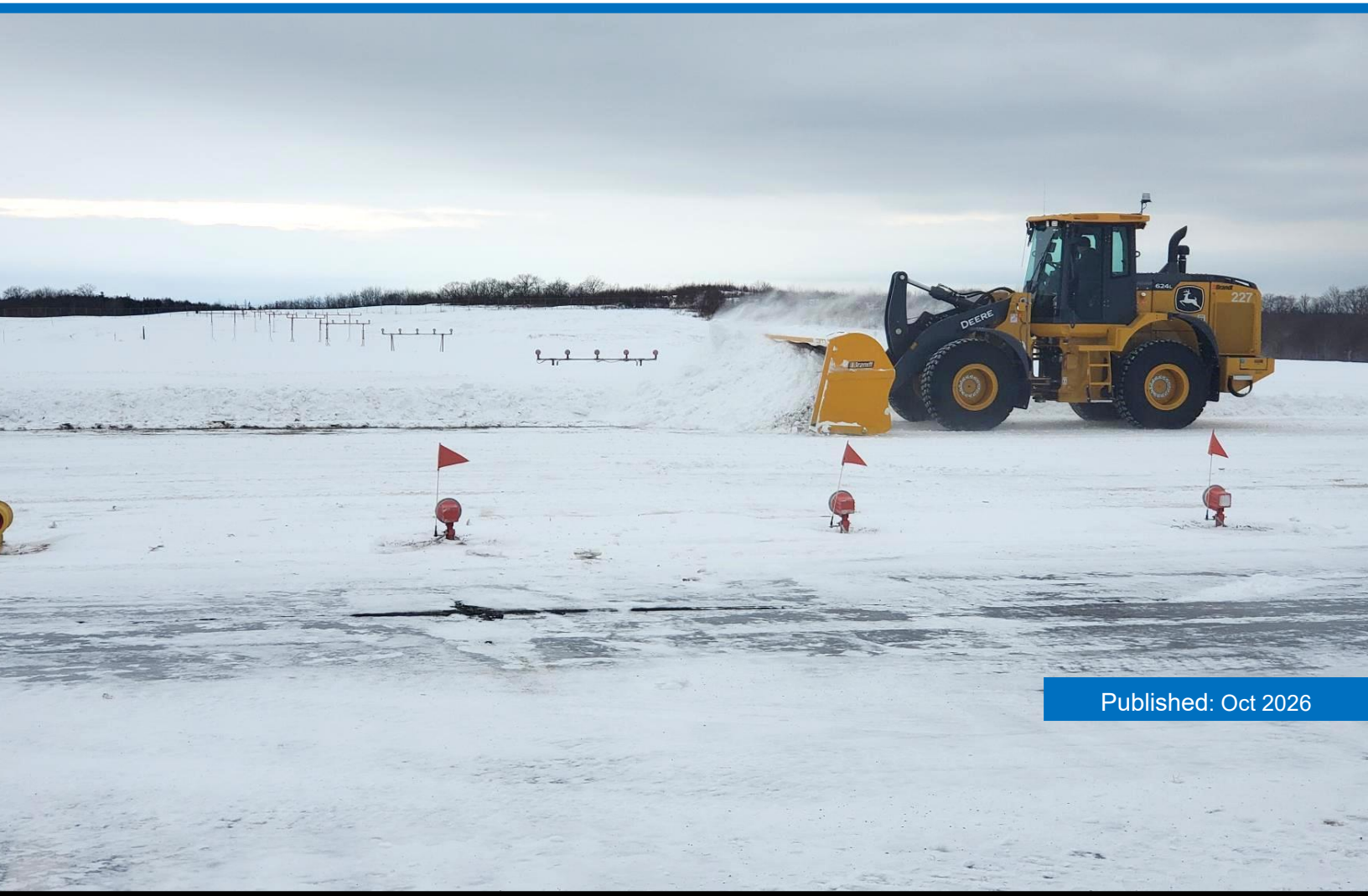
North Bay Jack Garland Airport

Winter Operations Plan

2026 – 2027 Season



Published: Oct 2026

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RECORD OF APPROVAL

RECOMMEND BY:

Chad Miller Chad Miller Digitally signed by: Chad Miller DN: CN = Chad Miller email = chad.miller@yyb.ca C = CA O = North Bay Jack Garland Airport Date: 2026.10.19 12:45:58 -05'00' *Oct 16, 2026*

Date

Operations Manager

North Bay Jack Garland Airport

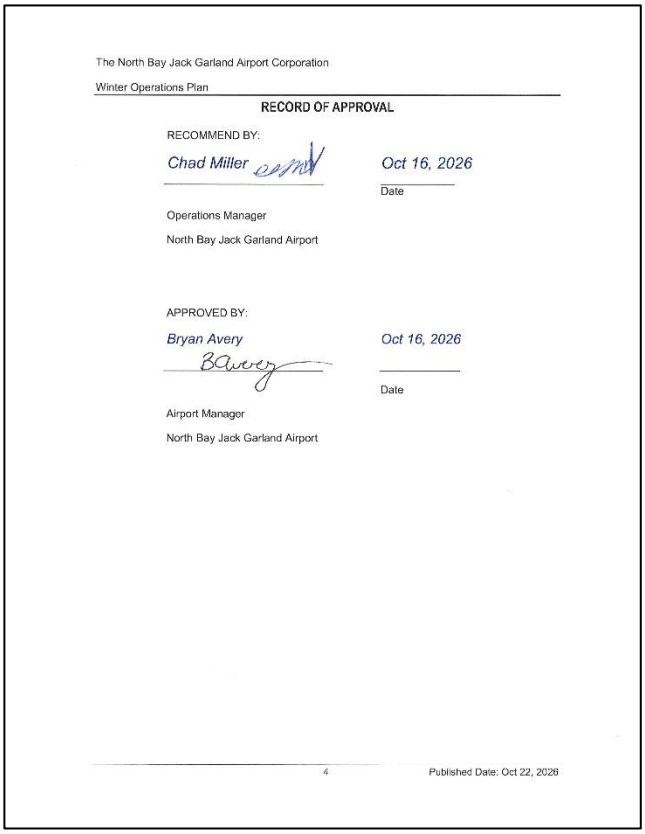
APPROVED BY:

Bryan Avery *Oct 16, 2026*

Date

Airport Manager

North Bay Jack Garland Airport


The North Bay Jack Garland Airport Corporation
Winter Operations Plan
RECORD OF APPROVAL
RECOMMEND BY:
Chad Miller Oct 16, 2026
Date
Operations Manager
North Bay Jack Garland Airport
APPROVED BY:
Bryan Avery Oct 16, 2026
Date
Airport Manager
North Bay Jack Garland Airport
4
Published Date: Oct 22, 2026

AMMENDMENT CONTROL SECTION

Amendment Procedures

The Operations Manager is responsible for the development, issuance and control of amendments to this manual, subject to approval by the Airport Manager. Once approved, a full copy of the amended document will be forwarded to all Manual holders electronically. All manual holders will be responsible for the safe custody, maintenance of their manual and to print a hard copy if required.

Within thirty days of issue of an amendment, confirmation will be provided to the Operations Manager by email that the required amendment is accepted by the Airport Manager;

a) When the manual is in need of amendment, one electronic copy of the manual with the proposed amendment/s highlighted and associated comments will be forwarded to the Airport Manager along with the amendment instructions. Each page will show the amendment number and date at the bottom and all amended sections will be highlighted.

b) After approval by the Airport Manager, the copy of the amended manual will be retained by the Airport Manager for their manual, and a copy of the signed Record of Approval page will be returned to the Operations Manager to be copied and issued to the remaining manual holders.

c) Only when the Manual is approved by the Airport Manager and a signed Record of Approval page received by the Operations Manager will a copy of the amended manual be distributed as per the distribution list.

RECORD OF AMMENDMENTS

No.	Date of Issue	Entered By
01	14 November 2007	DB
02	21 November 2008	DB
03	27 October 2009	DB
04	25 October 2010	DB
05	11 October 2011	DB
06	27 September 2012	DB
07	18 September 2013	DB
08	27 June 2014	DB
09	21 August 2015	DB
10	29 August 2016	DB
11	05 September 2017	DB
12	07 September 2018	DB
13	18 September 2019	DB
14	09 September 2020	DB
15	17 September 2021	DB
16	11 Oct 2022	CM
17	11 Oct 2023	CM
18	24, Oct 2024	CM
19	20, Oct 2025	CM
20	22, Oct 2026	CM

DISTRIBUTION LIST

The following people have copies of this plan:

Airport Manager
Operations Manager
Regulatory Compliance Manager
Operations & Maintenance (Airport)
Administration Office (Airport)
Bearskin Airlines
ITPS, International Test Pilot School
Cygent Aviation
MNRF
Airport Security Services
Helicopters Canada
NavCanada Team Leader
Miller Aviation
Voyageur Aviation Corporation
Executive Aviation
North Bay Flying Club
Canadore College
Bee Clean
Gary Rogers
Al Rivet
Armand Despres
Ron Savage
Bakkes Trucking
Grant Bailey
Joseph L Wesley
Bart Hutson
Di-Corp
Duncan Hynd
NavCanada Technicians Supervisor
George Leger
Lynn Nout
FedEx / Morning Star

Additionally the annual Winter Operation's Plan will be provided for all other uses by making it available on the airport's website; www.yyb.ca

TERMINOLOGY

"AMSCR" means the **A**ircraft **M**aneuvering **S**urface **C**ondition **R**eport that details the surface conditions for all aircraft movement areas including runways, taxiways and aprons.

"Cleared width" means the width of the narrowest portion of a runway that has been cleared to the greatest extent possible of contaminants.

"Compacted snow" means snow compressed into a solid mass that resists further compression and holds together or breaks up into lumps if picked up.

"Contaminant" means the presence of material on a surface including water, slush, snow, compacted snow, ice or frost.

"CRFI or Canadian Runway Friction Index" means the average of the runway friction as measured by a mechanical or electronic decelerometer.

"Dry" means a surface condition that is not damp or wet and has no observed contaminate.

"Dry snow" means snow that is neither compacted on nor bonded to a surface, including fresh fallen or old standing dry snow. If compacted by hand, dry snow falls apart upon release.

"Frost" means ice crystals formed from airborne moisture that has condensed on a surface whose temperature is below zero degrees Celsius.

"Ice" means water that has frozen on a surface and includes the condition commonly known as "black ice" and the condition where compacted snow has turned into a polished ice surface.

"Ice control chemicals" means chemicals used to prevent ice formation, to prevent ice from bonding to a surface or to break up or melt ice on a surface.

"NOTAMJ" means a special series NOTAM notifying the presence of hazardous conditions due to contaminants on runways by means of a specific format.

"Percentage of contaminant" means the amount of each contaminate present on the estimated surface of the runways and reported separately as a percentage (%) of the whole surface.

"RSC or Runway Surface Condition" means the portion of the AMSCR which reports the surface condition of the runway.

"Sand" means small particles of crushed angular mineral aggregates or natural sand material used to improve runway surface friction levels.

"Significant change" means with respect to runway surface condition includes but is not limited to: changes in type of contaminate, such as from dry snow to wet snow; measurable changes in depth of contaminate; following the application or removal of sand or chemicals; following snow removal or sweeping; changes in conditions caused by rapid increases or decreases in temperature.

“Slush” means partially melted snow or ice, with a high water content, from which water can readily flow. Slush displaces with a splatter with a heel-and-toe slap down motion against the ground.

“Snow bank” means a heap or mound of snow created mechanically that is higher than the surrounding snow cover.

“Snow drift” means a heap or mound of snow created by action of the wind. Snowdrifts resemble sand dunes and are formed in a similar manner, namely, by wind moving light snow and depositing it when the wind is slowed, usually against a stationary object. Snow normally crests and slopes off towards the surface on the windward side of a large object. On the leeward side, areas near the object are a bit lower than surrounding areas, but are generally flatter.

“SNOWTAM” means a special series of NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format.

“NOTAM ENTRY SYSTEM (NES)” means an internet application for the direct entry of runway surface condition by an accountable source, the output being a Runway Surface Condition (RSC) NOWTAM. This web application is an internet interface that allows dialog between automated reporting systems and the NAV CANADA database.

“Standing water” means water having a depth of more than 3mm (0.13 inch).

“Wet” means a surface condition where there is a thin layer of water and the layer is 3mm (0.13 inch) or less in depth.

“Wet ice” means ice covered with a thin film of water.

“Wet snow” means snow that sticks together to form a snowball but does not readily allow water to flow from it when compressed by hand.

“Windrow” means a ridge of material, such as snow or gravel, created by airside maintenance equipment.

GENERAL INFORMATION

1.0 INTRODUCTION

Snow removal and ice control are the principal elements of the airport's winter maintenance activity. Winter operations are planned, organized and conducted in accordance with Transport Canada standards and guidelines as well as in accordance with the airport's commitment to best practices – ensuring safety and efficiency in the airport's operation.

The term "snow removal and ice control" refers to all actions taken to reduce and/or eliminate the potentially hazardous effects of snow and ice contamination. Snow and ice control activities include plowing, sweeping, blowing, sanding, anti-icing and de-icing of operational surfaces. The ultimate objective of these activities is to remove pavement surface contaminants, which could adversely affect aircraft and vehicular performance by rendering maneuvering surfaces operational based on priority.

This Winter Operations Plan Outlines the hours of operation, personnel and equipment resources, priorities, procedures, responsibilities and lines of communication established to ensure safety, effectiveness and efficiency in the airport's winter operation.

2.0 CONTACT PERSONNEL – TELEPHONE NUMBERS

2.1 Airport Primary Contacts

Operations Manager	Office Cell	(705) 474-3026 ext. 5306 (705) 840-9964
Operations Air-side	Cell	(705) 492-7117
Operations Ground-side	Cell	(705) 491-1850
Airport Security	Cell	(705) 840-9965
FSS, Pilot Info only	Office	(705) 472-0026

2.2 Airport Secondary Contacts

Airport Manager	Office Cell	(705) 474-3026 ext. 5304 (705) 840-9960
Operational Assets & Infrastructure Manager	Office Cell	(705) 474-3026 ext. 5305 (705) 491-2995

3.0 HOURS OF OPERATION AND RESOURCE COMMITTMENTS

The hours of operation for snow removal and ice control at North Bay Airport are provided on a limited basis during the winter season. Snow removal and ice control services outside of the published hours can be requested by any tenant or airport user, and will be charged back at applicable overtime rates.

The operational hours of operations of the airport shall be published in the CFS, or where there is a change between publication dates of the CFS a NOTAM shall be issued.

Equipment List

The following is a list of the equipment which the airport operates for winter operations.

