Design & Development Guide

(Design Review Guidelines)

City of Austin
Department of Aviation
Austin-Bergstrom International Airport

Volume 1: Austin-Bergstrom International Airport Development Manual

Issue Date:
August 23, 2018

AUSTIN-BERGSTROM INTERNATIONAL AIRPORT

City of Austin · Department of Aviation

DESIGN AND DEVELOPMENT GUIDE

DDG Table of Contents:

End of DDG Table of Contents

DESIGN AND DEVELOPMENT GUIDE
VOLUME 1 · AUSTIN-BERGSTROM INTERNATIONAL AIRPORT DEVELOPMENT MANUAL

Table of Contents

Supplemental Appendices (Available Upon Request)

End of DDG Vol. 1 Table of Contents

I. INTRODUCTION

A. Definitions:

ABIA: Austin-Bergstrom International Airport

CoA: City of Austin

DoA: City of Austin Department of Aviation

P&E: Department of Aviation Planning and Engineering Division

Director: The Director of the City of Austin Department of Aviation

DDG: ABIA Design and Development Guide

DSD: City of Austin Development Services Department

CIP: Capital Improvements Program

LDC: City of Austin Land Development Code

Terminal: ABIA Barbara Jordan Passenger Terminal Facility

South Terminal: Small ABIA terminal located at 10000 Logistics Lane

PTF: ABIA Passenger Terminal Facility

Owner: Assigned DoA Representative(s) with decision authority delegated by the Director

Owner's Representative: DoA P&E staff assigned as liaison between Developer and Owner

Tenant: Lease holder representative for space or property at ABIA

Developer / Design Professional: Tenant representative or consultant (typically a licensed architect or engineer) responsible for project design, permitting and ensuring compliance with all applicable codes and regulations

AHJ: Authority Having Jurisdiction

Contractor: The prime contractor employed by the City or an ABIA tenant to construct new facilities or revise existing facilities

Sub / Subcontractor: Contractors (frequently trade-specific) employed by the prime contractor to construct certain portions of a construction project

FAA: Federal Aviation Administration of the United States

TSA: U.S. Transportation Security Administration

FCC: Federal Communications Commission

CBP: U.S. Customs and Border Protection

OSHA: U.S. Occupational Safety and Health Administration

EPA: U.S. Environmental Protection Agency

TDLR: Texas Department of Licensing and Regulation

NPDES: National Pollutant Discharge Elimination System

The Austin-Bergstrom International Airport (ABIA) Design and Development Guide (DDG) Volume 1 – Development Manual is a set of standards, guidelines, and design criteria for development, design, construction, and renovations at ABIA.

The DDG includes aesthetic, functional, regulatory, and technical site development and facility design standards and processes established by the City of Austin Department of Aviation.

Consultants, tenants, and/or design professionals shall comply with the DDG and incorporate these standards when developing project work designs at ABIA.

Products, means, and materials meeting the criteria are to be investigated and utilized whenever possible. These standards do not preclude other design approaches if a particular standard does not apply or if it presents functional or aesthetic difficulties. A variance may be requested by submitting a written request for consideration on a case-by-case basis through the Owner's Representative.

End of INTRODUCTION

II. PERMITS, CODES, AND REGULATIONS

Federal agencies, including the FAA, TSA, FCC, CBP, US Public Health Service, OSHA, and EPA, all have specific requirements for design, construction, and operations at a certified airport.

Accessibility standards required by the Americans with Disabilities Act (ADA) and Texas Accessibility Standards (TAS) are enforced by the U.S. Department of Justice and the Texas Department of Licensing and Regulations (TDLR), respectively. Other State of Texas agencies which may have jurisdiction include the Texas Commission on Environmental Quality (TCEQ) and Texas Parks and Wildlife Department (TPWD).

Given ABIA's location within the incorporated City of Austin in Travis County, any project located on ABIA property is also subject to ordinances, codes, policies, standards, and design criteria required by the City and County. Regulations of the Austin / Travis County Health Department may also apply.

Design and construction shall be compliant with the latest adopted editions of the referenced codes, publications, and manuals, including all revisions effective at the time the project is submitted for permitting, unless specifically indicated otherwise.

Manuals adopted by the City establish drainage, environmental, transportation, and utilities criteria and standards. Standard specification manuals have also been adopted.

The listing of regulatory agencies in the DDG is not to be considered complete; the Developer is responsible for identifying and complying with all permitting and code requirements.

The DDG is the primary guideline for development of all facilities at the Airport. City of Austin, Travis County, State of Texas, and federal regulatory agencies' requirements shall take precedence whenever they are more stringent and/or in conflict with this Manual.

A. DoA Design Review Policy and Procedures

Proposed changes at ABIA by lease holders or proposed lease holders shall be compliant with DoA DDG requirements. The process for submitting proposed changes shall be as directed by DoA Airport Properties Management representatives.

City of Austin Capital Improvement Program (CIP) projects are excluded from application for changes procedures because design documents are reviewed through a different process.

Maintenance work or repairs which are done under the General Development Permit are also excluded unless they will significantly alter the appearance or function of a facility or affect airport operations. However, maintenance work is not excluded from compliance with applicable permitting regulations.

1. ABIA Construction Inspections

The DoA authorized representatives may inspect construction sites for the purpose of determining compliance with the terms and requirements of the DDG, ABIA policies, or regulatory requirements. Construction work may be inspected or re-inspected any time.

2. Changes in the Scope of Work

Changes in the work during construction (via RFI's or ASI's) shall be carefully documented by the Design Professional and brought to the attention of the Owner's Representative prior to proceeding with those changes. The Owner's Representative will review the proposed changes and furnish comments to the Design Professional within one week of receipt of the change proposal. Work related to the change of scope shall not commence until the Owner's Representative has given explicit approval to do so.

Changes shall include all modifications, additions, deletions, substitutions, or variations between the contract documents and the work. Changes incorporated into the work shall be accurately reflected in the job site drawings and the "as-builts."

Changes shall conform to the terms and provisions of the DDG.

B. City of Austin Construction Permits

All requirements for City of Austin construction activities are applicable at ABIA, including COA site development permits, building permits, and trade permits.

In addition to COA guidelines, policies, and standards, a development is subject to the provisions of the COA Land Development Code (LDC), and building codes, including adopted amendments and related publications.

Design Professionals are encouraged to consult with the COA DSD staff early in the design process in order to minimize potential difficulties during project work, design or construction.

Inspections, reviews, fees, testing, and permits required for design and construction in the City of Austin, County of Travis, and State of Texas, are the responsibility of the Design Professional.

1. ABIA/COA Site Plan Ordinance

City of Austin Ordinance 2012 0628-014 (ABIA Development Ordinance / Development Permitting Guidance Document – December 2012) allows variances to the Land Development Code for on-Airport development. This ordinance is based on a set of master plans for water

quality, erosion and sedimentation control, spoil storage, drainage and grading, land use, and demolition. These documents are available through the Owner's Representative.

