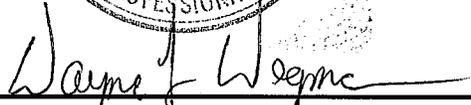


**ADDENDUM NO. 1**

To the Contract Documents for  
North Ramp Safety Improvements, Phase 3  
FAA AIP: 3-36-0102-76-12 (Proposed)  
NYSDOT PIN: 4908.79 (Proposed)

at the  
Greater Rochester International Airport (ROC)  
County of Monroe  
Rochester, New York



  
Wayne F. Wegman, P.E.

The following constitutes Addendum No. 1

Pages  
ADD 1-1 to ADD 1-20

Date  
February 7, 2012

Prepared By:

PASSERO ASSOCIATES  
100 Liberty Pole Way  
Rochester, New York 14604

## **ADDENDUM NO. 1**

### **February 7, 2012**

Your attention is directed to the following interpretation of changes in and additions to the Contract Documents for the North Ramp Safety Improvements Phase 3.

This Addendum is part of the Contract Documents in accordance with the provisions included in Instructions to Bidders at Section 4, General Provisions at Section GP-20 and acknowledged on P-4.

NO CHANGE TO THE BID DATE IS MADE. BIDS ARE DUE THURSDAY, FEBRUARY 16, 2012 AT 2 PM AS LISTED IN THE PROPOSAL SECTION OF THE SPECIFICATIONS.

In the Contract Specifications:

**Book Cover Page:**

**ADD** the following:

FAA A.I.P. No. 3-36-0102-76-12 (Proposed)

NYSDOT PIN 4908.79 (Proposed)

**Proposal:**

**REPLACE** the attached Proposal pages P-13 and P-19, Pages ADD 1-5 thru ADD 1-6

**Special Conditions:**

**ADD** the attached *Construction Safety and Phasing Plan*, Pages ADD 1-7 thru ADD 1-20.

**Technical Specifications, Section P-152:**

**ADD Section P-152-2.12 PAVEMENT EXCAVATION** All operations shall be carefully controlled to prevent damage to the concrete pavement and to the underlying material to remain in place. All saw cuts shall be made perpendicular to the slab surface.

- a. Removal of Existing Pavement Slab** When it is necessary to remove existing concrete pavement and leave adjacent concrete in place, the pavement shall first be cut full depth with a standard diamond-type concrete saw. The concrete to remain shall be fully isolated from the concrete to be removed. Initial sawcutting will be paid under the appropriate bid item when present in the bid item list. Secondary relief cut as required to facilitate removal shall be considered incidental to excavation and will not be separately paid. Relief cuts in the concrete to be removed shall be made with a rock wheel or similar mechanized saw to facilitate the removal. Saws shall be capable of cutting dowels and/or reinforcing steel present in the material. The Contractor shall take care to protect the neat edge of concrete to remain. The joint face shall be sawed or otherwise trimmed so that there is no abrupt offset in any direction greater than ½ inch and no gradual offset greater than 1 inch when tested in a horizontal direction with a 12 ft straightedge.

- b. Edge Repair** The edge of existing concrete pavement against which new pavement abuts shall be protected from damage at all times. Areas that are damaged during construction shall be repaired at no cost to the Owner; repair of previously existing damage areas will be considered a subsidiary part of concrete pavement construction
1. **Spall Repair.** Spalls shall be repaired where indicated and where directed. Repair materials and procedures shall be as previously specified in subparagraph “Repairing Spalls Along Joints”.
  2. **Underbreak Repair.** All underbreak shall be repaired. First, all delaminated and loose material shall be carefully removed. Next, the underlying material shall be recompact, without addition of any new material. Finally, the void shall be completely filled with paving concrete, thoroughly consolidated. Care shall be taken to produce an even joint face from top to bottom. Prior to placing concrete, the underlying material shall be thoroughly moistened. After placement, the exposed surface shall be heavily coated with curing compound.
  3. **Underlying Material.** The underlying material adjacent to the edge of an under the existing pavement which is to remain in place shall be protected from damage or disturbance during the removal operations and until placement of new concrete, and shall be shaped as shown on the drawings or as directed. Sufficient material shall be kept in place outside the joint line to prevent disturbance (or sloughing) of material under the pavement that is to remain in place. Any material under the portion of the concrete pavement to remain in place, which is disturbed or loses its compaction shall be carefully removed and replaced with concrete as specified in paragraph “Underbreak Repair”. The underlying material outside the joint line shall be thoroughly compacted and moist when new concrete is placed.