RADIO CALL	VEHICULAR NO.	MAKE	USE
STAFF 40	53-2016	GMC ½ Ton	Field Inspections
STAFF 42	53-2017	Chev ½ Ton	Operations/Electrical
STAFF 45	53-2301	Ford ½ Ton	Airport Manager
STAFF 47	53-1902	Ford ½ Ton	Field Inspections
STAFF 48	53-1901	Ford ½ Ton	Ops Manager
TRUCK 80	54-1301	Ford F-4500	SANDER/SPRAYER
84	55-1802	Navistar	PLOW TRUCK
85	56-7804	White	SANDER
90	55-1101	Kenworth	PLOW TRUCK
92	55-1102	Navistar	PLOW TRUCK
97	55-9702	Navistar	SANDER/PLOW TRUCK
BLOWER 124	60-2013	T70 Larue	SNOW BLOWER
	60-1903	RPM 220 (Mounted)	SNOW BLOWER
GRADER 153	66-1801	Cat	GRADER
LOADER 220	62-9901	John Deere	LOADER
223	62-2012	Case	LOADER
227	62-2001	John Deere	LOADER

Sweepers and Trailers:

67-9902	Vohl	SWEEPER
67-9911	Sweepster	SWEEPER
67-1303	MB	SWEEPER
67-2601	ATI	SWEEPER
69-1101	Batts	SPRAYER

4.0 PERSONNEL

4.1 Schedules

Thursday Nov 12, 2026 to Friday April 16, 2027 airside operational coverage from 05:30 to 21:00 hours for the purposes of winter operations will be in place daily. At the discretion of the Airport Manager, shift schedule hours are subject to change to accommodate airline flight schedule revisions.

Operations Manager, or in their absence Airport Management, will respond as weather conditions warrant and additional personnel may be called in to augment snow removal requirements outside of the posted schedule.

4.1 Crew Training

All winter staff, both returning seasonal and permanent full time, is trained annually on the following: the safe use of vehicles through the DX AVOP, radio communication and phraseology, airport layout, the inspection of pavement surfaces, as well as the storage and application of airside ice control chemicals and sand. Compressed/specific training may be provided to groundside operators only when their responsibilities are restricted, and until complete training is provided.

The senior staff and leads are further trained in AMSCR procedures for runway and taxiway condition reporting, including the following matters: Observing, recording, procedures for forwarding reports to the aeronautical information services provider, and friction testing; and snow and ice control for airside lighting, markers and signage.

This training is competency-based with an emphasis on performance and includes component based practical and written examinations in addition to sign-off procedures.

5.0 COMMUNICATIONS PROCEDURES

Communication as part of this winter plan between Airport Field Maintenance Staff and Nav Canada Flight Service Specialists is conducted on ground frequency 121.9 between the hours of **06:30 and 22:30 hours, seven (7) days per week**. During the hours of 22:30 to 06:30 hours when the Flight Service Station is closed necessary communication between ground staff and aircraft is on aerodrome traffic frequency 118.3.

Communication is conducted using standard terminology as detailed in North Bay Jack Garland Airport's Traffic Directives DX AVOP study guide.

Other communications should be done by phone; the following is the list of contacts and are in priority based on the required service to be provided.

Groundside Operators Cell phone 705 491-1850

Airside Operations Cell phone 705 492-7117

Operations Manager 705 840-9964

Operational Assets & Infrastructure Manager 705 491-2995

Airport Manager 705 840-9960

6.0 AREAS AND PRIORITIES – AIRSIDE GENERAL

Priority 1 areas consist of only the absolute minimum aircraft maneuvering surface required to maintain a basic level of YYB scheduled air carrier operations. This includes sufficient parts of the maneuvering area to permit take-offs and landings, a direct taxi route between the main apron and the active runway, and aircraft maneuvering and parking area on the main apron. Additionally, the Glide Path "Area A" becomes Priority 1 or 2 when snow depth reaches **20** cm and approved by Management.

The idea of the Priority 1 area is to permit the airport to continue to offer a basic level of scheduled YYB air carrier operations even under the most adverse weather conditions. It is the airport's goal to constantly maintain the Priority 1 areas during all winter storms.

Priority 2 consists of secondary airside areas that shall be cleared as soon as conditions permit during a storm, in order to provide the availability of an additional runway should wind conditions change. Additionally, the Glide Path "Area A & B" becomes Priority 2 or 3 when snow depth reaches **20 cm** and the Localizer "Area C & D" become priority 2 or 3 when the snow depth reaches **25 cm** and approved by management.

Priority 3 areas are those non-critical areas cleared after a storm, such as GA Aprons, pre-threshold areas (60m beyond each runway threshold at a maximum 1.25% slope), airside service roads, runways sidelines, etc. Priority 3 areas are only cleared after a storm has passed.

7.0 AREAS AND PRIORITIES – GROUNDSIDE GENERAL

Priority1 areas are those **primary access roads, including terminal frontage, parking lots A & B,** and service roads required for essential use by passengers and employees. City of North Bay (CNB) public works maintains Groundside public access roads to the Terminal Building, Canadore College and the West end aviation park at Apron IV. During severe weather events, Airport staff will supplement CNB with maintaining access to the Terminal Building from Airport Road. Janitorial services are responsible for clearing sidewalks and doorways in the vicinity of the terminal building, administration building and parking lots.

Priority 2 areas are all remaining groundside areas cleared on a convenience basis.

8.0 LEVEL OF SERVICE

The **maximum depth** of snow accumulation, before clearing required, is set out as follows:

Airside Priority 1 **- .64 cm (1/4 inch)**

Airside Priority 2 **- 5.00 cm (2 inches)**

Airside Priority 3 **- Storm accumulation**

Groundside Priority 1 **- 7 cm (3 inches)**
– Cleared and/or sanded each morning typically before 7:00 am when snow exceeds 2.50cm (1 inch)
- *Sanded after plowed if slippy compact snow or icy conditions*

Groundside Priority 2 **- Following storm accumulation (Typically day 2 or 3)**

The above notwithstanding, the intent at all times during snow storms is to clear all runways and taxiways to the maximum width possible, with the objective being full width.

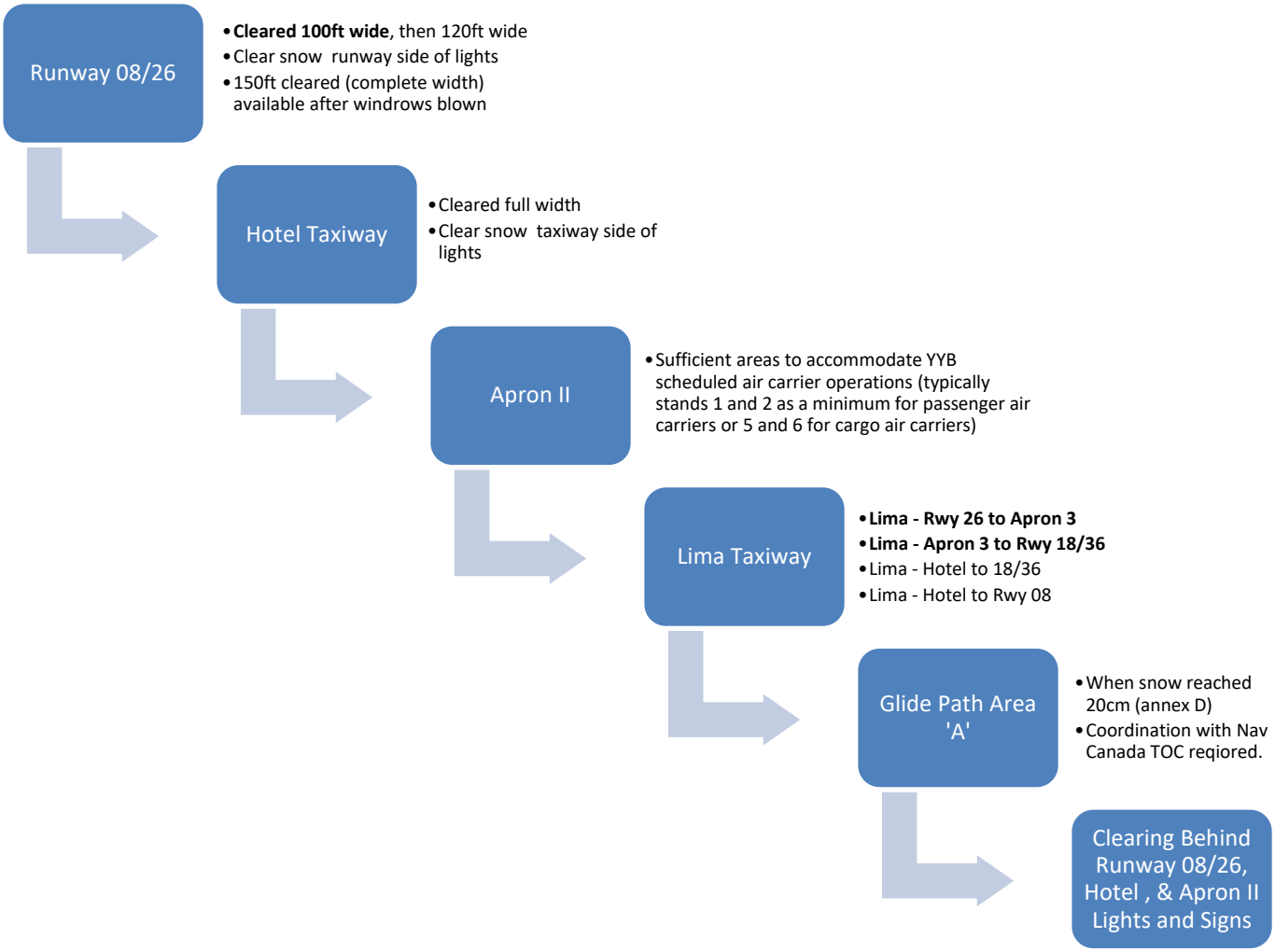
During a snow event Priority 1 areas will addressed, with other priority clearing occurring after the snow storm has ended.

Note:
The on-duty lead operator (as assigned), Operations Manager, Regulatory Compliance Manager, and Airport Manager have the authority to change priorities according to weather conditions, field operational conditions, maintenance capabilities and user requirements at that particular time.

When priorities or conditions change AMSCRs will continue to be published in order to provide accurate information to aircraft operators and flight dispatchers.

9.0 AREAS AND PRIORITIES – AIRSIDE SPECIFICS

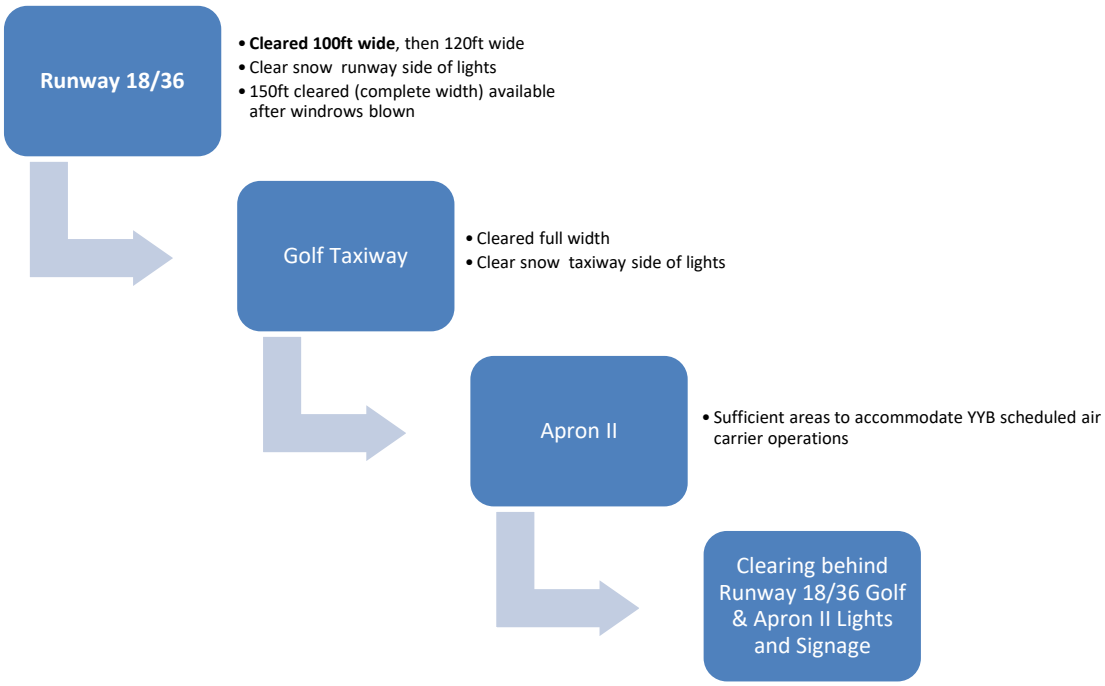
PRIORITY 1A – Is normally used when runway 08/26 is the active runway, due to either favourable winds or use of the Instrument Landing System (ILS) due to low visibility, aircraft size, etc. This information is presented graphically in Annex A. Priority 1A areas are:



During an active snow event Runway 08/26, Hotel Taxiway and an operational area of Apron II to serve commercial airlines will be maintained.

Once the above is clear of contaminants other areas will be cleared of snow based on their priorities (i.e. runways, then taxiways, then aprons). If an additional snow event occurs airport staff will restart priority clearing, moving to the next area only after the highest priority is clear.

PRIORITY 1B – Is normally used when runway 18/36 is the active runway, usually due to strong northerly winds; however with good visibility and without the need for using the instrument landing system. This information is presented graphically in Annex A. Priority 1B areas are:



Once the above is clear of contaminants other areas will be cleared of snow based on their priorities (i.e. runways, then taxiways, then aprons). If an additional snow event occurs airport staff will restart priority clearing, moving to the next area only after the highest priority is clear.

PRIORITY 2

- **Lima (east of 18/36) Taxiway** (if not cleared with Priority 1A)
- **Apron 3 east critical section only to ITTC apron**
- **Runway 18/36**
- Taxiways **– Golf and Lima West of 18/36**
- **Note: Echo, Foxtrot & Juliet Taxiways are closed by Notam from mid Nov once snow remains on the surface until mid April once snow melts off surface**
- "Glide Path Area B" when snow reaches **20 cm** (see Annex H)
- "Localizer Area C & D" when snow reaches **25 cm** (see Annex H)

PRIORITY 3

- **General Aviation Aprons III a) East (ITTC) b) West (GA), IV, V** (order depending on equipment on the field or as contracted)
- All airfield lighting and signs
- Airside service roads (select Navaid access roads in accordance with Nav Canada agreement)
- Runway and Taxiway sidelines (see Annex F) as required
- Pre-threshold areas (see Annex G) as required
- Contracted Areas and Leased Properties
- Approach rescue / approach lighting routes

10.0 AREAS AND PRIORITIES – GROUNDSIDE SPECIFICS

PRIORITY 1

- Public access roads to Air Terminal Building and tenant facilities, including:
  - Jack Garland Drive (Terminal Loop & Air Cargo Lane)
  - Terminal Street
  - Maintenance Avenue (route to garage)
- **Access to parking lots,** including:
  - **ATB lot (Lot A) - typical before 7:00 am in snow events**
  - **Administration Building lot (Lot B) - typical before 6:00 am in snow events**
- Sidewalks and doorways in ATB area
- Contracted snow removal areas

Once the above is clear of sufficient contaminants other areas will be cleared of snow based on their priorities (i.e. runways, then taxiways, then aprons). If an additional snow event occurs airport staff will restart priority clearing, moving to the next area only after the highest priority is clear.

