Municipal Airport
Construction Safety Phasing Plan

Runway Sealing and Marking Project
AIP FAA Project No. X-XX-XXXX-XX

July, 2012

PREPARED BY:

City
State

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Aviation safety is the primary consideration at airports, especially during construction. This Construction Safety and Phasing Plan (CSPP) will serve as a companion document to the project plans and specifications for the Runway Sealing and Marking project (Project) at the Municipal Airport and has been written in compliance with FAA AC 150-5370-2F, Operational Safety on Airports During Construction. The phasing developed for this project is intended to minimize the impact the project will have on airport while providing a logical sequence of construction activities. The subsequent sections of this document will address scheduling, coordination, and airfield safety precautions as they relate to the Project.

1) Coordination

a) Project Contacts. Below is a comprehensive list of parties involved during design of the Runway Sealing and Marking project.

Table 1 Design Contacts

Organization	Role	Point of Contact	Contact Information
Corporation	Consultant (Airfield Design)	Name	(555) 555-5555
City	Sponsor	Name	(555) 555-5555
Federal Aviation Administration	State Engineer	Name	(555) 555-5555
Federal Aviation Administration	FAA-ATO	Name	(555) 555-5555

b) Design Submittals. Throughout design, coordination between the Corporation, the City (Sponsor), and the Federal Aviation Administration (FAA) was required. Project documents were reviewed by the Sponsor and the FAA at the 95% stage of preliminary design. Below of a summary of the project schedule to date.

Table 2 Project Schedule

Submittal	Date
95% Preliminary Design	3/15/2012
Issued for Bid	3/30/2012
Pre-Bid Meeting	4/17/2012
Bid Opening	4/26/2012
Construction Contract Execution	TBD
Issued for Bid Submittal	TBD
Pre-Construction Meeting	TBD
Notice to Proceed	TBD

c) Pre-Bid Meeting. A pre-bid meeting was held on April 17, 2012. The meeting provided bidding firms to ask project specific questions. Below is a general outline of topics covered at that meeting:

i) Project Overview

ii) Proposal Requirements

iii) Safety Plan Compliance Document (SPCD)

iv) Questions and Answers

d) Preconstruction Meeting (TBD). Prior to the start of any construction operations on the airfield**,** a pre-construction conference will be scheduled in order to discuss operational safety, phasing, quality control/quality acceptance, labor requirements, and potential issues that could arise during construction. The meeting will be scheduled within 10 days of issuing a construction Notice to Proceed. Below is a general outline of topics that will be discussed at the meeting.

i) Project Overview and Safety Items

ii) Construction Items

iii) Labor Requirements

iv) Civil Rights Requirements

e) Contractor Progress Meetings. In addition to the pre-construction conference, operational safety will be addressed at each Contractor progress meeting. These meetings will also address weekly construction issues, administrative issues such as change orders and/or pay estimates, and any coordination required with the FAA or the Sponsor in relation to opening/closing sections of pavement, issuing notice to airmen (NOTAMs), or impacting navigational aids (NAVAIDs) during construction. Below is an incomplete list of parties that will be involved during construction. The list will be updated after the contract is awarded to include all necessary contact information.

Table 3 Construction, Emergency and Utility Contacts

Organization	Role	Point of Contact	Contact Information
CONSTRUCTION			
City	Airport Manager	Name	(555) 555-5555
Corporation	Consultant (Airfield Design and Construction)	Name	(555) 555-5555
Federal Aviation Administration	State Engineer	Name	(555) 555-5555
	FAA-ATO	Name	(555) 555-5555
	FAA Airways Facilities	Name	(555) 555-5555
Contractor (TBD)	Contractor Project Manager	TBD	TBD
	Contractor Superintendent	TBD	TBD
	Contractor Safety Manager	TBD	TBD
Subcontractor (TBD)	Subcontractor Contact	TBD	TBD
EMERGENCY			
Hospital		N/A	(555) 555-5555
Fire Department	Fire Fighting	N/A	(555) 555-5555
Police Department	Law Enforcement - Police	N/A	(555) 555-5555
Sheriff Department	Law Enforcement	N/A	(555) 555-5555
UTILITY			
Federal Aviation Administration	FAA Facilities - Utilities	TBD	(555) 555-5555
One-Call System	Utility Locat	TBD	(555) 555-5555