In the Contract Drawings:

**Drawing Number 2, Index Sheet:**

**REPLACE** quantity of Base Bid A Item P-501-8.1 to 4,200 SY

**REPLACE** quantity of Base Bid B Item P-501-8.1 to 5,200 SY

**Drawing Number 3, General Plan:**

**ADD** the following note to the Spoil Notes:

‘13. Spoil to remain on airport property’

Clarification: Spoil and work areas shown in drawings are on airport property.

**Drawing Number 5, Work Area Plan:**

**REPLACE** easterly ‘Taxiway B2’ label with ‘Taxiway B1’ label

**Drawing Number 6, Work Area Plan:**

**REPLACE** 'Proposed 3' wide asphalt...' label with 'Proposed 4' wide asphalt...' label

**Drawing Number 8, Field Office Site Plan:**

**ADD** the following label to the existing sanitary manhole (buried):

'Adjust to grade. Include costs in item S-637-5.1'

**ADD** the following label to the existing hydrant:

'Install marker post'

**Drawing Number 11, Pavement Sections and Details:**

**ADD** the following note:

'Subsurface borings completed Monday February 6, 2012 confirm existing pavement sections depicted.'

**Drawing Number 14, Floor Plan & Elevations:**

**ADD** the following label to existing loading dock door:

'GRIA to install card access on overhead door'

**ADD** the following label to the illuminated exit sign on the north wall:

'Provide for owner to install'

**ADD** the following label to the north and south wall 'Provide electrical raceway...' labels:

'By others'

**ADD** the following label to the illuminated exit sign on the west wall:

'Existing'

END OF ADDENDUM

NORTH RAMP SAFETY IMPROVEMENTS, PHASE 3  
GREATER ROCHESTER INTERNATIONAL AIRPORT

<b>BASE BID ALTERNATE A</b>					
ITEM NUMBER	NUMBER OF UNITS		DESCRIPTION AND UNIT PRICE IN WORDS	UNIT PRICE IN NUMBERS	TOTAL AMOUNT
P-401-8.1b	60	TON	BITUMINOUS BINDER COURSE <hr/> _____ DOLLARS PER TON	\$	\$
P-401-8.1c	30	TON	BITUMINOUS SURFACE COURSE <hr/> _____ DOLLARS PER TON	\$	\$
P-501-8.1	4,200	SY	15" PORTLAND CEMENT CONCRETE PAVEMENT <hr/> _____ DOLLARS PER SY	\$	\$
P-501-8.5	160	LF	PREMOLDED JOINT FILLER <hr/> _____ DOLLARS PER LF	\$	\$
P-605-5.1	3,500	LF	JOINT SEALANT <hr/> _____ DOLLARS PER LF	\$	\$
P-610-5.2	300	LB	STEEL REINFORCEMENT <hr/> _____ DOLLARS PER LB	\$	\$

NORTH RAMP SAFETY IMPROVEMENTS, PHASE 3  
GREATER ROCHESTER INTERNATIONAL AIRPORT

<b>BASE BID ALTERNATE B</b>					
ITEM NUMBER	NUMBER OF UNITS		DESCRIPTION AND UNIT PRICE IN WORDS	UNIT PRICE IN NUMBERS	TOTAL AMOUNT
P-401-8.1b	72	TON	BITUMINOUS BINDER COURSE <hr/> _____ DOLLARS PER TON	\$	\$
P-401-8.1c	36	TON	BITUMINOUS SURFACE COURSE <hr/> _____ DOLLARS PER TON	\$	\$
P-501-8.1	5,200	SY	15" PORTLAND CEMENT CONCRETE PAVEMENT <hr/> _____ DOLLARS PER SY	\$	\$
P-501-8.5	160	LF	PREMOLDED JOINT FILLER <hr/> _____ DOLLARS PER LF	\$	\$
P-605-5.1	4,300	LF	JOINT SEALANT <hr/> _____ DOLLARS PER LF	\$	\$
P-610-5.2	450	LB	STEEL REINFORCEMENT <hr/> _____ DOLLARS PER LB	\$	\$

