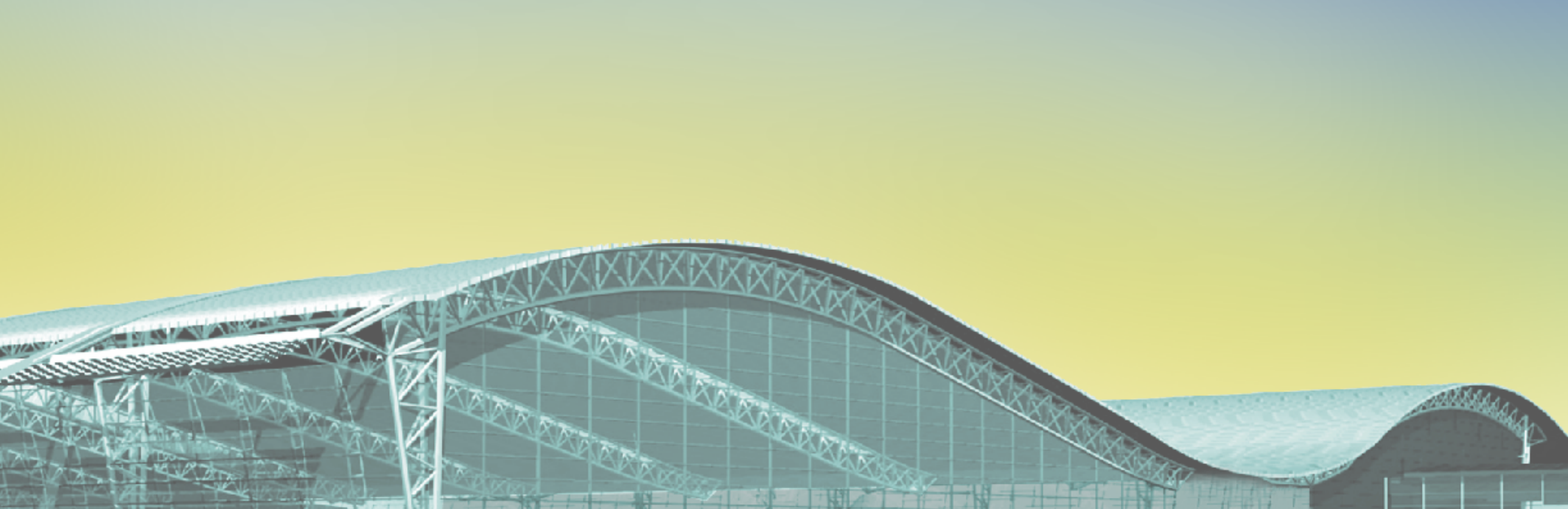
INDIANAPOLIS INTERNATIONAL AIRPORT
MIDFIELD TERMINAL PROJECT DEFINITION

Indianapolis Airport Authority

Executive Summary

AUGUST 2001



I. ACKNOWLEDGEMENTS

The Project Definition for the Midfield Terminal for the Indianapolis International Airport is the result of a collective effort on the part of many professionals. URS is proud to be a member of the consulting team and to take a leading role on this important project. The consulting team members and their roles on the Midfield Terminal Project Definition Phase are listed below. Each deserves special recognition for the significant contribution of their participating staff.

BAA Indianapolis (BAAI)	Operations Oversight
Blackburn BSA LLC	IAA Owner's Representative
Leigh Fisher Associates (LFA)	Financial and Terminal Planning Advisor to IAA
URS Greiner Woodward Clyde (URS)	Terminal Area Complex Programming, Planning, and Design
MD Wessler and Associates	Drainage, Utilities, and De-Icing Controls
Walker Parking Consultants	Parking Facilities
RTM	Life Safety
Horton Lees Lighting Design	Lighting
Jon Bentz Design	Way Finding/Signage
U.S. Cost	Cost Estimating
Lea + Elliot	Automated People Mover
BNP Associates , Inc.	Automated Baggage Handling System
R.W. Armstrong and Associates	Environmental Management
Keramida Environmental	Environmental Site Assessment
Sverdrup Aviation/Argus	Hydrant Fueling
Parsons Brinckerhoff	Off-Airport Roads
Hanscomb Inc.	IAA Cost Estimating
BAA USA	Commercial/Concessions
BAA plc	Security & Airport Management Systems

TABLE OF CONTENTS

II. INTRODUCTION

Airport terminals, along with airside and landside infrastructure and support facilities, experience continuous pressures to meet demands resulting from growth in passenger travel and cargo activities, airline changes and consolidations, technology advances, and air safety regulations. Travelers and other airport users expect more amenities and higher levels of service and convenience within aesthetically pleasing, increasingly user-friendly facilities.

Indianapolis International Airport is facing similar challenges. In 2000, the total number of passenger enplanements at the Airport was approximately 3,874,622. The aviation forecast for year 2010 anticipates a potential 40% increase over 2000 and the forecast for year 2020 reflects a 80% increase over 2000. Such growth will require a major expansion of the terminal, as well as all support operations and facilities.

Construction on the existing terminal building began in 1957. Over the years and through many expansions and renovations, it has served the community well. However, its capacity to expand and adapt to the needs of 21st century air transportation are limited. There are major operational and functional problems that must be addressed in order to accommodate the current and future aviation demands:

- The congested access from the I-465/Aiport Expressway intersection.
- The traffic conflicts on High School Road.
- The high levels of congestion in the passenger drop-off/pick-up terminal drives.
- Space for future increase in parking demand.
- The need to improve passenger services and amenities.
- The requirement to address FAA mandated security guidelines, now and in the future.
- The need to install a modern baggage handling system and provide for future hold bag screening.
- The need to increase the flexibility in the utilization of the terminal.
- The need to expand the facility to accommodate future growth forecast.
- The need to provide better access to Federal Express and other tenants in the southeast quadrant of the airport.

The IAA Board has, therefore, initiated a four-phase program to answer the question of how the various needs of a 21st century airport can be accommodated in Indianapolis. The four phases are:

- Terminal Area Master Plan --- Completed
- Peer Review Process --- Completed
- Project Definition --- Subject of this Report
- Design and Construction

Terminal Area Master Plan

In 1997, the Indianapolis Airport Authority (IAA) engaged the firm of HNTB to prepare a "Terminal Master Plan Update" for Indianapolis International Airport. The primary purpose of that report was to compare the relative merits of continuing to expand the existing passenger terminal complex at the Airport with an alternative terminal development program based on the construction of a new "Midfield Terminal" located on the site reserved on the Airport.

The Terminal Master Plan documented the general feasibility of constructing a new Midfield Terminal as the next major phase of expansion of passenger terminal facilities at the Airport. The Terminal Master Plan included a sizable expansion of the existing terminal and parking facilities, as well as two Alternative Concepts for a new Midfield Terminal layout. These two concepts are:

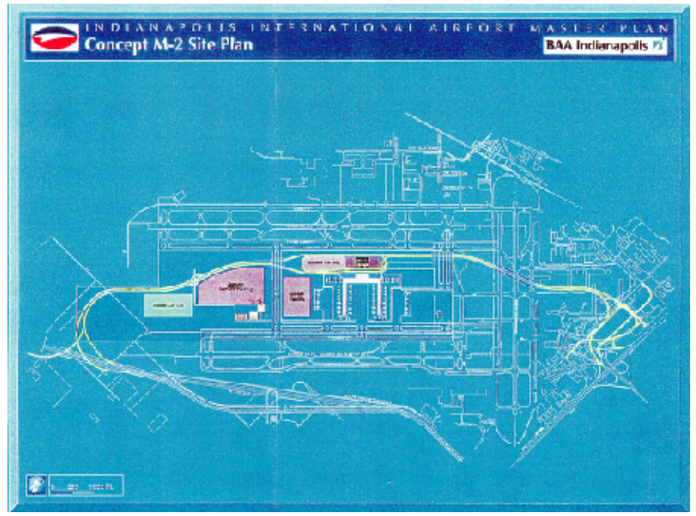
- Attached Concourse Terminal Concept M2-A
- Detached Concourse Terminal Concept M5-A

Peer Review of Midfield Terminal Development

In 1998, the IAA engaged a group of professional firms, under the leadership of R.W. Armstrong and Associates, to prepare an independent "Peer Review" report reviewing and critiquing the Terminal Master Plan Update.

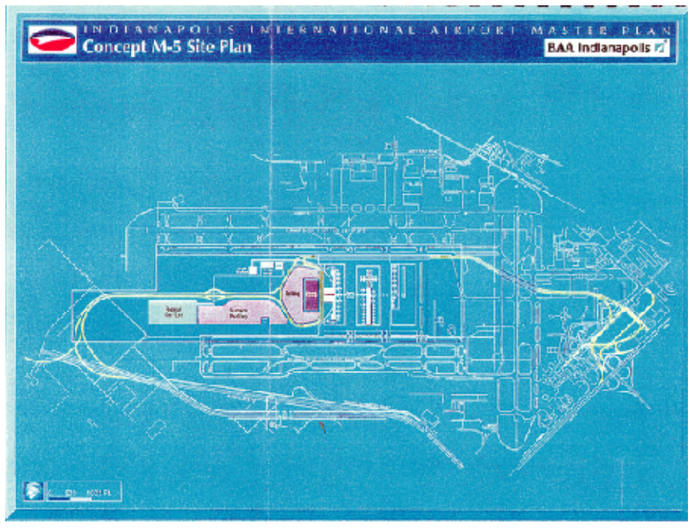
On the basis of this review, the IAA Board concluded that the concept of a Midfield Terminal was the preferred solution to future growth for the Indianapolis International Airport. Before continuing further, the Board felt that the Midfield Terminal should be developed in sufficient detail to enable a reliable project cost estimate and a comprehensive evaluation of the Alternative Concepts.

The IAA, in consultation with the airlines, then authorized the Project Definition phase.



Concept Plan M-2

Concept Plan M-5



III. PROJECT DEFINITION

The Project Definition for the Midfield Terminal for Indianapolis International Airport started in late August 1999. URS Greiner Woodward Clyde (URS) was selected as the primary terminal planning consultant, and a team of specialty consultants was retained to provide support to the terminal planning consultant.

Objectives

The IAA established three primary objectives for the Project Definition of the Midfield Terminal.

First objective: Select a Midfield Terminal concept by developing and evaluating alternatives to the attached and detached concepts illustrated in the Terminal Master Plan Update.

Second objective: Prepare a Project Definition Manual (PDM) for the selected concept that would define in detail the Midfield Terminal complex through programming, physical plan drawings, and guide specifications. The PDM would enable the preparation of a detailed and reliable cost estimate and would serve as the basis for the subsequent Design and Construction phase.

Third objective: It is the desire of the Indianapolis Airport Authority to seize every opportunity to develop the Midfield Terminal in the most environmentally friendly way.

Starting Point

The two alternative concepts from the 1997 Terminal Master Plan and the aviation forecasts developed by Leigh Fisher Associates serve as the starting point for the Project Definition phase.

The Attached Concourse Terminal Concept M2 is similar to the existing terminal wherein ticketing and baggage claim components of the terminal are directly attached to the gate concourses. This arrangement is common to "origination and destination" airports, such as Indianapolis.

The Detached Concourse Terminal Concept M5 is seen most frequently at airline hub airports, such as Atlanta and Denver. In this arrangement, the gate concourses are separated from the other terminal facilities. Connection between the two (and between concourses) is usually achieved by an underground Automated People Mover (APM) system.

Aviation forecasts for year 2010 and year 2020 were prepared for the Project Definition by Leigh Fisher Associates in close collaboration with BAA. These included a flight schedule for aircraft departures and arrivals, an aircraft mix, and the number of required aircraft positions.

III. PROJECT DEFINITION

Process of Work - Phase One

Work on Phase One of the Project Definition began with collection and review of project background data and a series of interviews and coordination meetings with BAAI management and staff, IAA representatives, and specialty consultants.

Initial work included a thorough review of anticipated passenger forecast flows, acceptable processing rates (at ticket counters, security check points, gates, baggage claim, etc.), levels of service, design dimensions and design criteria for all passenger processing functions, aircraft movements and gate allocation, and vehicle circulation and dwell time at the arrival and departure curbs. The development of key levels of service and other planning factors was an ongoing activity throughout the process, to assure that the capacity of each of the components of the terminal was in balance with the capacities and flow rates of other components with which they interact.

Concurrently, alternative layouts for each of the attached and detached concepts were introduced, reviewed, and evaluated. Consideration was made for all of the airport functions and systems that influence the physical configuration of the terminal area complex in terms of efficiency, flexibility, expandability, convenience, and safety. These included the baggage handling system, automated people mover, terminal drives, aprons and taxiways, airline operations, concessions, and parking. From these multiple alternatives, one attached and one detached concept were selected for further development and definition.

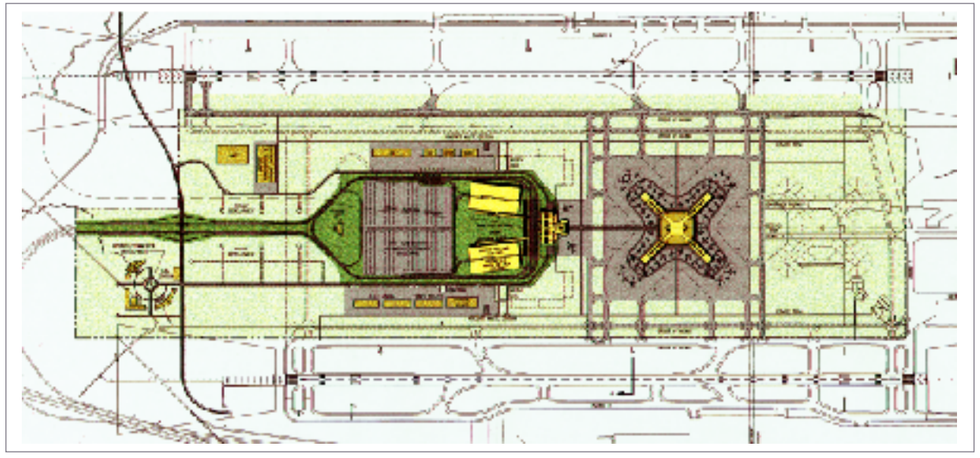
At the conclusion of Phase One, each alternative was evaluated based on the stated objectives and criteria established by the project team. During the evaluation process, the drawings and design criteria for the two alternatives were given to two independent cost estimating consultants.

As can be seen on the evaluation summary, the Attached Concourse Terminal concept was deemed to be superior. That option was also estimated to be $178,000,000 less expensive than the Detached Concourse Terminal concept. This cost difference is primarily attributable to the automated people mover system, which is required by the detached scheme.

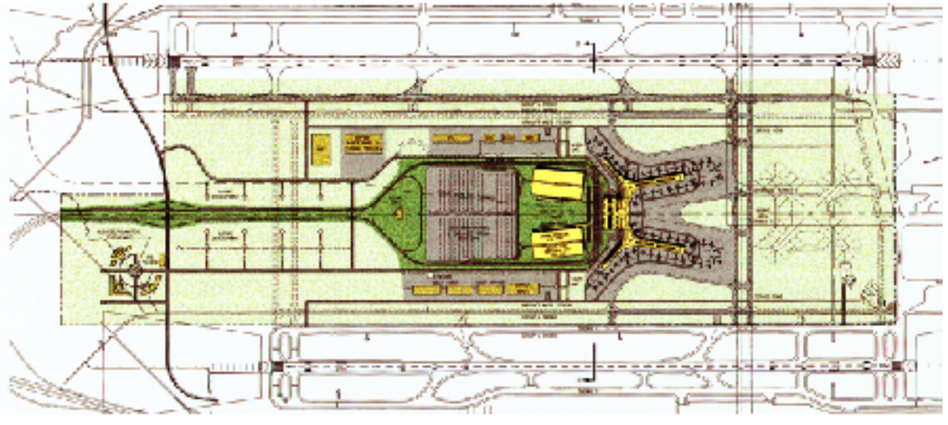
The choice was clear. The Attached Concourse Terminal concept was selected for further development in Phase Two.

RATING LEGEND	
+	Clear Advantage
o	No Clear Advantage
-	Clear Disadvantage

EVALUATION SUMMARY	M-2	M-5
The Indianapolis International Airport must be a World Class Gateway for Indianapolis and its Region.		
It must guarantee optimum first and last impressions to visitors.	+	o
It must accommodate all forms of inter-modal transportation.	o	o
It must offer the maximum utilization of the available airfield and airspace.	+	+
It must enhance future growth in both passenger and cargo service.	+	o
The Indianapolis International Airport must provide a Safe and Secure Complex for passengers, business partners, airport workforce and visitors.		
It must accommodate all FAA security requirements and regulations.	+	+
It must allow high security bag screening to be integrated in the future.	+	+
It must allow totally unobstructed fire/rescue service access during construction and renovation.	+	+
The Indianapolis International Airport must enable High Quality Customer Service.		
It must be efficient for our Business Passengers.	+	o
It must be enjoyable for our Leisure Passengers.	+	o
It must allow our Airline Partners to operate more efficiently.	+	+
It must present profitable opportunities for our Concession Partners.	+	+
The Indianapolis International Airport must be a Cost-Effective operation.		
It must satisfy the airline customers while maximizing non-airline revenue opportunities.	+	o
It must minimize ongoing operating and maintenance costs.	+	o
It must offer improved aircraft flight operations and ground operations for air carriers.	o	+
It must allow future expansion of all airport facilities without operational disruption or congestion.	+	o
The Indianapolis International Airport must allow integration of New Technology and New Methodologies.		
It must allow utilization of preferential use equipment.	+	+
It must allow integration of modern security equipment.	+	+
It must accommodate streamlined ticketing/check-in processes.	+	+
The Indianapolis International Airport must be Environmentally Proactive.		
It must reduce aircraft circulation and taxi time.	o	+
It must reduce ground vehicle and fuel truck movements.	+	o
It must encourage use of environmentally compatible flight patterns.	+	+
It must minimize average driving/waiting/parking time.	+	+
The Indianapolis International Airport must enjoy the Support and Trust of the Community.		
It must assure the optimum allocation of future capital investments.	+	+
It must serve the community effectively for the next thirty to fifty years.	+	o
It must be the logical solution.	+	-



Detached Concept



Attached Concept

III. PROJECT DEFINITION

Process of Work - Phase Two

Refinement of programming elements and design criteria continued through Phase Two. All facilities were programmed as to their size, requirements, and relationship to other facilities. Information for each facility was recorded on a detailed spreadsheet, where it was tracked and updated. The facility locations were determined based on functional requirements and IAA/BAAI management preferences.

The physical planning effort also continued in Phase Two. This involved further exploration of the requirements and interrelationships between the many components of the terminal area complex.