In preparing the Airport master plans, assumptions were made regarding configuration of developments, including those which would not be constructed prior to the first commercial passenger flights. The estimated impervious cover of those developments was included in the master plan calculations.

As required, the Design Professional must coordinate through the Owner's Representative to determine how accurately the master plan assumptions anticipated the facilities under design. Variances from these assumptions are to be highlighted for COA plan reviewers in the municipal permits process, and mitigation measures may be necessary to compensate for these variations

C. Environmental Guidelines and Regulations

The City of Austin is committed to environmentally-responsible development. Facility development at ABIA must meet appropriate community standards of environmental sensitivity. The site's history as an Air Force Base means that additional efforts may be required to verify individual project site acceptability for development, and a selected project site may require remediation in order to complete the project.

The DoA maintains records of site environmental conditions, including the status of remediation of all known contamination sites. Information may be requested through DoA representative.

All construction at ABIA shall align with the City of Austin's commitment to sustainability and environmental responsibility. Design Professionals shall incorporate sustainable principles and provisions into each construction project.

1. Erosion and Sedimentation Controls

Any construction projects which involve excavation, backfill, or disturbance of the existing ground will require erosion and sedimentation control measures.

The Design Professional shall provide temporary and permanent erosion and sedimentation control plans, narrative, and details in the construction documents in accordance with local, state, and federal requirements.

2. Storm Water Pollution during Construction

When applicable, any development disturbing an ABIA land surface shall submit a Notice of Intent (NOI) under the National Pollutant Discharge Elimination System (NPDES) rules regarding storm water discharges from construction activities.

ABIA has interpreted these requirements to mean that both the land Owner – who does not retain day to day control of the site storm water discharge – and the Tenant – who does – shall submit NOIs.

The Design Professional and the Owner's Representative shall coordinate the required submittals.

3. Storm Water Pollution from Industrial Activities

ABIA is to be included in the NPDES Multi-Sector General Permit.

In ABIA developments where storm water runoff is subject to industrial permit requirements, the Design Professional and/or Tenant may obtain permit by submitting an NOI referencing the ABIA permit number, or may obtain separate coverage and develop a project-specific Storm Water Pollution Prevention Plan (SWPPP).

The SWPPP for ABIA as an operating airport does not include developments which are separately permitted and covered.

4. Wetlands and Floodplain Areas

Federal regulations control the development and use of land that is designated as either floodplain areas or wetlands to avoid environmental hazards and/or to protect environmentally sensitive areas from encroachment by development.

Wetlands and floodplain areas on the Airport are shown in the City of Austin Site Development Permit Master Plans, November, 1994.

5. Noise

Local, state and federal regulations control the development and use of land at ABIA and the latest ABIA Master Plan has information relevant to proposed land developments at ABIA.

The Developer shall fully coordinate noise impacts of any proposed changes at ABIA with the Owner's Representative and all local, state, and federal authorities, including but not limited to the FAA and the City of Austin.

6. Asbestos / Hazardous Materials

Incorporation of any asbestos-containing materials (ACM) in design or construction at ABIA is prohibited. Forms documenting the non-use of ACM before and after project design (Design Consultant's responsibility) and before and after construction (Contractor's responsibility) shall be submitted for the Owner's project files, as required by the Owner's Representative.

The use of CFCs is limited to refrigerant use in accordance with local, state, and federal guidelines. Lead components shall not be included in the assemblies of domestic water systems.

a. Removal

If the Developer detects the potential for use or disturbance of ACM or other hazardous materials during a project, immediate notification of the Owner's Representative is required.

ACM abatement and disposal shall only be accomplished by personnel specifically qualified in asbestos handling and shall be performed in accordance with all local, state, and federal requirements.

The removal of other potentially hazardous materials, including but not limited to, lead paint, Polychlorinated Biphenyls (PCBs), Chlorofluorocarbons (CFCs), pesticides, etc., may be necessary prior to or during facility construction.

The proper identification, handling, removal, and disposal of hazardous materials are the sole responsibility of the Developer and shall only be accomplished by qualified personnel and be performed in accordance with all local, state, and federal requirements.

b. Hydrocarbons and Other Hazardous Materials

All storage and distribution systems for hydrocarbons and other hazardous materials at ABIA, with the exception of natural gas, shall be constructed above ground to reduce the potential for environmental contamination. In addition, containment may be required.

Such installations shall comply with all applicable codes and industry standards and shall be installed in accordance with all local, state, and federal requirements.

c. Minimizing Deleterious Effects on the Environment

Local, state, and federal regulatory agencies have established air and water quality standards which are in effect at ABIA. Hazardous materials, whether a primary product such as fuel,

fertilizer or motor oil, or a secondary product such as residue on paved vehicle parking areas, shall be handled responsibly.

Filtration, containment, or treatment may be required before materials are released into the environment. The Developer is responsible for providing all necessary equipment and/or systems for compliance with all authorities having jurisdiction.

d. Wash Facilities

The conservation of water resources is of great importance at ABIA. Any Developer's proposed wash facility shall provide water treatment systems required by local, state, and federal regulations.

e. Waste and Sustainability

Any proposed Developer's facilities shall include provisions for participation in the refuse recycling and sustainability programs, as coordinated with, and approved by, the Owner's Representative.

Any construction project on ABIA that includes more than 5,000 square feet of new, added, or remodeled floor area (and any demolition project of any size submitted for permitting on or after October 1, 2019) shall comply with the City of Austin Ordinance No. 20151119-098 (Construction and Demolition Recycling Ordinance and administrative rules). This ordinance requires that at least fifty (50) percent of construction project debris be diverted from the landfill via recycling, reuse, etc., and limits landfill disposal to no more than 2.5 pounds of material per square foot of floor area.

D. Federal Aviation Administration (FAA)

Design and construction shall be in accordance with all applicable FAA design standards criteria, as set forth in FAA Advisory Circulars (ACs) and Federal Aviation Regulations (FARs).

The latest edition ACs may be obtained from the Federal Aviation Administration, U.S. Department of Transportation at: www.faa.gov/regulations_policies/advisory_circulars

See Section III. General Airport Development Considerations for information regarding height restrictions.

E. U.S. Customs and Border Protection (CBP)

The Department of Homeland Security - CBP is authorized to control the entrance and clearance of aircraft arriving in and departing from the United States and to inspect the crews, passengers, baggage, stores, and cargo carried thereon.

CBP enforces a large array of different laws for other agencies in protecting the borders of the United States. Any development of an international facility shall meet all U.S. Customs rules and regulations.

F. Public Health Agencies

The design and construction of projects that affect a food or beverage handling service at ABIA will be reviewed by local, state, and federal regulatory health agencies as appropriate.

G. Accessibility Standards

All projects at ABIA shall equally accommodate persons with disabilities, as provided for in the Americans with Disabilities Act (ADA) and the latest edition of the Texas Accessibility Standards (TAS) published by the Texas Department of Licensing and Regulation (TDLR).

H. Federal Communications Commission (FCC)

All projects at ABIA shall comply with any applicable FCC rules and regulations. All types of proposed wired and wireless communication systems shall be coordinated with the Owner's Representative.

