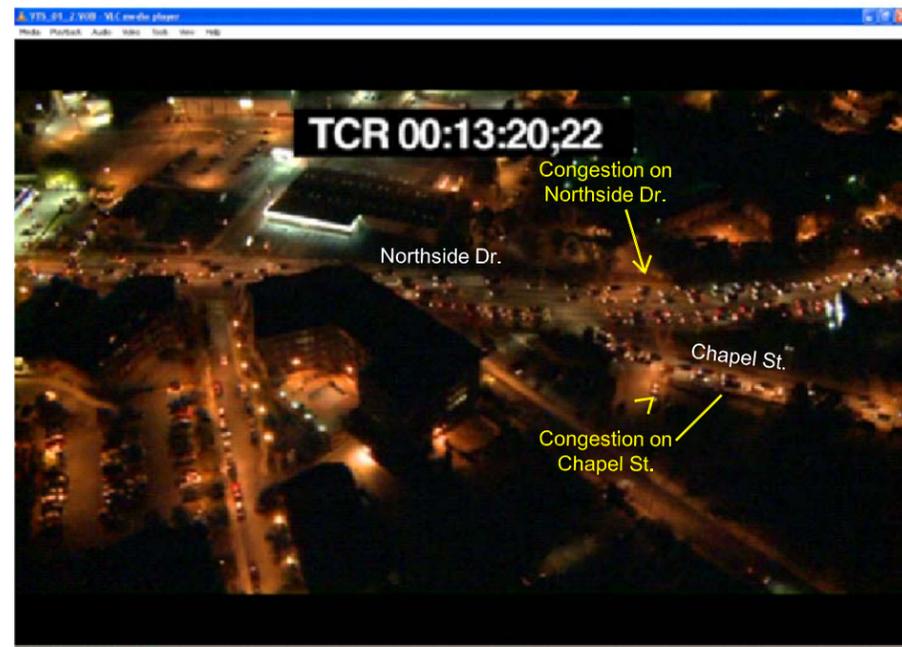


Figure 1. Traffic back-ups on Chapel Street and Northside Drive

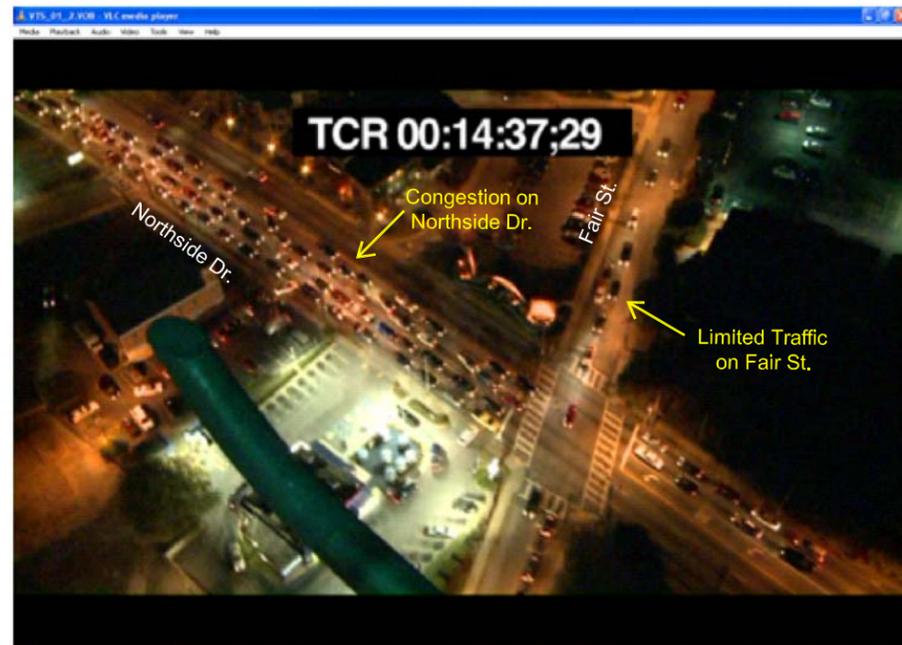