Organization	Role	Point of Contact	Contact Information
ExxonMobil	Oil Pipeline	TBD	TBD
Water Utilities (Name of Company)	Utility	*Provide contact name if known.*	(xxx) xxx-xxxx
Power Company (Name of Company)	Utility	*Provide contact name if known.*	xxx) xxx-xxxx
Others	Utility	*Provide contact name if known.*	(xxx) xxx-xxxx

2) Phasing

The Project consists of a base bid that includes the following elements:

- Removal of existing runway pavement marking.
- Removal of existing joint sealant.
- Sealing of joints.
- Mark runway pavement.

The work will be accomplished in one phase to minimize the impact the Project will have on airport operations and to obtain a better quality product. The Airport will be closed for 20 calendar days to allow the contractor to complete all the items previously described. The airport layout and safety plan can be found in Appendix A.

Areas to be Closed to Aircraft Operations – The airport will be closed to all aircraft operations during the Project.

Duration of Closures - The airfield will be closed for 20 continuous calendar days. The City and Contractor will determine the best start date once the NTP is issued.

Construction Staging Areas – The Contractor staging area is located behind the hangar building, on the west side of the airfield. This is the only staging area allowed for employee parking, material storage, equipment storage, and material delivery for the duration of the project.

Construction Access and Haul Routes – The Contractor shall access the airport using a route from Highway 24, traveling north on Elks Club Road (280 Avenue) east of the city towards the airport, turning west on Airport Road (Q Terrace); turning north on Airport Road to access the airport construction site. No access to the airport will be allowed to Contractor's equipment on East Prout Street.

Lighting and Marking Changes – Due to change in magnetic declination Runway 17-35 is being modified to become Runway 18-36.

Available Runway Length and Declared Distances – Runway 17-35 will be closed to all aircraft operations during construction.

3) Areas and Operations Affected by the Construction Activity.

The airport layout and safety plan (sheet G02 of the plans) depict the areas located on the airfield that will be affected by construction activities as well as details for the methods of maintenance of traffic and safety. This plan sheet has been included in Appendix A for reference. For the scope of work associated with the construction phase and specific information regarding pavement closures refer to section 2 Phasing.

Table 4 Runway Safety Areas

Location	Aircraft Approach Category	Airplane Design Group	RSA or TSA Width in feet divided by 2
18	B	II	150’
36	B	II	150’

Table 5 Safety Areas to Runway Threshold

Runway End Number	Airplane Design Group	Aircraft Approach Category	RSA Length Beyond RWY End	RSA Length Prior to Landing Threshold	Approach Slope
18	II	B	300 ft.	300 ft.	34:1
36	II	B	300 ft.	300 ft.	20:1

4) Protection of Navigation Aids (NAVAIDs)

No impacts to NAVIADs areas are anticipated at this point. Should the scope of the project be modified and interrupted NAVAID service due to construction occur, the Contractor shall notify the emergency FAA contact found in table in Table 3 immediately and address it in the SPCD.

5) Contractor Access

a) Location of Stockpiled construction materials. The Contractor’s staging area is located behind the hangar building, on the west side of the airfield. The staging area is shown in Figure 1 and includes employee parking and material storage. The Contractor may install a temporary 6’ chain link fence to secure the staging area; however, upon completion of the Project the staging area shall be restored to original condition. Vehicles, equipment, and stockpiles shall be no closer than 10 feet away from any temporary security fence. Stockpiled materials shall not exceed 20 feet in height and will only be permitted within the boundaries of the staging area.