Throughout the work process in Phase Two, regular consultation meetings with airline representatives were held. Terminal area and terminal building plans were reviewed in detail. Modifications in response to airline facilities requirements, comments, and concerns were addressed and incorporated to the greatest extent possible.

During this phase, the signatory airlines appointed Aviation Constructors Inc. (ACI) as their project representative to facilitate airlines technical input to the project.

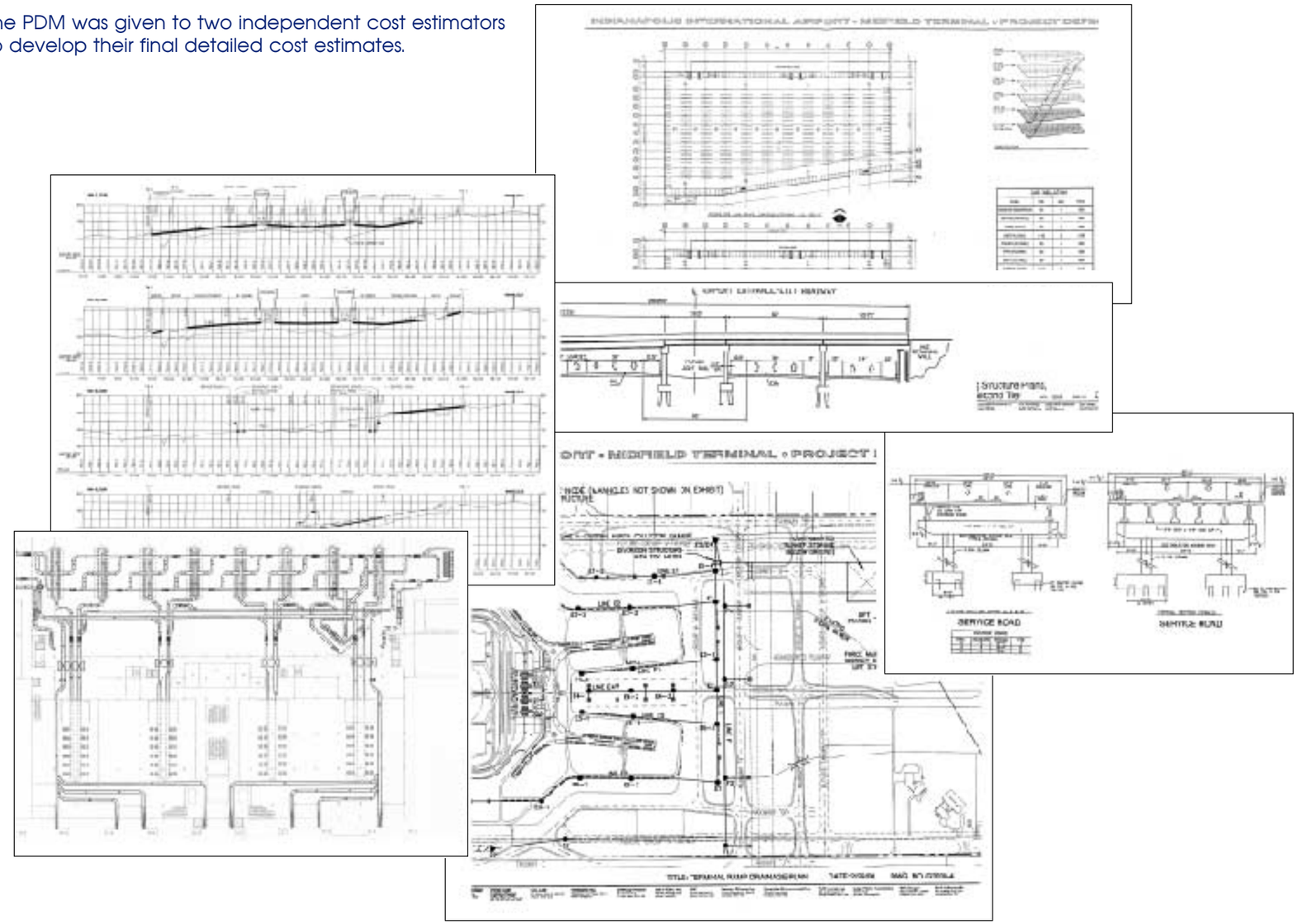
Terminal building plans and sections were developed and refined in full consideration and coordination with the requirements of all building systems, including baggage handling equipment and mechanical, electrical, and communication systems. Further definition was given to the concession areas, administrative and support offices, vertical circulation (escalators, elevators, stairs), building services, loading docks, security checkpoints, signage and way finding, as well as for culture exhibits and art work display.

The terminal area land use plan anticipates development of other facilities by "third party" tenants on the midfield site, such as hotels, postal service, maintenance hangars, gas station, and aviation-related businesses.

The terminal building, site development, and support facilities are all planned to accommodate future growth.

The end result of Phase Two is the Project Definition Manual (PDM), which includes the programming documentation, design criteria, and drawings that describe the scope and quality of all components of the Midfield Terminal complex.

The PDM was given to two independent cost estimators to develop their final detailed cost estimates.



III. PROJECT DEFINITION

Process of Work - Phase Three

Phase three focused on Optimization of the Midfield Terminal Project. Several refinements were made to the initial concept, as additional information became available following the completion of phase two. In addition, some changes were made to delineate the scope for the targeted opening date:

- The concourse lengths was shortened to reflect the official airline forecast fleet mix. During the previous phase, the concourses had been sized to accept a theoretical aircraft fleet to determine the potential capacity of the Midfield Terminal to accept a wide range of large aircraft.
- FAA finalized thelocation and size of the new Air Traffic Control Tower. The tower location and the large security zone around it caused the revisions of few primary facilities, as follows utility network and the central parking area was revised and simplified.
- The on- Airport roadway, utility network and the surface parking were revised to accommodate the new tower location.
- The Midfield Terminal Area Master Plan for future airside development was also adjusted to reflect the impact of the new location of the tower.
- The initial concept had included two parking structures flanking the initial tower location. This was replaced with a single parking structure and connecting walkway to the terminal .
- New options for the airport hotel and the rental car operations were developed in relation to the new parking structure concept.
- Provisions for a future Light Rail Terminal station were incorporated in the new parking structure.

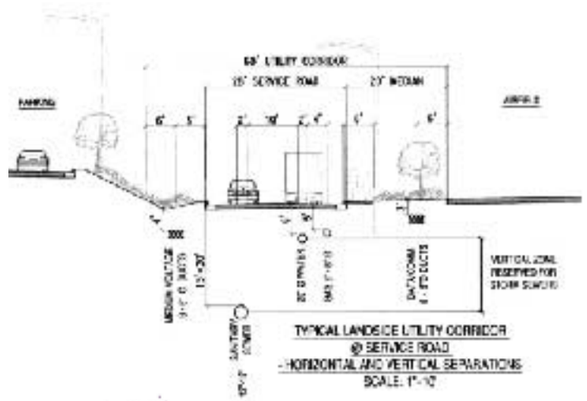
The Airline Technical Committee members joined with the key members of the consulting team to review all aspects of the proposed Midfield Terminal Project to assure that best practices had been considered and that the maximum efficiency had been achieved in all components of the terminal area Some additional refinements were also made:

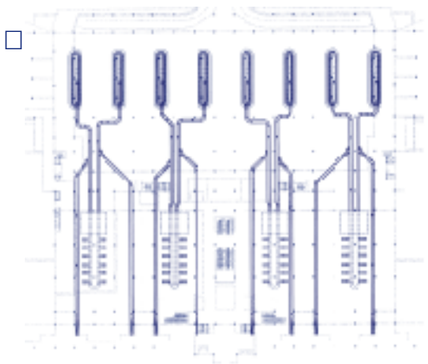
- The parking capacity was updated to reflect the targeted opening date.
- The initial concept had included a fully automated outbound baggage sortation system to address the pending FAA mandate to implement 100% hold baggage screening. A simplified point-to-point outbound system will be implemented pending a clear direction on security screening from the FAA.
- Point of Use systems for 400 Hz and Pre-Conditioned Air Systems were adopted in lieu of a central system.
- Allowances for the airline tenant areas were refined.

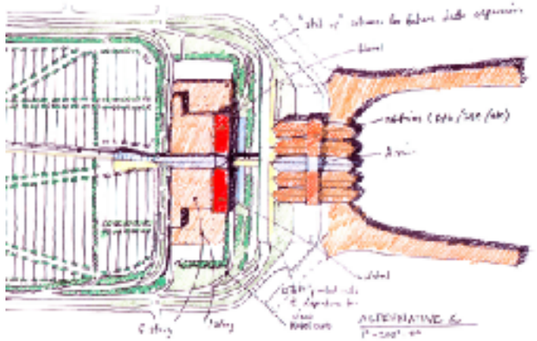
Other work occurring during this phase included:

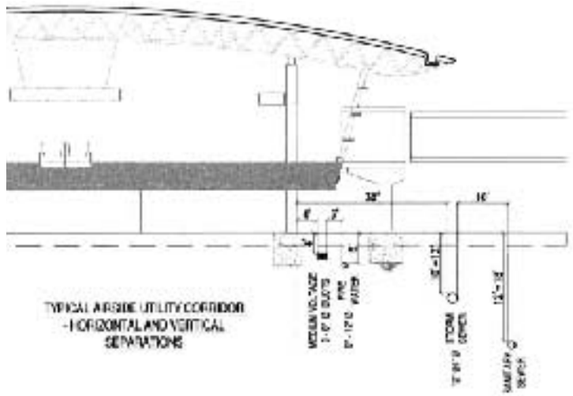
- The submittal of the Supplemental Environmental Impact Statement by Landrum & Brown.
- The Storm Water Master Plan was updated.
- The Project Management Organization was developed.
- The development of the Project Schedule and time-weighted budgets for use in financing projections and the Ten Year Capital Improvement Plan.

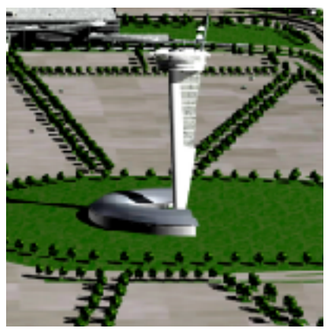
The Optimization Process resulted in significant cost reductions while the overall concept maintained its integrity and ability to expand to meet future growth. The Midfield Terminal Project Concept then became the basis for a successful conclusion to the negotiations with the Airlines.

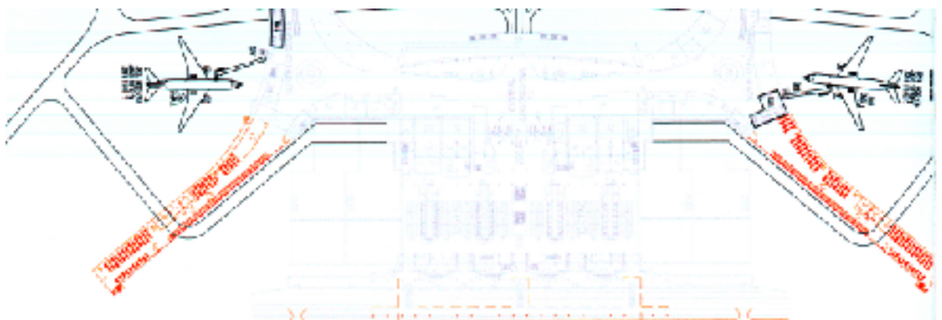


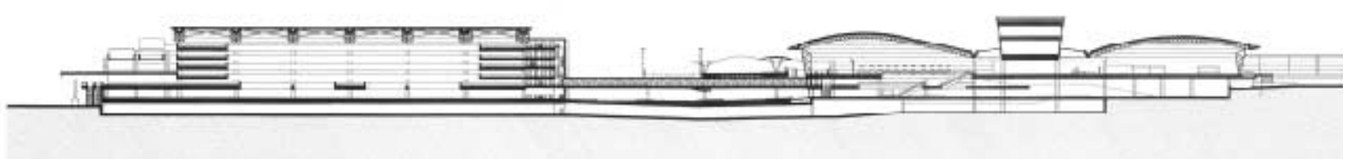




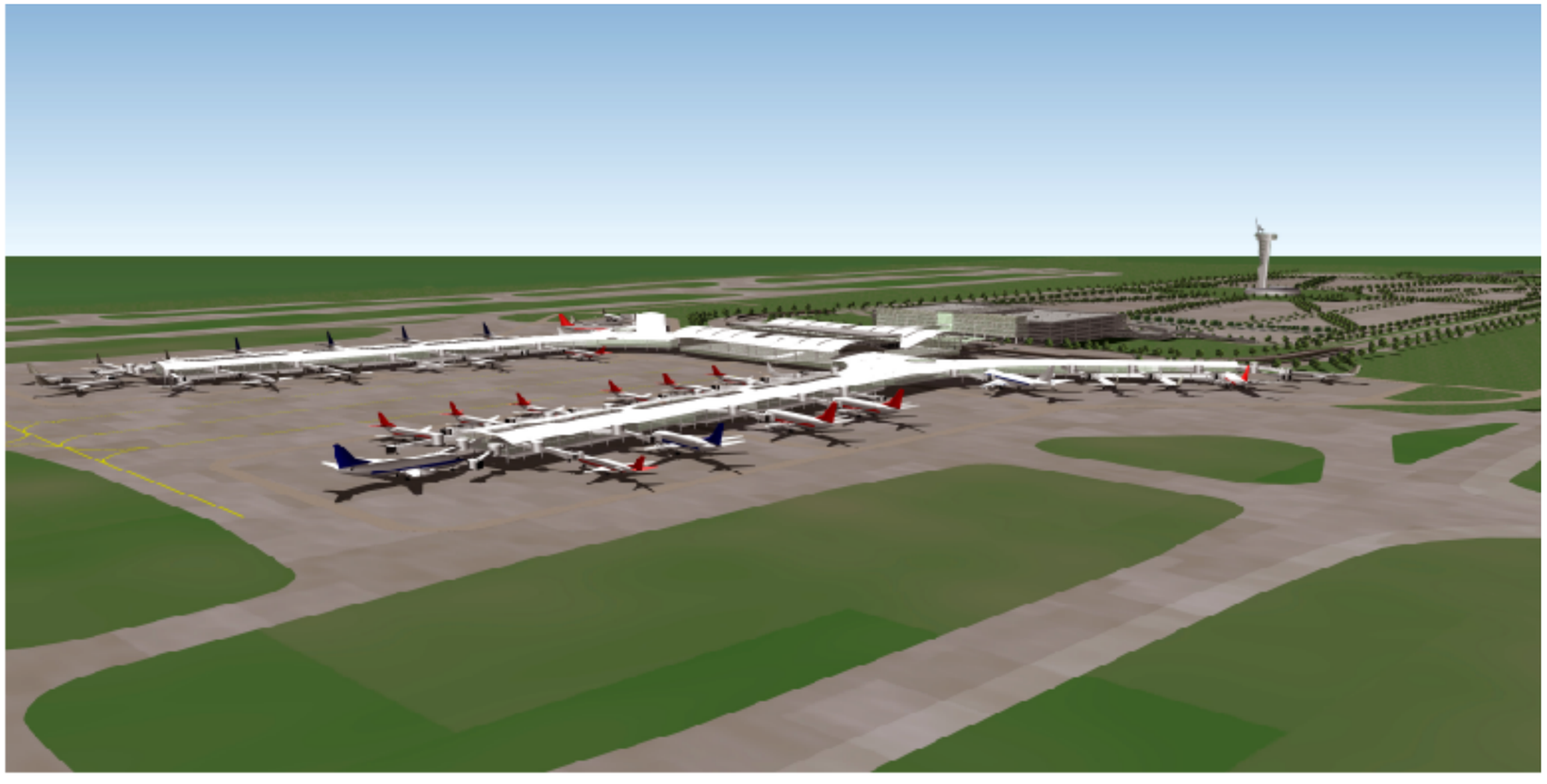






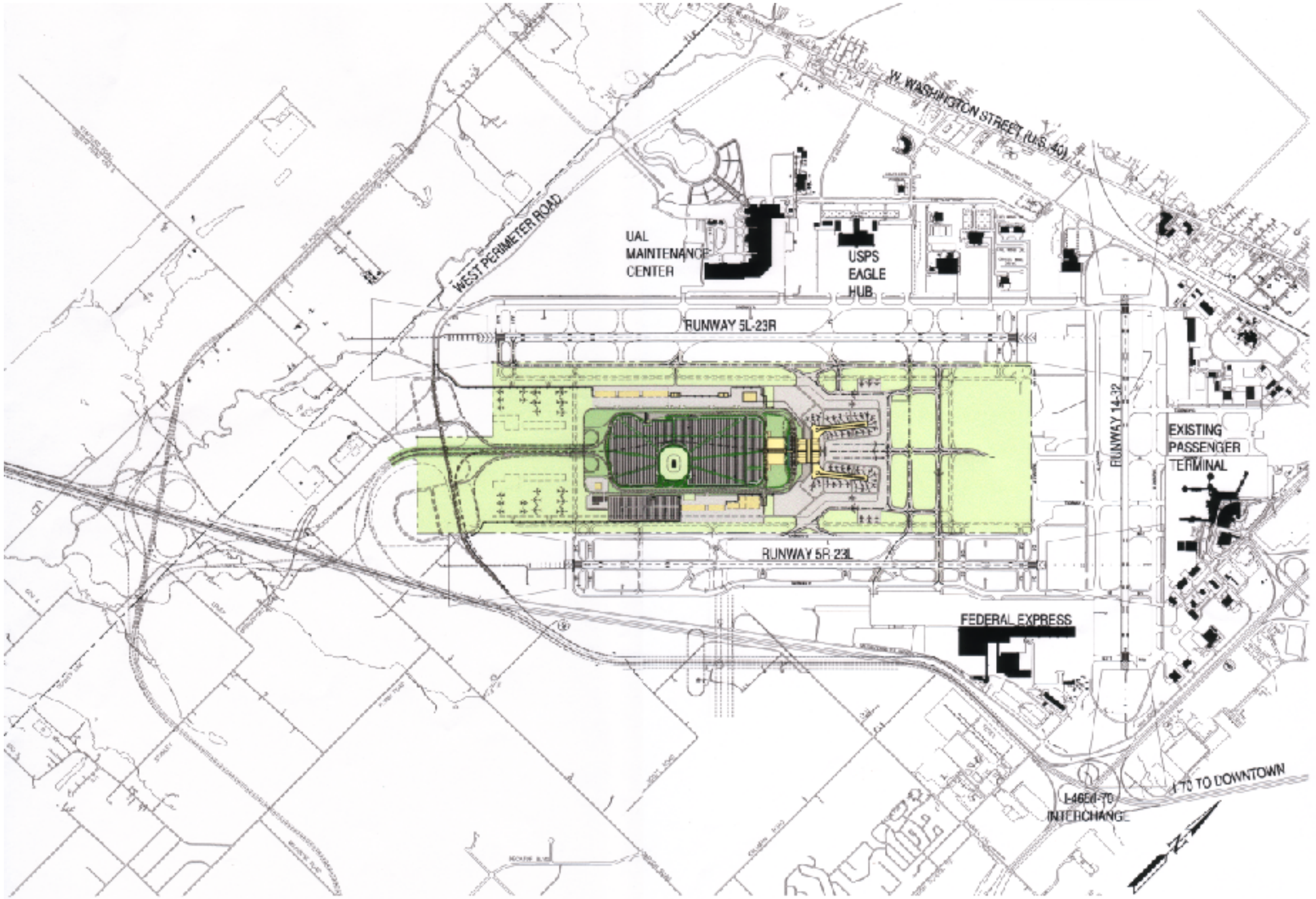


IV. PROJECT OVERVIEW



Terminal Concept - Aerial View

The Midfield Terminal site is an unencumbered "green field site" that has been reserved for the airport's expansion since 1975. The site presents an exceptional opportunity for the development of well-positioned and efficient airport facilities. It has been endorsed by the FAA and is part of the "Airport Layout Plan." The site is nearly a mile wide, over two miles in length, and has ample space for landside and airside development. With runways on both the north and south sides, runway access and runway capacity is excellent. With a dedicated I-70 interchange serving the airport, vehicle access will be excellent. The Midfield Terminal has every promise of being an extremely attractive airport facility to passengers, airlines, air cargo operators, and other airport-dependent commercial ventures.