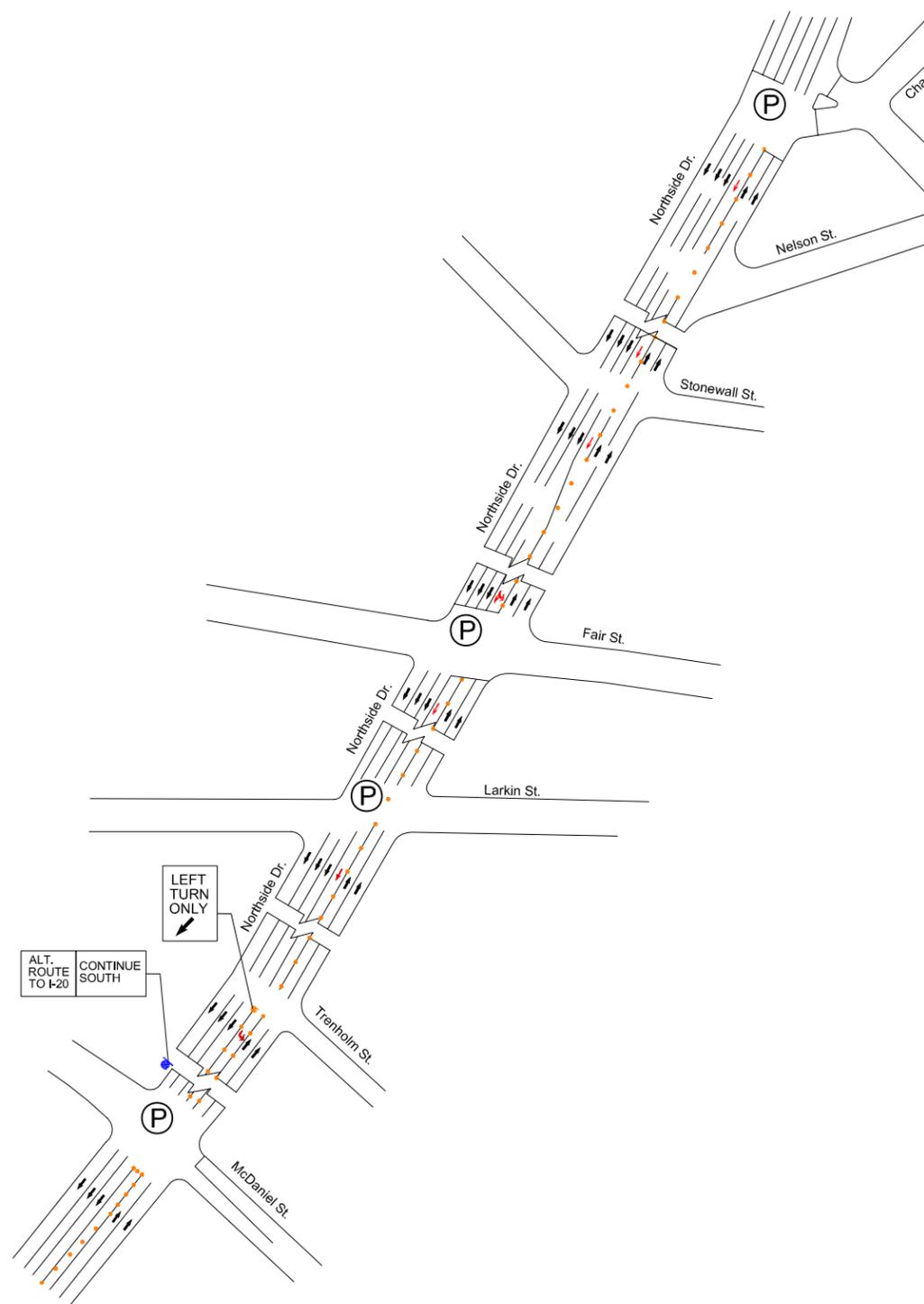


Figure 2. Traffic back-ups on Northside Drive at Fair Street. Officer in control gave too much time a relatively low volume on Fair Street.