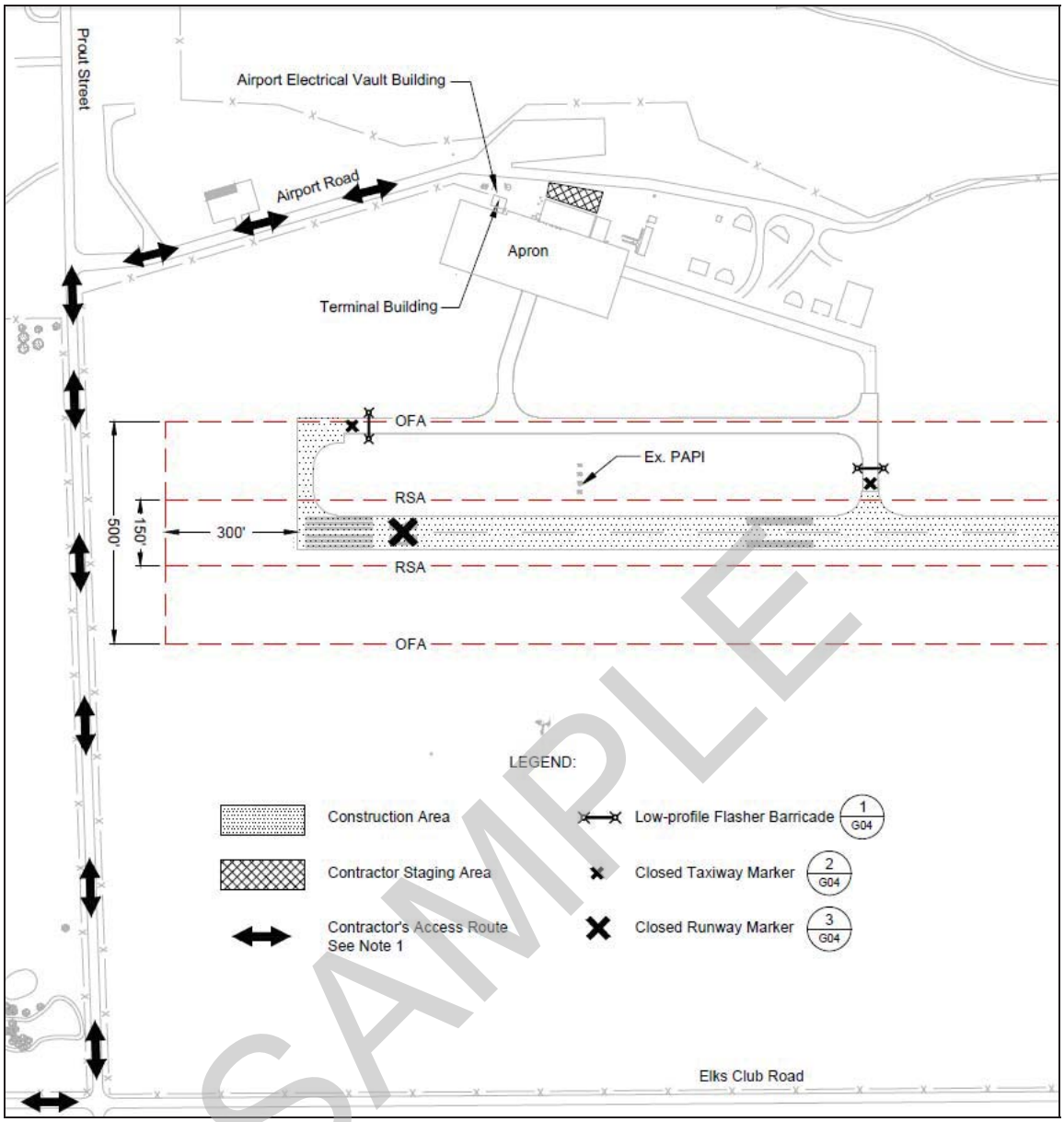

Figure 1. Staging Area Location

b) Vehicle and pedestrian operations. Access to the air operations area (AOA) will be granted from the Contractor's staging area through the apron as shown in Appendix A. Any modification of the access points or haul routes shown on the plans shall have written approval of the Sponsor.

