

**PLAN OF CONSTRUCTION OPERATIONS**

**EUREKA AIRPORT, EUREKA, NUNAVUT.**

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**Appendix 1**

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**Plan of Construction Operations**

**PCO (OPS PLAN)**

**Runway 10~28, Apron, and Road,  
Rehabilitation.**

**Eureka Airport**

**Eureka, Nunavut**

# PLAN OF CONSTRUCTION OPERATIONS

## EUREKA AIRPORT, EUREKA, NUNAVUT.

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### **Project Summary**

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#### **1 BACKGROUND**

- 1.1 The intent of this project is to Rehabilitate Runway 10-28, an Existing Airside Apron, an Access Road, and Construct a new Airside Apron.
- 1.2 The following is a list of major work items required for the project.
  - 1.2.1 Scarifying, grading, and compacting existing granular materials under existing runway and apron.
  - 1.2.2 Scarifying, grading, and Compacting sub-grade under new Apron area and Access Road area.
  - 1.2.3 Placing, grading, and compacting new Base and Sub Base materials on Runway 10-28, aprons, and Access Road areas.
  - 1.2.4 Removing Runway 10-28 and Aprons pull pits and edge lights.
  - 1.2.5 Supply and Installation of new edge lights and pull pits for Runway and Aprons
  - 1.2.6 Supply and installation of new Impervious fuel resistant fabric.
  - 1.2.7 Constructing new Portland Cement Concrete fuel collector catch-basins.

#### **2 THE AIRPORT ENVIRONMENT**

- 2.1 The airport operational environment is extremely dynamic and involves various stakeholders including Environment Canada, Transport Canada, the users, airlines, Nav Canada, and airport staff.. In addition, the airport environment is highly regulated in the interest of public safety. Therefore, any deviation from standard operating procedures are considered carefully and are subject to review and input from the stakeholders and regulators.
- 2.2 The proposed construction project is very important to Environment Canada to ensure the safe operation of the facility. The construction will temporarily impact the normal operation of the facility and will require temporary operational changes. The cooperation of all parties including the contractor will be important to successful implement the project.

#### **3 PURPOSE OF THE PLAN OF CONSTRUCTION**

- 3.1 The Eureka Airport is a private airport and must comply with Aerodrome Standards and Recommended TP312 Practices. This Plan of Construction Operation (PCO) has been prepared based on recommended TP312 and Civil Aviation practices to accommodate temporary deviations to Eureka airport operation manual(AOM) and certification criteria to permit the proposed construction activity.

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- 3.2 The objective of the PCO is to plan the coordination required to implement the construction with a minimum of interruption and conflict with airport operations and ensure that flight safety are not compromised by the construction operations.
- 3.3 The plan also informs all airport users, tenants, Transport Canada, Nav. Canada and air carriers about the project in order that they can plan for the potential implications on their operations.

## **Construction Staging and Schedule**

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### **1 GENERAL**

The project is scheduled to commence in 2014 (dates have yet to be finalized) tentative to contractor mobilization of equipment onto site August 2015, Crushing operations in 2015-2016 and construction in 2015, 2016 and 2017. The project should be completed approximately by September 2017

- 1.2 Runway 11-28 including aprons and Access road areas will be constructed in three stages as shown on drawing C01.
- 1.3 Core hours for construction will be the hours of 06:00 to 18:00 local time, Monday to Friday, excluding holidays. Any work undertaken outside of these core hours must be coordinated through the PWGSC Project Manager.
- 1.4 The closed portions of the facilities will be marked appropriately with signs, barricades, and lights.
- 1.5 The contractors layout area and construction equipment and contractor's employee access to various stages work areas will be as shown on drawing C01.
- 1.6 The proposed rehabilitation work will be carried out through the following stages. See Drawing C01 for various stages' work areas.
  - 1.6.1 Stage 1 - Rehabilitation of Runway 10-28 from station 4+940 to station 5+572 and Main Apron, and construction of new DND Apron, including all electrical work.
  - 1.6.2 Stage 2 - Rehabilitation of Runway 10-28 from station 5+900 to Station 6+570.
  - 1.6.3 Stage 3 - Rehabilitation of Runway 10-28 from station 5+572 to station 5+900.
- 1.7 For all stages of work, isolate, disconnect, and lockout power to all lighting system within the closed portions of the Runways to keep closed portion runway lights off ( see Drawing E01). Keep all open area lights operational.