# RECOMMENDATIONS



## Departure Route Recommendations- Improvement #4

The following plan identifies traffic congestion on Northside Drive during the departure on the November 11, 2010 Atlanta Falcons game and recommendations. Since this was a close game, everyone stayed until the end, and the full impact of egress with everyone leaving at once was observed.

### Post-Game Issue:

- 1) After the event, there was heavy Southbound traffic on Northside Drive from the Georgia Dome to I-20. As a result, traffic was backing up on side streets, particularly on Chapel Street, with vehicles exiting premium lots to the Mangum Street corridor.
- 2) Heavy left turn volumes from Northside Drive to McDaniel Street/I-20.

### Potential Solutions:

- 1) Ensure that the intersections along Northside Drive from the Georgia Dome to I-20 have police control that maximizes traffic flow in the southbound direction.
- 2) Consider providing a contraflow lane on southbound Northside Drive between Chapel Street and McDaniel Street (.35 miles), so there are four southbound lanes and 2 northbound lanes for the hour period after a major event. This would include using the center two-way-left-turn lane between Chapel Street and Stonewall Street, the left turn lane from Stonewall Street to Fair Street, and the northbound inside lane from Fair Street to McDaniel Street as the additional southbound lane.
- 3) Enhance signage on southbound Northside Drive to encourage vehicles going to I-20 to use alternative routes than the McDaniel Street ramps. Install a DMS sign at Northside Drive and McDaniel Street. Ensure existing highway signage to I-20 exists at the following locations:
  - Northside Drive SB at Chapel Street SW
  - Chapel Street SW @ Whitehall Street
  - Whitehall Street at Park Street
  - Whitehall Street at Oak Street
  - Oak Street at Lee Street



## TRANSPORTATION ASSESSMENT

### Departure Route Recommendations Improvement #4

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FIG NO. 7-22  
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-  Proposed Cones
-  Sign Mounted on Barrel
-  Existing Lane Configuration
-  Dynamic Message Signage
-  Police
-  Modified Lane Configuration

#### IV. Review of Gameday Transportation Operations with General Recommendations

##### Permanent Interstate Signage

###### Existing

When accessing the Georgia Dome from the interstate, brown Recreational and Cultural Interest Area signs are used to indicate what exit provides access to local attractions. Many of the signs for the Georgia Dome are blocked by overgrown trees and vegetation. Figure 7-23 shows a sample of the signage on both southbound I-75 northbound I-75/I-85.



Figure 7-23. Samples of Interstate Directional Signs Blocked by Vegetation

###### Recommendation

Review with the Georgia Department of Transportation to ensure trees are trimmed under a scheduled maintenance program. The gameday experience, and likelihood of fans to return, begins with their ability to access the venue with ease. Cleared vegetation will help ensure patrons can get from the interstate to the facility with ease.

##### Location and Spacing of Interstate Signage

###### Existing

On northbound I-75/I-85, the location and visibility of signage to the Georgia Dome is poor. Figure 7-24 shows the progression of exit signage beginning approximately one mile before Exit 246, the recommended exit for access to the Georgia Dome. The only sign that provides directions to the Georgia Dome is one mile prior to the exit.



Figure 7-24. Progression of Signage on I-75/I-85 Northbound to the Georgia Dome

**Recommendation**

As described previously, at a minimum, the vegetation blocking view of the brown Recreational and Cultural Interest Area sign (shown in Image 1 above) should be cleared to provide directions to the stadium. Additionally, consider replacement of the existing Recreational and Cultural Interest Area sign approximately 1/2 mile before Exit 246 (shown in Image 3 above); it could be modified to add the Georgia Dome as a destination. This sign is located closer to the exit, making it more reasonable that event patrons will notice the sign and exit. Lastly, consideration should be made to replacing the billboard (shown in Image 4 above) with a Dynamic Billboard. Dynamic Billboards, as seen in Figure 7-25, are programmable, so they can be updated with on-the-fly information related to event traffic and parking. During non-event hours, the billboard could be used for traffic advisories, traffic information for other venues and parking, and/or paid advertisements.