End of PERMITS, CODES AND REGULATIONS

III. GENERAL AIRPORT DEVELOPMENT CONSIDERATIONS

The use of ABIA property shall remain consistent with the aesthetic and functional standards of the Airport. These standards derive from the Airport Layout Plan (ALP) of ABIA (latest version) and the Airport Master Plan (latest version). Federal, state, and local statutes and regulations also apply and may restrict development.

A. Professional Licensing Requirements

All Design Professionals signing and sealing drawings and project manuals (bid specifications) on behalf of the Developer shall be currently licensed for their respective disciplines in the State of Texas.

B. Leased Property Restrictions

Where the ABIA development includes work to be owned, operated, and maintained by the COA, transfer of responsibility shall be by means of a document setting forth the facilities and conditions of acceptance.

As requested by the Owner's Representative, the Design Professional may be required to submit documents which may indicate lease lines, building setback lines, building frontage lines, and/or surveys conducted by a Registered Professional Land Surveyor for a particular area.

Landscape features, paving, and other pertinent features affecting development or operations will be included whenever possible.

All improvements shall be limited to within the boundaries of the leasehold, with the exception of the required utility extensions and access roadways. Any proposed improvements which significantly impact areas outside of the project sponsor's leasehold – especially those which may affect other leaseholders – must be approved the ABIA's Properties Division prior to commencement of the project design.

C. Public Access

The primary mission of the Airport is the efficient movement of passengers and their property to and from aircraft and flight operations. All facilities in which public activity occurs shall meet all requirements for public accessibility and safety.

D. Height Restrictions

Per FAR Part 77, structures and objects within designated areas are height-restricted to prevent interference with air navigation, flight and navigation surfaces, radar shadowing, and the requirement that air traffic controllers be able to see all aircraft operating pavement under the control of Air Traffic Control personnel.

The Design Professional shall submit FAA Form 7460-1, *Notice of Proposed Construction or Alteration,* to the Owner's Representative at least 60 calendar days prior to the scheduled start of construction activities. FAA approval of the 7460 is required prior to issuance of the NTP.

E. Noise

Facilities within the Airport may be subjected to average noise exposure from airport operations in excess of 65 dB. Activities sensitive to excessive noise are discouraged within these areas, and structures accommodating noise-sensitive uses must be sound-insulated in accordance with applicable codes and/or standards.

The FAR Part 150 Noise Study (latest version) contains noise contours and a table indicating the compatibility of different activities and land uses with the different levels of noise exposure. It also prescribes the noise attenuation that should be achieved in each zone.

F. Security

All Developers shall be aware of the specific airport security requirements. TSA and federal security regulations require that access to the Air Operations Area (AOA) be strictly controlled, and the design and operation of all airport facilities shall not permit access to the AOA by unauthorized persons.

Improvements and operations within 10 feet of an AOA fence are severely limited. Written approval of the Owner's Representative is a prerequisite to improvements and/or operations in this area.

All persons performing work at the Airport shall be familiar with security measures and be aware that substantial fines may be assessed for violations of the security provisions of the Airport. Not only may the Director of Aviation assess citations, but also Airport police and TSA Security Staff have jurisdiction on Airport property.

Airport Security reserves the right to install, or to have installed, security devices including, but not limited to, security fencing, gate controls, video cameras, magnetic card readers and associated electronics and power sources within the project limits of any development on the Airport.

The ABIA Security Plan is maintained by the Airport Security Manager, and questions about plan provisions may be submitted to the DoA for review and response, as required.

End of GENERAL AIRPORT DEVELOPMENT CONSIDERATIONS

IV. GENERAL AIRPORT DESIGN STANDARDS

Development shall follow the applicable sequences and processes established in the complete set of documents comprising the DDG. Project-specific information, especially which relate to variations in development requirements due to site or program constraints, shall be coordinated with the Owner's Representative.

A. Glare

Airport operations require maximum visibility for communications and safety. Building designs shall control solar glare within and without. Glazed surfaces shall not have reflective coatings. Maximum reflectivity of exterior surfaces is not to exceed 20%. Interior glare shall not disturb airport operations or passenger comfort and convenience.

B. Acoustics

The acceptability of noise levels depends upon the development program. Exterior noise from aircraft, vehicles, and equipment, and interior noise from building systems and equipment shall be included in any analysis and design.

C. Aesthetics

A consistency of construction and visual interpretation is described in these guidelines. The intent is to establish broad-based relationships and criteria to unify aesthetic and technical elements of airport structures. Specific building design is not provided. These guidelines provide a basis for evaluation of new designs for construction.

Airport aesthetics have been established and it is intended that the nature and character of Austin be expressed throughout the site. Building materials should be selected for durability, ease of maintenance, and for their relationship to the structure and its intended use. Building materials shall be locally-sourced whenever possible.

Volume 2 of the DDG more specifically addresses development in and around the Barbara Jordan Terminal building. Terminal aesthetics, considered the basis for aesthetic design of other ABIA buildings, combine Texas Pearl granite, an expressed steel structure, and a glass and aluminum curtain wall system to convey durability, openness, and high performance.

ABIA has functional requirements for all projects. Public access and convenience, federally-mandated security, and airline and tenant operations are primary. Each development is to incorporate the functional requirements of that specific program, as well as those of the Airport.

All building systems shall be highly efficient over the intended life cycle. Energy should be conserved, and operational and maintenance requirements

minimized. Systems shall be based upon aesthetic, climatic, and environmental conditions of the Central Texas and Austin areas.

D. Architectural Finishes, Exterior

The Design Professional shall submit to the Owner's Representative a complete exterior material colors and finishes board (in physical form – digital material boards are insufficient) for Owner review and comments. A location plan shall be provided, and all materials and finishes included in the submittal shall be identified and located thereon.

1. Walls

All wall surfaces subject to damage from materials handling, equipment, or vehicles shall be of durable, low-maintenance, impact-resistant materials. Examples of acceptable materials include stone, masonry, and flat metal panel systems.

Ribbed profile metal panel systems may be permitted for limited use with the written approval of the Owner's Representative.

Glazed or curtain wall systems within ABIA may be used. Individual windows in opaque walls shall meet aesthetic, energy, and functional standards, and also provide high quality performance for their life-cycle.

Subject to written approval through the Owner's Representative, daylighting glazing may be permitted. Sloped or horizontal glazing systems will not be permitted.

2. Roofs

A Class A, Factory Mutual approved roof system with a minimum of 20 year, no-dollar-limit manufacturer's warranty is required.

A "Cool Roof" system (as defined by the U.S. Energy Department) should be incorporated where possible.

Acceptable systems may include modified bitumen or standing seam interlocking metal. Exposed materials shall be light-colored for solar reflectance, but must not produce significant glare, which could adversely affect aircraft operations.

Roof-mounted equipment and roof penetrations should be avoided unless necessary. Where roof-mounted equipment is necessary, the equipment shall be screened for visual compatibility in such a way as to allow for proper maintenance of equipment, and roof protection pads shall be provided where foot traffic is anticipated.