VICINITY PLAN

IV. PROJECT OVERVIEW

Terminal Building

The Terminal Building will have three primary public levels: the Departures (Upper) Level, the Baggage Claim (Lower) Level, and an intermediate Bridge Level, which connects to the other levels and leads to the parking structures.

Ticketing Hall: Located at the Departure Level, the Ticketing Hall will have four islands of check-in counters. Each island will have up to twenty-four counter positions, twelve on each side. Airlines ticket offices and other administrative functions, as well as passenger amenities such as concessions, restrooms, information center, seating areas, post office, and telephone booths, will be conveniently located in the Ticketing Hall.

Central Passenger Security: A central area for security checking of passengers and their carry-on items is located between the Ticketing Hall and the Concessions area and leads directly to the North and South Concourses.

Concourses: The two Concourses are attached to the north side and south side of the Terminal Building and are on the same level as the Departure Level. Each concourse provides access to 20 aircraft gates, and each can be extended to accommodate 10 additional gates to meet year 2020 forecast demand. The concourses are 110 feet wide. A circulation corridor connects the gate lobbies and associated passenger amenities to the Central Concessions. Power walkways are provided in the circulation corridor to ease walking distances for passengers and visitors.

Aircraft Gates: The aircraft gates can accommodate a complete range of narrow-body and wide-body aircraft, including regional jet aircraft. All aircraft are served by loading bridges. The inboard gates can accept narrow-body aircraft up to B757 size, and the outboard gates can accept both narrow-body and wide-body aircraft, such as B767 and B777 aircraft.

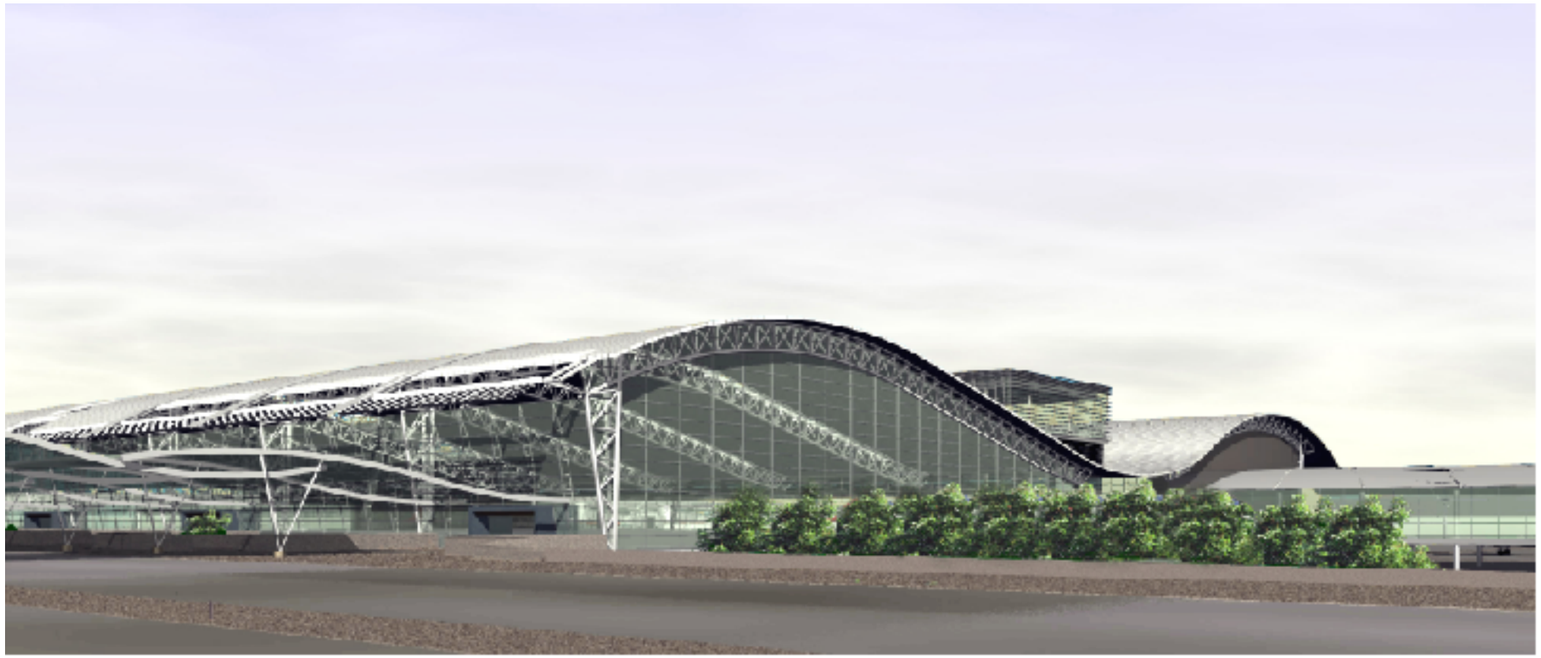
Summary Program of Primary Terminal Functions
Indianapolis International Airport New Midfield Terminal

	For Year 2010	2020
Annual Passengers (millions)	*11.1*	*14.0*
Peak hour arriving passengers	*1,747*	*2,323*
Peak hour departing passengers	*2,422*	*3,252*
▪ **Jet aircraft gates**	40	60
▪ **Overnight jet positions (hardstands)**	6	0
▪ **Turboprop aircraft gates**	2	0
▪ **Ticket agent positions**	96	144
▪ **Baggage claim units**	6	8
▪ **Ground transportation counters**	20	26
▪ **Airline offices & operations** (SQ. F.)	88,750	116,900
▪ **Airline VIP lounges** (SQ. F.)	10,600	12,200
▪ **Airline gate lobbies** (SQ. F.)	100,000	180,300
▪ **Customs and immigration facilities** (SQ. F.)	25,200	25,200
▪ **Baggage claim lobby** (SQ. F.)	50,300	67,200
▪ **Concessions, landside** (SQ. F.)	3,600	4,000
▪ **Concessions, airside** (SQ. F.)	55,400	62,000
▪ **Outbound baggage area** (SQ. F.)	88,100	100,700
▪ **Inbound baggage area** (SQ. F.)	37,100	53,900
▪ **Administrative & maintenance** (SQ. F.)	60,500	66,600
▪ **Parking (vehicles)**	17,700	28,600

Summary does not include general circulation, building equipment, service, or other non-rentable space.

International Arrivals: Three gates on the north concourse are designated to accommodate international arrivals. These passengers will proceed directly to the Federal Inspection Services (FIS) on the apron level and then on to baggage claim and customs.

Terminal Concept - Curbside View



Baggage Claim Hall: Located on the lower level, the Baggage Claim Hall includes up to six baggage claim devices, a dedicated central area for over-sized baggage, and airline baggage offices. Ample area for greeters and circulation is provided adjacent to the Baggage Claim Hall. Amenities and support services provided in this area include service counters for car rental, limousine and shuttle services, hotel/motel reservation boards, concessions, smart carts, seating areas, telephone booths, restrooms, ATM machines, and two areas set aside for tour group assembly.

Bridge Level: The Bridge Level connects the Departure Level and the Baggage Claim Level by banks of elevators, escalators, and stairs. The Bridge leads to the parking structure and the car rental ready return area located on the Ground Level of the parking structure. Other functions located at the Bridge Level include IAA board meeting rooms, administrative offices, cashier kiosks, and automated machines to pay for parking fees. A special area is allocated at the Bridge Level for art and community cultural and event display.

Basement Level: Located below a portion of the terminal building, the Basement Level contains maintenance and storage facilities, as well as central mechanical and electrical equipment rooms. Loading docks and refuse collection/ removal facilities are located on both the north and south sides of the basement.

Administrative Offices: The administrative offices for the airport are located on a level above the center of the terminal building and are accessible from all levels by public elevators, stairs, and service elevators.

Phased Plan: The Ticketing Hall, Central Concessions, and other terminal facilities are planned for incremental expansion to meet year 2020 forecast demand with minimal impact on airport operations.

Adaptable Architecture: The Ticketing Hall, Central Concessions, and Concourses will be open spaces with clear spanning roofs and no intermediate columns. This configuration promotes flexibility and adaptability in the use of the space and allows unencumbered circulation throughout. Additionally, this allows for the creation of memorable architecture and significant public spaces.

IV. PROJECT OVERVIEW

Landside

The landside development of the Midfield Terminal provides the roadway access, utilities distribution, vehicle parking, support facilities, and commercial development areas for the terminal area complex.

Terminal Access: A free-flowing, multi-lane, central parkway brings passenger traffic from the I-70 interchange to the terminal complex in a straight alignment without signals, stops, or yields. Wayfinding is straightforward with few points of decision, a comfortable distance in between, and no more than two choices at each point of decision. East of the service road overpass, there is an Entry Portal Wall marking the entrance to the terminal complex. At this point, the entrance parkway splits into a south entry drive and a north exit drive. The entry drive continues on to the terminal departure and arrival curbs for passenger drop-off and pick-up.

Parking: Beyond the Entry Portal Wall, there is a two-lane exit ramp from the entry drive to a two-lane parking access road. The parking access road runs parallel to the entry drive and allows the slower parking traffic to operate separately from the terminal bound traffic. This separation eliminates diverge and merge movements, simplifies the traffic flow, and enhances the safety of the entry drive. From the parking access road, there are a number of parking options. Surface parking is arranged into economy, long-term, and business lots. The parking garage provides both daily and hourly parking areas. Rental cars are dropped off and picked up on the first level of the parking garage. The surface parking entrances are oriented around the circular Airport Traffic Control Tower site, which serves as a directional landmark similar to Monument Circle in downtown Indianapolis.

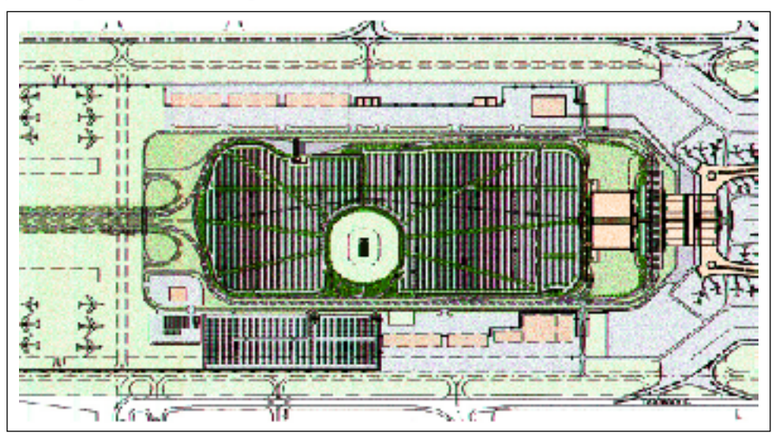
Terminal: For passengers going directly to the terminal, the entry drive continues easterly and splits into two drives, an elevated-drive at the departure level and a ground-level drive at the baggage claim level. The departure level has five lanes with a planned future expansion to eight lanes with central drop-off curb and platform. The baggage claim level has eight lanes with a central drop-off curb and platform. Commercial vehicles and shuttle buses will be assigned to the outer lanes on the baggage claim level. With the future expansion of the departures deck, commercial vehicles will have access to the outer lanes on both levels. Curb length is available for pick-up and drop-off requirements for year 2010 and year 2020 passenger volumes. Beyond the terminal curb front, the departure and arrivals roadways join together to become the exit drive.

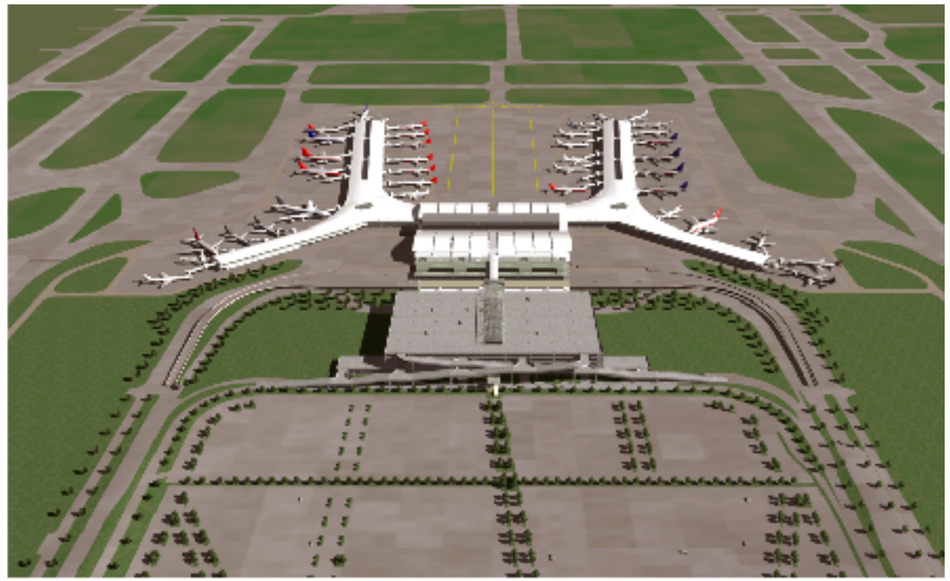
Service Roads: The midfield complex is provided with a service road system to provide access to support facilities. At year 2010, service traffic shares the parkway with passenger traffic. By year 2020, all service traffic will be separated from passenger traffic at the West Perimeter Road interchange.

Utilities Distribution: Dedicated utility corridors loop the midfield terminal complex and extend east and west to connect to utility service providers. All utilities will be installed underground in defined horizontal and vertical zones.

Phased Planning: All midfield roads are designed for year 2020 traffic projections and downsized where practical to serve year 2010 traffic volumes. The parkway is initially a four-lane roadway. The ultimate section is a six-lane roadway with a 66-foot median to accommodate future light rail. Alignments for two-lane service roads have been reserved on each side of the parkway for implementation in year 2020. This type of phased planning occurs throughout the midfield road system to allow for ease of improvements in future years to meet capacity requirements and to maintain an appropriate level of service to airport users.

Light Rail: A corridor has been preserved in the central parkway median for future light rail public transit service to the airport. Initial concepts propose an at grade rail line along the central parkway and then an elevated section through the surface parking area. A light rail station would be developed at the parking structure bridge level.





Terminal Concept - Landside

Land Use: Throughout the Midfield Terminal complex, all developable areas have been assigned a land use designation.

- General commercial development is designated for areas along West Perimeter Road. Possible uses include motels, restaurants, shopping, and office parks. Total available area is 80 acres with 7,000 feet of road frontage.
- Mixed landside/airside commercial development is designated for areas north and south of the central parkway. Possible uses include logistics/distribution centers with a need for airport connections and air cargo transient/charter facilities. Total available area is 110 acres.
- The area within the entry/exit drive loop has been designated for revenue generating parking facilities. Over time, it is expected that surface parking will be replaced with structured parking facilities to meet increased parking demand.
- The existing site of the Lick Creek Friends Cemetery will be preserved in the midfield development. The cemetery will be protected in a fenced enclosure adjacent to the South Service Road.

IV. PROJECT OVERVIEW

Airside

The airside development of the Midfield Terminal provides the aircraft parking, access to the runways, and aviation support facilities. The configuration of aircraft aprons and taxiways supports year 2010 forecast requirements and accommodates the projected expansion of the concourses and aprons in year 2020.

Aircraft Parking: A system of aircraft parking modules has been developed to support a mix of aircraft types, all with service by loading bridges. This modular arrangement will allow for maximum flexibility in responding to changing airline needs.

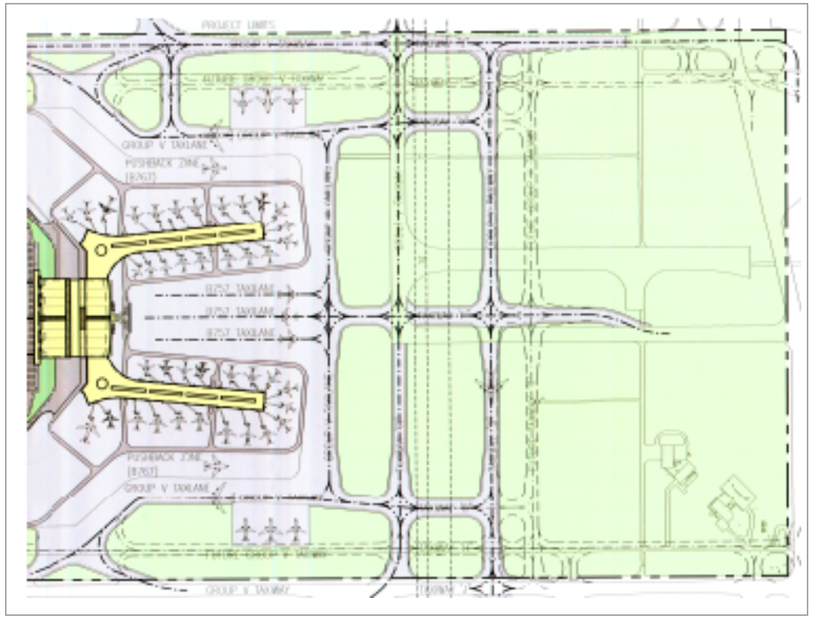
Apron Grading: All aircraft gate positions are graded to the same elevation in order to allow the concourses to be constructed at one level without ramps or other elevation transitions. This design objective was achieved by providing angled taxiways at key locations to accommodate the elevation difference between the two runway systems.