Figure 7-25. Dynamic Message Billboard

**Consistency of Wayfinding Signage**

**Existing**

When patrons are looking for wayfinding signage to direct them from the interstate to a venue, consistency in signage is extremely beneficial so that patrons know exactly what they are looking for and can associate the sign with the venue. As seen in Figure 7-26, signage for the Georgia Dome/GWCC/Olympic Park Area appears in many different forms throughout the Downtown Area.



**Figure 7-26. Inconsistency of Existing Wayfinding Signage in Downtown Atlanta**

**Recommendation**

Consideration should be given to conducting a study on Wayfinding Signage for the GWCC/Georgia Dome. This study could locate all existing signs and their design and determine the feasibility of implementing a unified Wayfinding Signage System.

**Controlled Parking****Existing**

The GWCCA controls 5,619 parking spaces and the Atlanta Falcons control 1,989 parking spaces. Combined, that is 7,608 parking spaces, which makes up only 43% of the event parking demand. As a result, many fans rely on Entrepreneur Parking Sources.

**Recommendation**

The GWCCA/Georgia Dome should consider game-day agreements with additional privately-controlled parking lots and garages. It is evident by the rate that the Yellow and Marshalling Lots fill (approximately two hours before each event), that patrons trust the lots operated by the GWCCA/Georgia Dome. Not only would controlling more parking spaces improve the gameday arrival and parking atmosphere for patrons, it would also provide an opportunity for the GWCCA/Georgia Dome to provide web directions to more spaces to take advantage of under-utilized roadway corridors.

**Employee Parking****Existing**

Currently, employee parking is provided in several GWCCA-Controlled Lots including the Red Deck, Orange Lot, Blue Lot, and Purple Lot. By allowing employees to park in these locations, premium parking spaces for VIP and Season Ticket Holders are being occupied.

**Recommendation**

Provide remote parking locations for event staff, with shuttle service if necessary. Event staff usually arrive five hours or more before kickoff to set-up for the event and leave after it has been cleaned up. Since these hours do not coincide with heavy traffic congestion around the site, shuttle routes would be a quick and efficient way to transport employees to the site.

**Web Directions****Existing**

Currently, parking and access to the Georgia Dome and GWCC can be found in two different places. First, GWCCA website provides the mapping tool described in the Arrival and Departure Routes section of the Existing Conditions Analysis. This site allows you to enter your address of origin and the GWCCA-Controlled Parking lot where you are parking. It uses a Google Maps Application that provides the shortest route to the visitor's parking destination.

Second, the Georgia Dome 'Driving Directions' page provides a bulleted summary of New Information for 2010, followed by links to maps with suggested inbound and outbound routes to and from parking areas, and then bulleted directions to the Georgia Dome.

**Recommendation**

The GWCCA-Controlled Map Application is not an effective tool for gameday traffic. With over 17,000 vehicles arriving in the downtown area for sell-out Falcons games, the shortest route in terms of overall distance will not be the shortest route in terms of travel time if everyone is instructed to use the same route. Consideration should be given to implementing a mapping tool that utilizes available capacity on the surrounding roadway network.