E. Architectural Finishes, Interior

All finishes shall be durable, low-maintenance, and fire-resistant. A complete interior materials colors and finishes board (in physical form – digital materials boards are insufficient) shall be submitted to the Owner's Representative during design. All materials and finishes included in the submittal shall be identified and located thereon. Materials for public and non-public areas shall be clearly delineated.

F. Equipment

All exterior equipment shall be screened from view of the general public or otherwise made discreet, and must be approved through the Owner's Representative.

G. Security

The integrity of the airport-wide security system must be maintained. The Owner's Representative will assist the Developer in coordinating project-specific design, construction, and operations security requirements, which will vary with location and operation.

H. Signage and Graphics

Any publicly displayed signage (including logos, and promotional or advertising signage) will be allowed only when included in design documents reviewed and approved through the Owner's Representative – and then only when compatible with ABIA aesthetics. DoA approval is required prior to any sign installation.

If illuminated, signs must not create glare or block views.

I. Lighting

Energy-efficient lighting shall be specified.

1. Interior

Interior lighting of all Airport developments shall provide for the efficient and safe performance of all functions within that facility.

2. Exterior

Exterior lighting shall be shrouded and not create a glare hazard to aircraft operations.

J. Communications

An Airport Premise Distribution System is available to serve the data and communications needs for most facilities. The demarcation point for any tenant system will be determined through the Owner's Representative.

K. Refuse

The Developer shall be responsible for design and construction for trash handling devices, containers, and visual screening.

Exterior trash receptacles shall include a closed top to reduce blowing trash, limit overflow, and protect the contents from weather. Visual screening of all waste receptacles shall be provided by Developer or Tenant as approved by the Owner's Representative.

Trash and recycling collection and removal services are the responsibility of the Developer.

L. Roadways and Pavement

Roadway and pavement designs, as well as other civil engineering work, are addressed in Section VIII, Civil and Site Work Standards.

M. Landscaping

Development, including landscaping, shall conform to the City of Austin's Land Development Code (LDC) and be approved by the City of Austin. All landscaping design shall complement the ABIA Landscape Master Plan included in the DDG and available through the Owner's Representative.

Landscaping shall be appropriate to the primary airport operations. Landscaping and irrigation systems required for a particular development shall generally be constructed within the lease lines of that development.

The Developer is responsible for meeting the requirements of the Code, whether modified or not, through coordinated construction documents.

End of GENERAL AIRPORT DESIGN STANDARDS

V. GENERAL AIRPORT CONSTRUCTION GUIDELINES

The Design Professional shall ensure that on-site activity by construction contractors does not begin before insurance requirements, pertinent permits, and security clearances are obtained by the contractor.

No work shall commence without a Notice-to-Proceed (NTP) issued by the designated Owner's Representative.

A. General Coordination

Work hours may be restricted to prevent interference with normal airport activities or to meet other airport concerns. Based on a list of parties affected by the proposed construction and identified by the Owner's Representative, coordination with tenants, concessionaires, and air carriers affected by each project shall be provided by the Owner's Representative.

Restrictions on work hours, as approved by the Owner's Representative, are to be included in the construction documents. Contractors will be required to comply with provisions of the DDG Appendix G - DoA Airport Construction Work Coordination Requirements (available upon request).

For operations on the landside portion of the airport, the contractor shall provide the Owner's Representative with a traffic control plan per City of Austin requirements.

B. Pre-Construction Conference

In addition to pre-construction conferences required by others, the Owner's Representative requires a pre-construction conference to be conducted by the Design Professional for each project, no less than one week prior to the scheduled start of on-site activities.

The pre-construction conference shall be attended by representatives of the Design Professional, the Contractor, and Airport staff. The agenda, date, and time shall be coordinated through the Owner's Representative.

C. Airport Construction Safety

Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work.

Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property. Contractor shall erect and maintain all necessary safeguards for the safety and protection of personnel and property.

Contractors will be required to comply with provisions of DoA Standard Specifications 01145A – Hot Work and 01145B – Fire Alarm-Sprinkler

Impairment whenever construction work may affect or interact with DoA fire alarms systems.

Construction work shall also comply with the following DDG Appendices (Available upon Request), to help insure safe construction work operations: Appendix G - Airport Construction Work Coordination Requirements and Appendix O - Airport Security Requirements.

1. Aircraft Operations Area Requirements

For work performed on the airfield, the contractor shall adhere to all federal, state, and local construction safety regulations.

All materials and equipment, when not in use, shall be placed in approved areas where they will not constitute a hazard to aircraft operations and not penetrate clearance surfaces defined in Federal Aviation Regulation Part 77 (14 CFR Part 77).

2. Clean-up

For construction within the AOA, operational safety requires additional clean up and restoration measures. Debris resulting from work on the airfield must be continuously removed during the course of the work. Debris from work on runways, ramps, or active taxiways shall be vacuum-swept prior to opening this area to aircraft traffic.

Prior to the end of Contractor's shift work on the airfield, the Contractor shall coordinate with the Owner's Representative to have inspected for debris or safety violations any runway, taxiway or ramp area that has been either closed for work or used as a crossing point or haul route.

The debris shall be cleaned up to the satisfaction of Airport personnel prior to opening the area to aircraft traffic. The inspection time shall be mutually agreeable and coordinated to allow timely opening of the area.

3. Existing Airfield Lighting Systems

The Contractor shall provide advance notice of at least three (3) CoA business days when requesting to initiate work anticipated to interfere with existing airfield lighting, and seven working days advance notice for work anticipated to interfere with navigational systems.

Any service and/or system interruption shall be done in accordance with the specifications and with the approval of the Owner's Representative.

4. Airfield Work Communications

Construction activities shall not be permitted within the Runway Protection Zones (approach areas of the runways) or within the Runway Safety Areas of an active runway without prior coordination with the Owner's Representative.

Contractor's vehicles or personnel shall not enter or cross active runways, active taxiways, or clear zones without the express permission of the Control Tower or Ground Control, depending on the location of the work.

Communication with the Tower shall be made primarily on the airport communication frequency provided through the airport's designated construction representative. The standard phonetic alphabet is used in aviation, and use of CB language or jargon is prohibited.

No equipment or personnel shall proceed onto any active runway, active taxiway, or apron until the Austin Air Traffic Control Tower or Ground Control has granted permission by radio to proceed to those areas.

In instances where ABIA Operations officials deem it necessary for a representative to act as a radio controller and escort, the Contractor shall not proceed onto any active runway, ramp, or taxiway without the designated escort.

5. Traffic Control

For operations on the AOA, the Contractor shall furnish, at contractor expense, flag personnel in radio communication with Tower personnel to control traffic in accordance with airport regulations, unless directed otherwise.

All contractor vehicles that are required to cross runways, ramp areas, taxiways, and aprons shall do so under the direct control of competent flag personnel. All aircraft traffic on runways, ramp areas, taxiways, and aprons shall have priority over contractor vehicles.