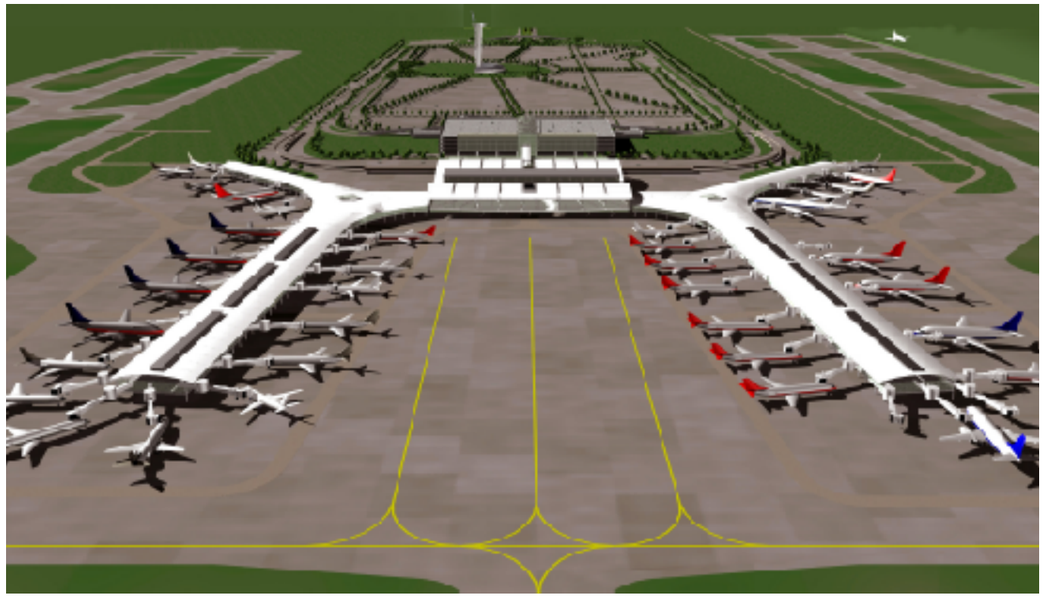
Aprons and Taxiways: The Midfield apron layout and taxiways facilitate the efficient movement of aircraft. Connector taxiways align with existing high-speed exit taxiways to provide the shortest and most direct route to the aircraft gates, thereby reducing aircraft taxiing time. Push-back zones and multiple taxilanes allow aircraft to push back and turn without interruption to other aircraft taxiing to or from gates. Multiple connectors between the apron and the parallel taxiways minimize the potential for conflicts in aircraft movements and allow sequencing of aircraft to the runways.

Crossover Taxiways: Aircraft traffic between the two runway systems is served by two new high-speed crossover taxiways, which will minimize the travel time for Midfield aircraft traffic. Air cargo operators will also benefit greatly from the addition of the crossover taxiways. The flexibility provided by the two crossovers, plus the reduction in taxi time, will be a considerable improvement over existing conditions.

Airfield Capacity: To meet future airfield capacity needs and to maintain a high level of service, several taxiway alignments are reserved for future implementation.

- Parallel taxiway alignments are provided to allow for dual parallel taxiway systems to serve both runways.
- Crossover taxiway alignments are provided to assure that dual crossovers are retained when the concourses are extended in year 2020.
- A west-end crossover taxiway alignment is provided for connecting the west runway ends. The elevation of the parkway has been designed to accommodate the future taxiway bridge structure required by this alignment.

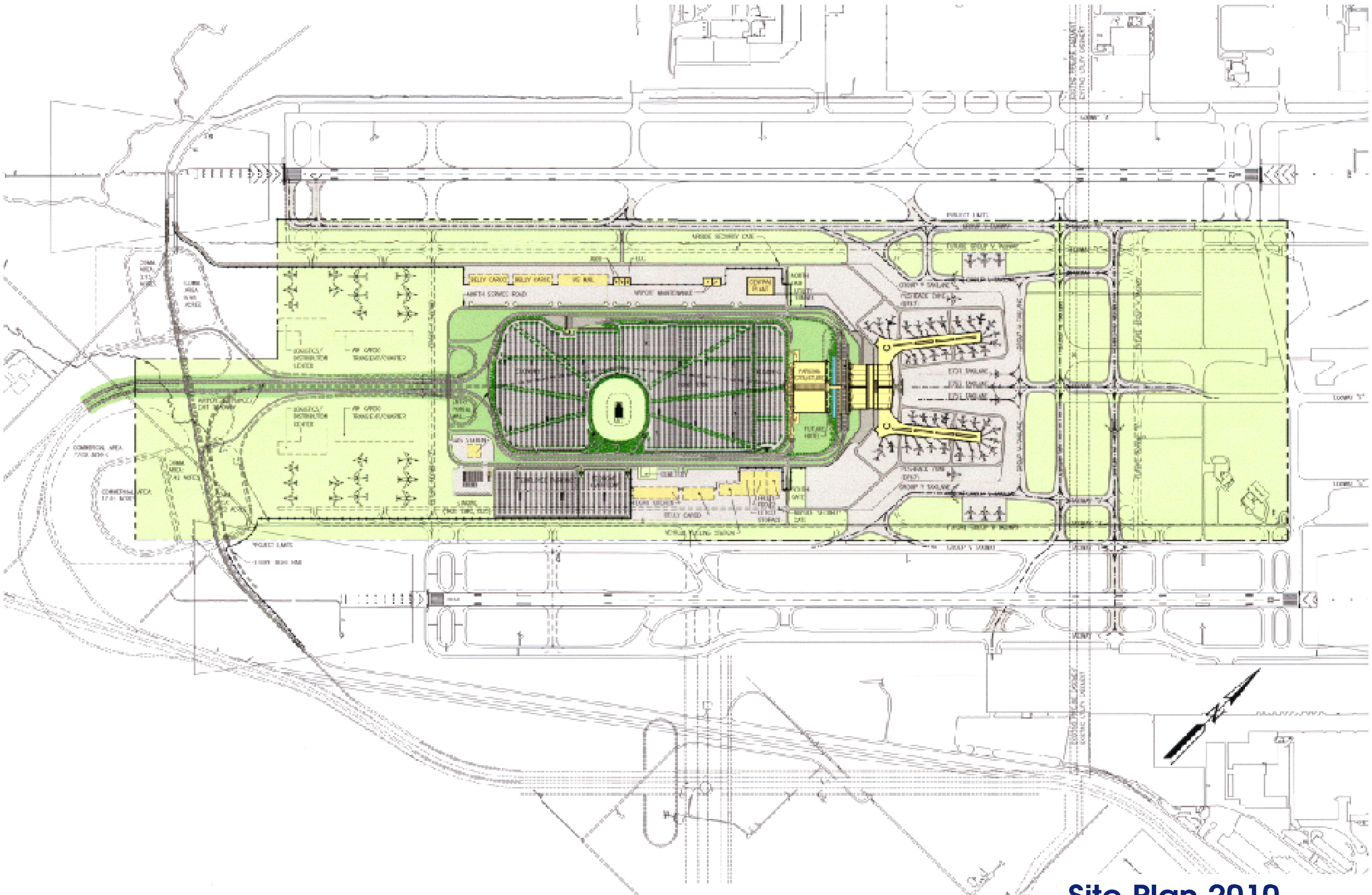




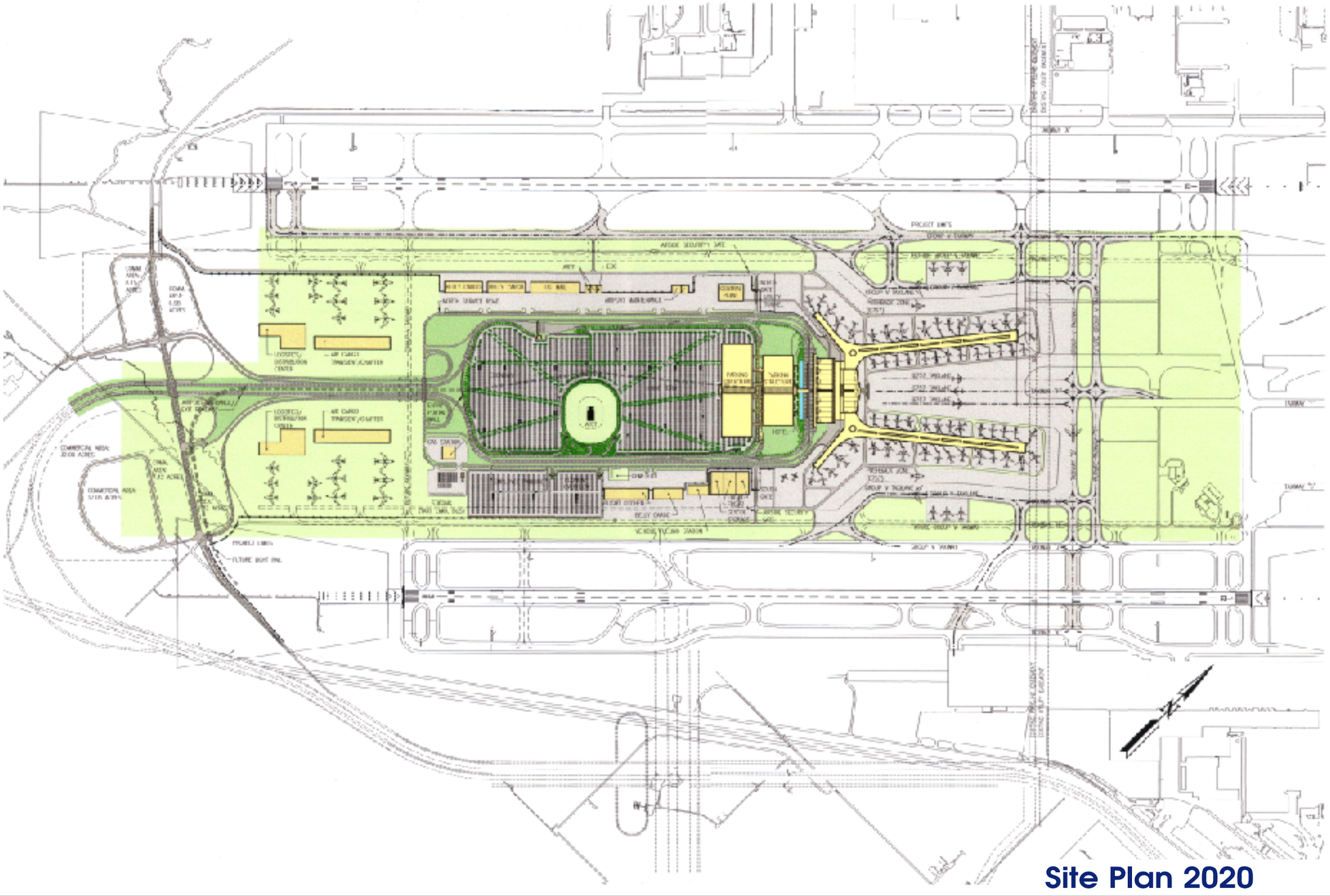
Terminal Concept - Airside View

Aviation Support Facilities: Airfield areas to the west of the concourses are designated for aircraft and airport support facilities. These facilities are provided with both airside and landside access.

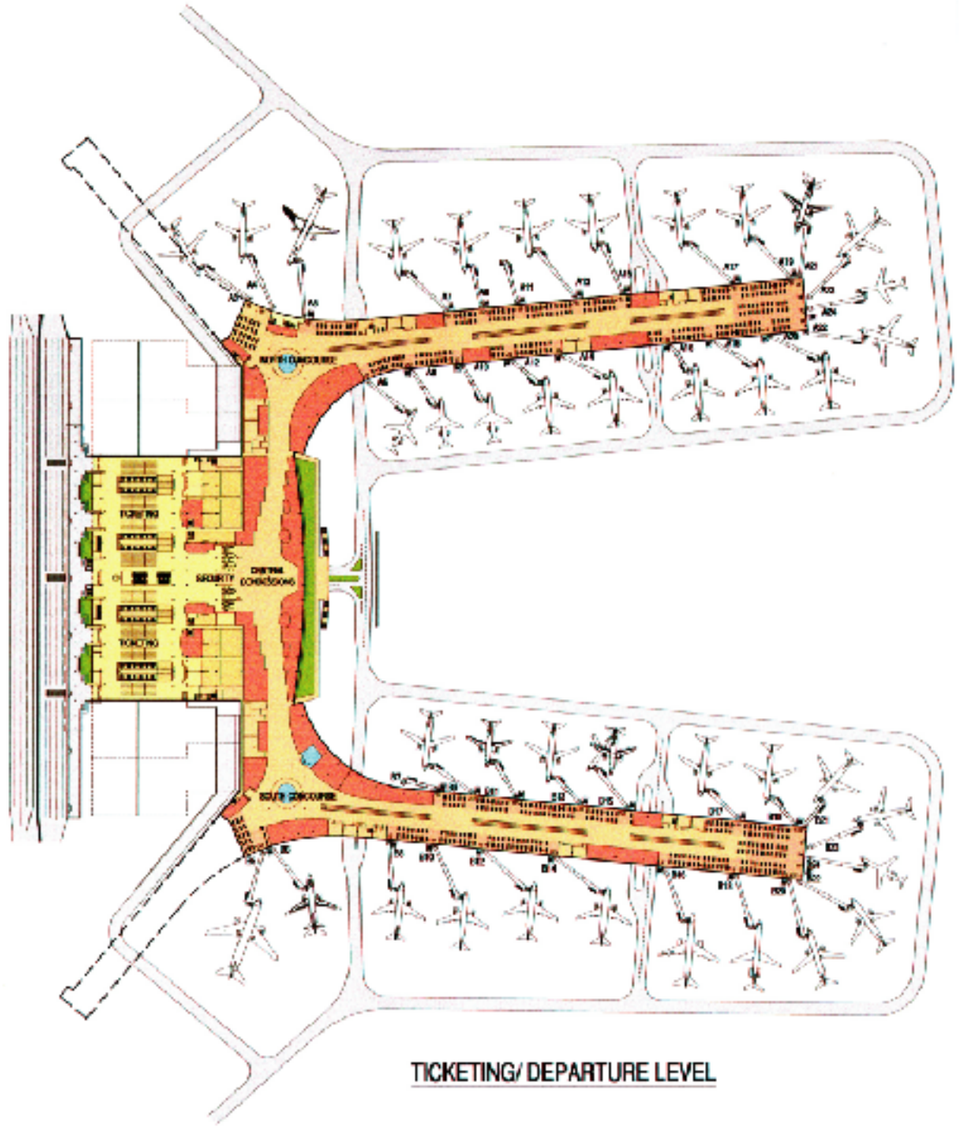
- On the north side of the complex, space is reserved for a central plant, an airport maintenance facility, Emergency Operations Center, Aircraft Rescue and Firefighting facility, US Mail facility, and several air cargo buildings.
- On the south side of the complex, space is assigned for Fixed Base Operators who provide fueling and maintenance service for aircraft, fueling and maintenance center, and a flight kitchen. These facilities are located in close proximity to the aircraft gate positions to assure quick response times and minimal travel distances.



Site Plan 2010



Site Plan 2020

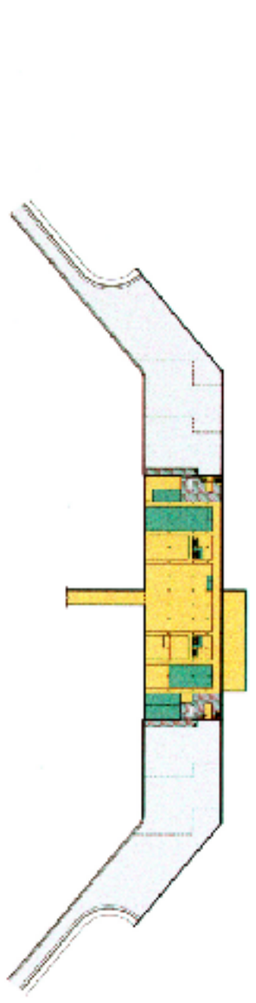


TICKETING/ DEPARTURE LEVEL

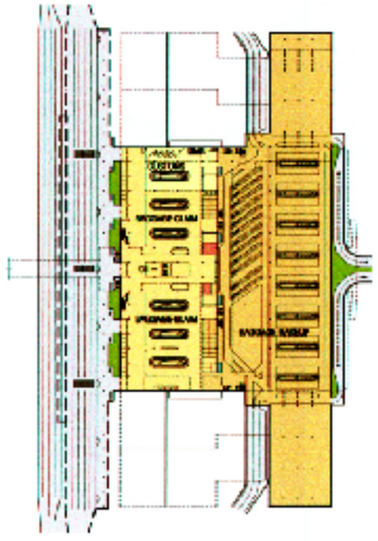
MAINTENANCE/ MECH EQUIPMENT LEVEL

ADMINISTRATION OFFICES LEVEL

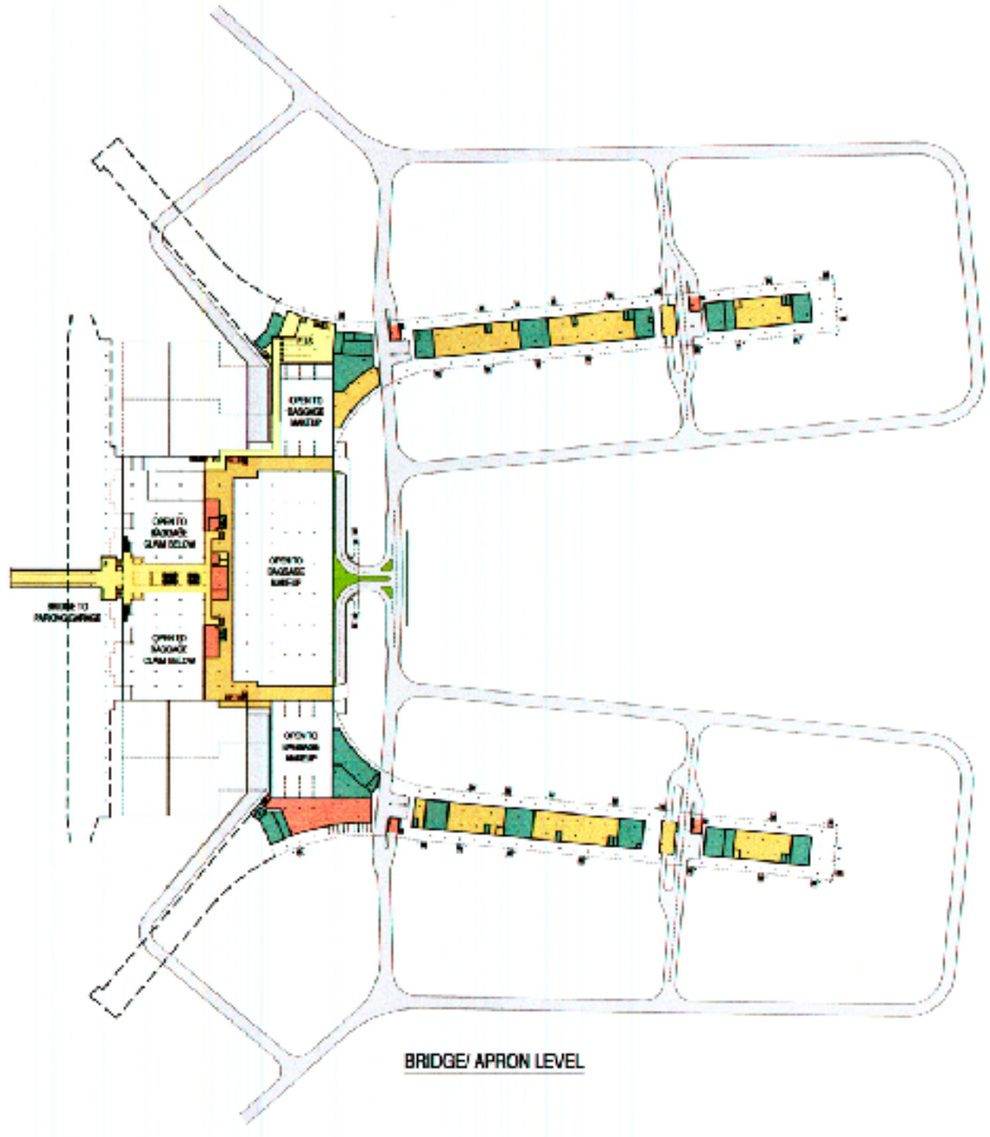
CONCESSIONS | AIRLINE SPACE | MECHANICAL & ELECTRICAL EQUIPMENT | GATE LOBBIES | AIRPORT OPERATIONS | NON-SECURED PUBLIC CIRCULATION | SECURED PUBLIC CIRCULATION | INTERNATIONAL ARRIVALS | LIGHT WELLS | OPEN EXTERIOR AREA | ROADWAY/LOADING