# **Construction Safety and Phasing Plan**

## **North Ramp Safety Improvements, Phase 3 Greater Rochester International Airport**

**FAA A.I.P. No. 3-36-0102-76-12 (Proposed)  
NYSDOT PIN 4908.79 (Proposed)**

January 2012

# Construction Safety and Phasing Plan

## NORTH RAMP SAFETY IMPROVEMENT PROJECT, PHASE 3 GREATER ROCHESTER INTERNATIONAL AIRPORT

### CONTENTS

PREFACE .....	1
1. COORDINATION .....	1
2. PHASING .....	2
3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY .....	2
4. NAVIGATION AID (NAVAID) PROTECTION .....	3
5. CONTRACTOR ACCESS .....	3
6. WILDLIFE MANAGEMENT .....	4
7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT .....	5
8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT .....	5
9. NOTIFICATION OF CONSTRUCTION ACTIVITIES .....	5
10. INSPECTION REQUIREMENTS .....	5
11. UNDERGROUND UTILITIES .....	6
12. PENALTIES .....	6
13. SPECIAL CONDITIONS .....	6
14. RUNWAY AND TAXIWAY VISUAL AIDS.....	6
15. MARKING AND SIGNS FOR ACCESS ROUTES.....	7
16. HAZARD MARKING, LIGHTING AND SIGNING .....	7
17. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS .....	7
18. OTHER LIMITATIONS ON CONSTRUCTION .....	9

### APPENDIX:

- Drawing 3 – General Plan
- Drawing 5 – Work Area Plan
- Drawing 6 – Work Area Plan

## **NORTH RAMP SAFETY IMPROVEMENT PROJECT, PHASE 3 GREATER ROCHESTER INTERNATIONAL AIRPORT**

### **PREFACE**

#### **Aviation Safety Requirements During Construction**

**PURPOSE.** This Plan provides airport operators, contractors, and consultants with a safety plan for the North Ramp Safety Improvement construction project. This Plan relates to specific conditions found on the airport for which the participants must be aware of. Consideration is given to the need to progress the work in a timely fashion without undue risk to the traveling public or the workers involved. This document should be kept readily available to personnel engaged in the work including the Airport Operations Staff.

This document is based on AC 150/5370-2F, dated 9/29/11.

### **Definitions**

**MOVEMENT vs NON-MOVEMENT AREAS.** Movement areas are defined as locations on the airport where aircraft and ground vehicle movements on the ground are controlled and authorized by the Air Traffic Controllers. A vehicle may not move without the express authorization of Controllers in the tower inside a movement area. The Air Traffic Controller assigned to manage ground movements is the Ground Controller. Non-movement areas are the reverse, areas where the movement of aircraft and vehicles on the ground are not controlled by the Air Traffic Ground Controller. Runways or taxiways that are closed to aircraft become non-movement areas to the limits of the closure.

**RUNWAY AND TAXIWAY SAFETY AREAS.** Safety areas are a defined surface surrounding the runway or taxiway prepared or suitable for reducing the risk of damage to airplanes in the event of an aircraft unintentionally departing the runway or taxiway. Safety areas must be kept clear of any objects except objects whose location is fixed by function. Occupancy of a safety area by construction activity requires the closure of that runway or taxiway until the safety area can be cleared.

### **1. COORDINATION**

Construction activities shall be coordinated with the airport operator and with airport tenants on at least a weekly basis. The engineer shall be notified of any change in plan and will update the airport operator. All coordination will be at the airport operator's directive. Only the airport operator can open or close runways or taxiways.