The Owner's Representative shall be notified at least 30 days prior to any road or parking restriction; runway, taxiway, or aircraft apron closure or restriction; or any activity which may hinder or restrict normal airport operations and access.

More specific notification policies may be noted elsewhere in regards to any proposed construction activities.

6. Hazardous Area Markings

Open trenches, excavations, stockpiled material, or other hazardous areas within which no part of an aircraft may enter, shall be indicated by the use of barricades, supplemental flags, and lights shall be in accordance with FAA Advisory Circular 150/5370-2 (latest edition).

The intensity of the supplemental lights and the spacing for the barricades, flags, and lights must adequately delineate the hazardous area. Provisions shall be made for 24 hour/day, 7 day/week, maintenance of all hazardous area lighting and barricades.

7. Welding/Cutting/Open Flame

Five calendar days prior to each on-site welding, torch cutting, or open flame operation, the Owner's Representative shall be contacted for a welding permit. Welders shall be properly certified for the type of welding to be performed.

No welding, torch cutting, or open flame operations shall be permitted in any hangar when the hangar is occupied by aircraft. Open flame work shall not be conducted in the vicinity of aircraft loading gates when the gates are occupied by aircraft.

No open flames and/or lighted flame devices shall be permitted within seventy-five (75) feet of any aircraft parking area.

D. Job Supervision

Each ABIA project job site shall have on-site at all times a construction supervisor who speaks fluent English. The name and 24-hour, on-site and off-site contact information for the designated supervisor shall be furnished to the Owner's Representative.

The supervisor shall have the authority to respond to any requests or directions of the Owner's Representative. The supervisor is responsible for the safety, security, and cleanliness of the work site at all times.

E. Temporary Utility Connections

The acquisition and termination of all temporary utility services for the construction period is the responsibility of the Design Professional and shall be coordinated with the appropriate utility company.

F. Haul Routes

Haul routes at ABIA shall be developed by the Design Professional in coordination with the Owner's Representative and identified in the Construction Contract documents. Deviations from the indicated route(s)

during construction require written authorization from the Owner's Representative.

Dust control and removal of debris along the routes shall be specified by the Design Professional and provided by the Developer. It shall be the Design Professional's responsibility to coordinate the off-site haul routes (state highways, county roads, or city streets) with the appropriate, respective authorities.

Haul routes on the ABIA site shall be continuously maintained by the Developer during the period of their use and restored to original or better condition at the conclusion of the hauling operation. All existing property, including turf outside of areas designated for improvement, which is disturbed or damaged by the construction operations shall be restored to the satisfaction of the Owner's Representative.

Haul route "BEFORE" and "AFTER" conditions shall be photographically documented by the Developer.

When it is necessary to cross curbs, sidewalks, or other assets, the Contractor shall make reasonable efforts to protect those assets from damage. The Contractor shall immediately repair any damaged roads, curbs, sidewalks, or other assets at no cost to ABIA.

G. Temporary Buildings, Partitions, and Displays

The use of temporary buildings is restricted to the construction phase of a project. All such buildings shall be removed from the ABIA at the conclusion of the construction phase. Restoration of the area to original or better condition, as deemed by the Owner's Representative, shall be completed in a timely manner.

Temporary partitions shall be installed around all construction work areas within occupant spaces.

These partitions shall fully enclose the work from floor to ceiling and provide a dust free environment beyond. Partitions may consist of gypsum wall board or other approved materials, on metal or wood studs, finished and painted on the "public" side. Color of the finished temporary partitions must be approved by the Owner's Representative.

Except for a standard construction project sign, all signs, displays, or company identification may be approved by the Owner's Representative.

H. Clean-Up

Each construction site shall be cleaned of all debris and trash at the end of each workday. The Contractor shall provide suitable trash containers with latch-type lids, fastened to secure the contents.

All trash containers shall be emptied and interior spaces swept clean at the close of each business day. All trash and debris shall be disposed of at an approved off-airport site in accordance with EPA, state, and local environmental protection regulations.

At the end of each work period, the Contractor shall secure all loose equipment and material to prevent potential weather-related damage. The Contractor shall be responsible for monitoring weather reports and taking precautions based on the worst weather forecast.

Should the Airport issue an emergency weather warning, the contractor shall immediately remove, tie-down, or otherwise secure any object which could conceivably damage property or personnel.

I. Record Drawings and Specifications

All construction drawings shall be provided in AutoCAD format. Project deliverable requirements are referenced in the CADD Standards Manual.

All drawings shall utilize the Austin Bergstrom International Airport Coordinate System (ABACS- NAD 83). Record project drawings and specifications acceptable to the Owner's Representative are required prior to final acceptance of each project.

An accurate record of actual construction performed, shall be provided as a CADD record copy (electronic file), a full-size paper record copy, and a neatly marked-up copy of the project manual. Information shall include exact locations of actual work - especially, any work that is concealed, such as underground utilities or in-wall wiring.

A marked-up set of the ABIA permit documents, accurately reflecting approved changes to the work, are to remain at the site to be available for review throughout the construction period, and to reflect the current status of the work at any time.

As-built drawings in CADD, pdf, and full-size paper formats shall be provided to the Owner's Representative no later than ninety (90) calendar days after completion of construction.

End of GENERAL AIRPORT CONSTRUCTION GUIDELINES

VI. GEOTECHNICAL DESIGN STANDARDS

Geotechnical reports and pavement design analyses for various locations on campus are available upon request from the Planning & Engineering Division through the Owner's Representative.

The Design Professional may be provided courtesy copies of the reports, which are considered useful only for general knowledge of the subsurface conditions of the general area.

No warranty for the site conditions or the recommendations is expressed or implied. The Design Professional shall have qualified professionals review this material.

A. Geotechnical Conditions

The subsurface soils at ABIA generally consist of dense, high-plasticity, expansive soils with a high corrosion potential.

1. Site Geology

The majority of ABIA is covered by Lower Colorado River terrace deposits of Pieistocene Age which are underlain by montmorillonitic and calcareous clays and marls of the Taylor Group of Upper Cretaceous Age.

The terrace deposits are comprised of varying thickness of clayey to gravelly soils which were deposited during the meandering of the Colorado River, although the upper ten to fifteen feet is more commonly comprised of clayey soils.

The contact between the terrace deposits and the underlying Taylor Group can be highly variable, depending upon the degree and extent of past erosion by the Colorado River.

The Taylor Group in the ABIA area is comprised primarily of gray to medium dark-gray montmorillonitic and calcareous clays and marls.

The gray to medium-gray marl stratum generally weathers into a tan to tan and gray clay nearer the surface due primarily to oxidation.

Although several faults are known to exist within the Taylor Group south of ABIA (south of Onion Creek), it is not known whether these faults extend north across Onion Creek.

No surface indications of faulting are evident due to the presence of terrace deposits over the Taylor Group.

The Austin area is located in seismic zone zero and, therefore, possesses minimal potential for seismic activity. No movement has

been detected in the Balcones fault zone, the primary local structural feature, during modern times.