All Contractor employees shall park personal vehicles at the designated contractor staging area as shown in Figure 1. Personal vehicles will not be allowed anywhere inside the AOA. It is the responsibility of the Contractor to provide vehicles that are authorized to operate on the site. These vehicles will be identified in accordance with AC 150/5210-5D. At a minimum, a yellow flashing beacon shall be mounted to the uppermost part of the vehicle. In addition, the Contractor shall identify employees and subcontractor employees which require unescorted access. If a vehicle or piece of equipment is not furnished with a beacon and company information it must be escorted within the AOA by a vehicle with the proper identification.

6) Wildlife Management

Various contractor operations during construction can directly or indirectly create wildlife hazards at airports. One indirect wildlife hazard that can be created by Contractor personnel activity is the generation of trash. Food scraps must be collected from construction personnel and disposed of appropriately. It is the responsibility of the Contractor to make arrangements for trash removal from the project site as well as the contractor's staging area. Trash should be removed from the site on a weekly basis as a minimum requirement. Should this practice prove to be inadequate, the Contractor will be asked to increase the frequency of trash removal.

Standing water is a potential wildlife hazard that can be created from construction activity or rainfall events. For this project, standing water will not be allowed to stand after a rain event for more than 48 hours. The Contractor will take precautions and have ready, at no additional cost to the Project, a pump to remove standing water from the project area by pumping to the nearest storm water inlet.

Tall grass and seeds represent another wildlife attractant on airfields. The Contractor is responsible for maintaining its staging and parking areas free from tall stands of grass.

In the event of a wildlife encounter (ie. dog, fox, coyote, deer, etc.) within the AOA, the Contractor shall immediately contact Airport Operations. Refer to Table 3 for Airport Operations contact information.

7) Foreign Object Debris (FOD) Management

It is the responsibility of the Contractor to maintain a clean project site free from the threat of FOD. The Contractor and its employees will be held responsible for maintaining the project area and keeping it free from FOD whether it is generated from the project site or other airfield areas. Everyone inside the AOA is responsible for the removal of FOD regardless of its origin. In project areas that require the temporary closure of airfield pavement, Airport Personnel will have the final word on the acceptance of cleaned construction areas for aircraft operations. The Contractor shall use a street sweeper or vacuum truck to clean airfield pavement prior to opening closed areas to air traffic.

8) Hazardous Materials (HAZMAT) Management

The requirements of the hazardous waste regulations established by the USEPA are presented in 40 CFR 261 through 270. Wastes that are hazardous and regulated under RCRA are classified as either listed or characteristic wastes.

Listed wastes are considered to be hazardous regardless of the concentrations of hazardous chemicals contained in the waste. Please refer to 40 CFR 261.31 through 261.33 for specific information regarding listed wastes. If a waste is not listed the generator should determine if a waste exhibits any of the characteristics of a hazardous waste: ignitability, corrosivity, reactivity, and toxicity. The Contractor shall submit a plan that addresses the management of hazardous and non-hazardous waste in accordance with FAA AC 150/5320-15A, Management of Airport Industrial Waste and include it in the SPCD. The plan should address such issues as fuel deliveries, spill recovery procedures, the availability of Material Safety Data Sheets (MSDS), and other considerations.

9) Notification of Construction Activities

An incomplete list of construction and emergency contacts for the Project can be found in Table 3. Upon award of the project, the Contractor shall provide all appropriate contact information for its staff and subcontractors in its SPCD such as project managers, project superintendents, and safety managers. Once the list is obtained, Table 3 in this document will be updated to provide a

comprehensive list of construction and emergency contact information. Should any personnel change occur during the project it is the responsibility of that organization to provide revised contact information.