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### **2 STAGE 1- REHABILITATION OF RUNWAY 10-28 FROM STATION 4+940 TO STATION 5+572 AND MAIN APRON, AND CONSTRUCTION OF NEW DND APRON, INCLUDING ALL ELECTRICAL**

- 2.1 Runway 10-28 from station 5+572 to station 6+472 will be kept open to Air Traffic.
- 2.2 Runway 10-28 from station 4+940 to station 5+572 and Aprons will be closed for construction.
- 2.3 During the construction of this stage, Aircraft Fueling will be done only in open area of airstrip.

#### **Declared Distances(in feet)Stage 1**

| Declared Distances | RUNWAY |  |      |      |  |  |
|--------------------|--------|--|------|------|--|--|
|                    |        |  | 10   | 28   |  |  |
| TORA               |        |  | 2952 | 2952 |  |  |
| TODA               |        |  | 2952 | 2952 |  |  |
| ASDA               |        |  | 2952 | 2952 |  |  |
| LDA                |        |  | 2952 | 2952 |  |  |

### **3 STAGE 2 - REHABILITATION OF RUNWAY 10-28 FROM STATION 5+900 TO STATION 6+570.**

- 3.1 Runway 10-28 from station 5+000 to station 5+900 will be kept open to Air Traffic.
- 3.2 Runway 10-28 from station 5+900 to station 6+570 will be closed for construction.

#### **Declared Distances, (in feet) Stage 2**

| Declared Distances | RUNWAY |  |      |      |  |  |
|--------------------|--------|--|------|------|--|--|
|                    |        |  | 10   | 28   |  |  |
| TORA               |        |  | 2952 | 2952 |  |  |
| TODA               |        |  | 2952 | 2952 |  |  |
| ASDA               |        |  | 2952 | 2952 |  |  |
| LDA                |        |  | 2952 | 2952 |  |  |

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### **4 STAGE 3 - REHABILITATION OF RUNWAY 10-28 FROM STATION 5+572 TO STATION 5+900.**

- 4.1 Close complete length of Runway 10-28.
- 4.2 Construct Runway 10-28 from station 5+572 to station 5+900.

#### **Declared Distances, (in Feet)Stage 3A**

| Declared Distances | RUNWAY |  |    |    |  |  |
|--------------------|--------|--|----|----|--|--|
|                    |        |  | 10 | 28 |  |  |
| TORA               |        |  | 0  | 0  |  |  |
| TODA               |        |  | 0  | 0  |  |  |
| ASDA               |        |  | 0  | 0  |  |  |
| LDA                |        |  | 0  | 0  |  |  |