BASEMENT LEVEL

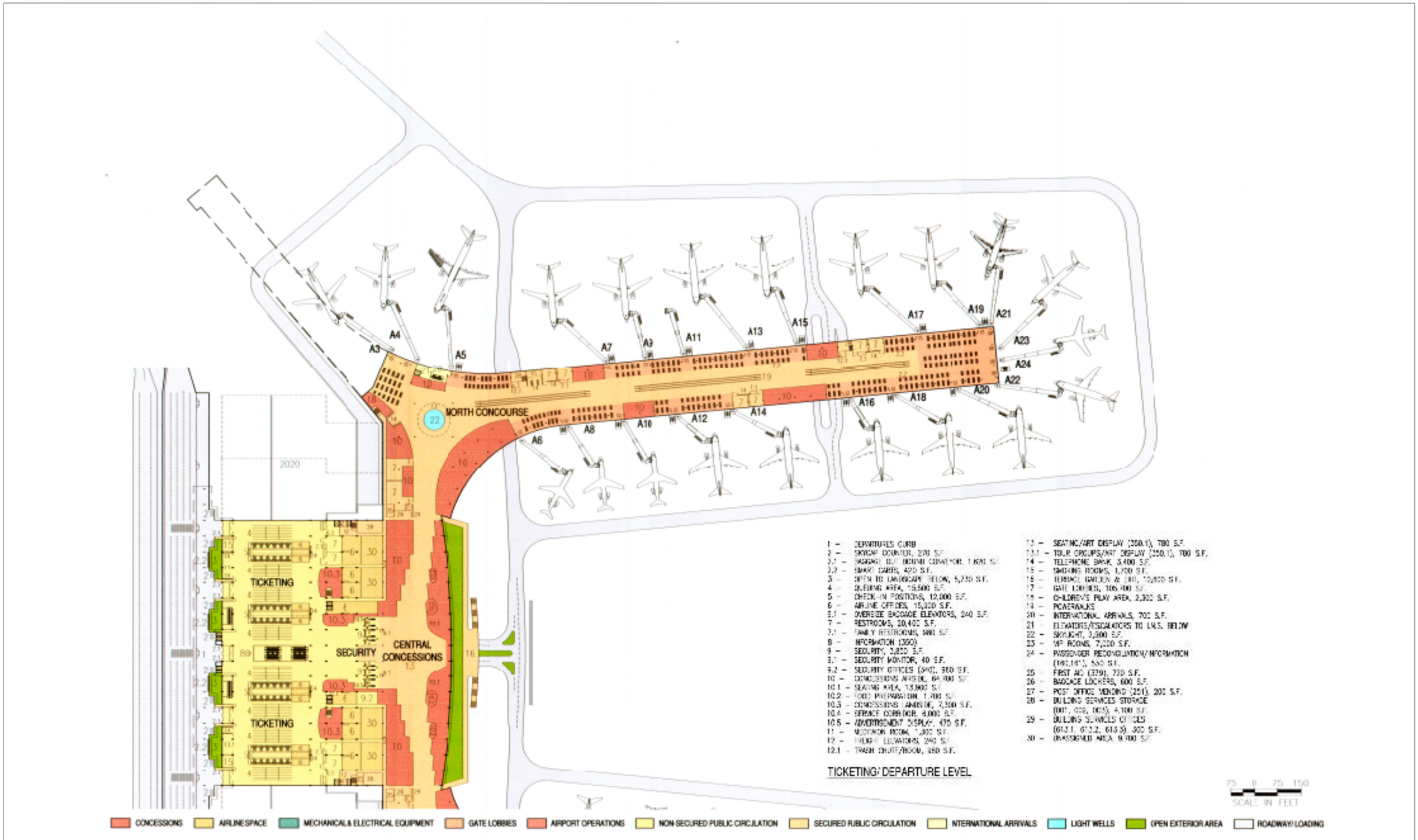


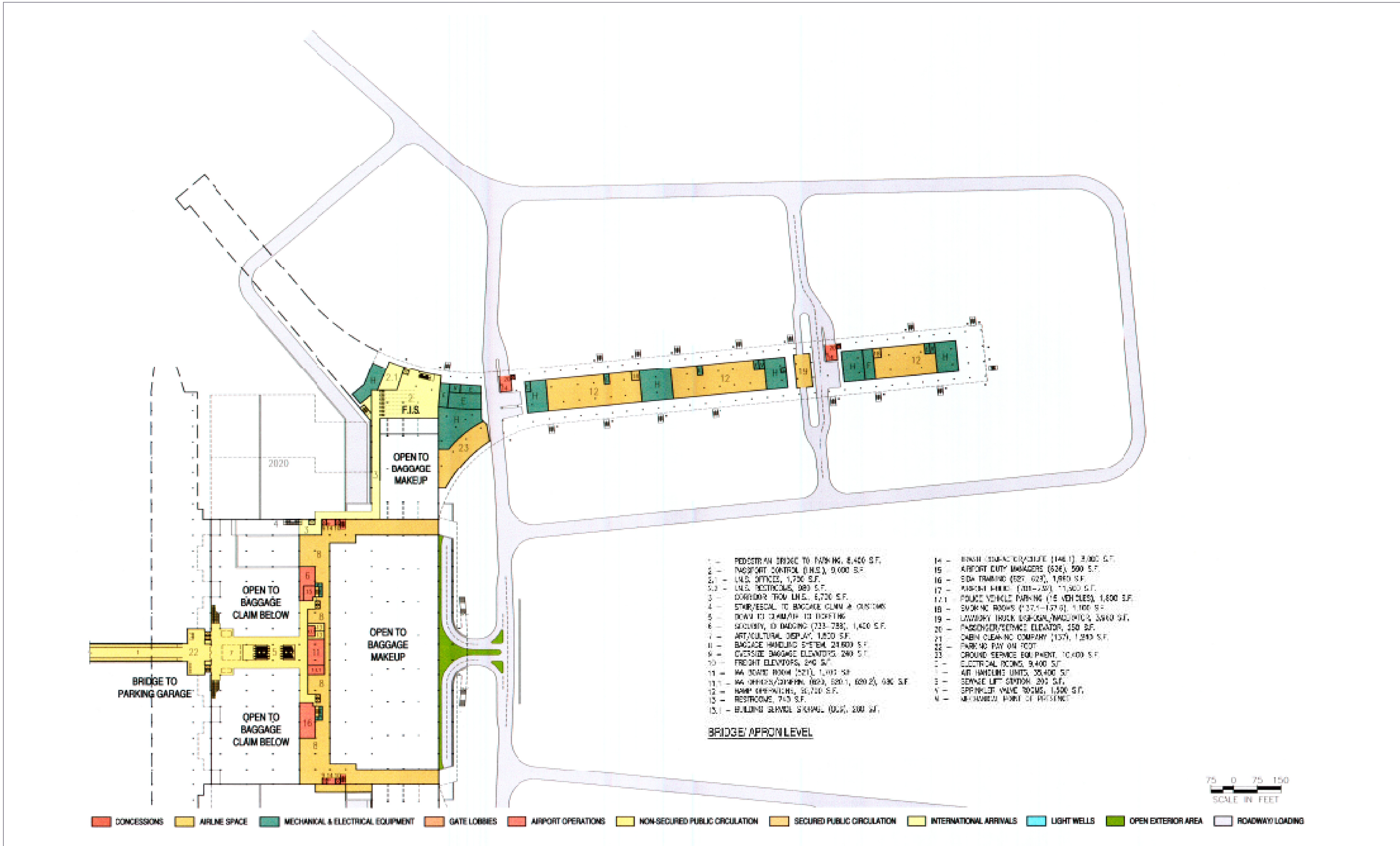
BAGGAGE CLAIM/ ARRIVAL LEVEL

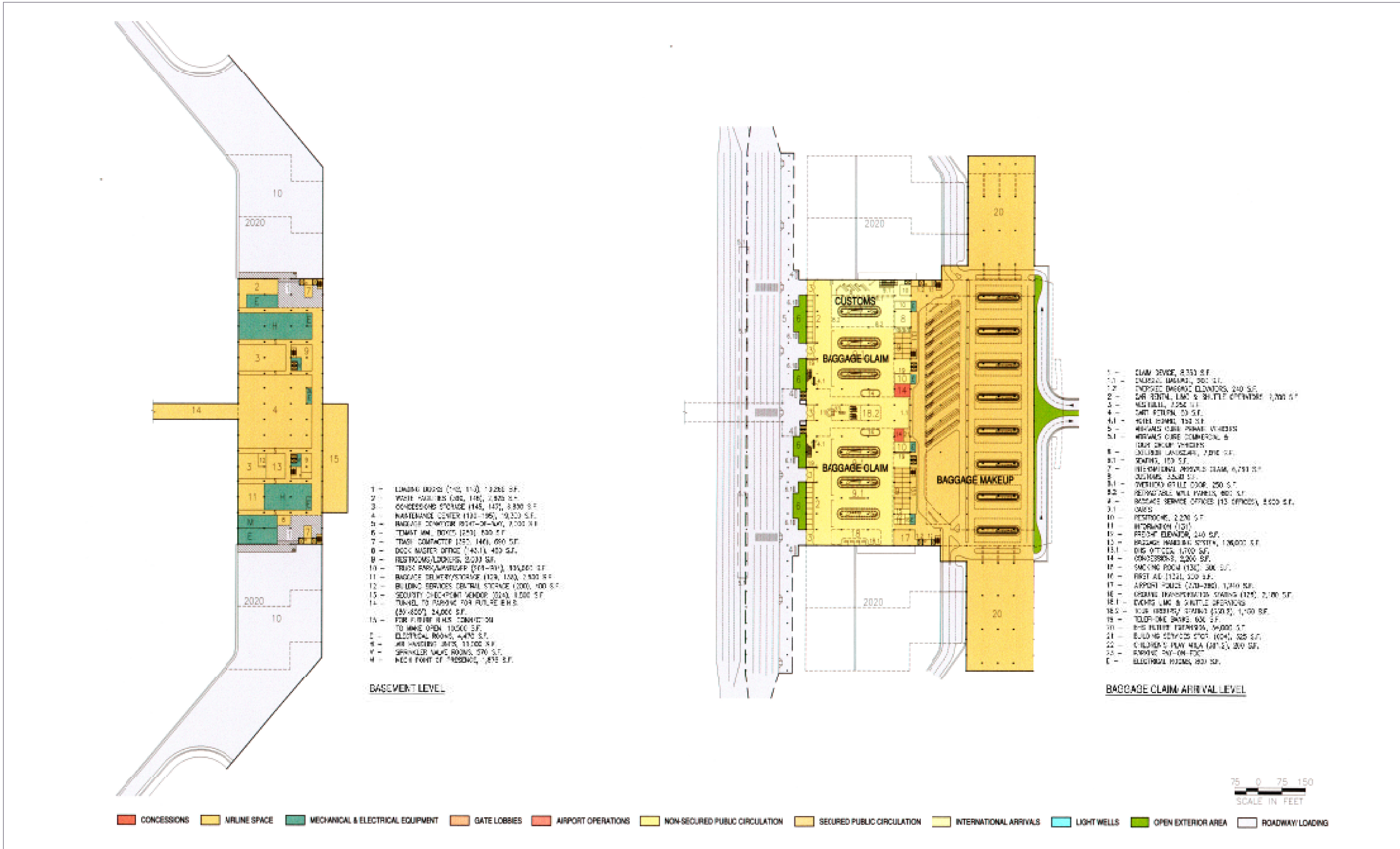


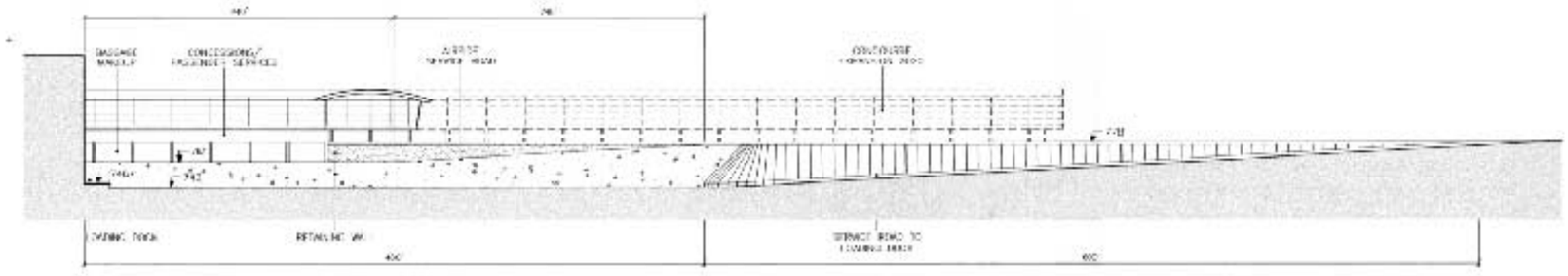
BRIDGE/ APRON LEVEL

CONCESSIONS | AIRLINE SPACE | MECHANICAL & ELECTRICAL EQUIPMENT | GATE LOBBIES | AIRPORT OPERATIONS | NON-SECURED PUBLIC CIRCULATION | SECURED PUBLIC CIRCULATION | INTERNATIONAL ARRIVALS | LIGHT WELLS | OPEN EXTERIOR AREA | ROADWAY/ LOADING

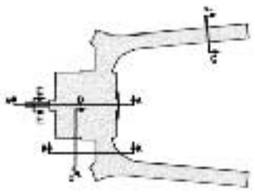

A3
A4
A5
A7
A9
A11
A13
A15
A17
A19
A21
A23
A24
A22
A20
A18
A16
A14
A12
A10
A8
A6
22
NORTH CONCOURSE
2020
TICKETING
SECURITY
CENTRAL CONCESSIONS
TICKETING
1 – DEPARTURES CURB
2 – SKYCAP COUNTER, 270 S.F.
3.1 – BAGGAGE OUT (BOTH) CONVEYOR, 1,600 S.F.
3.2 – SMART CARTS, 420 S.F.
5 – OPEN TO LANDSCAPE BELOW, 5,230 S.F.
6 – AIRLINE OFFICES, 15,300 S.F.
6.1 – OVERSIZE BAGGAGE ELEVATORS, 240 S.F.
7 – RESTROOMS, 20,400 S.F.
7.1 – FAMILY RESTROOMS, 980 S.F.
8 – INFORMATION (350)
9 – SECURITY, 3,850 S.F.
9.1 – SECURITY MONITOR, 40 S.F.
9.2 – SECURITY OFFICES (340), 980 S.F.
10 – CONCESSIONS AIRSIDE, 64,700 S.F.
10.1 – SEATING AREA, 13,800 S.F.
10.2 – FOOD PREPARATION, 1,700 S.F.
10.3 – CONCESSIONS LANDSIDE, 7,300 S.F.
10.4 – SERVICE CORRIDOR, 6,000 S.F.
10.5 – ADVERTISEMENT DISPLAY, 470 S.F.
11 – MEDITATION ROOM, 1,300 S.F.
12 – FREIGHT ELEVATORS, 240 S.F.
12.1 – TRASH CHUTE/ROOM, 950 S.F.
13 – SEATING/ART DISPLAY (350.1), 780 S.F.
13.1 – TOUR GROUPS/ART DISPLAY (350.1), 780 S.F.
14 – TELEPHONE BANK, 3,400 S.F.
15 – SMOKING ROOMS, 1,700 S.F.
16 – TERMINAL GARDEN & INN, 10,000 S.F.
17 – GATE LOBBIES, 106,400 S.F.
18 – CHILDREN'S PLAY AREA, 2,300 S.F.
19 – POWERWALKS
20 – INTERNATIONAL ARRIVALS, 700 S.F.
21 – ELEVATORS/ESCALATORS TO U.S. BELOW
22 – SKYLIGHT, 2,300 S.F.
23 – VIP ROOMS, 7,200 S.F.
24 – PASSENGER RECONCILIATION/INFORMATION (180,181), 550 S.F.
25 – FIRST AID (329), 220 S.F.
26 – BAGGAGE LOCKERS, 600 S.F.
27 – POST OFFICE VENDING (251), 200 S.F.
28 – BUILDING SERVICES STORAGE (001, 002, 101), 4,100 S.F.
29 – BUILDING SERVICES OFFICES (611.1, 611.2, 613.5), 300 S.F.
30 – UNASSIGNED AREA, 8,700 S.F.
TICKETING/ DEPARTURE LEVEL
75 0 75 150
SCALE IN FEET
CONCESSIONS
AIRLINE SPACE
MECHANICAL & ELECTRICAL EQUIPMENT
GATE LOBBIES
AIRPORT OPERATIONS
NON-SECURED PUBLIC CIRCULATION
SECURED PUBLIC CIRCULATION
INTERNATIONAL ARRIVALS
LIGHT WELLS
OPEN EXTERIOR AREA
ROADWAY/ LOADING