The Notice to Airmen (NOTAM) system provides essential information to personnel concerned with flight and airport operations. NOTAMs provide timely information on unanticipated or temporary changes to components of or hazards in the National Airspace System (NAS) which includes the closure of runways. The construction of this project will require a NOTAM to be issued. A minimum of 72 hours written notice (weekends excluded) of requested closing shall be directed to the Sponsor who will then coordinate the request with the Department of Operations. A sample NOTAM form can be found in Appendix B. Only the FAA may issue or cancel NOTAMs on shutdown or irregular operation of FAA owned facilities.

Any person proposing construction or alteration of objects that affect navigable airspace must notify the FAA. This includes construction equipment and proposed parking areas for this equipment (i.e. cranes, graders, etc.) on airports. The Contractor shall provide the Corporation with the appropriate equipment heights anticipated to be used during the project. The Corporation will prepare FAA Form 7460-1, notice of Proposed Construction or Alteration, and submit to the sponsor to forward to the FAA for approval.

Coordination between the Contractor and the Fire Department (FD) will be required to mitigate the impact construction operations will have on emergency access routes on the airfield. The Contractor shall notify FD personnel of the following as necessary:

- Deactivation/reactivation of water lines or fire hydrants
- Rerouting, blocking and restoration of emergency access routes
- Use of hazardous materials on the airfield.

Contact information for FD personnel and other emergency contact information can be found in Table 3.

10) Inspection Requirements

Airport personnel will make periodic visits to the project during construction to provide construction oversight and ensure the safety plan is being followed. The Project Engineer will be onsite to conduct a final inspection alongside representatives from the Contractor and the Sponsor. The Project Engineer will be responsible for ensuring the project is constructed in conformance with the contract, plans, and specifications. Should any deviations from the plans and specifications be observed, the Contractor will be required to immediately correct the deviations as instructed by the Sponsor or the Project Engineer. Final acceptance will be determined in accordance with the contract documents.

The Contractor shall identify a Construction Safety Officer in its SPCD as well as a single point of contact for each subcontractor involved on the project. These contacts will be incorporated into Table 3 Construction, Emergency and Utility Contacts in order to provide a comprehensive list of project contacts. The Contractor shall also outline in the SPCD its safety policy and internal inspection requirements to ensure airfield safety compliance.

In project areas that require the temporary closure of airfield pavement, Airport Personnel will have the final word on the acceptance of cleaned construction areas for aircraft operations. Refer to Section 7 for additional guidance on cleaning procedures prior to opening pavement.

11) Underground Utilities

Underground utilities are not expected to be affected or disturbed by the Project. Should the scope of the Project change, the Contractor is responsible for contacting the local utility stakeout service for site utility stakeout within the project limits prior to beginning work. The location of these utilities should also be reviewed with the Airport Maintenance staff. One-Call is a local utility stakeout provider and its contact information can be found in Table 3. The Contractor shall also coordinate the identification of all FAA facilities within the project limits prior to beginning work by contacting the FAA. The Sponsor may assist as necessary for coordination with the FAA. The Contractor will assist utility companies and the FAA in efforts to field verify underground utilities.

12) Penalties

Table 6 describes the various violations and subsequent consequences established for the Project.

Table 6 Penalties for Noncompliance

Violation	Consequence
Exceeding Calendar days allotted for construction	$1,000/per calendar day
Violation of Safety Plan	1st occurrence: Verbal Warning
	2nd occurrence: Written Warning and $500 Fine
	3rd occurrence: Written Warning and $1,000 Fine
	4th occurrence: Person removed from Project

13) Special Conditions

Airport operations take precedence over all work, especially if a question of safety is involved. Special conditions such as low visibility, snow removal, aircraft in distress, aircraft accident, security breach, or work being completed by others may require the rescheduling of Project work to accomplish air safety. Full compensation for all costs involved in rescheduling and moving from one work area to another, including work stoppage caused by airport operations shall be considered as included in the contract prices paid for contract items of work involved and not additional compensation.