If snow continues to fall Airport Operations will review actions to take; restarting snow removal in these areas at a minimum of the following morning.

Note:

Only in a significant snow event or priority emergency will Airport staff conduct snow removal on Bob Wood Drive (the entrance to the airport), as this is a priority and responsibility of the City of North Bay. When this is the rare case clearing of Bob Wood Drive will be done in order to provide access to the terminal / Lot A and Gate 1 only; providing emergency access.

PRIORITY 2

- **Remainder of public and employee car parking lots**
- **Remaining service roads.**
- Maintenance Garage area (parking and storage lots, fuel farm, etc.)

11.0 PUBLIC ROADS

Public roads on groundside are maintained by the City of North Bay and not through airport operations. This is conducted as part of the city's overall snow plan and provides access for the public transit.

Airport staff shall maintain the airport's parking Lot A, Lot B, Gate 1 access, and Terminal St., in addition to the Terminal's curbside as may be required (i.e. the removal of snowbanks that may be deposited from City of North Bay plowing operations in order to ensure access is unrestricted).

12.0 ENVIRONMENTAL PROTECTION – GLYCOL USEAGE AND MITIGATION

North Bay Airport is committed to the protection of the environment. Unfortunately, discharge of glycol de-icing fluids can have potentially negative environmental effects on surface water. **Therefore, the only approved area for de-icing at the North Bay Jack Garland Airport is on the Air Terminal Building Apron (Apron II, Terminal Ramp).** Any deviation requires the specific authorization from the Airport Manager prior to any operations, and the provision of highly detailed mitigation plans and measures.

The run-off from this area flows to the catch basins on the apron, through the sub-surface drainage system, and is discharged through the storm water runoff ditch at the west end of the airport property. The North Bay Jack Garland Airport Corporation monitors this location on a weekly basis during the de-icing season (and other times as required). The resulting water samples are sent to an independent laboratory for analysis. If the samples exceed Federal or Provincial guidelines on a regular basis, the airlines will be advised of the situation. Laboratory Analysis records will be kept on file for a period of one year.

For further information please request a copy of the North Bay Jack Garland Airport's Glycol Operations Management Plan; contact operations@yyb.ca

SNOW REMOVAL AND ICE CONTROL PROCEDURES

13.0 GENERAL PROCEDURES

Snow removal techniques combine the use of plow trucks, runway sweepers, snow blowers, graders, and loaders with various attachments. This has proven to be the most efficient and cost-effective method of snow removal.

When snow clearing operations are being undertaken on a specific maneuvering surface the information will be included in the AMSCR in order to advise air crew and flight dispatch operators.

14.0 AIRCRAFT PARKING APRON

Snow is removed from the apron using a truck, or a loader equipped with a ramp-hog plow, or a grader. Windrows will be established and are removed later using a blower. Blowing is the most cost-effective method to relocate snow beyond edge lighting and prevent further build-up along the outside of the apron. It is therefore used frequently.

15.0 LEASED PROPERTIES

Tenants are responsible for snow clearing and ice control within their leased areas. **Tenant's snow removal dump areas are restricted to their leased property and/or approved "Tenant Snow Dump Areas" as identified in Annex 'C'. Use of any other area to dump snow must be pre-approved by the Airport Operations Manager.** (Arrangements can be made for assistance with snow removal from North Bay Jack Garland Airport Corporation on a cost recovery basis).

Due to severe contamination concerns all leased properties are required to contact the airport operations (operations@yyb.ca) to **coordinate sanding of any airside area.** External third party contractors may use sanders that are also used for salting non-airport properties and therefore they could introduce unapproved and corrosive chemicals airside.

16.0 AIRFIELD LIGHTING (EDGE LIGHTING AND VISUAL AIDS)

Snow removal from around airfield lighting is done by hand shoveling or with a high pressure air blast. Mobile equipment is used for snow removal behind the lighting fixtures when snow depths exceed **5 cm (2 inches)**. The maximum cleared width behind the lights or along a maneuvering surface is 10 meters (33 feet). Snow blowing near airside lighted signage, light fixtures and PAPI units required extreme caution to prevent damage.

Airfield lighting is first cleared of contaminants on the side of the maneuvering area (i.e. closest to centerline) during routine surface snow removal work, and then only when priority clearing permits the contaminants behind the lights (referred to as back cutting) is cleared.

When lighting, signage, or nav aids become covered or obstructed the appropriate information identifying this is published with the AMSCR in order to update air crew.

17.0 WINDROWS

Windrows are permitted on operational/active maneuvering areas, such as runways, during a snow event and subsequent snow clearing / removal operations. All efforts will be made to limit the time frame windrows will be on maneuvering areas. Airport operations staff will advise the control tower and aircraft operators when windrows are created on maneuvering areas, and subsequently will issue the appropriate AMSCR updates in order to advise air crew and flight dispatch operators.

For reference, airport operations staff work to maintain 100ft cleared width on a runway at all times. At this location, or 25ft from the edge lights/edge of the surface, there may be a windrow until conditions permit to relocate it further to the side or remove it entirely.

Where a windrow is present the information will be available as part of the AMSCR.

Windrows on runways will always be published as ‘X’ ft from the edge of the maneuvering area/surface (i.e. 25 ft from runway edge). On a runway the height of the windrow is also published for each occurrence, as well as its relative location North, South, East or West, of centerline.

18.0 ICE CONROL AGENTS

The chemical used for runway ice control is Potassium Acetate and Sodium Formate. Once ice has already formed; potassium acetate or sodium formate may be used to soften the ice, so it can be easily removed by either plows or sweepers. These chemicals may also be utilized in order to mitigate or prevent the formation of ice if possible. The effectiveness of these chemicals depends on temperature, wind conditions, precipitation, and other meteorological and timing factors. Their application is at the discretion of Airport Management.

It is preferable to control the formation of ice rather than try to remove ice that has already formed. To that end careful monitoring of weather and runway conditions is paramount. Decisions will be made in order to manage each specific instance in order to mitigate the impacts of icing on the airport and air carrier’s operations.

In some situations sand may also be used to control ice formation; as an alternative but also in conjunction with other chemicals as required.

When ice control chemicals are present on a maneuvering surface the information will be included in the AMSCR published in order to advise air crew and flight dispatch operators.

19.0 SAND

To minimize damage to aircraft, all sand used by the North Bay Airport on airside is intended to meet the Transport Canada specifications; specifically Division IV Standards, CARs 322.415 (2):

(a) be an abrasive material for airside ice control consisting of either crushed angular mineral aggregate or natural sand;

(b) be free from chlorides and corrosive materials, clays, debris, cementation, organic matter and other non-friction material;

(c) not be softer than and including 3.5 up to and including 7 on the Mohs hardness scale; and

(d) be of a granular size that falls within the following parameters:

Sieve Size (U.S. Standard)	Percent Passing by Weight (%)
No. 4 (4.75 mm)	100
No. 80 (0.180 mm)	0 to 2

When sand application is present on a maneuvering surface the information will be included in the AMSCR published in order to advise air crew and flight dispatch operators.

Information note:
To promote visual awareness and absorption of solar heat, the use of this abrasive material shall be dark in colour. Runway sand will meet these specifications or an acceptable alternate finer product will be utilized.

Sand is available for:

- Maneuvering surfaces – dispensed by airport ops airside
- Parking lots – dispensed by airport ops groundside
- Facility entrances, walkways, and direct aircraft access – available for everyone

The location of the sand lockers/barrels for general use can be found as Annex ‘D’.

20.0 MINIMIZING RISK OF TRANSFER FROM GROUNDSIDE TO AIRSIDE

All vehicles are limited to accessing the airfield onto the maneuvering areas through specific designated main points / access points or gates.

Those entering airside shall be instructed to inspect their vehicles and remove all accumulation of material in order to prevent unauthorized salt (a corrosive substance) or FOD from entering airside, as much as is practicable.

No contractor sanding vehicles are permitted airside as specific airport equipment is intended for use with airside materials; clear of cross contamination with non-approved substances.

21.0 RESPONSIBILITIES

The Airport Manager, by way of this document, has delegated full authority to the Operations Manager, the Regulatory Compliance Manager and on duty airport operations staff to make operational decisions, report AMSCR/CRFI information and issue NOTAMs regarding operational restrictions & safety related information on the airport's maneuvering surfaces as may be required by winter weather conditions.

The **Operations Manager** will:

(1) Maintain a constant check of runway conditions during snow and ice storms to determine presence of snow, slush, or ice, their depth and determine the co-efficient of friction (CRFI) readings;
(2) Determine when snow removal and anti-icing operations will commence, (based on existing field conditions, current and forecast weather) and notify Equipment Operators, and direct their activities;
(3) Determine when runways and taxiways must be closed and re-opened in accordance with conditions and general safety considerations;
(4) Commence snow removal at “ILS” as required or when advised by Nav Canada;
(5) Report or assign airport RSC/CRFI surface information via NES or fax to the appropriate Nav Canada Flight Information Centre (FIC) and the Air Traffic Services unit at North Bay Airport (ATS) in accordance with established procedures.

The normal times to issue RSC/CRFI reports at North Bay Airport are:

- **Daily (Mon to Sun) 04:30, 07:30, 10:30, 13:00, 16:30 and 19:30**

These reporting times are minimums, and during complex weather conditions will be issued more frequently. Please note that the times may be altered based on prevailing conditions as determined by the Operations Manager, but during our published hours of operation the reports will be issued at least every 8 hours.

The **Operational Assets & Infrastructure Manager** will:

(1) Carry out snow removal operations as per the winter snow plan, as directed by the Airport Manager; supporting the responsibilities of the Operation’s Manager.
(2) In the absence of the Operations Manager Report or assign Airport RSC/CRFI surface information via NES or fax to the appropriate Nav Canada Flight Information Centre (FIC) and the Air Traffic Services unit at North Bay Airport (ATS) in accordance with established procedures.

The normal times to issue RSC/CRFI reports at North Bay Airport are:

Daily (Mon to Sun) 04:30, 07:30, 10:30, 13:00, 16:30 and 19:30

These reporting times are minimums, and during complex weather conditions will be issued more frequently. Please note that the times may be altered based on prevailing conditions as determined by the Operations Manager, but during our published hours of operation the reports will be issued at least every 8 hours.

Airport Ops Staff Shall:

(1) Carry out snow removal operations as per the winter snow plan, and as directed by the Operations Manager and/or Regulatory Compliance Manager as priority changes may dictate.

(2) Bring to the attention of the Operations Manager any operational concerns; especially those related areas outlined in the winter snow plan.

(3) Contact airport management, as designated, to discuss operations related to icing conditions and the application of ice control chemicals (specifically potassium acetate and sodium formate)

(4) Report, as scheduled Shift Leads or alternative assigned by Airport Management to, complete airport RSC/CRFI surface information via NES or fax to the appropriate Nav Canada Flight Information Centre (FIC) and the Air Traffic Services unit at North Bay Airport (ATS) in accordance with established procedures.
The normal times to issue RSC/CRFI reports at North Bay Airport are:

Daily (Mon to Sun) 04:30, 07:30, 10:30, 13:00, 16:30 and 19:30

These reporting times are minimums, and during complex weather conditions will be issued more frequently. Please note that the times may be altered based on prevailing conditions as determined by the Operations Manager, but during our published hours of operation the reports will be issued at least every 8 hours.

22.0 RUNWAY SURFACE CONDITION AND CANADIAN RUNWAY FRICTION INDEX REPORTING

Runway Surface Condition (RSC) NOTAMs are issued to alert pilots to natural surface contaminants, such as snow, ice, or slush that could affect aircraft braking performance. The RSC section of the report provides runway surface information describing the runway condition in plain language, while the CRFI section describes braking action quantitatively using a numerical format.

RSC NOTAMs are issued upon any of the following **conditions are greater than 10% runway surface coverage** for open runway(s):

(a) **Slush or wet snow** on the runway;

(b) **Dry snow** on the runway **exceeding ¼ inch** (0.57 CM) in depth;

(c) Runway **not cleared to full width**. When the runway is partially cleared the report must also include a description of the uncleared portion of the runway (depth of snow, windrows, snow banks, etc.);

(d) **Compacted snow, ice, or frost** on the runway; or,

(e) CRFI reading of 0.40 or less.

Please refer to the “Canadian NOTAM Operation Procedures Manual” for further information.

https://www.navcanada.ca/en/aeronautical-information/operational-guides.aspx#0e579ae213a64987adcdc63fd0983d52

In order to convey the most accurate and timely information to pilots, the Airport and Nav Canada have agreed to the following local procedure. Upon completion of a field inspection, the operator will verbally provide the Nav Canada Air Traffic Services (ATS) Unit with the new RSC/CRFI information, who will then forward such up-to-date information to pilots both firsthand and via the ATIS broadcast. As soon as possible when time permits, the operator will submit the surface information via NES or fax to the Nav Canada Flight Information Centre (FIC) for official NOTAM distribution.

DESCRIPTION OF CANADIAN RUNWAY FRICTIONS INDEX

The decelerometer is an instrument that is mounted in a test vehicle to measure the decelerating forces acting on a vehicle when its brakes are applied. The instrument is graduated in increments from 0 to 1, the top number being equivalent to the theoretical maximum decelerating capability of the vehicle on a dry surface. These numbers are referred to as the Canadian Runway Friction Index (CRFI). Small numbers represent low braking coefficients of friction, while numbers in the order of 0.8 and above indicate the braking coefficients to be expected on bare and dry runways.

Using the standard or alternating method, the test vehicle is braked at 1,000 foot intervals along the runways at a distance of 10 feet on either side of the center line. The CRFI numbers recorded are then averaged to the nearest two decimal places. The average reading for the runway is reported in thirds for 08-26 and full length for 18-36. When the CRFI reading on a portion of a runway is 0.10 or more different from the runway average, this will be identified in the RSC NOTAM.

When available, a **CRFI reading will be included as part of the Runway Surface Condition (RSC) Report** to quantify braking action. The Canadian Runway Friction Index must be included in the CRFI portion of the RCR whenever (and only when) any of the following runway surface conditions exist on open runways with **greater than 10% surface coverage:**

(a) **Ice or frost** on the runway surface;

(b) **Wet ice** on runway surface (i.e., ice covered by water);

(c) **Compacted snow** on the runway surface;

(d) **De-icing chemical solution on ice**;

(e) Thin layer of **slush over ice**; or,

(f) **Dry and wet snow**, up to and including but **not exceeding 2.5 cm (1")** in depth.

NOTE: CRFI reading of .40 and below must be passed verbally and immediately to the Nav Canada ATS at North Bay Airport for relay to inbound flights.

Because of the mechanical & operational limitations that exist under certain conditions, runway friction readings produced by decelerometer devices may provide inaccurate results. For this reason, **CRFI readings should not** be taken when the following runway conditions exist on open runways with greater than 10% surface coverage;

(a) **Wet r**unway surface (water directly on runway surface);

(b) **Slush** directly on runway surface;

(c) **Snow** on runway surface **exceeding 2.5 cm (1 inch)**; or,

(d) **Damp** runway surface

The CRFI portion of the RSC is included in the AMSCR form, see ANNEX "I and J"

An annual calibration of the Electronic Recording Decelerometer (ERD) must be conducted by a Transport Canada approved repair shop prior to the winter operating season.