2. General Subsurface Conditions

Subsurface stratigraphy varies across the site and is categorized as Strata I, II, IV, and V. Strata I and II consist of Pleistocene terrace deposits.

The general pattern of these deposits consists of a lower plasticity index as a function of depth. Stratum IV soils are comprised of weathered Taylor Group clay marls, while Stratum V soils consist of the virgin group of Taylor clay-marls.

A more detailed description of the soils for each stratum is found in the following subsections.

a. Stratum I

Stratum I is comprised mainly of hard, dark-brown to brown clayey soils. These soils generally exhibit a moderate to high potential for volumetric change during variations in in-situ moisture, as indicated by measured Plasticity Indices (P1).

b. Stratum Ia

The Stratum Ia soils are fill materials which were presumably placed during past construction operations at ABIA. These fill soils generally exhibit moderate to high shrink/swell potential.

c. Stratum II

The Stratum II soils generally consist of brown to tan silty clay. These soils generally exhibit moderate shrink/swell potential since the measured Plasticity Indices vary.

d. Stratum IV

Stratum IV includes tan and gray clays which consist of the weathered portion of the Taylor Formation. The soils of this stratum generally exhibit a moderate to high potential for volumetric change during variations in in-situ moisture, as indicated by Plasticity Indices.

B. Subsurface Investigations

The Design Professional's geotechnical engineer shall follow all federal, state, and local guidelines during all field operations.

Any indications of soil/groundwater contamination shall be made known to the Owner's Representative immediately. Work shall cease in the affected area until the site condition has been investigated and resolved.

Proposed drilling locations shall be submitted to the Owner's Representative prior to commencement of drilling activities for review.

C. Foundation Design Criteria

The Design Professional shall employ a qualified engineer licensed in the State of Texas to provide a foundation design for the intended structure. This engineer shall have available the results of the Design Professional's Geotechnical Engineer's investigation.

1. Structure Types

The Design Engineer shall ensure the building structure is appropriate for the foundation type selected in regard to the stresses and differential movement likely to be experienced due to the soils at this location.

2. Foundation Types

The Design Engineer shall investigate the alternative foundation types suitable for the soil conditions and the proposed building type.

3. Design Criteria

The foundation criteria will typically be that found in the City of Austin Building Code, as well as recommendations provided by the Geotechnical Engineer. The Design Engineer shall identify on the drawings the floor, column, and pier bearing/friction loads designed for the assumed differential movement to be withstood by the building foundation and system, the deflection limits designed within.

D. Groundwater Control Criteria

The Engineer shall investigate and confirm the existing groundwater conditions at the building site, and provide a plan for both temporary control of the water during construction and permanent control of the water to prevent deterioration of the building, the adjacent pavements and the surrounding facilities.

E. Protection of Adjacent Structures and Facilities

The Design Engineer shall prepare plans for locations where proposed construction will endanger other facilities. These may consist of other foundations, roads, buried or overhead utilities, Navigational Aids (NAVAIDS),

drainage system components or conveyances, airfield pavements, and temporary installations (such as other construction).

The Design Engineer shall require the contractor(s) to install and maintain proper protection in any situation where other facilities are identified as likely to be endangered during construction, or when this is discovered in the field.

No blasting will be allowed. No unusual vibration or noise shall be allowed to unduly disturb adjacent operations or occupied spaces due to construction activities or use of the new facility or related activities.

End of GEOTECHNICAL DESIGN STANDARDS

VII. BUILDING DESIGN STANDARDS

Airport facilities are subject to all federal, state, local, and Airport requirements depending on the location and nature of the development. The Owner's Representative will advise the Design Professional of information required to be incorporated into the Construction Project Manual.

A. Site Work

Additional site work information is located in Section IX, Civil and Site Work Standards of this Manual.

1. Planters, Trash/Recycling Receptacles, and Street Furniture

Planters, trash/recycling receptacles, and street furniture shall be as submitted and approved by the Owner.

2. Chain-Link Fence and Gates

All fencing and gates shall meet the current applicable FAA Advisory Circular unless approved or directed otherwise by the Owner's Representative.

3. Utility Meters and Service Lines

The Design Professional shall make application, submit for reviews, pay fees, and comply with construction and maintenance requirements of each utility company for both temporary and permanent service.

The location of all buried or otherwise hidden utility structures, including pull boxes or spare conduits, shall be accurately recorded in the Record Drawings, which shall be turned over to the Owner's Representative.

4. Utility Corridors

Protection of utility corridors is required during construction and operation. No structure or landscaping is to be installed within the metes and bounds of the utility corridors.

Paving may be installed provided utility lines below are sleeved in accordance with requirements of the service provider.

Modifications to the utility corridor, including locating paving within the corridor, are to be accurately documented by the Design Professional with each utility company and with the Airport. Survey information, including metes and bounds, is required for any reconfiguration of the corridor.

5. Fire Protection

Flow and pressure testing shall be specified by the Design Consultant and performed by the Contractor according to the standards of the Austin Fire Department and Factory Mutual. Systems shall be in accordance with the requirements of Section VII, Mechanical, Electrical, & Plumbing Building Systems.

B. Concrete Structures

1. Cast-in-Place Concrete

At a minimum, all cast-in-place concrete work, including forming, placement, and finishing, shall be performed in accordance with the American Concrete Institute (ACI) and applicable national standards.

Floor slabs shall be level within a tolerance of 1/8-inch in 10-feet. Pitch to drains in planes shall be true to the same tolerance.

2. Precast Concrete

At a minimum, all precast architectural concrete shall be designed and constructed in accordance with the ACI, ASTM, and all applicable national standards.

Precast concrete sample panels shall be required in the construction contract for all precast concrete work in a development, reviewed and approved by the Owner's Representative, and shall illustrate the quality, color, and texture of the final surface finish.

C. Masonry

Acceptable masonry products include brick, concrete masonry units, and stone. The finish and color shall be approved by the Owner's Representative. ASTM standards are acceptable for mortars and grouts.

D. Metals

Installation work shall adhere to requirements as noted below.

1. Structural Steel

All structural steel shall conform to all applicable national standards.

2. Light-Gauge Metal Framing

The gauge and spacing of metal framing members shall equal or exceed the recommendations of the wall or ceiling sheathing materials manufacturer.

3. Handrails and Guardrails

Design and construction shall comply with all requirements of the building codes and accessibility standards. Welding work shall comply with American Welding Society (AWS) standards. Returns with closed ends at wall-mounted handrails shall be provided.

E. Thermal and Moisture Protection

1. Manufactured Metal Wall Panels

Manufactured metal panel systems and profiles are subject to approval by the Owner's Representative. Wall panels shall be no less than 22 gauge.

2. Metal Roof and Soffit Panels

Manufactured metal roofing systems and profiles are subject to approval by the Owner's Representative, and must be installed by a contractor certified by the respective roofing manufacturer.

F. Doors and Windows

Installation work shall comply with requirements noted below.