14) Runway and Taxiway Visual Aids

The Project closes the airfield during the course of construction. No temporary lighting, signs, or NAVAIDs will be required.

Three mandatory sign panels on the airfield will be updated in order to indicate the change from Runway 17-35 to Runway 18-36.

15) Marking and Signs for Access Routes

No pavement marking or sign installation on airport access routes is anticipated as part of the Project. Should such work be added to the contract, all pavement markings and signs for construction personnel shall conform to AC 150/5340-18 and, to the extent practicable, with the Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) and/or State highway specifications.

16) Hazard Marking and Lighting

Low-profile barricades and closed taxiway markers will be used as a method of traffic control in the Project. Barricades will be used during construction to prevent aircraft from entering the runway. Closed runway markers will be placed over the runway designation numbers to indicate the runway is closed. The proposed location of low-profile barricades, closed taxiway markers, and closed runway markers is shown in Appendix A. The Contractor shall describe additional methods of traffic control, if any, in the SPCD.

17) Protection of RSA/TSA, OFA, OFZ and Approach/Departure Surfaces

The Contractor will be allowed to work inside the RSA and TSA during the project because the airfield will be closed to all aircraft operations. Trenches within the RSA or TSA need to be backfilled or appropriately covered prior to the pavement being open to traffic. Table 7 shows the safety and object free area dimensions.

Table 7 Safety and Object Free Dimensions

Area	Airplane Design Group	Distance from CL
RWY 17-35 RSA	B-II	75’
RWY 17-35 OFA	B-II	250’
TWY A TSA	B-II	39.5’
TWY A TOFA	B-II	65.5’

18) Other Limitations on Construction

Prior to the start of construction, the Contractor shall provide the Corporation with specific equipment heights in order to complete FAA form 7460-1 and submit for FAA airspace review. A determination letter from the FAA acknowledging equipment heights within the project area is required before construction can commence.

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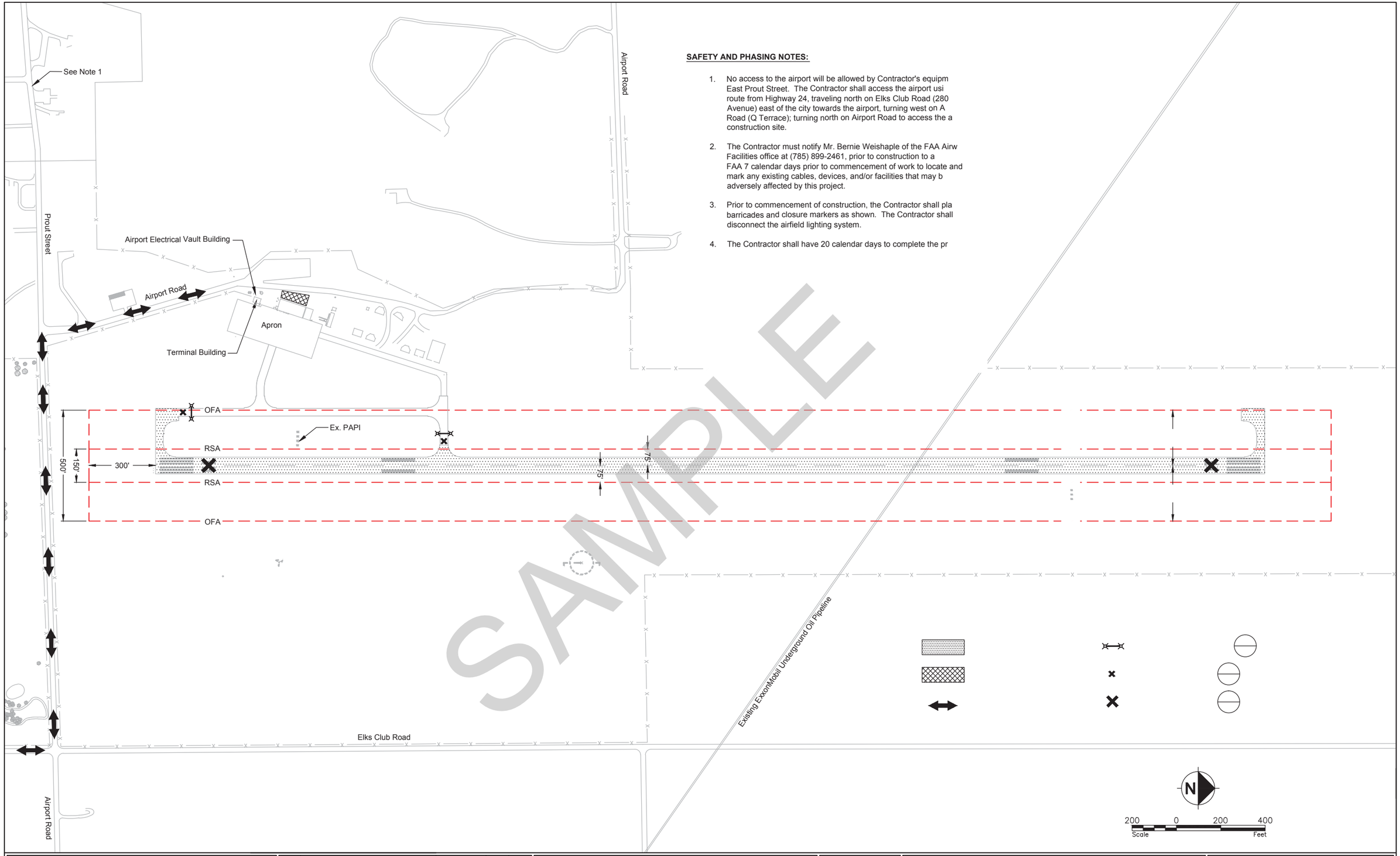
APPENDIX A