OPEN TO BAGGAGE MAKEUP
F.I.S.
2020
OPEN TO BAGGAGE CLAIM BELOW
OPEN TO BAGGAGE MAKEUP
BRIDGE TO PARKING GARAGE
OPEN TO BAGGAGE CLAIM BELOW
1 – PEDESTRIAN BRIDGE TO PARKING, 8,400 S.F.
2 – PASSPORT CONTROL (I.N.S.), 9,000 S.F.
2.1 – I.N.S. OFFICES, 1,730 S.F.
2.2 – I.N.S. RESTROOMS, 980 S.F.
3 – CORRIDOR FROM I.N.S., 6,730 S.F.
4 – STAIR/ESCAL. TO BAGGAGE CLAIM & CUSTOMS
6 – SECURITY, ID BADGING (733–738), 1,400 S.F.
7 – ART/CULTURAL DISPLAY, 1,800 S.F.
8 – BAGGAGE HANDLING SYSTEM, 24,800 S.F.
9 – OVERSIZE BAGGAGE ELEVATORS, 240 S.F.
10 – FREIGHT ELEVATORS, 240 S.F.
13 – RESTROOMS, 740 S.F.
15 – AIRPORT DUTY MANAGERS (626), 500 S.F.
17.1 – POLICE VEHICLE PARKING (15 VEHICLES), 1,600 S.F.
20 – PASSENGER/SERVICE ELEVATOR, 350 S.F.
22 – PARKING PAY ON FOOT
23 – GROUND SERVICE EQUIPMENT, 10,400 S.F.
E – ELECTRICAL ROOMS, 9,400 S.F.
H – AIR HANDLING UNITS, 35,400 S.F.
S – SEWAGE LIFT STATION, 200 S.F.
Y – SPRINKLER VALVE ROOMS, 1,500 S.F.
BRIDGE/ APRON LEVEL
75 0 75 150
SCALE IN FEET
CONCESSIONS
AIRLINE SPACE
MECHANICAL & ELECTRICAL EQUIPMENT
GATE LOBBIES
AIRPORT OPERATIONS
NON-SECURED PUBLIC CIRCULATION
SECURED PUBLIC CIRCULATION
INTERNATIONAL ARRIVALS
LIGHT WELLS
OPEN EXTERIOR AREA
ROADWAY/ LOADING

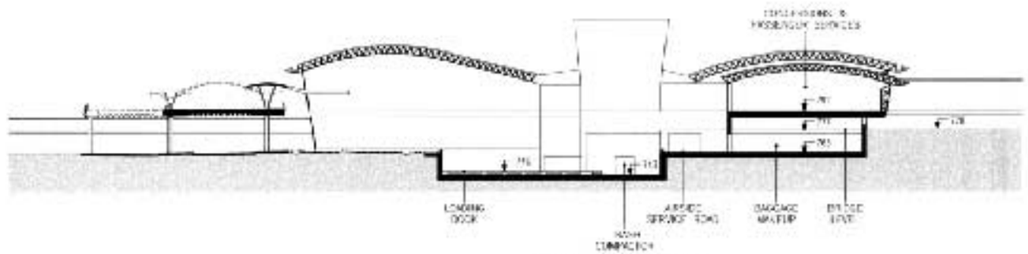

CUSTOMS
BAGGAGE CLAIM
BAGGAGE CLAIM
BAGGAGE MAKEUP
2020
BASEMENT LEVEL
BAGGAGE CLAIM/ ARRIVAL LEVEL
75 0 75 150
SCALE IN FEET
CONCESSIONS
AIRLINE SPACE
MECHANICAL & ELECTRICAL EQUIPMENT
GATE LOBBIES
AIRPORT OPERATIONS
NON-SECURED PUBLIC CIRCULATION
SECURED PUBLIC CIRCULATION
INTERNATIONAL ARRIVALS
LIGHT WELLS
OPEN EXTERIOR AREA
ROADWAY/LOADING



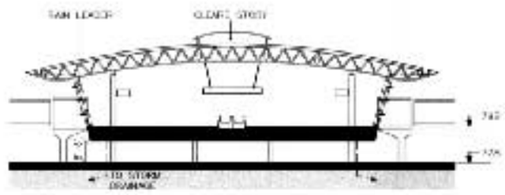
CROSS SECTION D-D



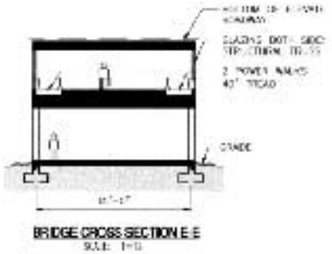
KEY PLAN



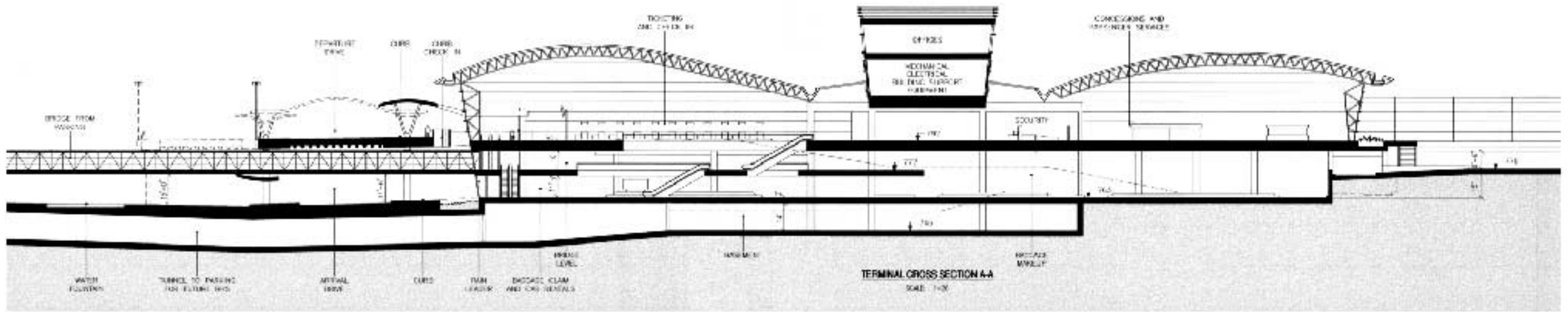
TERMINAL CROSS SECTION B-B



CROSS SECTION C C



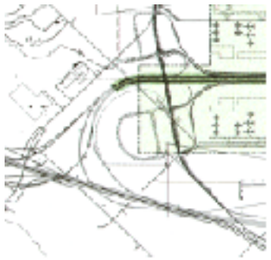
BRIDGE CROSS SECTION E-E



TERMINAL CROSS SECTION A-A

Departure Process

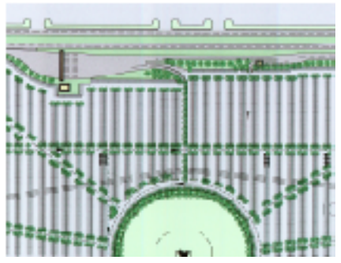
Access: From downtown Indianapolis, passengers will travel westbound on I-70 past the I-465 outerbelt to a new I-70 Airport



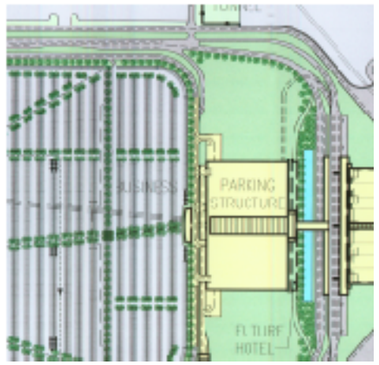
Interchange on the western edge of the airport. A dedicated ramp will take traffic onto a multi-lane, parkway leading directly to the new terminal. Passengers and visitors will have ample time to orient themselves to the terminal area before having to make their first fundamental decision: proceed to parking or to the terminal.

Surface Parking: For those passengers who opt for parking, a two-lane road is provided to access parking facilities. Ample time and distance is provided to choose between economy and long-term surface lots parking (a left turn) or short-term garage parking (straight ahead). Once parked in the surface lot, passengers and visitors will travel to the terminal building on frequently scheduled shuttle buses.

Garage Parking: Dynamic electronic signage will direct visitors to the garage with the most available convenient parking. The

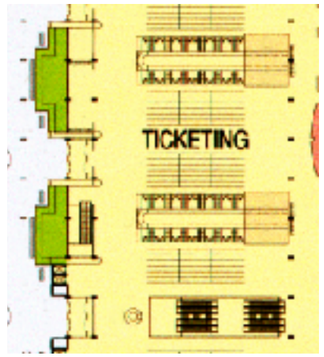


grade level of the parking structure will be devoted to rental car operations, both pick-up and drop-off. Access to the various levels of the parking structure will be provided through a convenient straight ramp system: one going up, the other down. The parking structure has a central atrium along it's east west axis. The atrium introduces natural light and ventilation to the center of the garage. The second level of the garage will be reserved for short-term parkers. This level aligns with the intermediate bridge level of the terminal building and provides the nearest and most accessible parking to the terminal. Powerwalks located in the central atrium are available to assist passengers in walking from the terminal to and from the business lot. The balance of the short-term parkers can take advantage of the remaining levels of the parking structures, which connect to the elevated bridge to the terminal through stairs and elevators. The bridge will have power walks and will lead to an intermediate level in the terminal between the ticketing (departure) level and baggage claim (arrival) level.

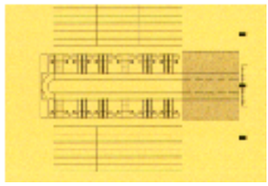


Departures Drive: For those visitors bypassing parking and proceeding directly to the terminal, straightforward signage will direct them to the elevated departure level. The roadway will widen to create a five-lane road. The five-lane road nearest the terminal will be devoted to private vehicles. The two inner lanes of the road will be dedicated to passenger and luggage drop-off. The third lane will be for traffic merging, and the outer lanes will be dedicated to through traffic. An outer four-lane road and curb will be added in the future to accommodate growth. The future outer road will serve commercial traffic (taxis, buses, etc.). An intermediate curb will separate the two roads. The length of the curb frontage is sized to accommodate future growth of the terminal. All curb areas will be covered with a canopy to provide protection for passengers. After dropping off passengers and/or luggage at the curb, visitors can either recirculate quickly back to parking (long-term or short-term) or leave the airport complex.

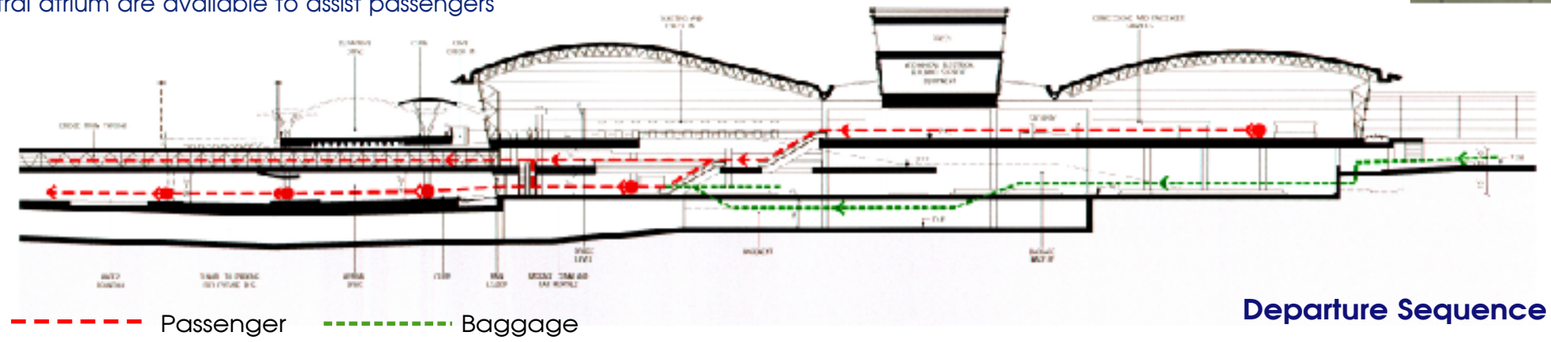
Curbside Check-In: Eight covered curbside check-in stations will be spaced along the front of the terminal building. Each station will be equipped with a conveyor that will take baggage directly to the lower-level baggage make-up area to facilitate its delivery to the aircraft.



Ticketing Hall: Five conveniently spaced vestibules will provide entry into the spacious and inviting Ticketing Hall. Electronic signage at the curb will indicate the airlines that are immediately accessed from each vestibule. The exposed structure and perimeter glass walls will provide an open, airy atmosphere bathed in natural light. Interior finish materials will be selected for their warmth, durability, and maintainability. The check-in counters will be arranged in four islands. This arrangement reduces the length of the Ticketing Hall and the passengers' length of travel to the gate area, provides greater accessibility through the Ticketing Hall to the central security stations, and minimizes congestion along the front of the terminal allowing ease of circulation in the Ticketing Hall.



Check-In Islands: The check-in islands are configured to allow ample queuing distance and circulation space between the queues. At the counter, the passenger will place bags on the scale. From there, the bags will move automatically from the scale, on an induction belt, to the main baggage conveyor and then down to the baggage make-up room. Oversized bags (e.g., skis, surf boards, etc.) will be taken from the Ticketing Hall to the make-up room on airline agents.

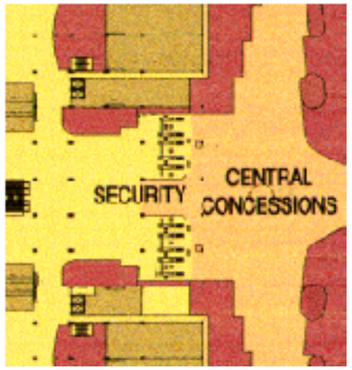


Passenger Baggage

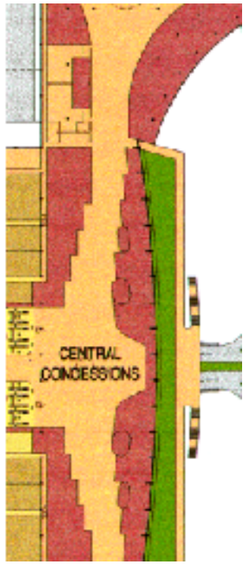
Departure Sequence

Departure Experience (continued)

Security Check Point: After completing the ticketing and baggage check-in process, passengers will proceed to one centralized security checkpoint equipped with 10 screening machines. Having one central checkpoint has two significant advantages. The first is simplicity and clarity for the passengers. They do not need to be concerned about their specific gate location, as the central security checkpoint provides access to all gates and concourses. Secondly, by concentrating all screening machines in one location, increased efficiency in equipment and staff utilization is achieved.

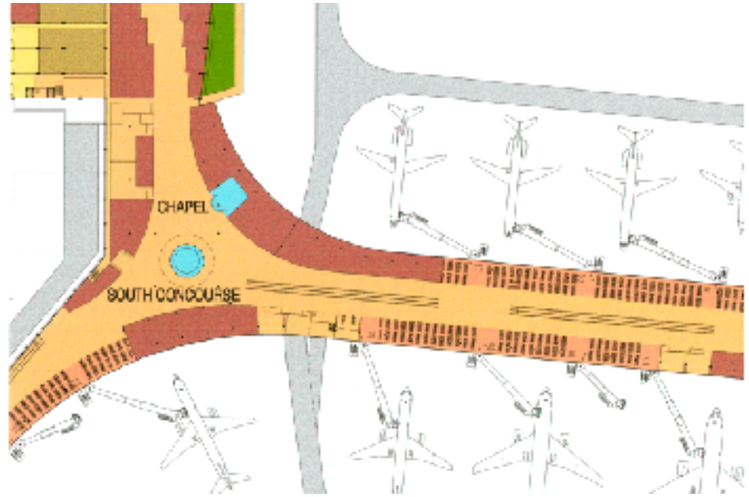


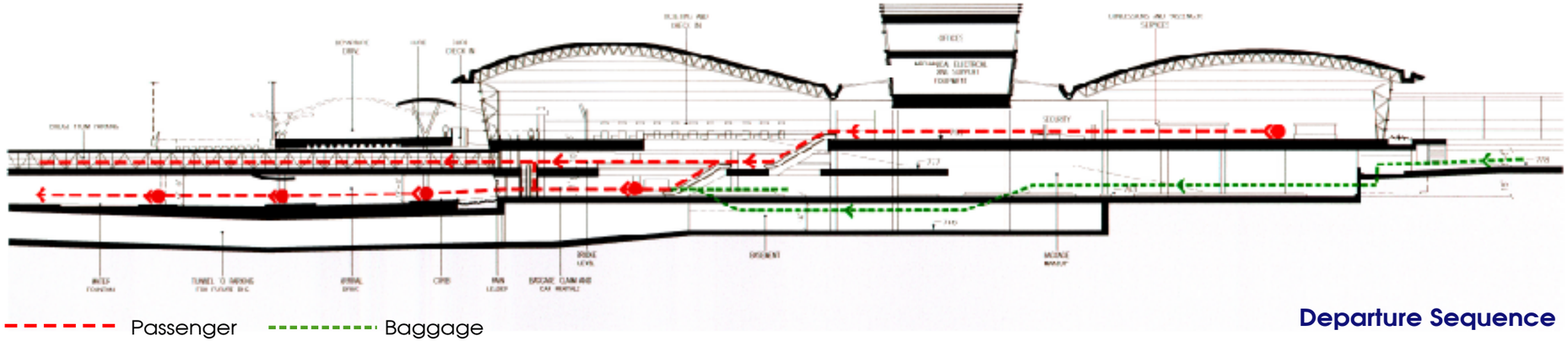
Central Concessions: Once through the security checkpoint, passengers and visitors enter the spacious Central Concessions area and are immediately greeted by a large expanse of glass, which provides views of the central aircraft apron and views of downtown Indianapolis in the distance. While there will be some concessions space on the "non-secured" side of the terminal (in the Ticketing Hall and in the Baggage Claim area), the bulk of the concessions will be past the security checkpoint, where passengers can be more relaxed knowing that the ticketing, bag check, and security processes are behind them. The Central Concessions area will house several food service and other retail establishments to serve passengers and well wishers alike.



Concourses: The Central Concessions area will lead directly to the North and South Concourses, A and B respectively. Each concourse will have twenty gate lobbies, as well as supplemental concessions, airline VIP rooms, child play area, and other support facilities. For passengers who desire to pray or meditate, a non-denominational chapel is located near the Central Concessions. Continuing the theme established in the Ticketing Hall and reinforced in Central Concessions, the Concourses will feature exposed structure, natural light, and warm inviting interior finishes.

Gate Lobbies: Ample and appropriate seating will be provided at the gate lobbies for passengers and well wishers. Each gate lobby will be served by a loading bridge that will be sized to accommodate all aircraft from the smallest regional jet to the largest aircraft served by the gate.