23.0 OPERATIONAL RESTRICTIONS ON MANUEVERING SURFACES

The Airport Manager, and/or authorized personnel (as identified in this document) retain the authority to close runways, taxiways or any portion of the aircraft maneuvering surfaces for the purposes of snow removal, ice control, lighting repair or other airfield maintenance activity. Such closures will be affected via NOTAM and will be of minimal duration so as to cause the least disruption to flight operations. Decisions to restrict activity on the maneuvering surfaces will be made consistent with the airport's commitment to operational safety and to the effective and efficient use of available resources.

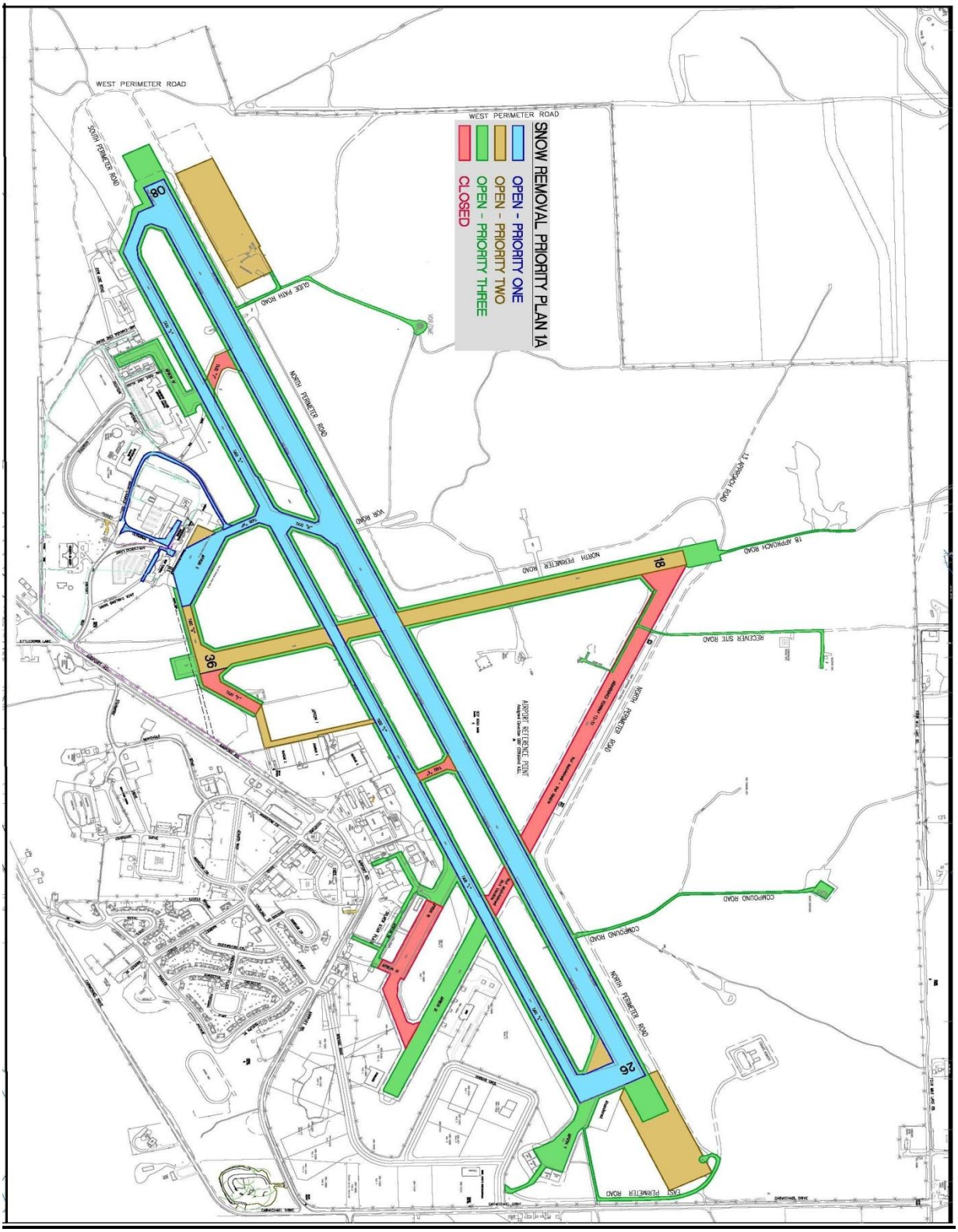
24.0 CRITIQUE AND REVIEW

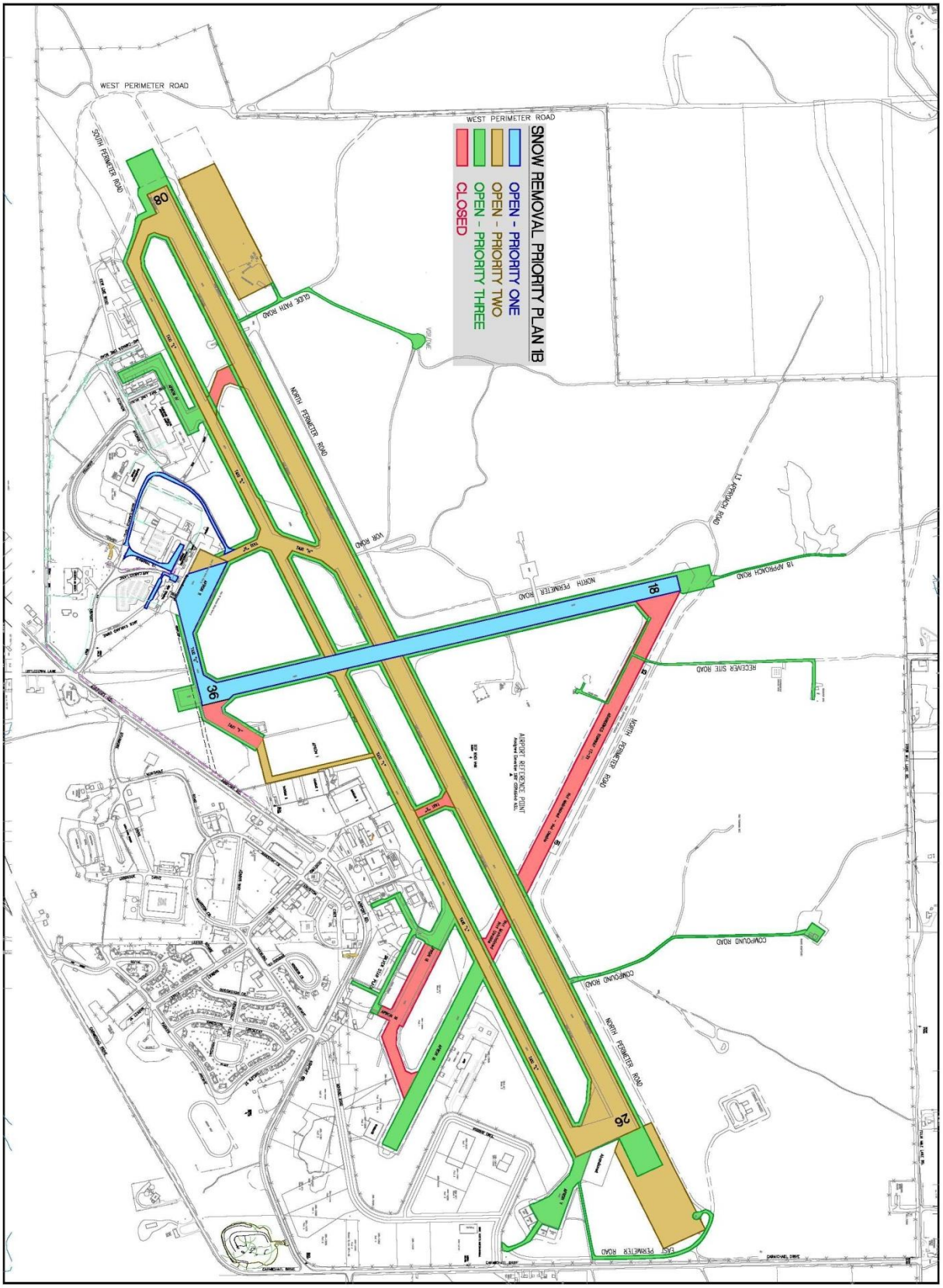
Planning and organizing for winter operations is an on-going function and responsibility of airport management. Review of operational practices and procedures and monitoring of activities to ensure compliance with regulatory requirements will continue. It is our objective to offer the most cost effective and efficient service possible.

All operators and tenants are invited to provide comment on the Plan and to submit suggestions for improved effectiveness and efficiency of the winter operation. Questions and comments can be referred directly to the Airport Manager.

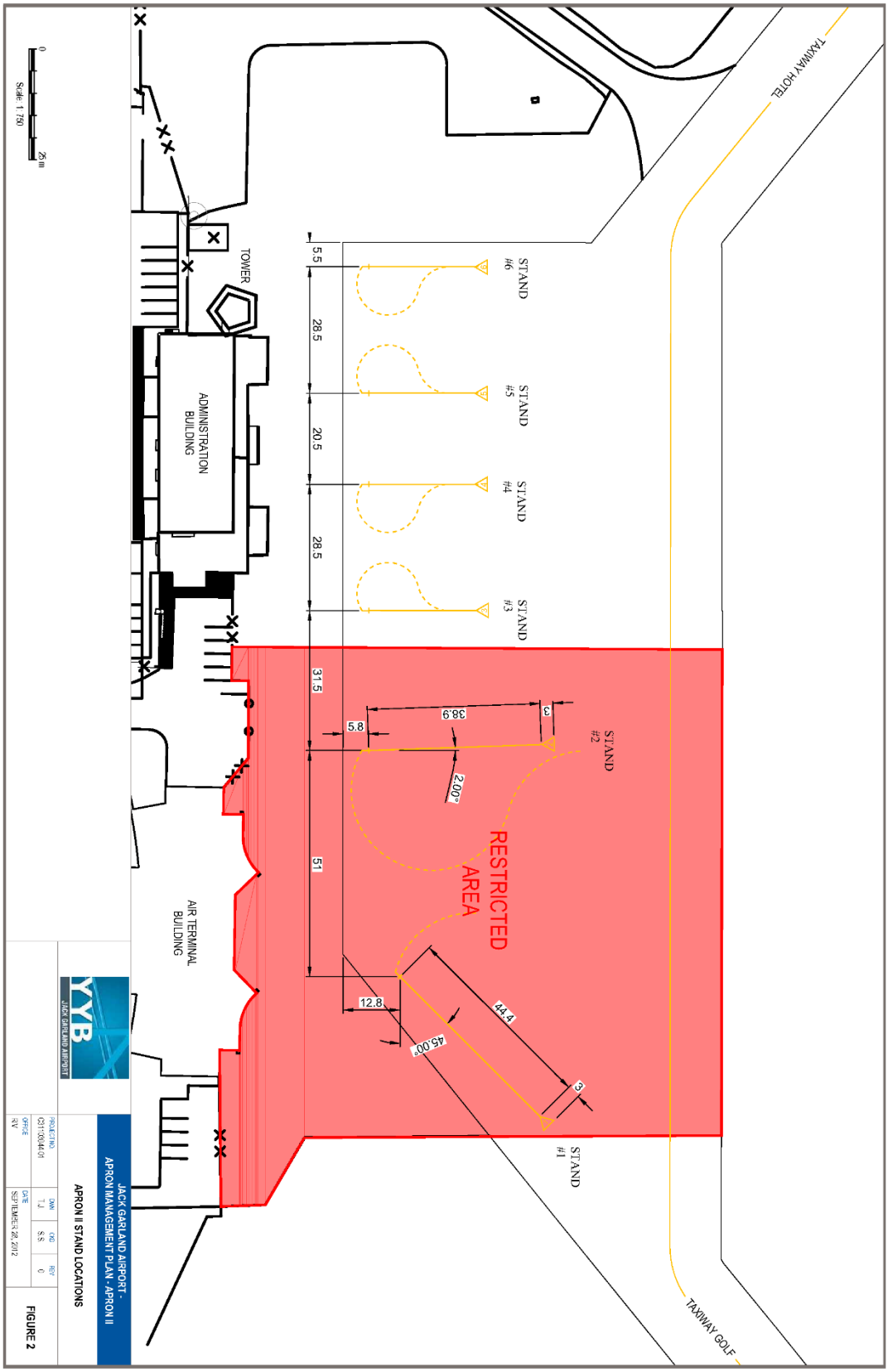
The support and participation of all airport operators in maintaining the currency and utility of this Plan is requested and appreciated.