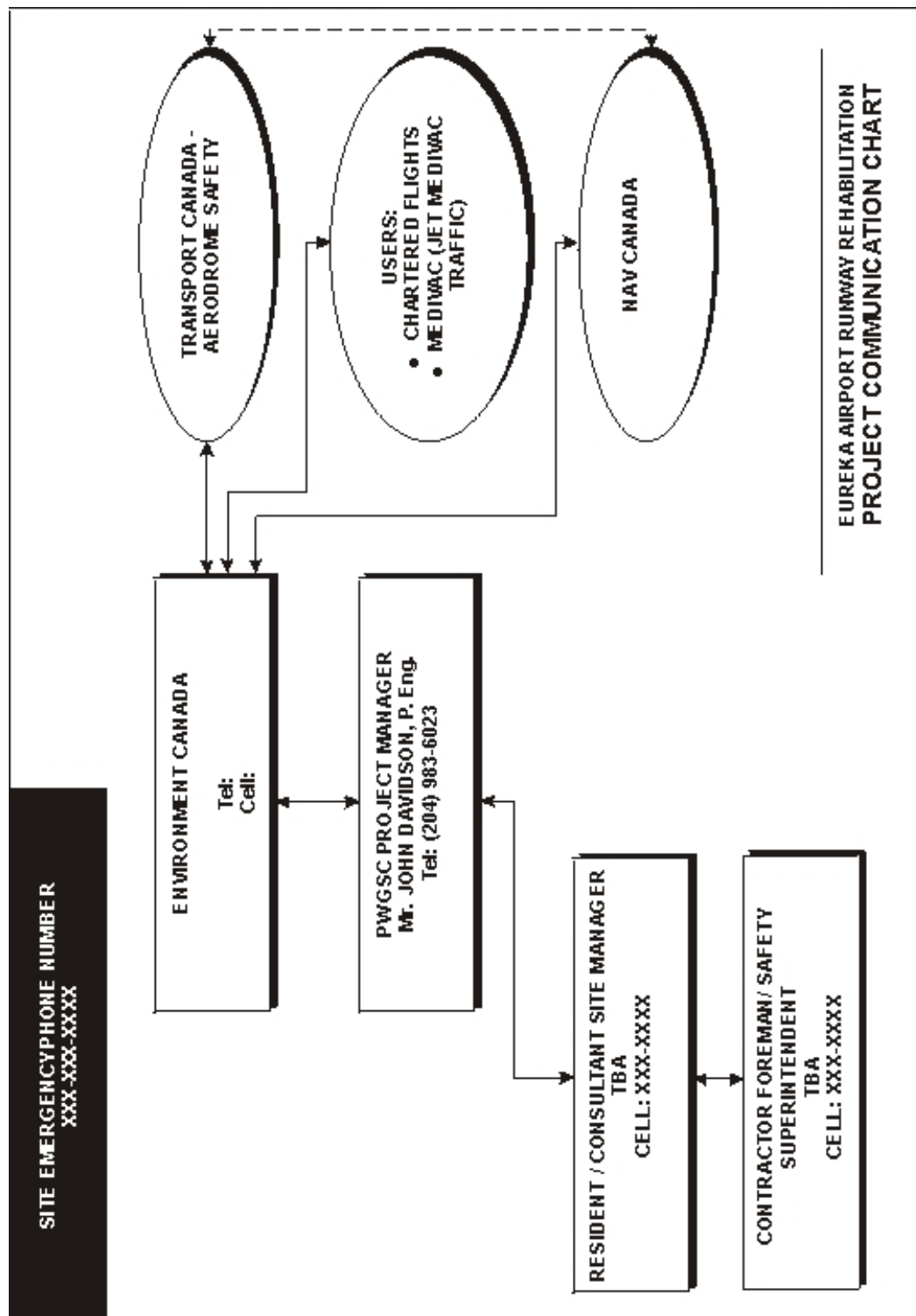
## **Airport Operations and Procedures**

### **1 COORDINATION OF WORK**

- 1.1 The Contractor will liaise directly with the Public Works Government Services Canada Project Manager or his designate. The PWGSC Project Manager is Paul Ducharm Ph: 1 204 983 6227.
- 1.2 Eureka Airport is an Environment Canada airport and requires specific procedures for communicating with airport users and tenants. The Environment Canada,Senior Project Manager will liaise with airport users and tenants and with PWGSC Project Manager,
- 1.3 Also see Project Communication Chart next page.

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## **2 AIRCRAFT OPERATIONS**

- 2.1 Time schedules indicating any construction activity affecting the runway or Aprons availability will be provided by the PWGSC Project Manager to the Environment Canada Site representative, who will provide this information to the airline operators. Cooperation with airlines will be maintained to permit chartered flight service to the maximum extent possible. Under emergency situations, contractor will move all personnel and equipment to pre-designated staging area. Major airlines operating chartered flights has been briefed by Environment Canada.