Operational safety will be a standing agenda item during Contractor progress meetings throughout the construction project. Operational safety refers to the safety of aircraft maneuvering in and around the work area such that no foreign matter is ingested by engines or launched by jet blast or prop wash, or cutting of tires, or transgression into the work area, or movement conflict with vehicles accessing the work area. Operational safety also refers to airport workers servicing aircraft and protecting those persons and their equipment from construction activities.

Changes in the scope or duration of the project may necessitate revisions to the Construction Safety and Phasing Plan and review and approval by the airport operator and the FAA.

## **2. PHASING**

Work Area 1 is located outside of the air operations area (AOA) and does not affect airport operations.

Work Area 2 requires the closure of Taxiway C from Taxiway B2 to Taxiway H, and Taxiway H between Taxiway B and Taxiway C. Barricades shall be placed as depicted on the Work Area Plans (see attached). Taxiway lights and the appropriate taxiway signs located within the closed taxiways shall be covered for the duration of Work Area 2. Work Area 2 is anticipated to be completed in no more than 103 calendar days.

Construction staging areas and construction access and haul routes shall be as shown on the attached Work Area Plans.

## **3. AREAS AND OPERATIONS AFFECTED BY CONSTRUCTION ACTIVITY**

Runway closure not required for this project.

All physical improvements are located in non-movement areas.

Work is required on a portion of Taxiway C and within the safety area of a portion Taxiway H. That portion of Taxiway C and portion of Taxiway H will be closed for the duration of Work Area 2. During construction, aircraft will be routed around the closed taxiways via Taxiway B. Aircraft needing to access Runway 4-22 and Runway 10 from gates A-2, A-4, A-6, A8, A-10, and all of Concourse B will be routed via Taxiway B1. Aircraft needing to access Runway 28 from gates A-1, A-3, A-5, A-7 and A-11 will be routed via Taxiway B2.

No closure of access routes used by airport and airline support vehicles will be necessary.

No interruption of underground utilities is anticipated.

Crushing of concrete will occur at Gate 24 inside the AOA approximately 4,400 feet beyond Runway 4 threshold, 1,000 feet left of Runway 4 centerline.

Existing millings will be transported from Gate 19 outside the AOA to Work Area 1.

Existing brush will be cleared 2,500 feet prior to Runway 4 threshold, offset 400 feet to 1,500 feet to the right of Runway 4 centerline. Spoil from the project will be placed 2,800 feet prior to Runway 4 threshold, 200 feet right of Runway 4 centerline.

Runway	Aircraft Approach Category* A, B, C, or D	Airplane Design Group* I, II, III, or IV	RSA Width in Feet Divided by 2*
4-22	D	IV	250 feet
10-28	D	IV	250 feet
7-25	B	II (small)	75 feet

\*See AC 150/5300-13, *Airport Design*, to complete the chart for a specific runway.

#### 4. NAVIGATION AID (NAVAID) PROTECTION

Not applicable for this project.

#### 5. CONTRACTOR ACCESS

- a. **Location of Stockpiled Construction Material.** Stockpiled materials and equipment storage are not permitted within the Runway Safety Area (RSA), Obstacle Free Zone (OFZ), and within the Object Free Area (OFA) of an operational runway. Stockpiled materials and equipment adjacent to these areas shall be prominently marked and lighted during hours of restricted visibility or darkness. Height of any stockpile or equipment will be reviewed by the Engineer for clearance from airspace requirements.
- b. **Construction Site Parking.** Employee parking shall be in the staging area, as shown on the attached drawings.
- c. **Construction Equipment Parking.** Contractor employees must park and service all construction vehicles in an area designated by the airport operator outside the OFZ and never in the safety area of an active runway or taxiway. Unless a complex setup procedure makes movement of specialized equipment infeasible, inactive equipment must not be parked on a closed taxiway or runway. If it is necessary to leave specialized equipment on a closed taxiway or runway at night, the equipment must be well lighted. Employees shall also park construction vehicles outside the OFA when not in use by construction personnel.
- d. **Access and Haul Roads.** Access to the job site shall be through Gate 5 and along the route shown on Drawing No. 5, Work Area Plan. The speed limit on this route is 20 MPH. No deviations or excursions from the designated route shall be allowed without permission and an escort approved by Airport Operations. Contractor employees shall be brought in to the work area by contractor vehicles permitted for operation inside the airport security fence. Material deliveries shall be along the same route. The Contractor will maintain Gate 5 security and provide escorting for material and equipment access as indicated on the drawings.