Annex A – Site Plan and Snow Removal Priorities - Airside

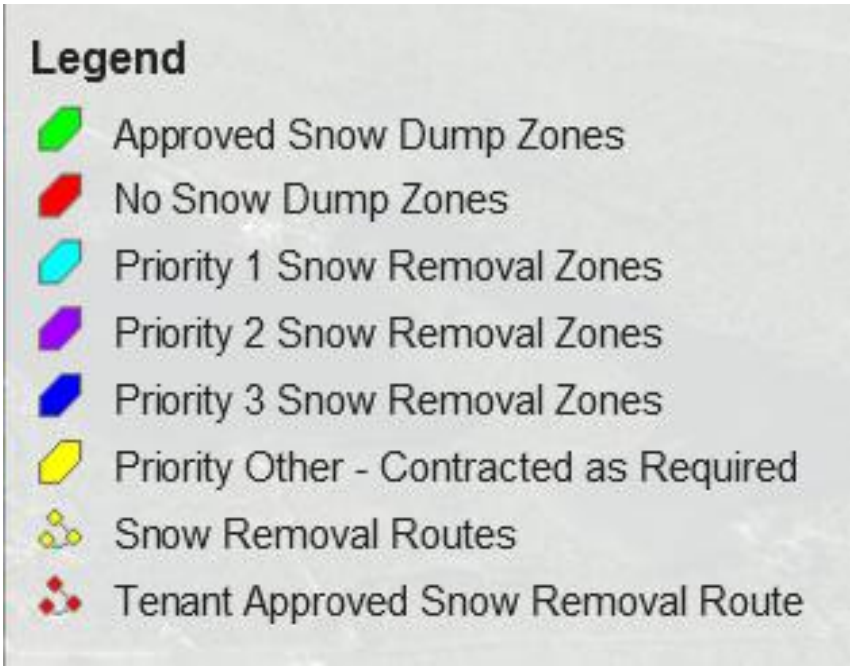



SNOW REMOVAL PRIORITY PLAN 1B
OPEN - PRIORITY ONE
OPEN - PRIORITY TWO
OPEN - PRIORITY THREE
CLOSED
WEST PERIMETER ROAD
SOUTH PERIMETER ROAD
NORTH PERIMETER ROAD
CLOSE PATH ROAD
YOK ROAD
13 APPROACH ROAD
18 APPROACH ROAD
RECEIVER SITE ROAD
COMPOUND ROAD
EAST PERIMETER ROAD
AIRPORT REFERENCE POINT
08
18
36
26

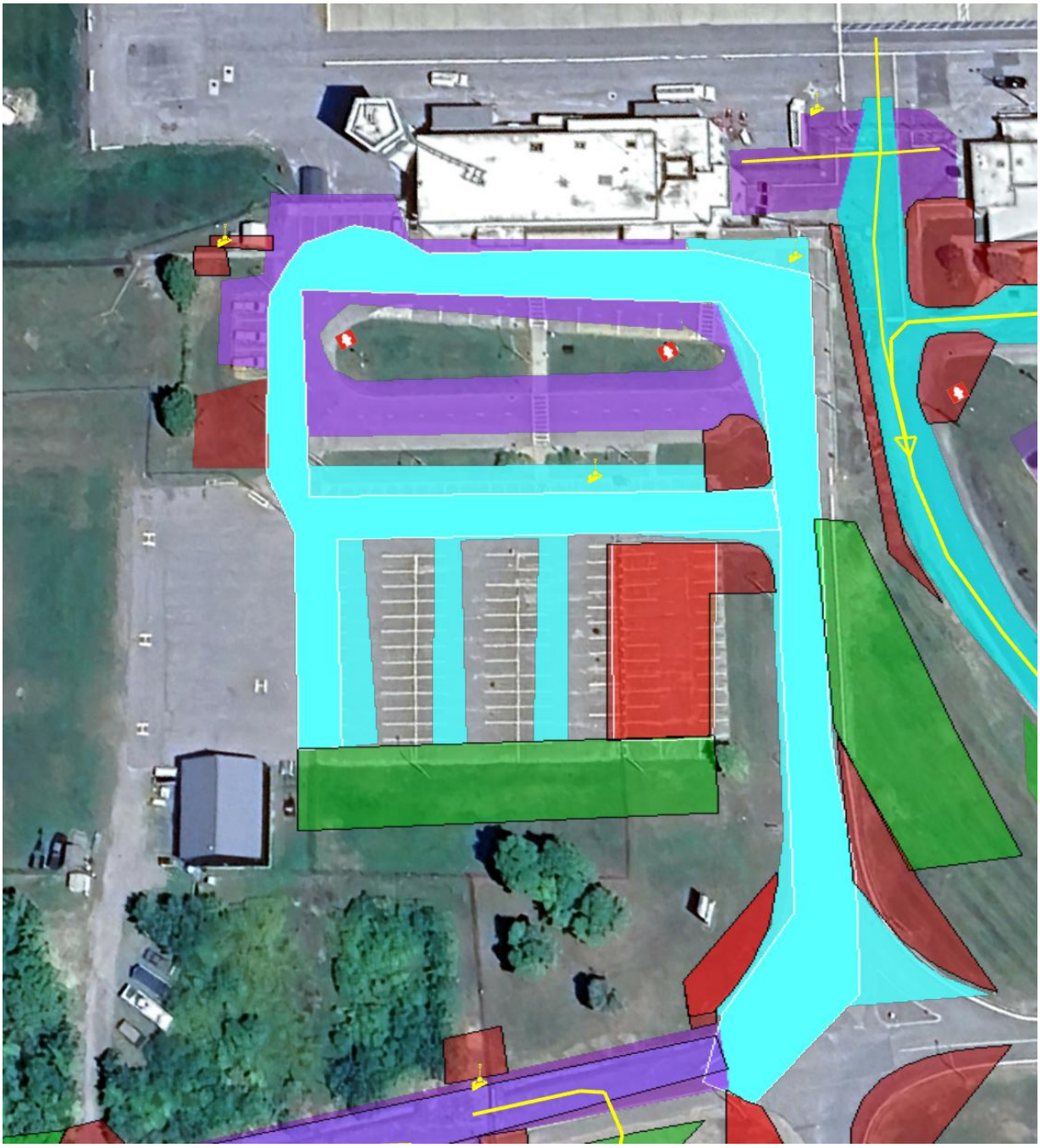
Annex B – Apron II Pavement Markings and Parking Management



Annex C – Site Plan and Snow Removal / Ice Control Priorities - Groundside



Administration Building Parking Lot B

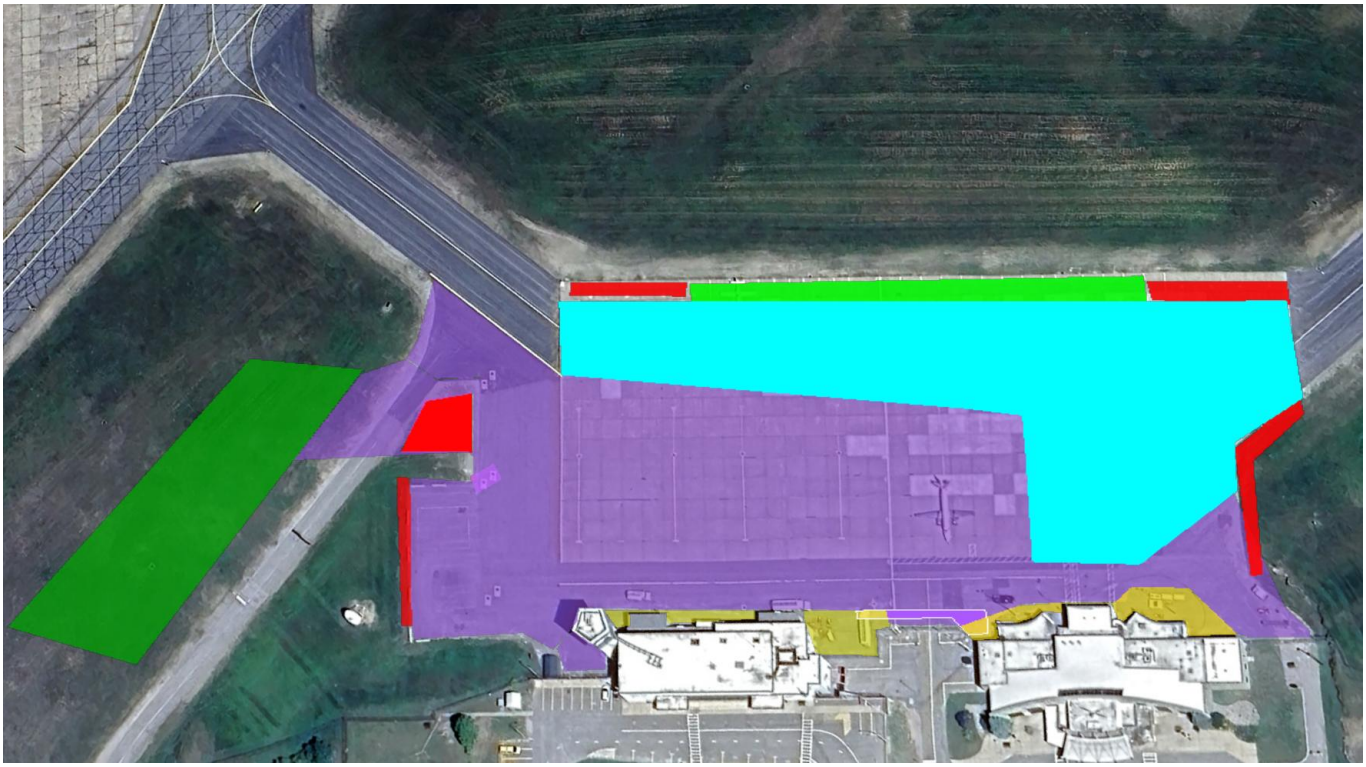


Terminal Building Parking Lot A

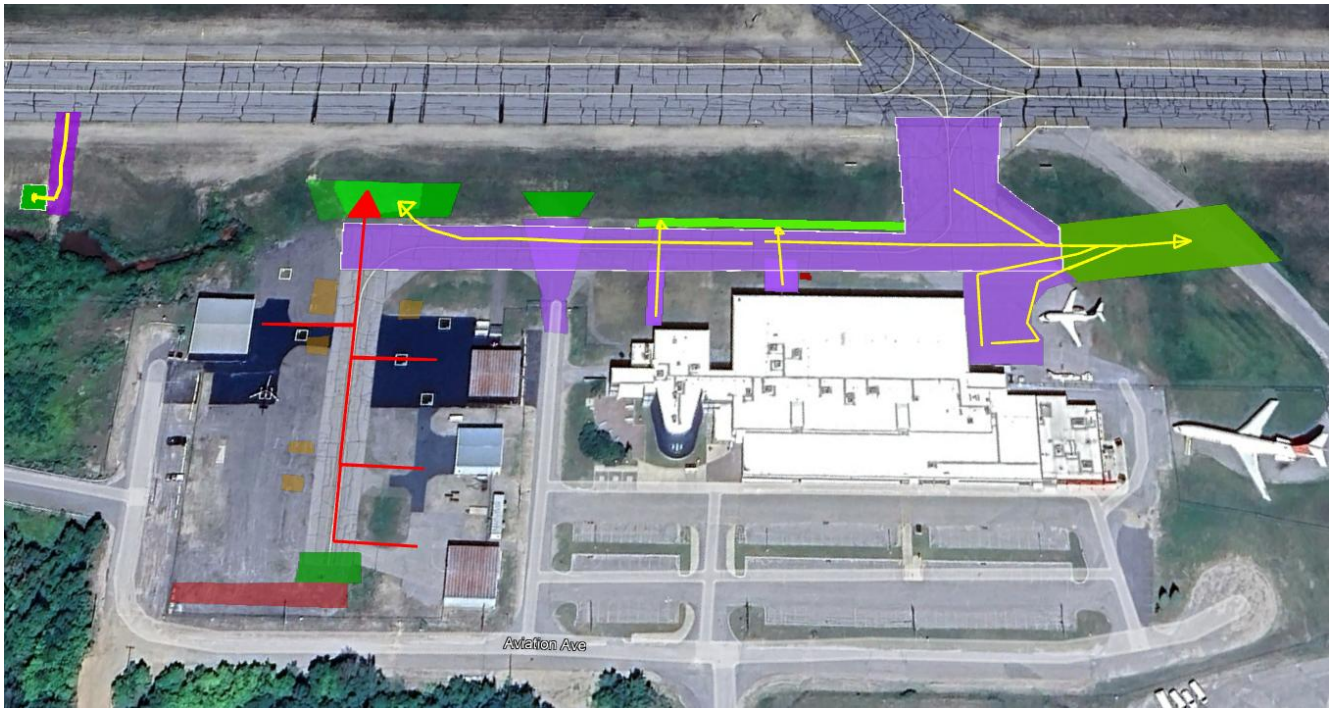


Apron 2

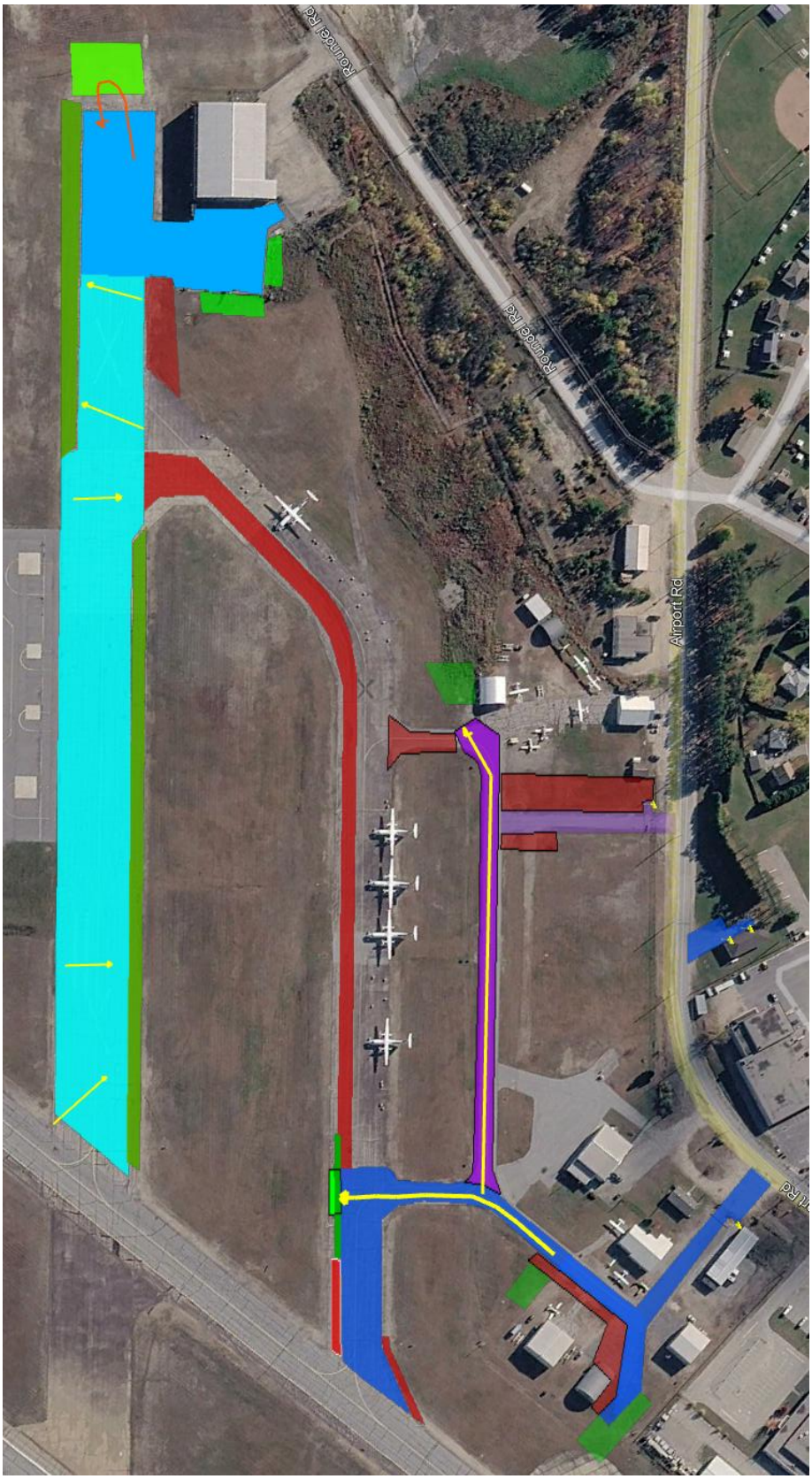
Yellow sections plowed into piles by Voyageur FBO and Executive Aviation before 7:30 am daily for Airport Operations to move piles when doing Apron 2.
Contract Cleaners to clear snow from doorways daily before 7:00 am, clear and sand walkways and doorways prior to scheduled flights as per separate SOP # 9