On the Georgia Dome 'Driving Directions' Page, innovative techniques, such as video clips, could be provided to demonstrate major changes to the Transportation Management Plan. When a long, bullet listed of changes is

provided, few people are going to read and understand the changes and be prepared for event traffic. At a minimum, the following modifications should be made to the bulleted list of driving directions:

- From I-85 south, the directions direct patrons to use Exit 249C; the option to use the HOV lane should be highlighted
- From I-20 west, the directions direct patrons to take Exit 58A to Spring-Windsor Street; the Spring-Windsor Street Exit number is listed wrong and should be changed to Exit 56B

One step more effective than modifying the existing directions page would be develop new access and parking material for the website. New material would allow the GWCC/Georgia Dome to categorize parking into two criteria, Pre-Paid Lots and Cash Transactions. Users of the system could select their criteria and then be provided with directions that were developed specifically for Georgia Dome events to take into account the congestion likely to be experienced on certain routes and to effectively route motorists from different origins to specific corridors and parking destinations. The Dallas Cowboys implemented this type of route management in 2009; [www.dallascowboysmaps.com](http://www.dallascowboysmaps.com) allows patrons to enter their zip code of origin and their parking lot, and as a result, get maps showing arrival routes, driveway entrances, and departure routes from their lot.

### **Publicizing Gameday Traffic and Modifications to the Existing Plan**

#### **Existing**

The Georgia Dome was constructed in 1991, so it has been home to the Atlanta Falcons for almost twenty years. As a result, patrons are familiar with the path they travel to “their” parking locations, making it difficult to implement change into the current system. Recognizing the need for traffic management improvements with the increase in automobile travel, the GWCCA/Atlanta Falcons have routinely made modifications to their Transportation Management Plan. A letter, signed by the Director of Public Safety, is provided to ticket holders explaining the traffic changes for the upcoming season.

#### **Recommendation**

Short, dynamic video clips (approximately 60 seconds or less) can be an extremely effective in gaining attention and sparking curiosity. If an enhanced directions and parking webpage was created for the GWCC/Georgia Dome, a video clip could be made and played during halftime or timeouts that encourages patrons to view the site and see the latest enhancements to the transportation management plan.

Additionally, social media has become one of the fastest growing techniques for advertising. On Facebook, the Atlanta Falcons page has over 13,500 fans that can be reached. By updating this page with video clips related to transportation, it could reach thousands of event attendees. In addition to relaying long-term changes, an alternative social media application is using a Twitter account to relay real-time traffic information to fans. For example, when staff members monitoring the cameras in the Stadium Control center recognize that the I-75/I-85 off-ramp is beginning to back up and the HOV exit is empty they could tweet, “I-75/I-85 ramp to Williams Street congested; use left HOV exit ramp for faster stadium access” or when the Yellow Lot is full, they could tweet what other lots have availability and the best way to access them. This would reduce the number of patrons that have to wait in traffic to get to the Yellow Lot, realize it is full, and then wait in additional traffic to find an alternative parking location. An invitation to join the “GWCCA Traffic” Twitter could be posted on the parking website and Facebook or included in information when patrons purchase tickets.

**Police Staffing**

**Existing**

Currently, the Atlanta Falcons utilize 89 officers for NFL Games at the Georgia Dome. They maintain a ‘Traffic Post Priority List’ in case they are short officers and need to know which posts should be filled first. It is unknown what protocol is in place to ensure officers arrive and remain at each post. During events attended this season, there were multiple instances where traffic officers were not in the correct place or not stationed at critical intersections (See Figure 7-27). Image 1 shows an instance where no officers were present at Northside Drive and North Avenue during the egress causing northbound traffic to back up on Northside Drive. On the ‘Priority List’ this is #44, meaning 8 other officers would have not showed up for this post to be unmanned. In another instance, during an arrival period, more officers were in an intersection than assigned (see Image 2 below). Less than one hour prior to kick-off, up to seven officers were counted at the intersection of MLK Jr. Boulevard and Centennial Olympic Park, when only two were assigned to this post.



**Figure 7-27. Police Staffing**

**Recommendation**

There are five Traffic Supervisors on the police force, each with a specific region to control. Each of these supervisors should perform a check to make sure officers are at their post at the specified time. On Northside Drive, where communication between officers is critical to prevent congestion at adjacent intersections, the supervisors should work with staff to develop a plan that improves traffic flow on the corridor as a whole opposed to a single intersection.