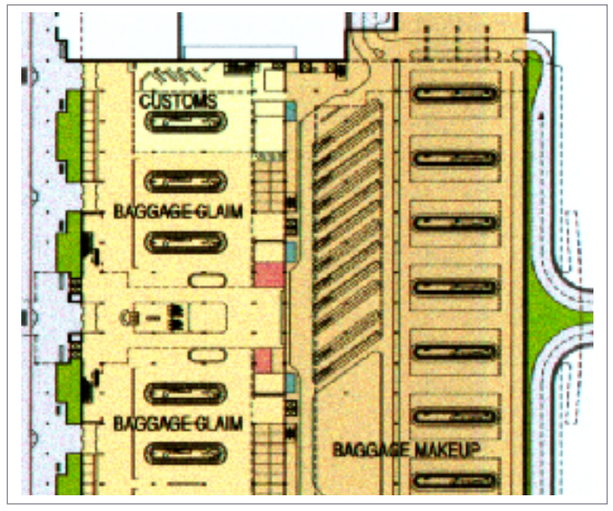




Departure Sequence

Arrival Experience

For terminating domestic passengers, the path from the gate through the Concourses, Central Concessions, and Security will be the reverse of that described for departing passengers.

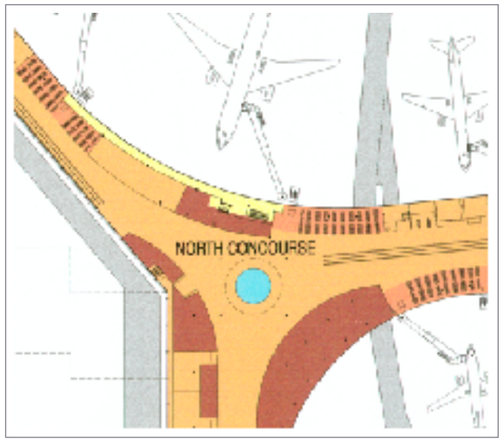


Baggage Claim Hall: Once through security, arriving passengers will travel to the Bridge Level and continue to the lower level Baggage Claim Hall through conveniently placed escalators, stairs, and elevators. From the Bridge Level, passengers can also proceed through the elevated bridge directly to the parking structure and the ready return car rental, and business lot parking.

For many visitors, the Baggage Claim Hall will provide the initial impression of the Indianapolis region. To achieve a welcoming and friendly space, the portions of the Baggage Claim Hall flanking the intermediate bridge level will have high ceilings and will maintain the character and atmosphere of the other spaces in the terminal. The baggage claim devices are sized and spaced to give passengers optimal visibility and access to their baggage. Oversized bags (e.g., skis, surf boards, etc.) can be claimed at a central device dedicated to such items. Baggage carts will be conveniently located close to the claim devices.

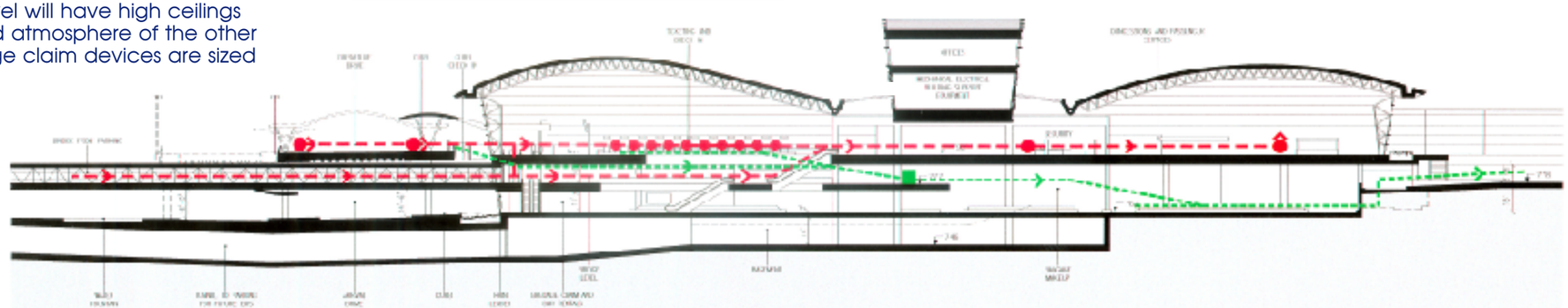
The Baggage Claim Hall will also contain concessions, car rental booths, hotel information boards, assembly areas for tour groups, and other support services.

International Arrivals: International flights will arrive at the North Concourse. Passengers will disembark the aircraft through a dedicated corridor to elevators and escalators that will take them directly to the Federal Inspection Services (FIS) passport control area on the apron level below. From there, passengers will proceed to the Customs area on the Baggage Claim level. When used for international flights, the northernmost baggage claim device (carousel) will be isolated from the rest of the Baggage Claim Hall by moveable glass partition walls.



Arrivals Drive: From the Baggage Claim Hall, passengers will proceed to the arrivals curb and drive along the terminal front. This drive has an inner four-lane road for private vehicles and an outer four-lane road, with its own curb and walkway, for commercial vehicles. Thus, passengers can proceed directly out of the Baggage Claim Hall to an awaiting car, taxi, or bus. The shuttle buses to the long-term parking lots will pick up passengers from the outer curb as well.

Parking and Rental Cars: Passengers who need to return to the short-term parking garage, business lot parking or to pick up a rental car will proceed from the Baggage Claim Hall up to the Bridge Level and on to the garage. Cashier kiosks and automated machines to pay parking fees will be conveniently located at the start of the bridge. Power walks are provided on the Bridge Level to ease the walking distance. Once at the garage, passengers will take the elevators to the appropriate level of the garage to their cars or down to the ground level to the rental car operation. Powerwalks are also available in the central atrium to assist passengers in walking from the central terminal to and from the business lot parking.



Arrival Sequence

BAGGAGE HANDLING SYSTEM (BHS)

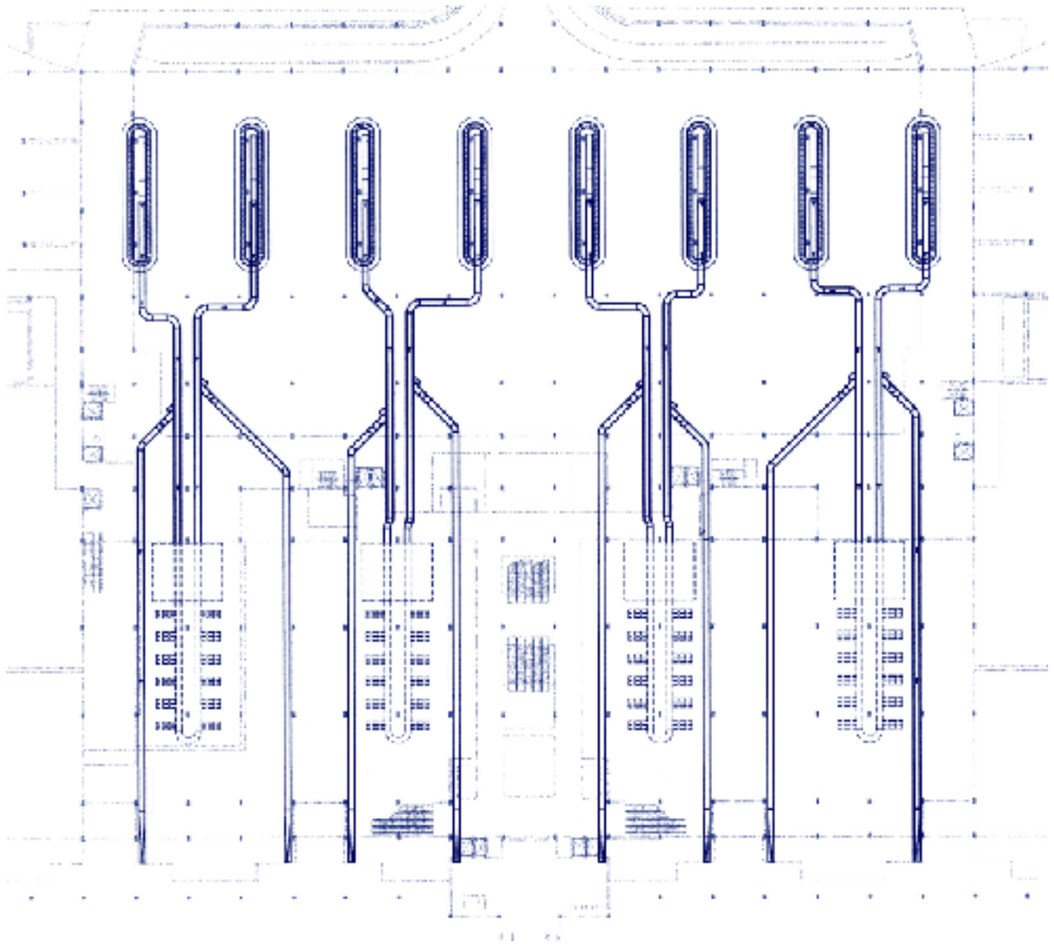
The new Midfield Terminal Baggage Handling System (BHS) facilities have been designed to serve year 2010 projected traffic and to accommodate future expansion for year 2020.

Baggage Sortation: The BHS has been developed to allow for either conventional manual sortation or a moderate level of system automation for outbound baggage sortation, depending on Airport Authority and Airline preferences (and depending upon FAA-mandated requirements regarding 100% checked baggage security screening). Automated baggage sortation provides for more flexibility in allocation of ticketing level check-in counters and curb side check-in counters to individual airlines, making possible preferential use of these facilities rather than exclusive use, as at present. Automated baggage sortation also permits flexible allocation to airlines of make-up loops in the bag room and allows for automated processing of transfer baggage, where applicable. In view of the possible future requirement to physically screen all hold baggage for security reasons, the BHS has been designed to allow for the implementation of an automated, multi-level 100% checked Bag Screening system.

Baggage Check-In: Configured as an island check-in system, initially with four islands each comprising two rows of check-in counters. This method of check-in will ensure good bag handling, security screening performance, and bag sortation compared with current methods. A total of eight conventional curbside counters are provided adjacent to the terminal entrance doors along the landside roadway at the departure level.

Baggage Make-Up: The baggage make-up area is comprised of eight flat-plate sortation loops (year 2010 design), each one connected by a dedicated delivery conveyor from one of the eight check-in rows. These eight default path connections from check-in rows to sort loops form the basic manual system of baggage handling. This design, however, permits the addition of a semi-automatic sortation system overlaid onto the basic manual system to allow for flexible operations, including universal check and compatibility with an automated 100% checked baggage security screening.

Baggage Claim: A total of five inclined-plate claim units are provided for the initial terminal configuration. Each claim unit is equipped with two belts from the basement below, delivering bags close to each end of the claim unit. An additional (sixth) unit may be implemented within the initially constructed Terminal Building, when required. An additional two units can be added in the future to meet year 2020 processing requirements.



SECURITY SYSTEMS

The mission of aviation security is to safeguard civil aviation operations against acts of unlawful interference. This means safeguarding passengers, aircrews, ground personnel, and the general public against acts of unlawful interference perpetrated in flight or within the confines of an airport. Aviation security also protects aircraft and facilities serving civil aviation, such as fuel, catering, air navigation facilities, and the premises of listed air cargo agents. Security standards to adhere to are:

- Federal Aviation Administration (FAA) Security Requirements
- International Civil Aviation Organization (ICAO) Annex 17 Security Standards and Recommendations

Security standards, design guidelines, and operation requirements were applied and closely coordinated in the development of the facility detailed program and the physical planning of the Terminal Area and Terminal Building Concept.

Areas of primary importance are the terminal building, vehicle parking, perimeter fence, and access control. Midfield security features include the following:

- Central Passenger Security consisting of 10 magnetometers and x-ray units for screening passengers and their carry-on items.
- Baggage Handling System with provisions for 100% bag screening, an FAA objective to be implemented in the near future.
- Perimeter Security for Airfield Operations Area (AOA) clearly defined with perimeter road and a 10-foot fence separating the AOA from the landside.
- Access Control Devices and CCTV Surveillance at all points of access to the secured terminal building and the AOA.
- Parking Structures and Surface Parking in compliance with security requirements for a 300-foot clearance separation from terminal buildings.

COMMERCIAL/RETAIL

Commercial and concession facilities are a critical component of the passenger experience in modern airports. The scope of activities are numerous and include in-terminal functions, such as food and beverage, service, and retail concessions, as well as external activities, such as car parking and car rental.

Good concession planning must consider the Airport's goals and key factors of time, passenger psychology, space, type of passengers, and size of goods. It also must consider historical performance in terms of customer satisfaction and revenue production, as well as benchmarking against comparable U.S. airport retail programs.

Planning principles for retail and food and beverage must keep key locational criteria in mind, as well as visibility frontage, configuration, and servicing issues. Following is a review of the primary commercial elements in the Midfield Terminal:

Retail and Food Service: To the greatest extent possible, the primary specialty retail will be located in the central concession area, visible and easily accessible to departing and arriving passengers. Secondary retail zones will be located along the Concourse and adjacent to gate lobbies.

All retail units have been located to maximize their visibility to the passing passenger. This has been achieved by creating double-sided retailing, maximizing frontage and dwell areas, and locating retail around the area where the concourses are attached to the Terminal.

Types of Concessions

Category	Airside	Ticketing Level	Landside Baggage Claim Level	Total
News/Gifts	7,200	2,600	750	10,550
Specialty Shops	14,500	2,400	NA	16,900
Duty Free	1,500	NA	NA	1,500
Food and Beverage	21,500	2,500	750	24,750
Service	3,600	NA	NA	3,600
Total	48,300	7,500	1,500	57,300

Airline Club Lounges: Approximately 10,500 gsf within the concourses have been assigned for Airline Club Lounges/Business Centers.

Advertising: Space has been provided in key locations throughout the terminal.

Parking: The Midfield Terminal Project will meet the existing parking/enplanement ratios at Indianapolis International Airport. The proposed capacity is as follows:

- Year 2005: 15,300 spaces
- Year 2010: 17,700 spaces
- Year 2020: 28,600 spaces

Rental Cars: The Rental Car pick-up and return facilities will be located in the Ground Level of the Parking Structure(s). Car rental spaces will be 800 spaces and 900 spaces for year 2010 and year 2020, respectively.

Additionally, space will be allocated for a common quick-turn-around facility adjacent to the garage to accommodate servicing car rental vehicles.

Car rental ready return spaces in the parking garage are separated from passenger parking and located within a short and covered walking distance to the car rental counters. Dedicated rental car entry/exit is provided for the garage rental car level, separate from the ramps used for public parking.

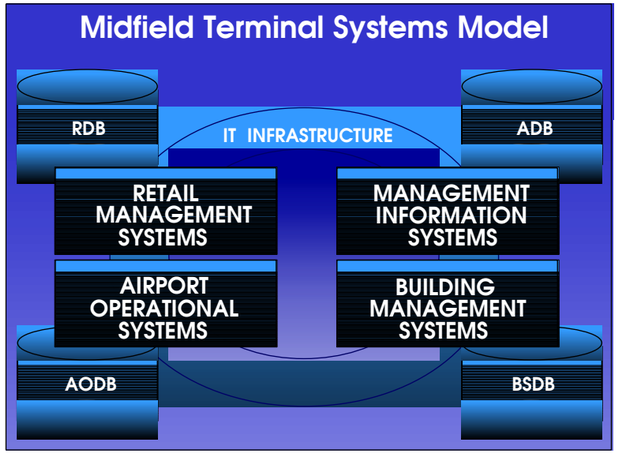
INFORMATION TECHNOLOGIES

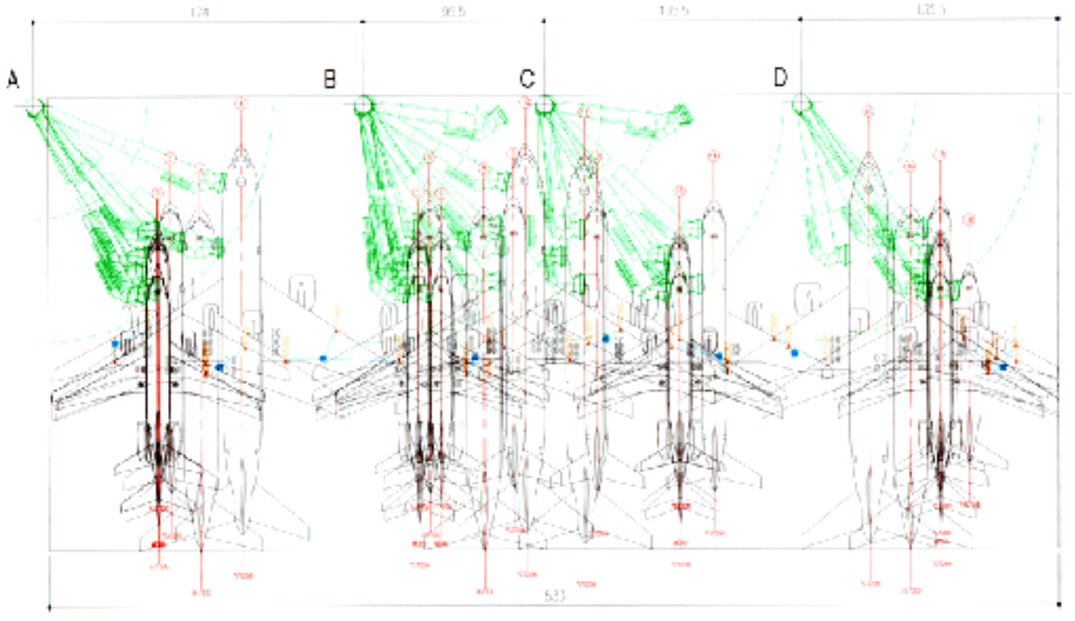
The Vision for the Indianapolis International Airport Midfield Terminal Information Systems Design is:

'***Cost-effective and appropriate use of Information Technology to support and drive Terminal Processes through seamless integration and timely, accurate information available when and where required.***'

Expanding on this vision:

Cost Effective	To ensure that Technology is used where it adds value to the business.
Appropriate Use	Technology employed should be the 'best fit' for intended purpose. This choice may vary from cutting edge to proven technology depending on the system purpose; i.e., high return, new ventures would suit cutting-edge technology. Core operational systems and infrastructure should be provided by proven technology.
Seamless Integration	Common data should be the key to driving system integration. The concept will be to ensure that all users of information are 'singing from the same hymn book.'
Timely	In an operational environment, up-to-date information is vital. Systems must ensure that the information provided is of the correct frequency and speed of delivery.
Accurate	Hand-in-hand with providing data in a timely fashion is ensuring that data is correct.
Available	Key to the design of a 21st century airport, as well as leveraging on the seamless integration, will be the availability of information to those that need it when they need it.