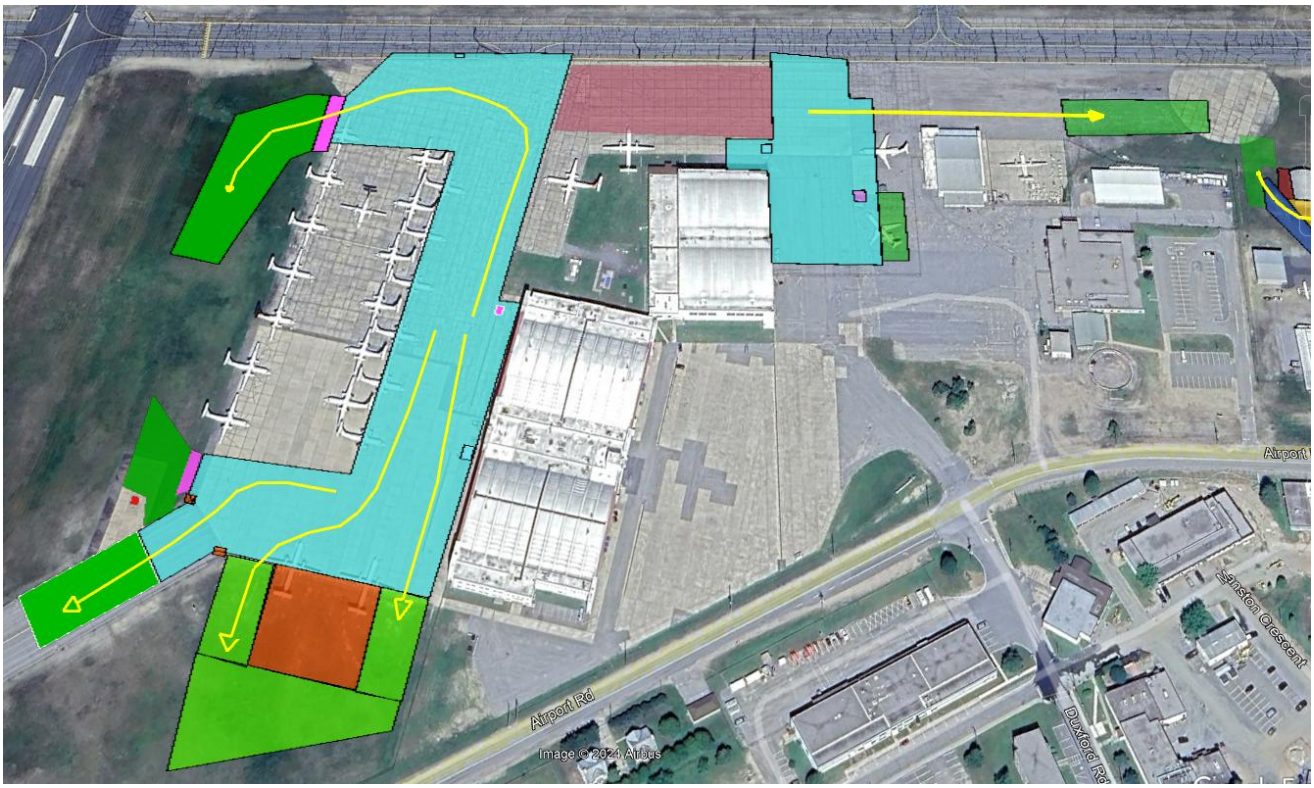
Apron 4 & Canadore Apron – Completed by North Bay Jack Garland Airport



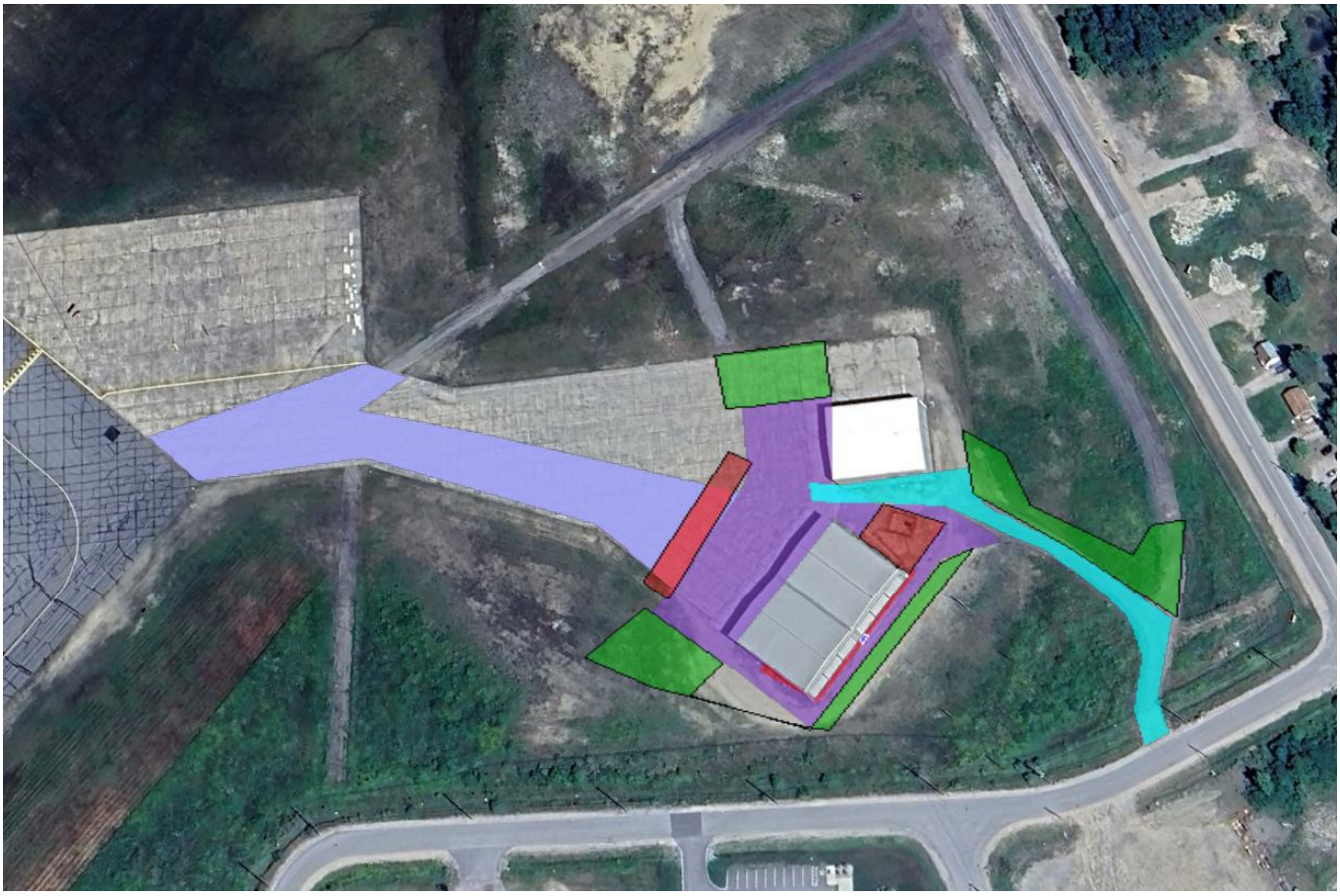
Apron 3, Gate 35, Gate 30, FEC



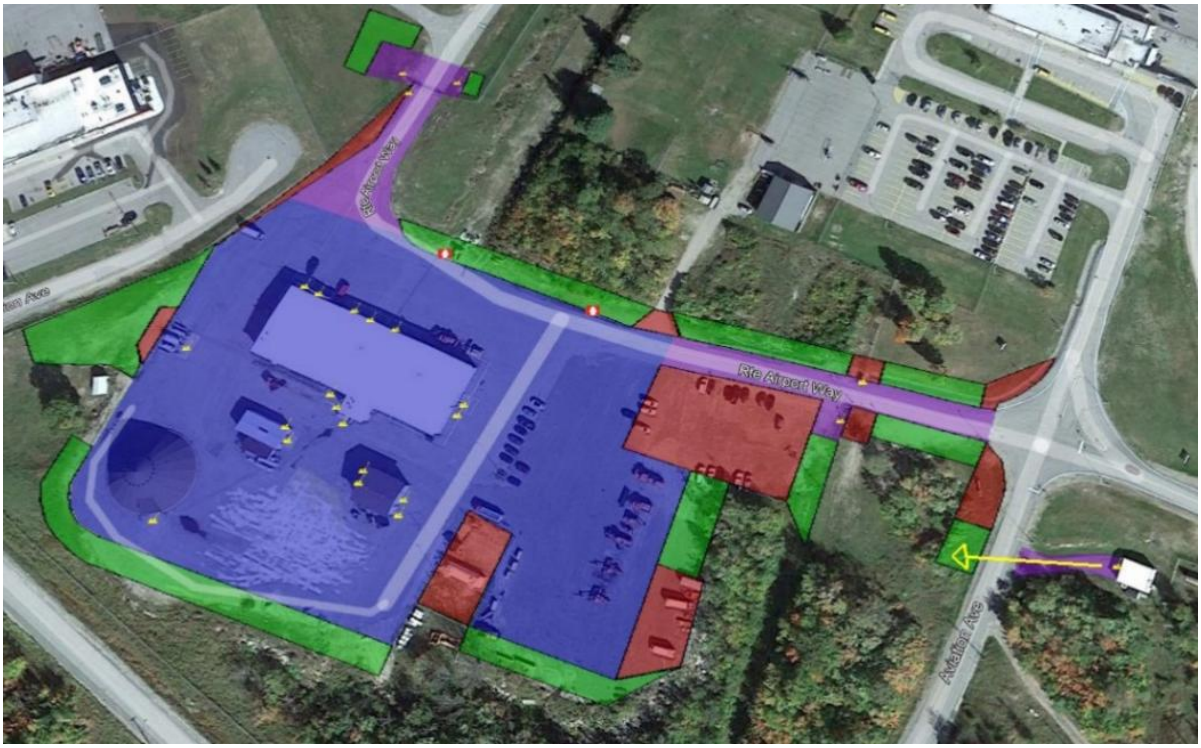
Apron 1 – Completed by Voyageur Aviation



Apron 5 & Gate 27



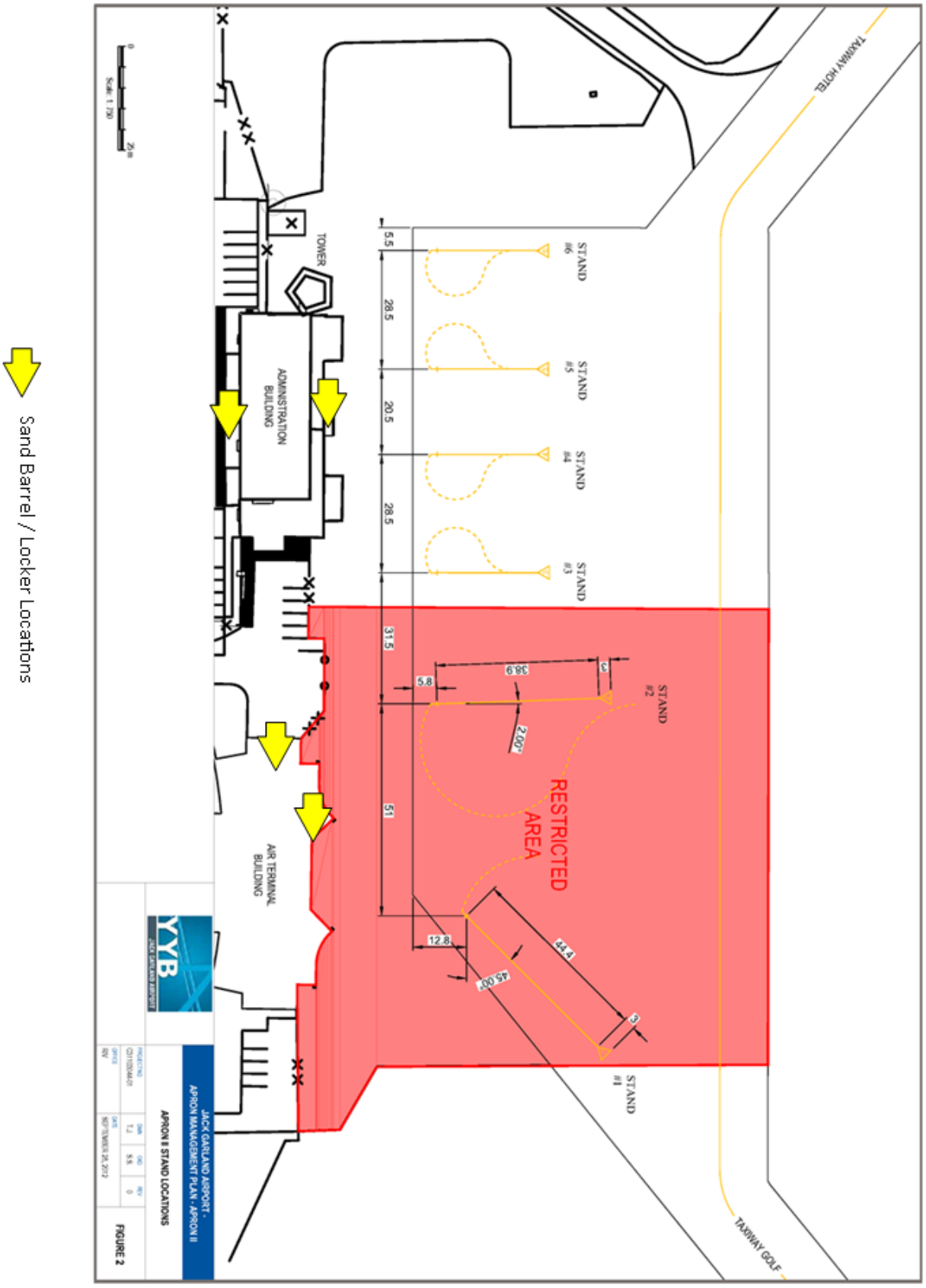
Airport Maintenance Garage Yard



Transmitter Site (Nav Canada Site on Four Mile Lake Road)



Annex D – Sand Locker/Barrel Locations – Airside and Groundside



Annex E – Ice Control Chemical Certifications

SMI, Inc.
12219 SW 131 Avenue
Miami, Florida 33186-6401 USA

Phone: (305) 971-7047
Fax: (305) 971-7048

Attn: Ahmet Kimyacioglu
MKS Marmara Entegre Kimya Sanayi AS
Barbaros Bulvari
Faruk Canitez Sok no. 8
34353 Besiktas
Istanbul Turkey

Date: 22-Mar-2019

SMI/REF: 1901-372$_3$

Product: **Sodium Formate Deicer D-02 /ICECARE GRANULE** *(received 07-Jan-2019)*

Dilution: Per specification

Page 1 of 6

AMS 1431E
SOLID RUNWAY DEICING/ANTI-ICING PRODUCT
Periodic Tests

4.2.2	Periodic Tests	
3.2.5	Effect on Transparent Plastics	Conforms
3.2.6	Effect on Painted Surfaces	Conforms
3.2.7	Effect on Unpainted Surfaces	Conforms
3.2.8	Effect on Runway Pavements	
3.2.8.1	Runway Concrete Surface Scaling Resistance	Conforms
3.2.8.2	Asphalt Concrete Degradation Resistance	[1]Not performed by SMI
3.2.9	Effect on Aircraft Metals:	
	3.2.9.1 Sandwich Corrosion	Conforms
	3.2.9.2 Total Immersion Corrosion	Conforms
	3.2.9.3 Low Embrittling Cadmium Plate	Conforms
	3.2.9.3.1 Cyclic Immersion Corrosion of Cadmium Plate	Informational
	3.2.9.4 Hydrogen Embrittlement	Conforms
	3.2.9.5 Stress Corrosion Resistance	
	AMS 4911	Conforms
	AMS 4916	Informational

[1]*Testing required for deicer /anti-icer products used in Europe. This test is not performed by SMI.*

Respectfully submitted,

Patricia D. Viani, SMI Inc.