## **3 AIRFIELD OPERATIONS**

- 3.1 The Drawing C01 shows Contractors Tentative Staging area. Construction equipment access for various construction stages will be agreed at the start of construction and will not be changed without Department Representative approval. This is intended to minimize disruption of the airport operation. These routes may be updated, as required, in future meetings. Site operational requirements **WILL** take precedence.
- 3.2 Where existing access roads are to be used, the Contractor is required to maintain these roads in existing condition. Flag persons will be provided by the Contractor to control movements and for hauling materials to and from the site.

## **4 OPERATIONAL RESTRICTIONS**

- 4.1 The Contractor's supply vehicles will not be permitted on airside service road. A staging area for the Contractor's supply vehicles will be determined by the Project Manager to the satisfaction of the Environment Canada Site Representative.
- 4.2 Employee parking will be provided on site at no charge. The location for parking of the Contractor's employee and construction vehicles will be designated by the Project Manager to the satisfaction of the Environment Canada Site Representative.
- 4.3 Any impacts or restrictions on aircraft taxiing or parking operation will be kept to a minimum.

## **5 WORK RESTRICTIONS**

### **5.1 Fire and Safety**

- 5.1.1 All safety and fire standards of Transport Canada, Labor Canada, Environment Canada, the Province of Nunavut, and all other authorities having jurisdiction must be met at all times. The Contractor's supervisor or escort personnel will be briefed on airport safety regulations, common terminology, and general airport operating procedures by the Environment Canada Site Representative.

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- 5.1.2 The Contractor's supervisor is responsible to provide the site representative (Environment Canada Site Representative) with Material Safety Data Sheets (MSDS) for all materials which require the Workplace Hazardous Materials Information Systems (WHMIS) labels.
- 5.1.3 Environment Canada Site Representative shall have the exclusive right to disallow any of the Contractor's personnel on to the construction site if it is found that any unsafe practices are observed and appropriate warnings and instructions are not followed.
- 5.1.4 Environment Canada Site Representative is to be contacted immediately should there be any operational or environmental incidents or accidents.
- 5.2 Vehicle Operation
  - 5.2.1 All vehicles operating on airport property must do so in a safe fashion, in accordance with posted signs, traffic regulations and established airport operating procedure. Due consideration must be given to airport related vehicles, aircraft and pedestrian traffic. Maximum equipment height is restricted to 5.0 m. Any equipment and materials shall be below 40 to 1 ratio from ends of useable landing strip and below 7 to 1 ratio from sides of Landing strip. Mark tops with red lights as directed by Engineer.
  - 5.2.2 All escort and supervisory vehicles to be operated on airport maneuvering areas must be equipped with a two-way radio for communication, 360 degree rotating beacon, and be operated only by those personnel holding a valid Airport Vehicle Operator's Permit (AVOP), valid Identification ID (e.g. drivers license )and a Radio Operators License. All persons entering airside will need a valid ID. Vehicles and personnel not meeting these requirements must be escorted by authorized vehicles and personnel.
  - 5.2.3 Clearance for movement on active areas will be given on Eureka vehicle control frequency 122.8 MHz. PWGSC personnel shall maintain radio contact on frequency 122.8 MHz at all times while within the work area.
  - 5.2.4 The Contractor must provide escorts. These personnel must have a valid Radio Operators License (aeronautical) and Airside Vehicle Operators Permit.
- 5.3 Security
  - 5.3.1 All airport security will remain in effect throughout the construction project. All of the Contractor's staff will be required to adhere to security procedures as identified by the Environment Canada Site Representative. Environment Canada Site Representative is to be supplied with a list of all the Contractor's personnel and vehicles to be working on airside.
- 5.4 Potential Foreign Object Damage

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5.4.1 It is operationally critical that all potential foreign object damage (FOD) be removed from active aircraft operational areas and safety areas. Materials and debris which can be tracked or blown on to the airfield areas can pose a risk to aircraft safety. Removal of potential FOD is a primary responsibility of the Contractor and will be closely monitored to ensure compliance. Appropriate waste containers must be supplied and used to contain the debris and emptied on a regular basis. All clean-up must be to the satisfaction of the Project Manager and the Environment Canada Site Representative. Failure of the Contractor to perform this requirement will result in the Environment Canada Site Representative initiating the required clean-up and all costs incurred by the Environment Canada Site Representative will be recovered from the Contractor.