1. General

In the interest of safety, vision panels shall be provided in all locations unless security of the operation dictates otherwise.

2. Metal Doors and Frames

Exterior doorways shall be constructed of hollow metal doors and frames. Frames subject to wet conditions shall be galvanized.

3. Flush Wood Doors

Interior wood doors shall be solid core wood construction.

4. Overhead Doors

Overhead doors and grilles, sectional, rolling, or coiling, shall be equipped with a safety stop and a manual override, if the operators are motorized. Exterior sectional doors and grilles shall be galvanized metal.

5. Aluminum Entrances and Storefront

When storefront is permitted, it shall be equipped with extra-heavy-duty hardware. Storefront assembly design shall be for heavy-duty use.

6. Aluminum Windows

Exterior windows shall be operable. Fixed glass is acceptable otherwise. Polycarbonate glazing is not permitted. Insulation of windows to reduce noise transmission shall be incorporated.

No aluminum window shall be installed in a metal frame unless the installation incorporates a design to prevent galvanic action.

7. Door Hardware

Keying shall be compatible with the ABIA keying system and shall be coordinated through the Owner's Representative. All key systems are part of the Airport security system and are subject to review by ABIA security personnel.

G. Finishes

Finish work shall comply with requirements noted below.

1. Tile / Resilient Flooring

The acceptable grade is commercial or industrial.

2. Acoustic Panel Ceilings

White, acoustic panels, two feet by four feet, set in an exposed grid are preferred. Concealed spline ceilings are prohibited.

3. Carpet

Adhesive-backed, non-padded, tiled carpet is preferred.

4. Paint

Only low-VOC paint is acceptable. No lead content will be allowed.

H. Specialties

Specialty work shall comply with requirements noted as follows:

1. Signage and Graphics

Signage and graphics at ABIA shall be designed and constructed in accordance with the following and as reviewed, approved, and/or directed by the Owner.

- All building signage required by municipal, state, and federal regulations and accessibility standards shall be specified by the Design Professional. This includes interior and exterior signage. Street addresses are assigned by the City of Austin.

- All site signage within the lease or project limits is to be specified by the Design Professional based on ABIA standards, and approved through the Owner's Representative.

- Where identification of an operation or business beyond the lease line and at, or near, the access-way or roadway thereto is agreed between the Developer and the Owner's Representative to be desirable, ABIA prototypical signage shall be provided by the Developer.

- No corporate logo signage will be permitted beyond the lease lines. The proposed signage location, utilities, and associated work shall be approved in writing by the Owner's Representative prior to fabrication. The Developer shall be responsible for maintenance of such signage.

- When identifying a building or building complex, private or corporate signage is generally limited to one location within the leased space, and shall be surface-mounted on the exterior wall and adjacent to the main building entrance. Maximum signage area, interior or exterior, is forty (40) square feet. Maximum height above finished grade for exterior signage is 16 feet. Lighting fixtures shall be internal to the sign body.

- All public building signage shall conform to ABIA signage and graphics standards. Signage within the Terminal shall conform to the Terminal signage and graphic standards.

- Signage or graphic identification of concession or lease spaces within buildings is strictly controlled. Location, size, color, materials, and type of any signage proposed by a developer or operator of such space shall be clearly represented in design submittals.

2. Lockers

Personal storage lockers shall be of all welded construction.

3. Fire Extinguishers and Accessories

Design Professional shall specify recessed or semi-recessed fire extinguisher cabinets, except in warehouse or storage facilities. In exterior locations, warehouse or storage facilities, surface-mounted cabinets or mounting brackets are allowed.

4. Loading Docks

-

Loading dock work shall comply with requirements noted below.

Bumper and Leveler: Loading docks shall be equipped with dock bumpers. Safety bells or chimes for hydraulic dock levelers in motion shall be required. Exposed metal of bumpers shall be galvanized steel.

Dock levelers: Safety devices required include toe guards, cross-traffic support safety stops, support mechanism for unit in an elevated position, maintenance strut, and free fall.

End of BUILDING DESIGN STANDARDS

VIII. BUILDING MECHANICAL, ELECTRICAL, PLUMBING STANDARDS

A. General

Mechanical, electrical, and plumbing (MEP) systems for building construction and renovations at ABIA shall be designed to be constructed, installed. and operated safely and in compliance with requirements of authorities having jurisdiction.

These systems shall fully address the comfort and use needs of the building Owner and occupants in an energy-efficient and sustainable manner that minimizes impact on the environment.

B. Miscellaneous

Lead or asbestos-containing materials (ACMs) shall not to be specified or installed. Roof-mounted equipment shall be avoided for ease-of-maintenance and security purposes.

C. Communications, Life-Safety, and Security Systems

Both wired and wireless telecommunications systems installed at ABIA shall be compatible with existing Site Communications Systems including the Premise Distribution System (PDS), which is a copper and fiber optic cables systems installed throughout the airport site to carry voice, data, and video signals.

Systems design and proposed installations shall be fully coordinated with DoA Information Systems Division requirements. This includes, but is not limited to, voice, data, security, alarm, fire protection, pay phones, and entertainment television systems.

End of BUILDING MECHANICAL, ELECTRICAL, PLUMBING STANDARDS

IX. CIVIL AND SITE WORK STANDARDS

A. General

In the design of civil and (flat) site work the Developer is required to continue the parameters established by preceding facilities, which have been the subject of review and permit by Authorities Having Jurisdiction (City, County, State and Federal agencies). There are specific areas which require such attention including, but not limited to the following:

- Erosion and sedimentation control, both temporary and permanent: This requires an awareness of the potential to pollute existing drainage-ways with construction-related run-off and the design of temporary measures to mitigate such damage. Further, it is required that permanent erosion control is incorporated into the design of disturbed areas by the introduction and maintenance of native and adapted grasses.

- Storm Water Drainage: Design for storm water drainage issues requires data on the capacities of existing systems to determine where the need for on- site detention of run-off is necessary. Consistent with the concern for erosion and sedimentation control, is that of water quality (WQ).

  The Design Engineer shall determine at an early stage whether it is necessary to incorporate WQ ponds into the run-off logistic. In general, the major storm water outfalls from ABIA have incorporated WQ facilities; however, in the event that other outfalls are utilized, this concern shall be addressed.

- Sub-grades: Much of the sub-grade material encountered at ABIA displays high Plasticity Indices (P1), indicative of instability in wet/dry cycles. Care should be taken to ensure that pavement base thicknesses are adequate to resist such deformation. Geo-grid extruded polythene reinforcing fabric has been widely used as part of road base construction.

- Americans with Disabilities Act (ADA) and Texas Accessibility Standards (TAS): All facilities on ABIA are subject to the provisions of the ADA and TAS, both in public areas and employee areas.

B. Roadways

Roadway design and construction shall conform in general to the provisions of the City of Austin Transportation Design Criteria Manual and the Texas Department of Transportation (TxDOT).

Design shall provide a 20-year life for identified traffic type and frequency. The special needs of airport development may override the commercial and residential minimum standards.