SMI, Inc.
12219 SW 131 Avenue
Miami, Florida 33186-6401 USA
Phone: (305) 971-7047
Fax: (305) 971-7048

Attn: Jessica Cremer
Nachurs Alpine Solutions
421 Leader Street
Marion, OH 43302

Date: 05-Apr-2019

SMI/REF: 1812-365

Product: **GEN3 64 (Lot GEN3092118)** *(received 07-Jan-2019)*

Dilution: As received

Page 1 of 5

Periodic testing in accordance with
AMS 1435D (Revised 2018-11)
LIQUID RUNWAY DEICING/ANTI-ICING PRODUCT

4.2.2 Periodic Tests

3.2.4	Freezing Point	Conforms
3.2.5	Effect on Aircraft Metals	
3.2.5.1	Sandwich Corrosion	Conforms
3.2.5.2	Total Immersion Corrosion	Conforms
3.2.5.3	Low Embrittling Cadmium Plate	Conforms
3.2.5.3.1	Cyclic Immersion Corrosion of Cadmium Plate	Informational
3.2.5.4	Hydrogen Embrittlement	Conforms
3.2.5.5	Stress-Corrosion Resistance	
	AMS 4911	Conforms
	AMS 4916	Informational
3.2.6	Effect on Transparent Plastics	
	MIL-P-25690 (Type C)	Conforms
	MIL-P-83310 (Polycarbonate)	Conforms
3.2.7	Effect on Painted Surfaces	Conforms
3.2.8	Effect on Unpainted Surfaces	Conforms
3.2.9	Rinsibility	Conforms
3.2.10	Effect on Runway Pavements	
3.2.10.1	Runway Concrete Scaling Resistance	Conforms
3.2.10.2	Asphalt Concrete Degradation Resistance	*Not performed by SMI

Testing required for deicer /anti-icer products used in Europe. This test is not performed by SMI.

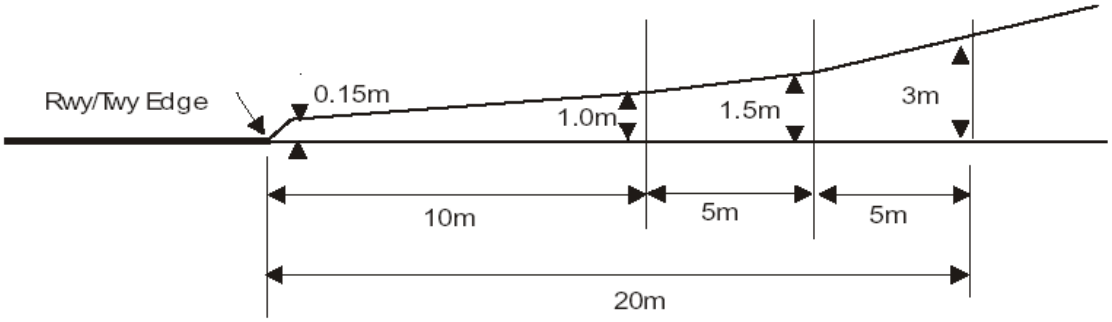
Respectfully submitted,

Patricia D. Viani, SMI Inc.

Annex F – Sideline Snow Removal

Runway 08/26 – Code 4D | AGN V

Runway 18/36 – Code 3C | AGN IV

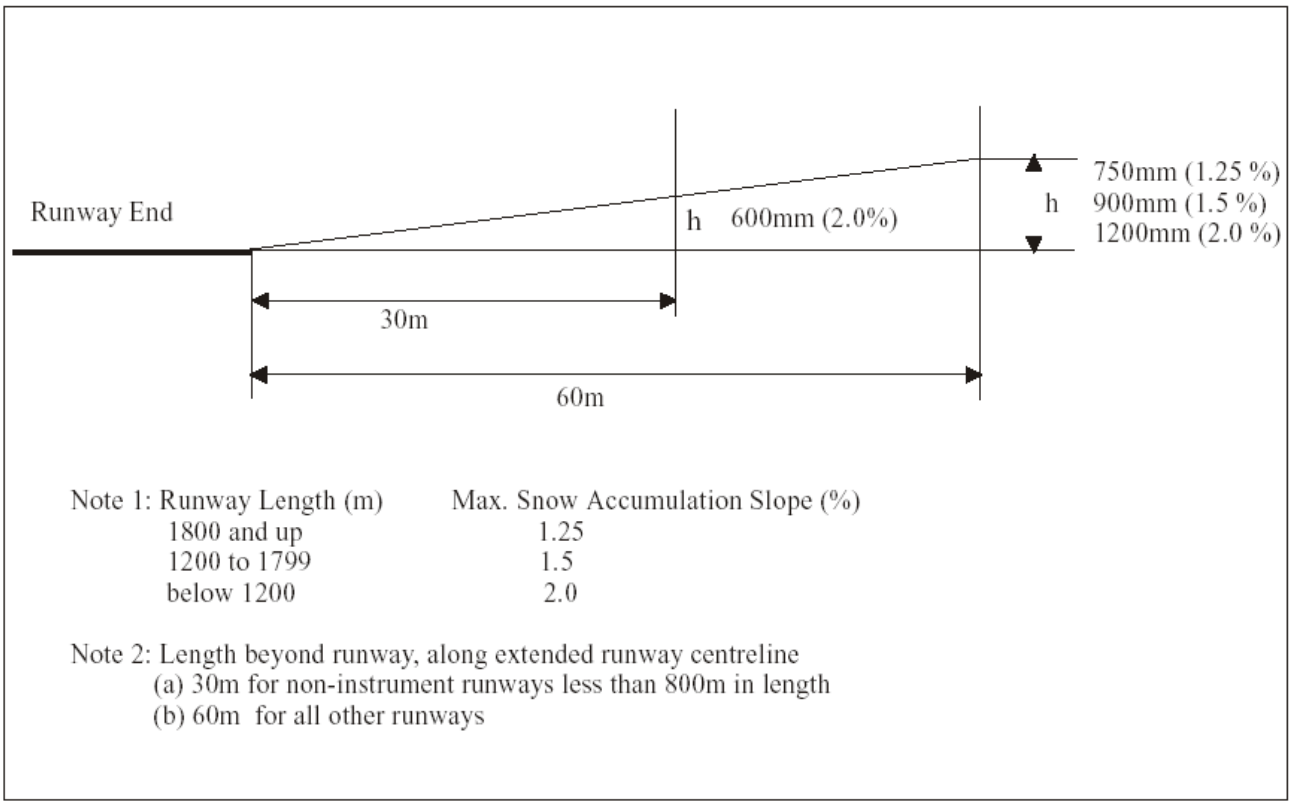


Codes C and D

Annex G – Pre-Threshold Area Snow Removal

Runway 08/26 – Precision Runway, 3048m in length

Runway 18/36 – Non Precision Runway, 1369m in length



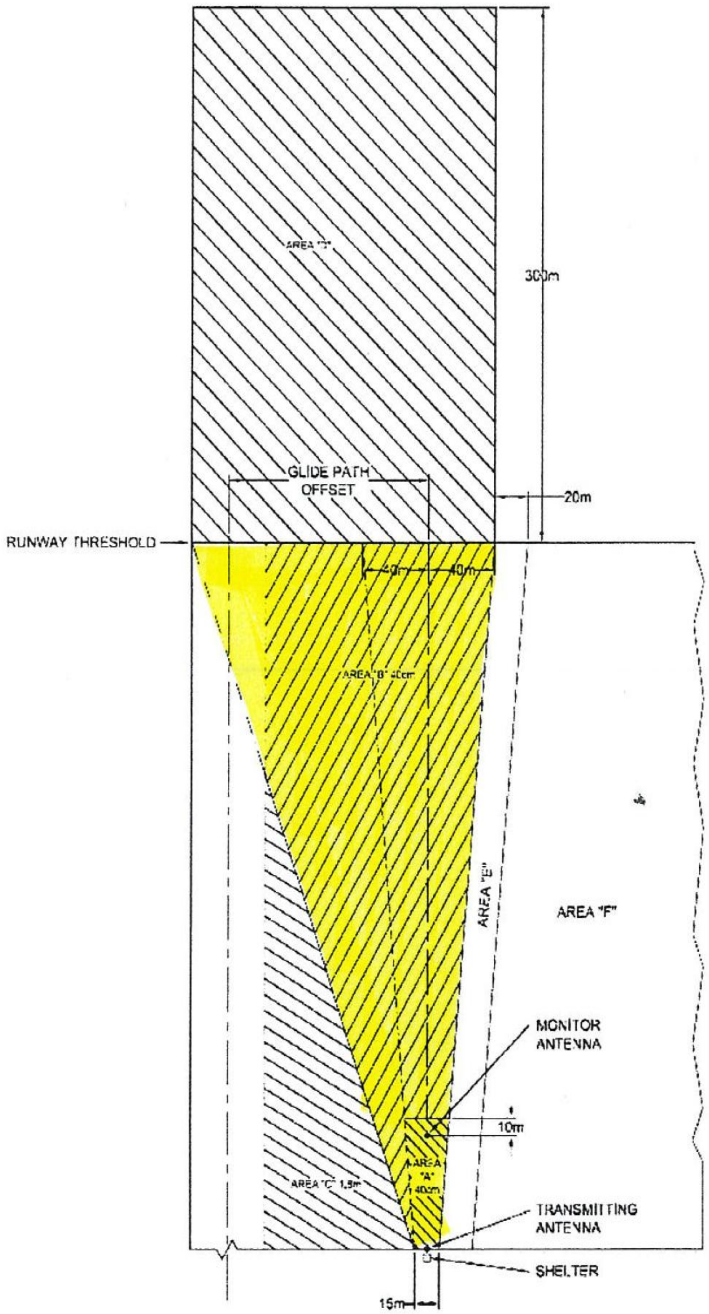
Note 1: Runway Length (m) — Max. Snow Accumulation Slope (%)

Runway Length (m)	Max. Snow Accumulation Slope (%)
1800 and up	1.25
1200 to 1799	1.5
below 1200	2.0

Note 2: Length beyond runway, along extended runway centreline
(a) 30m for non-instrument runways less than 800m in length
(b) 60m for all other runways

Annex H – Snow Removal – Glide Path and Localizer Sites

Glide Path Snow and Vegetation clearing zones



H-708-770-MI 001

Snow cleared from the runway must not be deposited in the Glide Path clearing zones.
Snow banks on the edge of the cleared area between the Glide Path and the runway threshold must be tapered with a maximum angle of 50 degrees relative to ground.
Area D: Natural snow allowed. Snow cleared between the Glide Path and the runway threshold must not be deposited in this area.
Area E: Snow depth must not exceed 1.8 metres. Snow banks must be tapered with a maximum angle of 50 degrees relative to ground.
Area F: Natural snow allowed. Dumped snow higher than 1.8 metres must be tapered with a maximum angle of 6 degrees (1m per 10m) relative to 1.8m.

Glide Path Snow Removal

Confirm that snow has not exceeded the limits prescribed below for Areas A, B, C and D as illustrated in Appendix "B1". In Areas B, C and D, there is no field monitor or ground check enabling us to determine if the system still operates safely. Snow accumulation exceeding the limits in these areas must be considered a threat to system integrity, whether or not the monitor detects a course shift.

The maximum allowable snow depths within these areas are as follows:

- Area A - Average snow depth not to exceed 40 cm.
- Area B - Average snow depth not to exceed 40 cm.
- Area C - Average snow depth not to exceed 1.8 m.
- Area D – Natural snow allowed. Snow cleared between the Glide Path and the runway threshold must not be deposited in this area.

If the average snow depth reaches the above limits in Area A, B or C, the system must be immediately removed from service until excess snow has been cleared.

For sites at which snow removal equipment cannot be used, suitable snow removal criteria must be developed at the regional level and approved by Navigation Systems Engineering, H.O. Site specific document supporting such approval(s) can be found in Appendix B, where applicable.

High snow banks along an access road may affect course structure, the degree being dependent on the location of the access road. Following a period of heavy snowfall and subsequent plowing, it may be necessary to have the banks cut down. This is particularly important in areas where snowblowing has created vertical snow cuts. Similarly, snow drifts or banks in the critical area may affect Glide Path operation and must be tapered.

It is important to prevent snow being blown into the area in front of the Glide Path during runway clearing operations. This applies to the areas A, B and C.

Field monitor readings are more sensitive to snow depth than the far-field. Supplementary instructions specific to equipment models is described below.

Glide Path Snow Removal (Cont'd)

(2) Normarc Glide Path

For the Normarc ILS, the primary monitoring functions are provided by the Integral monitor. Since the Near Field monitor readings are more sensitive to snow depth than the far-field, the NF monitor is set to alarm at 125 uA with the maintenance warning set to 60% (75 uA).

With the executive limits set to a much higher value than for the Integral, the Near Field monitor will tolerate higher snow accumulation before reaching these limits. For this reason, the maintenance warning limits are set to tighter values than normal to compensate for this. Therefore, both Areas A and B should be cleared if snow accumulation causes the field monitor to indicate a maintenance warning. (Note: In this case it is not necessary to immediately remove the glide path from service.)

Site Vegetation

Confirm that vegetation does not exceed 50 cm in height for the Localizer and 30 cm for the GP within the Areas described in 5.1.3.2, 5.1.3.3. and Appendix A and B and arrange for cutting as necessary.

Sites where the limits prescribed can not be met should request site specific limits via their Regional Specialist, who will coordinate with the LCM. Topographic information will normally be required in order to perform an analysis. Refer to special procedures Para. 6 of this manual for detailed instructions.

Runway Localizer Reference Marks

There are 4 runway reference marks. These marks must be kept visible and repainted when required.

(1) Three vehicle check marks are used to measure the course position at centreline and the course quarter sector widths using an ILS receiver. These marks are normally located approximately between 900 and 1300 meters in front of the localizer array.

(2) One DDM Null Reference mark is located approximately between 250 and 500 meters in front of the localizer array, on the runway extended centreline. The DDM centreline null measurements are performed in order to verify the "far-field" signal relationship between each antenna pair of the localizer array.

Localizer Snow Clearance

Philips Twin-T Arrays

Normarc / Wilcox Arrays

Supplementary notes:

Area A: Corresponds to the Near field monitor zone. Snow must be removed to stabilize the monitors. The size of this area is similar for all near field monitors. Facing the array, the zone is delimited on one side by the edge of the Array (right hand side) with the opposite side 20 meters passed the Clearance monitor antenna.