AIRCRAFT FUELING SYSTEM

The primary function of an aircraft hydrant fueling system is to deliver clean/dry jet fuel directly to the aircraft. Fuel must be delivered with adequate pressure in order for the refueling operation to occur in an efficient and safe manner. Fuel flow rates vary depending on the type of aircraft. Wide-body aircraft accept higher flow rates than narrow-body aircraft. The fuel supply must be sufficient in flow and pressure to sustain multiple fueling of aircraft during peak gate operations.

For the Midfield Terminal project, the fuel distribution system is to be developed for year 2020 activity.

Hydrant pits are located at the aircraft gates to serve all anticipated aircraft parking positions. The location of the hydrant pits was accomplished in coordination with the aircraft modules adopted for maximizing the flexibility of aircraft parking options.

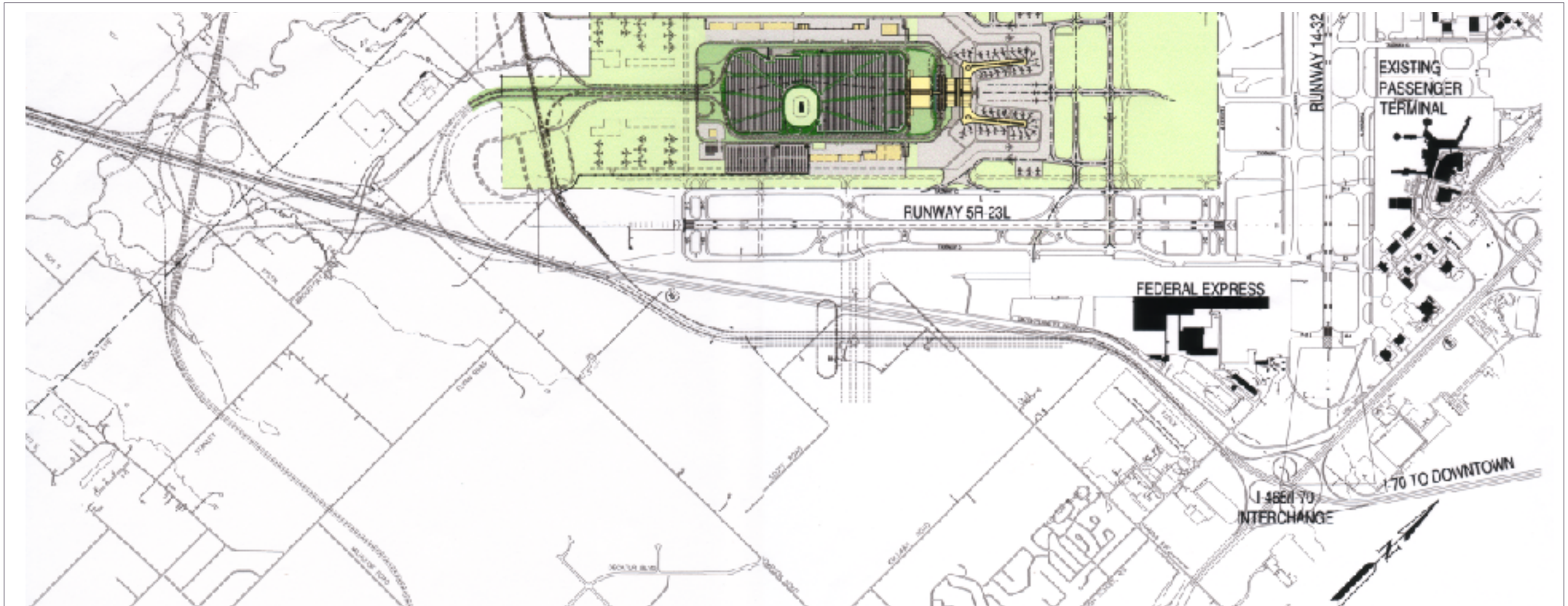
OFF-AIRPORT ROADS

Primary Access: The primary access to the Midfield Terminal area will be via a new interchange on I-70. INDOT has prepared preliminary plans and awaits environmental approval for this and other related I-70 improvement.

The proposed airport interchange will provide excellent traffic service. Conditions will be much better than existing I-465 access due to lower traffic volumes on I-70, more favorable spacing between interchanges, and higher design standards.

The new airport interchange will function effectively for many years beyond the planning period of this study. Although some motorists will travel further, they will do so on less congested roadways (the average increase in travel time to curbside is expected to be about 4.5 minutes).

Secondary Access: Other roadway system developments in the area will include a new Six Points Road interchange and the realignment and lowering of I-70 to the east. These are not required by the Midfield Terminal and can be developed independently of the Airport Interchange, driven by the timing of development in the area.



Air Traffic Control Tower

Simultaneous to the Midfield Terminal Project study, a site selection analysis for the relocation of the Air Traffic Control Tower (ATCT) was completed. Although the ATCT Site Selection could not be completed until the Midfield Terminal was well defined, it was important to identify the best ATCT site as early as possible, since the relocation of this facility must precede certain construction elements of the Midfield Terminal Project.

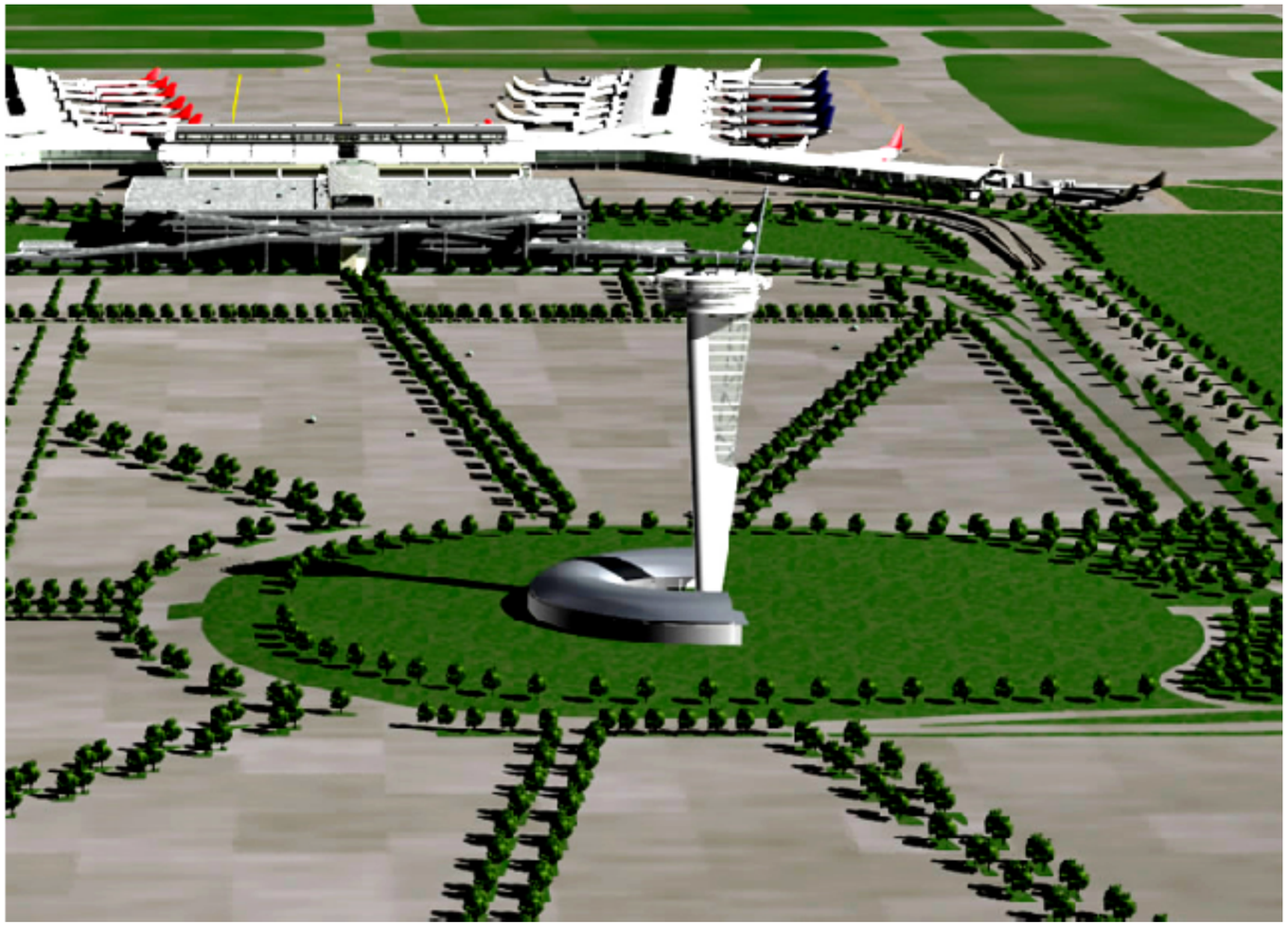
In July 2000, the Airport Authority adopted a recommendation to develop the ATCT approximately a half-mile southwest of the Midfield Terminal. The new ATCT site is located at the point within the Midfield Terminal Area providing the highest height capabilities, giving controllers the best view of the existing and long-term airfield development.

The ATCT siting process involved a significant level of participation by representatives of the Federal Aviation Administration (FAA), from the Great Lakes Region, Chicago Airports District Office, and the local control tower. It was through this FAA coordination that a finalist site for the ATCT was selected.

Fourteen ATCT sites were evaluated during the tower site selection process. Through use of The FAA Tech Center, a computer simulation model has provided a computer-generated view of the airfield from the two finalist site tower cabs. The detailed analysis provided specific height information for the most critical areas of evaluation. This simulation also allowed local controllers to view the long-term airfield configuration from the new tower cab.

After assuring that the two finalist sites met the FAA's criteria and local controllers' approval, the decision for the preferred site was primarily driven by the best long-term land use development of the Midfield Terminal Area and undeveloped areas south of Runway 5L-23R and Interstate 70.

In 2001, the Airport Authority signed an agreement with the FAA to design and construct the ATCT. The construction of this facility will occur ahead of other Midfield Terminal Area improvements, in order to allow for the commissioning of and the controllers relocation to the new ATCT as early as 2005.



ENVIRONMENTAL MANAGEMENT PLAN

ENVIRONMENTAL POLICY

The Indianapolis Airport Authority has endorsed an environmental policy statement, most recently updated in late 2000, to minimize the impact of airport operations on the environment and local communities through the continuous improvements of its environmental program. The Environmental Management Plan is just one component of this policy, providing a proactive program for applying the airport's environmental policy principles to the Midfield Terminal.

PLAN GOALS

It is the desire of the Indianapolis Airport Authority to seize every opportunity to develop the airport in the most environmentally friendly way. The Environmental Management Plan has been developed based on this with three goals in mind:

Protect the Environment -- Environmental protection measures recommended in this study process include deicing and stormwater facilities designed to assure that outflows from the Midfield Terminal Area are clean in accordance with permit requirements.

Enhance the Environment -- The Midfield Terminal will incorporate the latest green practices that are considered "hallmarks" of sustainable developments. The fact that the Midfield Area is now a "greenfield" site allows the designers to start from the "ground up," maximizing opportunities for enhancing the environment by incorporating practices not in place at the existing terminal.

Reduce Airport Operating Costs -- Where facility development can occur in such a way to reduce operational costs, these opportunities are being taken. There are many examples of operational efficiencies that will be gained by incorporating energy-efficient architectural designs and energy management systems, such as utilizing preconditioned air in the gate areas. This system eliminates the use of auxiliary power units, providing economic savings and reduced maintenance costs, as well as air quality benefits.

ENVIRONMENTAL BENEFITS

Construction of the Midfield Terminal is, in itself, the core of an environmentally friendly initiative for expansion of passenger facilities. Its central location will allow the use of the airfield to maximize the preferred runway utilization and ensure reduced aircraft taxi times.

PLAN RECOMMENDATIONS

1. ☐Institute an Environmental Management System with the goal to employ environmental principles in the design of the Midfield Terminal, ensure environmental stewardship during construction and document ongoing environmental benefits from facility operations and maintenance.
2. ☐Ensure compliance with latest NPDES Permit requirements (current permit expires October 31, 2002).
3. ☐Review and update SWPPP to meet current regulatory requirements including the provisions of the latest NPDES Permit, after the Midfield Terminal is included.
4. ☐Develop a comprehensive stormwater management plan to reflect the latest development plans for the Midfield Terminal Project.
5. ☐Utilize design and construction testing methods that minimize the risk of groundwater contamination from aircraft fueling operations.
6. ☐Continue current practices for storage or removal of hazardous waste materials in designated areas inside buildings.
7. ☐Develop a deicing control system, as an integral part of the design of the drainage system for the terminal apron and surrounding area, which meets current regulatory requirements and utilizes current technology for both deicing fluid storage and runoff collection.
8. ☐Provide provisions for the discharge of wash water to the sanitary sewer through a combined oil/water separator and grit removal basin.
9. ☐Provide provisions for the discharge of contaminants from the automobile parking areas.
10. Prepare a Supplemental Environmental Impact Statement to review the environmental aspects of the Midfield Terminal Complex development where regulatory requirements have changed or project refinements allow further agency analysis and concurrence with the 1992 EIS Record of Decision.
11. Utilize green architectural practices in the design of the terminal and weigh the long-term operational and maintenance benefits.
12. Take advantage of energy reduction opportunities in terminal design.
13. Eliminate the use of auxiliary power units by providing preconditioned air at the gates.
14. Utilize environmentally friendly site development measures.
15. Maximize the use of materials and designs that coexist with the local environment.
16. Minimize waste and provide recycling opportunities during construction, terminal design, and terminal operation.
17. Eliminate wildlife attractants in the design of the new terminal complex.
18. Incorporate design techniques to assure the highest standards of protecting health.
19. Limit construction impacts through best design practices.
20. Minimize environmental impacts during demolition/renovation of the existing terminal and demolition of the ATCT.

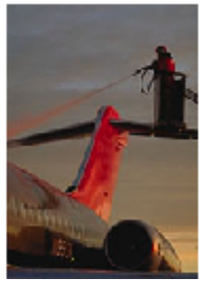
Stormwater Drainage and Groundwater Protection
The protection of water quality has been one of the most significant environmental issues throughout the 1990s, and a number of regulations have been enacted or revised to protect surface and groundwater. Development of the Midfield Terminal provides a unique opportunity to enact procedures and systems, which assure that stormwater discharged from the midfield complex meets the applicable water quality standards.

A National Pollution Discharge Elimination System permit issued to Indianapolis International Airport in 1997 sets quality standards for the discharge of stormwater runoff. The four largest potential sources of stormwater runoff pollution at the airport include aircraft fueling, aircraft deicing, pavement deicing and vehicle parking. These sources have been and should continue to be reviewed to assure compliance with current or revised NPDES requirements. The current airport Stormwater Pollution Prevention Plans, which identify best management practices for the operation of the facility, will be revised as appropriate. A comprehensive stormwater management plan for the Midfield Terminal Area will also be developed.

The variety of plant life found in wetlands provides food and cover for many fish and wildlife species. The Airport has successfully completed nearly 400 acres of wetlands mitigation/replacement at sites away from the airfield to allow for the Midfield Terminal and other airport development programs.

Groundwater quality can be a factor in the Midfield Terminal development because of the intended use of the site, as well as construction activities during development. During the project definition for the Midfield Terminal Project, a groundwater assessment has been conducted to set a baseline regarding the current condition of the groundwater in the midfield site. The development of the Midfield Terminal provides opportunities for implementing state-of-the art groundwater protection measures, which will preserve these baseline groundwater conditions. Examples include the utilization of design and construction testing methods that minimize the risk of groundwater contamination from fueling operations; development of a deicing control system to meet current regulatory requirements; and utilization of current technology for both deicing fluid storage and runoff collection.

Deicing Runoff Collection and Disposal
One of the most critical environmental issues for the Midfield Terminal is the development of adequate deicing runoff collection and disposal systems that will assure the full capture and treatment of contaminated stormwater. An initial analysis of the alternatives for deicing runoff control has been conducted in the Environmental Management Plan in order to provide preliminary cost estimates. Alternatives have also been reviewed for the various options for disposal and treatment of contaminated stormwater, including discharge to the sanitary sewer, off-site treatment and recycling.



Aircraft deicing is essential to ensure safe operations during winter conditions. Adequate systems to collect and dispose of the anti-icing materials are critical environmental issues.

The Environmental Management Plan has identified systems that will continue to allow deicing at the gates, which is the current practice. A passive collection system has been proposed with the capability to divert contaminated runoff to a storage area. Based upon the need to preserve as much area in the midfield area as possible for airport related development and the need to minimize open standing water to eliminate bird attractions, a below ground storage system is proposed for contaminated discharge from the Midfield Terminal apron areas. The most cost and operationally effective means of disposal of contaminated runoff at Indianapolis International Airport is releasing these fluids into the existing sanitary system.

Meeting NEPA Requirements
NEPA establishes a broad national policy to improve the relationship between man and the environment, setting policies and goals to ensure that environmental considerations are given careful attention and appropriate emphasis in all decisions of the federal government. NEPA lays the groundwork for FAA guidance that has been established to "provide for the protection and enhancement of the natural resources and the quality of the environment of the Nation." The Midfield Terminal development was environmentally assessed under the requirements of the National Environmental Policy Act (NEPA) of 1969, and the Federal Aviation Administration issued a Record of Decision in 1992. While the terminal concept reviewed in 1992 has been further refined, there have been no significant changes in the proposed development.

In order to fully review the latest planning information for the Midfield Terminal Project, a Supplemental Environmental Impact Statement has been prepared to verify that the development plan continues to meet federal requirements. The Supplemental Environmental Impact Statement includes an independent assessment of air quality and other areas where regulations may have changed since the 1992 Record of Decision. The findings of a Phase I Environmental Audit, conducted as a part of the Environmental Management Plan, has also be incorporated into the Supplemental Environmental Impact Statement document.

Environmental Opportunities
Construction of the Midfield Terminal will provide unique opportunities to develop environmentally friendly buildings and sites. Research from a variety of sources has identified specific ideas that are recommended for consideration. The provision of preconditioned air at the aircraft gates will result in significant reductions of air pollutants normally associated with the use of auxiliary power units. Other opportunities include the integration of green architectural practices, which will result in long-term operational and maintenance benefits, and the opportunity to utilize construction materials and designs that coexist with the environment. One other green consideration, unique to the design of airports is the opportunity to utilize terminal design that will reduce or eliminate the number of perching and nesting opportunities for birds which pose a hazard to aircraft operations.

Best Design Practices
Best design practices are a compilation of the latest techniques for incorporating environmentally friendly actions in development activities. During construction, measures to limit the impacts on soil erosion, water and air quality, and noise due to construction will be taken. Best design practices will also be incorporated into any demolition processes such as the existing Air Traffic Control Tower or as portions of the existing terminal are removed.