A selection of applicable City of Austin standard details is included herein. Horizontal geometry of the Airport is defined in the Airport Layout Plan.

1. Pavements

In general, all road pavements shall be of flexible design, incorporating asphalt wearing surfaces, an asphalt base course, and a granular or crushed rock base. The top eight-inches, at a minimum, of sub-grade is required to be lime-stabilized and compacted in accordance with TxDOT specifications. The use of proprietary geo-grid is permitted and may, in certain circumstances, permit a reduction in the required depth of base.

Both lime-stabilization and road base shall extend a minimum of 18 inches beyond the outside edge of the pavement, curb, or sidewalk, whichever is the greater.

Traffic lanes in parking lots and other areas of heavy vehicular traffic shall comply with the roadway design standards.

2. Curbs and Gutters

Spill and catch designs shall be applied where appropriate in super-elevated or cross-hung road sections.

3. Sidewalks

Where sidewalks are required, they shall conform to the ADA. City of Austin approved sidewalk ramps shall be installed at intersections and other areas of high pedestrian traffic.

4. Driveways

Where the lease line is offset from the roadway, the Developer shall be responsible for the construction of vehicular access driveways. Protection of all buried utilities, including sleeving of pipes and conduits beneath the driveways, and continuity of drainage conveyances, is the responsibility of the Developer.

Driveway design shall be consistent with the most stringent pavement design within the project area and provide turn out radii consistent with COA standards, except that the radii shall be no less than 25 feet. In driveways subject to tractor-trailer or large truck traffic, the radii shall be no less than 50 feet.

5. Lighting

Roadway lighting shall conform to City of Austin Electric Utility Standards. Lighting support columns that are located in parking areas shall have an extended concrete foundation shaft.

6. Embankments

ABIA roadway embankment slopes which are not mechanically stabilized shall not exceed five (horizontal) to one (vertical). Embankments with slopes less than three (horizontal) to one (vertical) require mechanical stabilization.

Acceptable stabilization means vary with the conditions and location. Dry stack, geo-grid, and other mechanical stabilization methods are acceptable, depending on these factors.

C. Parking Areas

On-street parking is not allowed at ABIA. City of Austin Land Development Codes apply to all areas of ABIA, except where variances have been granted or alternative compliance allowed in the interest of aviation safety and continuous long term occupancy.

1. Lighting

The Developer is required to illuminate parking areas to provide a safe secure environment. All security lighting shall have photocells for automatic turn-on during poor visibility and night time hours. Lights shall be shielded and adjusted to light intended areas only.

Reflectors shall be designed to minimize upward light scatter. Lighting mounted on buildings for area lighting security purposes may be acceptable, with the Owner's Representative's approval.

2. Pavement

All pavements where heavy traffic, heavy trucks, and delivery vehicles will travel must meet at least the minimum design standards for roadways. This includes traffic lanes in parking lots. Minimum paving for private vehicle parking is not acceptable in these areas.

In circumstances where heavy truck maneuvering is planned, an eight-inch minimum thickness of reinforced Portland Cement Concrete (RPPC) paving surface is required. This includes areas where containerized waste is located.

3. Employee and Visitor Surface Parking

At a minimum all parking space pavement shall consist of a two-inch asphalt layer over an eight-inch aggregate base with a minimum eight-inch lime stabilized sub-grade. Vehicular circulation aisles shall be perpendicular to the building entrance facade and stalls shall be at 90 degrees to the circulation aisles.

Parking spaces shall be designed at right angles to the horizontal access of the building wherever possible. Exceptions to this layout may include loading areas and ADA-compliant accessible stalls. Parking stalls shall be 10 feet wide by 18.5 feet deep.

D. Drainage

Installation and maintenance of water quality structures or devices (such as grease traps, oil-water separators, filtration beds, areas of containment, etc.) required by the City of Austin shall be the responsibility of the Developer.

1. Storm Water Drainage

Master plans for water quality, erosion and sedimentation control, spoil storage, drainage and grading, land use, and demolition are included in latest CoA Land Development Code ABIA Ordinance requirements (Available Upon Request).

Assumptions were made regarding the configuration of ABIA facilities prior to their construction. The Developer must coordinate through the Owner's Representative to determine the effect of those assumptions on the Developer's proposed facilities.

All work associated with modifications, additions, or deletions to the systems addressed in the Ordinance shall be the responsibility of the Developer.

Design documents prepared by the Developer shall incorporate calculations for a two-year, a 25-year, and a 100-year rain event, although the development shall comply with the City of Austin's requirements for a design based on the 25-year event.

2. Curb Inlets

Curb inlets shall be of the recessed type. The length of the inlet(s) shall be designed to prevent overflow of the curb face and determined in conjunction with hydraulic calculations to determine the design event inflow.

3. Area Inlets

Drop inlets shall be allowed in special circumstances. Use of the grate included in the detailed diagram is limited to areas of restricted pedestrian access. Where pedestrian traffic is likely (e.g. in parking lots), gratings specified by the Developer are subject to approval on a case-by-case basis.

4. Storm Drains

Storm drains shall be designed in accordance with the criteria set out in the City of Austin's Drainage Criteria Manual. Precast concrete pipes, with 0-ring joints shall be used throughout.

5. Manholes

Manhole covers shall be 24-inch diameter and comply with the detailed diagrams included herein. Manhole covers shall be capable of supporting the traffic loading anticipated.

E. Water and Wastewater

Water and wastewater systems design shall comply with City of Austin Water and Wastewater Utility requirements. All materials proposed for use shall be approved by the City and/or listed on the current Quality Products List.

F. Utilities

Utility corridors are available for service connections throughout the ABIA site, and indicated within the ABIA utility Corridor Management Program Guidance Manual – October 2017, or latest version. Paving and construction within these corridors is limited and strictly regulated by ABIA. Utility line location, size, and connection point's particular to a project are provided in the corresponding appendix. However, each utility service company controls acquisition and provision of service for each development.

The Developer is responsible for coordinating with each utility company and the City planning department, the information, materials, and fees necessary for temporary or permanent service connections. Design, construction, and maintenance of utilities from the point of connection at the corridor to the point of service are the sole responsibility of the Developer.

All underground utilities installed by the Developer shall be marked with magnetic tape to provide surface detection capability.

End of CIVIL and SITEWORK STANDARDS

SUPPLEMENTAL APPENDICES
(Available Upon Request)

The following documents are made part of the ABIA DDG Volume 1 by reference:

A. ABIA Water Distribution Master Plan

B. ABIA Wastewater System Study

C. ABIA Drainage Master Plan

D. Master Development Ordinance Plan for Austin-Bergstrom International Airport (Ordinance No. 20120628-14 or Latest Version)

E. ABIA Utility Corridor Program

F. ABIA CADD Standards

G. ABIA Façade Sign Standards

H. ABIA Blade Sign Standards

I. ABIA Landscape Schematic Development Plan

J. ABIA Terminal Grease Management Plan

K. ABIA Waste Policy and Program

End of DDG Vol. 1 – Development Manual