Area B: In most cases, this zone does not exist. It is necessary for sites where more than one snow depth tolerance is defined due to the nature of the terrain.

Area C: In most cases, it corresponds to the zone delimited by the front of the Array and the runway end (normal sites) or the beginning of zone A where snow depth tolerance differs from C.

Area D: The zone at the back of the Array that needs to be cleared.

Area E: Snow naturally accumulating can be tolerated and snow removal is not required in this area. This area cannot be used as a dumping site for snow cleared from the runway or any other area. However, if there is a road in this area, snow removal is permitted to allow access.

For sites with a reciprocal ILS system, the snow cleared between the Localizer and the runway stop end must not be deposited on the same side as the reciprocal Glide Path.

Snow banks on the edge on either side of the cleared area between the Localizer and the runway stop end must be tapered with a maximum angle of 50 degree relative to the ground. Height of the snow bank should be limited to the height of the array.

Localizer Snow Clearance & Site Specific Tolerances

ILS Name	Runway	ILS Model	Snow Depth limits (meters)					Distance to be protected (meters)		
			Area A	Area B	Area C	Area D	Area E	B1	C1	D1	E1
Sites not listed	-	PHILIPS (with BC)	0.50	N/A	0.50	0.75	See note in Appendix A1	0	Array to Runway stop end	60	240
		PHILIPS (no BC)	0.50	N/A	0.50	0.75		0		60	45
		PHILIPS with screen	0.50	N/A	0.50	0.75		0		15	45
		WILCOX/ NORMARC	N/A	N/A	0.50	0.75		0		15	45
Baie Comeau	10	NORMARC	N/A	N/A	0.75	1		0		15	45
Calgary	28	NORMARC	N/A	N/A	1.00	1.25		0		15	45
Castlegar	15	WILCOX	N/A	N/A	1.40	1.40		0	100	15	45
Churchill	33	NORMARC	N/A	N/A	0.70	1.00		0		15	45
Deer Lake	25	PHILIPS	0.50	N/A	0.60	1.00		0		60	240
Fort Nelson	03	PHILIPS	0.50	N/A	0.50	0.75		0	Array to Runway stop end	60	0
Fort St. John	29	PHILIPS	0.75	N/A	0.75	1.00		0		60	240
Gander	13	NORMARC	N/A	N/A	0.75	1.00		0		15	60
Grande Prairie	29	PHILIPS	0.65	N/A	0.65	1.00		0		60	240
Mirabel	24	NORMARC	N/A	N/A	1.00	1.25		0		15	45
Moncton	06	PHILIPS	0.75	N/A	0.75	1.00		0	120	20	240

Annex I – Manual Aircraft Movement Surface Condition Report – Rwy 08/26

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AIRCRAFT MOVEMENT SURFACE CONDITION REPORT
and CANADIAN RUNWAY FRICTION INDEX

NAV CANADA

Airport Location Indicator:	Report #:	Voice Report to:	Signature:
RUNWAY:	**Valid FM:**	**Valid TO:**	**NOTAM End Time:** ☐ 8 hours ☐ Other:	**CLEARED WIDTH:** ☐ FULL ☐ CENTRED: _____ FT ☐ OFFSET: _____ FT DIRECTION: _____

☐ SLIPPERY WHEN WET

LOWER THRESHOLD			MIDPOINT			HIGHER THRESHOLD		
Runway Surface Description	% Coverage	CC	Runway Surface Description	% Coverage	CC	Runway Surface Description	% Coverage	CC
DRY	100	6	DRY	100	6	DRY	100	6
FROST WET *<= 1/8 in (3mm) depth* SLUSH DRY SNOW WET SNOW	5		FROST WET *<= 1/8 in (3mm) depth* SLUSH DRY SNOW WET SNOW	5		FROST WET *<= 1/8 in (3mm) depth* SLUSH DRY SNOW WET SNOW		5
COMPACTED SNOW *(-15°C and Colder air temp.)*	4		COMPACTED SNOW *(-15°C and Colder air temp.)*	4		COMPACTED SNOW *(-15°C and Colder air temp.)*		4
SLIPPERY WHEN WET	N/A	3	SLIPPERY WHEN WET	N/A	3	SLIPPERY WHEN WET	N/A	3
DRY SNOW on WET SNOW on COMPACTED SNOW COMPACTED SNOW *> 1/8 in (3mm) depth* DRY SNOW WET SNOW COMPACTED SNOW *(warmer than -15°C air temp.)*		3	DRY SNOW on WET SNOW on COMPACTED SNOW COMPACTED SNOW *> 1/8 in (3mm) depth* DRY SNOW WET SNOW COMPACTED SNOW *(warmer than -15°C air temp.)*		3	DRY SNOW on WET SNOW on COMPACTED SNOW COMPACTED SNOW *> 1/8 in (3mm) depth* DRY SNOW WET SNOW COMPACTED SNOW *(warmer than -15°C air temp.)*		3
>1/8 in (3mm) depth STANDING WATER SLUSH		2	*>1/8 in (3mm) depth* STANDING WATER SLUSH		2	*>1/8 in (3mm) depth* STANDING WATER SLUSH		2
ICE		1	ICE		1	ICE		1
WET ICE SLUSH *on top of* ICE WATER *on top of* COMPACTED SNOW DRY SNOW *on top of* ICE WET SNOW *on top of* ICE		0	WET ICE SLUSH *on top of* ICE WATER *on top of* COMPACTED SNOW DRY SNOW *on top of* ICE WET SNOW *on top of* ICE		0	WET ICE SLUSH *on top of* ICE WATER *on top of* COMPACTED SNOW DRY SNOW *on top of* ICE WET SNOW *on top of* ICE		0

Contaminant	<=1/8"	1/4"	1/2"	3/4"	1"	1.5"	2"	Other:

Contaminant	<=1/8"	1/4"	1/2"	3/4"	1"	1.5"	2"	Other:

Contaminant	<=1/8"	1/4"	1/2"	3/4"	1"	1.5"	2"	Other:

TIME IN UTC:

CRFI: (LOWER THR)

Average Runway CRFI:
--- or below for CRFI by thirds ---

CRFI: (MIDPOINT)

TEMP-ERATURE:

CRFI: (HIGHER THR)

SELECT ONE:
☐ Confirm RWYCC
☐ Downgrade RWYCC
☐ Upgrade RWYCC

FINAL RWYCC

SELECT ONE:
☐ Confirm RWYCC
☐ Downgrade RWYCC
☐ Upgrade RWYCC

FINAL RWYCC

SELECT ONE:
☐ Confirm RWYCC
☐ Downgrade RWYCC
☐ Upgrade RWYCC

FINAL RWYCC

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AIRCRAFT MOVEMENT SURFACE CONDITION REPORT and CANADIAN RUNWAY FRICTION INDEX

NAV CANADA

CONDITIONS ON RUNWAY

	LOCATION				
1 - SNOW DRIFTS Height: ___ FT ___ IN	Distance from threshold:	#	Distance FT	Threshold	
			Distance FT	Threshold	
	From centreline (CL):	#	Distance FT	Direction	Distance FT Direction
			Distance FT	Direction	Distance FT Direction
2 - WINDROWS Height: ___ FT ___ IN	Along inside runway edge(s):	#	Distance FT	Direction	Distance FT Direction
			Distance FT	Direction	Distance FT Direction
3 - SNOWBANKS Height: ___ FT ___ IN	Along cleared width edge(s):	#	Distance FT	Direction	Distance FT Direction
			Distance FT	Direction	Distance FT Direction
	Across specified intersection:	#	Intersection	RWY	RWY
			Intersection	RWY	RWY

OTHER LOCALIZED CONDITIONS ON RUNWAY

☐ ICE PATCHES ☐ COMPACTED SNOW PATCHES ☐ STANDING WATER PATCHES | Distance from threshold: _____ FT Threshold _____

TREATMENTS

☐ CHEMICALLY TREATED Time applied: _____ ☐ LOOSE SAND Time applied: _____

RUNWAY REMAINING WIDTH CONDITION AND DEPTH

☐ WET	☐ COMPACTED SNOW			☐ WET ICE	
☐ FROST	☐ DRY SNOW *on* COMPACTED SNOW	_____ IN		☐ SLUSH *on top of* ICE	_____ IN
☐ SLUSH	_____ IN	☐ WET SNOW *on* COMPACTED SNOW	_____ IN	☐ WATER *on top of* COMPACTED SNOW	_____ IN
☐ DRY SNOW	_____ IN	☐ STANDING WATER	_____ IN	☐ DRY SNOW *on top of* ICE	_____ IN
☐ WET SNOW	_____ IN	☐ ICE	_____ IN	☐ WET SNOW *on top of* ICE	_____ IN

CONDITIONS ADJACENT TO RUNWAY

☐ SNOW BANKS Height: ___ FT ___ IN | Distance and direction(s) outside runway edge(s): | Distance ___ FT | Direction | Distance ___ FT | Direction

RUNWAY REMARKS

TAXIWAY REMARKS	
APRON REMARKS	
GENERAL REMARKS	☐ CLEARING/SWEEPING IN PROGRESS Other: _____ ☐ EXP TO BE CLEARED BY _____ ☐ CONDITIONS CHANGING RAPIDLY NEXT OBS AT _____

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Annex J – Manual Aircraft Movement Surface Condition Report – Rwy 18/36

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AIRCRAFT MOVEMENT SURFACE CONDITION REPORT
and CANADIAN RUNWAY FRICTION INDEX

NAV CANADA

Airport Location Indicator:	Report #:	Voice Report to:	Signature:
RUNWAY: ☐ SLIPPERY WHEN WET	Valid FM:	Valid TO:	NOTAM End Time: ☐ 8 hours ☐ Other: _____

CLEARED WIDTH:
☐ FULL ☐ CENTRED: _____ FT
☐ OFFSET: _____ FT DIRECTION: _____

Runway Surface Description	% Coverage	Depth (in inches) <=1/8	1/4	1/2	3/4	1	1.5	2	Other
DRY	100								
FROST									
WET									
SLUSH									
DRY SNOW									
WET SNOW									
COMPACTED SNOW									
SLIPPERY WHEN WET	N/A								
DRY SNOW ON COMPACTED SNOW									
WET SNOW ON COMPACTED SNOW									
STANDING WATER									
ICE									
WET ICE									
SLUSH ON TOP OF ICE									
WATER ON TOP OF COMPACTED SNOW									
DRY SNOW ON TOP OF ICE									
WET SNOW ON TOP OF ICE									
COMPACTED SNOW AND GRAVEL MIX									

TIME IN UTC: | TEMP-ERATURE:

CRFI: (LOWER THR) | CRFI: (MIDPOINT) | CRFI: (HIGHER THR)

Complete above for CRFI by THIRDS; complete below for CRFI by FULL runway

FULL RWY AVG CRFI

For unpaved runways only

☐ Graded ☐ Packed ☐ Scarified

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AIRCRAFT MOVEMENT SURFACE CONDITION REPORT and CANADIAN RUNWAY FRICTION INDEX

NAV CANADA

CONDITIONS ON RUNWAY

	LOCATION							
1 - SNOW DRIFTS Height: ___ FT ___ IN	Distance from threshold:	#	Distance FT	Threshold				
			Distance FT	Threshold				
	From centreline (CL):	#	Distance FT	Direction	Distance FT	Direction		
			Distance FT	Direction	Distance FT	Direction		
2 - WINDROWS Height: ___ FT ___ IN	Along inside runway edge(s):	#	Distance FT	Direction	Distance FT	Direction		
			Distance FT	Direction	Distance FT	Direction		
3 - SNOWBANKS Height: ___ FT ___ IN	Along cleared width edge(s):	#	Distance FT	Direction	Distance FT	Direction		
			Distance FT	Direction	Distance FT	Direction		
	Across specified intersection:	#	Intersection		RWY	RWY		

OTHER LOCALIZED CONDITIONS ON RUNWAY

☐ ICE PATCHES ☐ COMPACTED SNOW PATCHES ☐ STANDING WATER PATCHES | Distance from threshold: ____ FT Threshold ____

TREATMENTS

☐ CHEMICALLY TREATED Time applied: ____ ☐ LOOSE SAND Time applied: ____

RUNWAY REMAINING WIDTH CONDITION AND DEPTH

☐ WET		☐ COMPACTED SNOW		☐ WET ICE	
☐ FROST		☐ DRY SNOW *on* COMPACTED SNOW	____ IN	☐ SLUSH *on top of* ICE	____ IN
☐ SLUSH	____ IN	☐ WET SNOW *on* COMPACTED SNOW	____ IN	☐ WATER *on top of* COMPACTED SNOW	____ IN
☐ DRY SNOW	____ IN	☐ STANDING WATER	____ IN	☐ DRY SNOW *on top of* ICE	____ IN
☐ WET SNOW	____ IN	☐ ICE		☐ WET SNOW *on top of* ICE	____ IN

CONDITIONS ADJACENT TO RUNWAY

☐ SNOW BANKS	Height: ___ FT ___ IN	Distance and direction(s) outside runway edge(s):	Distance ___ FT	Direction ____	Distance ___ FT	Direction ____	

RUNWAY REMARKS

TAXIWAY REMARKS	
APRON REMARKS	
GENERAL REMARKS	☐ CLEARING/SWEEPING IN PROGRESS Other: ____ ☐ EXP TO BE CLEARED BY ____ ☐ CONDITIONS CHANGING RAPIDLY NEXT OBS AT ____

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Annex K – TRACR to NES Aircraft Movement Surface Condition Report

TRACR-NG GRF - Runway Condition Report

Airport Name: **North Bay Airport**
Airport Code: **CYYB**
Report #: **7bdada86**
Operator: **Bryan Avery (averyb)**
Date: **2021-09-15 19:35:47Z**

Condition Report

Surface	Summary	Submitted
08-26	Reported Width 150′ (Full) Section A: Contaminants: 100% DRY, RWYCC 6 Section B: Contaminants: 100% DRY, RWYCC 6 Section C: Contaminants: 100% DRY, RWYCC 6	2021-09-15 19:32:55Z
18-36	Reported Width 148′ (Full) Contaminants: 100% DRY	2021-09-15 19:33:38Z
ECHO	Contaminants: DRY	2021-09-15 19:34:18Z
FOXTROT	Contaminants: DRY	2021-09-15 19:34:18Z
GOLF	Contaminants: DRY	2021-09-15 19:34:18Z
HOTEL	Contaminants: DRY	2021-09-15 19:34:18Z
JULIET	Contaminants: DRY	2021-09-15 19:34:18Z
LIMA	Contaminants: DRY	2021-09-15 19:34:18Z
APRON I	Contaminants: DRY	2021-09-15 19:33:56Z
APRON II	Contaminants: DRY	2021-09-15 19:33:56Z
APRON III	Contaminants: DRY	2021-09-15 19:33:56Z
APRON IV	Contaminants: DRY	2021-09-15 19:33:56Z
APRON V	Contaminants: DRY	2021-09-15 19:33:56Z