- e. **Marking and Lighting of Vehicles.** Marking and lighting of vehicles will comply with AC 150/5210-5, Painting, Marking and Lighting of Vehicles Used on an Airport.
- f. **Proper Vehicle Operations.** When any vehicle, other than one that has prior approval from the Airport Operator, must travel over any portion of an aircraft movement area, it will be escorted and properly identified. The maximum number of vehicles that can be escorted at one time is two (2). Escorted vehicles shall remain in tight formation with the escort vehicle and respond to escort vehicle directives. To operate in those areas during daylight hours, the vehicle must have a flag or beacon attached to it. Any vehicle operating in the movement areas during hours of darkness or reduced visibility must be equipped with a flashing dome-type light, the color of which is amber.
- g. **Training Requirements for Vehicle Drivers.** The Contractor and engineering staff responsible for operating vehicles inside the fence shall attend an airport-provided driver training course prior to being allowed to operate a vehicle inside the airport.
- h. **Situational Awareness.** Vehicle drivers must confirm by personal observation that no aircraft is approaching their position (either in the air or on the ground) when given clearance to cross a runway, taxiway, or any other area open to airport operations. In addition, it is the responsibility of the escort vehicle to verify the movement/position of all escorted vehicles at any given time.
- i. **Radio Communications.** Vehicular traffic located in or crossing an active movement area must have a working two-way radio in contact with the Control Tower or be escorted by a person in radio contact with the Tower. Construction personnel may operate in a movement area without two-way radio communication provided a NOTAM is issued closing the area and the area is properly marked to prevent incursions. Two-way radio communication between the Contractors and the Airport Traffic Control Tower are not required to accomplish this project.
- j. **Maintenance of the Secured Area of the Airport.** Airport operators and contractors must take care to maintain security during construction when access points are created in the security fencing to permit the passage of construction vehicles or personnel. Procedures should be in place to ensure that only authorized persons and vehicles have access to the air operations area (AOA) and to prohibit 'piggybacking' behind another person or vehicle. All key Contractor personnel will undergo a security clearance background check in order to become badged. All unbadged personnel must be escorted by a badged person at all times. The maximum escort ratio is 1:4.

## 6. WILDLIFE MANAGEMENT

The Contractor must carefully control and continuously remove waste or loose materials that might attract wildlife. Contractor personnel must be aware of and avoid construction activities that can create wildlife hazards on airports.

## **7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT**

Waste and loose materials, commonly referred to as FOD, are capable of causing damage to aircraft landing gears, propellers, and jet engines. The Contractor must not leave or place FOD on or near active aircraft movement areas. Materials capable of creating FOD must be continuously removed during the construction project. Fencing (other than security fencing) may be necessary to contain material that can be carried by wind into areas where aircraft operate. A vacuum broom truck and operator shall be provided for the duration of the project. Any loose debris from the work shall be swept up immediately, both inside and outside the work area.

## **8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT**

Contractors operating construction vehicles and equipment on the airport must be prepared to expeditiously contain and clean-up spills resulting from fuel or hydraulic fluid leaks. In the event of a spill, Airport AIRCOM shall be notified immediately to coordinate a spill response.

## **9. NOTIFICATION OF CONSTRUCTION ACTIVITIES**

A list of responsible representatives/points of contact for all involved parties, and procedures for contacting each of them, including after hours, will be created and distributed. The Contractor shall designate a person and two backup personnel who can be contacted 24 hours a day in the event of an emergency. These people shall be authorized to make decisions on the company's behalf and must physically respond within two hours.

Before beginning any construction activity, the Contractor must, through the Airport Operator, give notice [using the Notice to Airmen (NOTAM) System] of proposed location, time, and date of commencement of construction. Upon completion of work and return of all such areas to standard conditions, the Contractor must, through the Airport Operator, verify the cancellation of all notices issued via the NOTAM System.