AIRPORT LAYOUT AND SAFETY PLAN



SAFETY AND PHASING NOTES:

1. No access to the airport will be allowed by Contractor's equipm East Prout Street. The Contractor shall access the airport usi route from Highway 24, traveling north on Elks Club Road (280 Avenue) east of the city towards the airport, turning west on A Road (Q Terrace); turning north on Airport Road to access the a construction site.
2. The Contractor must notify Mr. Bernie Weishaple of the FAA Airw Facilities office at (785) 899-2461, prior to construction to a FAA 7 calendar days prior to commencement of work to locate and mark any existing cables, devices, and/or facilities that may b adversely affected by this project.
3. Prior to commencement of construction, the Contractor shall pla barricades and closure markers as shown. The Contractor shall disconnect the airfield lighting system.
4. The Contractor shall have 20 calendar days to complete the pr

HNTB Corporation
The HNTB Companies
Engineers Architects Planners

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Suite 400
Overland Park, Kansas 66213
Phone 913.491.9333
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No.	Revision	Date	By	App'd

HILL CITY MUNICIPAL AIRPORT

LYNETTE MARIE HEINAUER
LICENSED
20039
KANSAS
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY

Plotted: March 30, 2012
Time: 9:09 AM
By: Levi Borntreger
Job No.45728-DS-003

APPENDIX B

SAMPLE NOTAM FORM

APPENDIX D. SAMPLE NOTAM.

_____ **AIRPORT**

FAA NOTAM # _____ **DATE:** _____

AIRPORT I.D. # _____ **TIME:** _____

NOTAM TEXT:

NOTIFICATION:

# # # # TOWER	_____	_____	_____
PHONE #	INITIALS	TIME	CALLED IN BY
_____			
# # # # AFSS	_____	_____	_____
PHONE #	INITIALS	TIME	CALLED IN BY
_____			

AIRLINES

_____

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_____

CANCELLED:

NOTIFICATION:

# # # # TOWER	_____	_____	_____
PHONE #	INITIALS	TIME	CALLED IN BY
_____			
# # # # AFSS	_____	_____	_____
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AIRLINES

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