### **5.5 Contractor Compounds**

- 5.5.1 The Contractor may establish a material and equipment storage compound area, if required. The Contractor will arrange for an appropriate designated storage compound, and employee parking area with the approval of the Environment Canada Site Representative. All Contractor equipment is to be fully secured if stored within the compound site while not in use or after hours. All hazardous products must be stored according to provincial regulatory requirements.
- 5.5.2 Equipment and materials which cannot be stored directly on the work site may be stored in other approved areas.
- 5.5.3 All contents of storage areas will be made known to the site representative to ensure precautions that may need to be taken are addressed.
- 5.5.4 The final decision concerning any storage area location lies with the Environment Canada Site Representative.

## **6 COMMUNICATIONS/NAVIGATION**

- 6.1 All construction activity and airport disruptions will be NOTAMed (Notice To Airmen) by the Environment Canada Site Representative in advance to minimize disruption to aircraft. All NOTAMs and construction procedures will be clearly understood between PWGSC, Environment Canada and the Contractor. All electronic navigational equipment will remain operational and available during published operating hours. All NOTAMs will be issued by the Environment Canada Site Representative.
- 6.2 NOTAM Action
  - 6.2.1 The first NOTAM will be required 7 days prior to commencement of construction. For any further NOTAM change, contractor will provide minimum 72 hours notice.

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### **7 INSPECTIONS**

- 7.1 All formal inspections will be coordinated by the PWGSC Project Manager with the Programs Group Site Representative or designate as a member of all interim and final acceptance inspections. Inspections by a Programs Group Site Representative may be undertaken at any time.
- 7.2 All projects being implemented on airport property are subject to inspection by the site representative at any time. Any resulting issues will be resolved between the Contractor and the Project Manager.

### **8 CONTRACTOR LIABILITY**

- 8.1 Any damage to airfield systems or equipment directly resulting from the Contractor's actions will be corrected immediately by the Contractor under the direct supervision of the PWGSC, Project Manager and to Environment Canada's satisfaction. These costs shall be the Contractor's responsibility, should it be a result of the Contractor's negligence. The Contractor will be responsible to rectify any environmental damage resulting from their works or operations.

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8.2

### **9 CONSTRUCTION MEETINGS**

- 9.1 Site meetings between the PWGSC Project Manager, Contractor and the Environment Canada Site Representative will be arranged on a weekly basis to review project progress and upcoming work.

### **10 REMOVAL AND SALVAGE OF MATERIAL**

- 10.1 All materials which are considered non-recyclable will be removed from the airport property and be disposed of in a dump site arranged for by the Contractor with the Town of Eureka. All waste and waste products must be disposed of according to provincial regulatory requirements.
- 10.2 Reusable material will be placed in an area designated by the Project Manager to the satisfaction of the Environment Canada Site Representative.
- 10.3 Arrangements for disposal of any contaminated material will be the responsibility of the Contractor, in accordance with direction from the Town of Eureka.

### **11 SITE CONDITIONS**

- 11.1 Upon completion of the project, the Contractor will be responsible for returning the area to its pre-project condition to the satisfaction of the Environment Canada Site Representative or his designate. This will include repairing any roadway damage caused by the contractor during project implementation as well as the clean-up and removal of all debris and garbage. Contractor shall restore the Quarry site in accordance with his permit.

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### **Sign Off Sheet**

| <b>Stakeholders</b>  | <b>Signature</b> | <b>Date</b> |
|--|------------------|-------------|
| <b>EC Project Leader<br/>Name:</b>   |                  |             |
| <b>EC Programs Implementation<br/>Manager.<br/>Name:</b>                         |                  |             |
| <b>EC Site Representative<br/>Name:<br/>Ph: Cell:</b>                            |                  |             |
| <b>PWGSC Project Manager<br/>Name : Paul Ducharme<br/>Ph: 1 204 983 6227</b>     |                  |             |
| <b>Name.<br/>Civil Aviation Safety<br/>Inspector, Flight Operations.<br/>Ph:</b> |                  |             |