Coordination with ARFF personnel is minimal on this project. A single hydrant in Work Area 1 will be shut off for approximately one day. No water lines will be deactivated and no emergency access route will be blocked.

Any person proposing construction or alteration of objects that affect navigable airspace, as defined in 14 CFR Part 77, must notify the FAA. This includes construction equipment and proposed parking areas for this equipment on airports. FAA Form 7460-1 can be used for this purpose and submitted to the appropriate FAA Airports Regional or District Office.

## **10. INSPECTION REQUIREMENTS**

Inspections should be conducted at least daily, but more frequently if necessary to ensure conformance with the Construction Safety and Phasing Plan. At the completion of work in any construction period, and fifteen minutes prior to the scheduled opening of the designated airfield facilities, an inspection to determine whether the respective airport facilities are in

appropriate condition to be opened will be performed. New runways and extended runway closures may require safety inspections at certificated airports prior to allowing air carrier service. Coordinate with FAA Airport Certification Safety Inspector (ACSI) to determine if a final inspection will be necessary. Any deficiencies, whether caused by negligence, oversight, or project scope change, shall be remedied immediately.

## **11. UNDERGROUND UTILITIES**

Existing underground utilities are shown on the contract drawings. The Contractor should coordinate with the airport operator to ensure all existing utilities are known in the excavation area. The Contractor shall use care when excavating and protect the existing utilities that are to remain. Should an existing utility be damaged or disrupted, the airport operator shall be notified immediately.

## **12. PENALTIES**

Contractor staff failing to comply with the requirements herein will be reviewed on a case by case basis. Willful violations will result in permanent exclusion from the secure area for the individual involved.

## **13. SPECIAL CONDITIONS**

Should an aircraft inadvertently enter the work area, the Contractor should suspend work until the aircraft has safely been removed from the area. Safety measures currently in place will be re-evaluated.

## **14. RUNWAY AND TAXIWAY VISUAL AIDS**

Airport markings, lighting, signs, and visual NAVAIDS must be clearly visible to pilots, not misleading, confusing, or deceptive. All must be secured in place to prevent movement by prop wash, jet blast, wing vortices, or other wind currents and constructed of materials that would minimize damage to an aircraft in the event of inadvertent contact.

Markings must be in compliance with the standards of AC 150/5340-1, Standards for Airport Markings. Temporary markings may be added at any time by directive of airport operations personnel.

Lighting must be in conformance with AC 150/5340-30, Design and Installation Details for Airport Visual Aids, and AC 150/5345-50, Specification for Portable Runway and Taxiway Lights. For the portions of Taxiway C and Taxiway H that will be closed during construction, cover the taxiway edge light fixtures in such a way as to prevent light leakage.

To the extent possible, signs must be in conformance with AC 150/5345-44, Specification for Runway and Taxiway Signs and AC 150/5340-18, Standard for Airport Sign Systems. Any time a sign does not serve its normal function it must be covered or removed to prevent misdirecting

pilots. Note that information signs identifying a crossing taxiway continue to perform their normal function even if the crossing taxiway is closed.

## **15. MARKING AND SIGNS FOR ACCESS ROUTES**

Pavement markings and signs for construction personnel must 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. Signs adjacent to areas used by aircraft must comply with the frangibility requirements of AC 150/5220-23, Frangible Connections, which may require modification to size and height guidance in the MUTCD. No markings shall be placed without the Airport Operators written approval.

## **16. HAZARD MARKING, LIGHTING AND SIGNING**

Hazard marking and lighting prevent pilots from entering areas closed to aircraft, and prevents construction personnel from entering areas open to aircraft.

Barricades, including traffic cones, (weighted or sturdily attached to the surface) are acceptable methods used to identify and define the limits of construction and hazardous areas on airports. Careful consideration must be given to selecting equipment that poses the least danger to aircraft but is sturdy enough to remain in places when subjected to typical winds, prop wash, and jet blast. The spacing of barricades must be such that a breach is physically prevented barring a deliberate act. Provision must be made for ARFF access if necessary.

Lights must be red, either steady burning or flashing, and must meet the luminance requirements of the State Highway Department. Lights must be mounted on barricades and spaced at no more than 10 feet or as shown on the plans. Light must be operated between sunset and sunrise and during periods of low visibility whenever the airport is open for operations.

Barricades are not permitted in an active safety area. Within a runway or taxiway object free area, and on aprons, use orange traffic cones, flashing or steady burning red lights as noted above, collapsible barricades marked with diagonal, alternating orange and white stripes, and/or signs to separate all construction/maintenance areas from the movement area. All barricades adjacent to any open runway or taxiway/taxilane safety area or apron must be as low as possible to the ground, and no more than 18 inches high, exclusive of supplementary lights and flags.

The Contractor shall have a person on call 24 hours a day for emergency maintenance of airport hazard lighting and barricades. The Contractor must file the person's information with the airport operator. Lighting should be checked for proper operation at least once per day, preferable at dusk.

## **17. PROTECTION OF RUNWAY AND TAXIWAY SAFETY AREAS**

- a. **Runway Safety Area (RSA).** Not applicable for this project.

- b. **Runway Object Free Area (ROFA).** Not applicable for this project.
- c. **Taxiway Safety Area (TSA).** No construction may occur within the TSA while the taxiway is open for aircraft operations. The TSA dimensions may be temporarily adjusted if the taxiway is restricted to aircraft operations requiring a TSA that is equal to the TSA width available during construction. The airport operator must coordinate the adjustment of the TSA dimensions with the appropriate FAA Airports Regional or District Office and the FAA air traffic manager and issue a NOTAM.

Open trenches or excavations are not permitted within the TSA while the taxiway is open. If possible, backfill trenches before the taxiway is opened. If the taxiway must be opened before excavations are backfilled, cover the excavations appropriately. Covering for open trenches must be designed to allow the safe operation of the heaviest aircraft operating on the taxiway across the trench without damage to the aircraft. The Contractor must prominently mark open trenches and excavations at the construction site with red or orange flags, as approved by the airport operator, and light them with red lights during hours of restricted visibility or darkness.

Soil erosion must be controlled to maintain TSA standards, that is, the TSA must be cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations, and capable, under dry conditions, of supporting snow removal equipment, aircraft rescue and firefighting equipment, and the occasional passage of aircraft without causing structural damage to the aircraft.

- d. **Taxiway Object Free Area (TOFA).** No construction may occur within the taxiway object free area while the taxiway is open for aircraft operations. The TOFA may be temporarily adjusted if the taxiway is restricted to aircraft operations requiring a TOFA that is equal to the TOFA width available. Construction activity may be accomplished without adjusting the width of the TOFA subject to the following restrictions:
- Appropriate NOTAMS are issued
  - Marking and lighting meeting the provisions of paragraphs 14 and 16 above are implemented
  - Five-foot clearance is maintained between equipment and materials and any part of an aircraft (includes wingtip overhang). In these situations, flaggers must be used to direct construction equipment, and wing walkers will be necessary to guide aircraft. Wing walkers should be airline/aviation personnel rather than construction workers. If such clearance can only be maintained if an aircraft does not have full use of the entire taxiway width, then it will be necessary to move personnel and equipment for the passage of that aircraft.
- e. **Obstacle Free Zone (OFZ).** In general, personnel, material, and/or equipment may not penetrate the OFZ while the runway is open for aircraft operations. If a penetration to the OFZ is necessary, it may be possible to continue aircraft operations through operational restrictions.

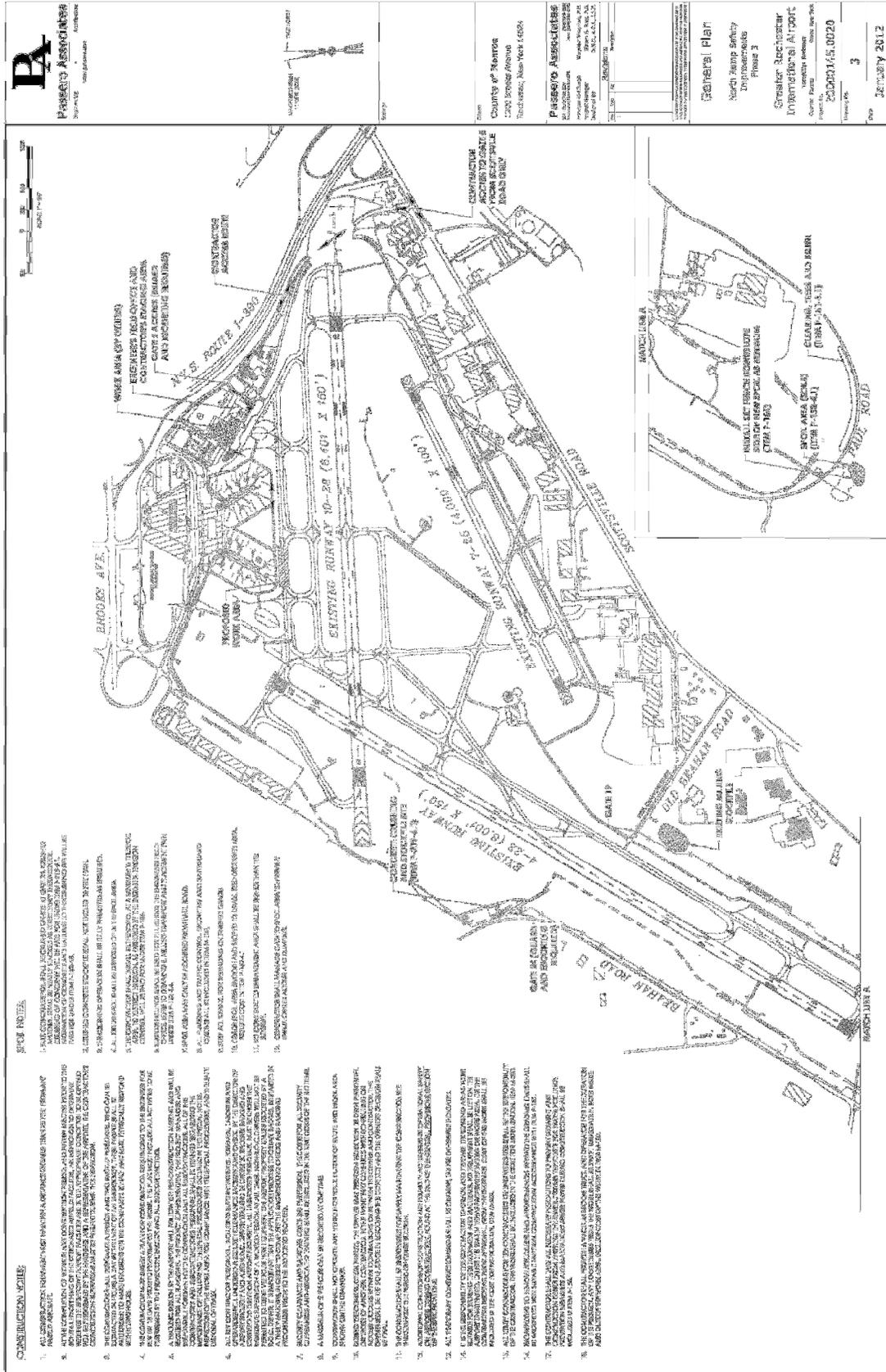
- f. **Runway Approach/Departure Areas and Clearways.** Not applicable for this project.

## **18. OTHER LIMITATIONS ON CONSTRUCTION**

There will be no use of open flame welding or torches unless fire safety precautions are provided and the airport operator has approved their use. Fire watch by the Airport Rescue and Fire Fighting (ARFF) personnel is typically required.

No use of electrical blasting caps on or within 1,000 feet of the airport property will be allowed.

The use of flare pots within the air operations area is prohibited.



**CONSTRUCTION NOTES:**

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, NYS DECISIONS AND THE STANDARD SPECIFICATIONS FOR AIRPORT CONSTRUCTION, NYS DECISIONS.
2. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING UTILITIES AND STRUCTURES AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND REPAIR OF ALL UTILITIES AND STRUCTURES.
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