



Runway 5-23 Rehabilitation Project



Why is this project necessary?

As part of Morristown Airport's Master Planning process (approved in 2013), RWY 5-23 and its components (MALSR Lighting System, Runway Safety Areas (RSA), etc.) were identified as areas in need of rehabilitation, allowing DM AIRPORTS, LTD. (DM), Operators of Morristown Airport (MMU) to continue to provide a premier general aviation airport for its tenants and transient users.

**Providing the best possible facility is
the most important job DM has!**

This RWY 5-23 Rehabilitation Project allow us to do that.

A Major Project, Years in the Making!

✈ 2006 – 2015: Prep Work for RWY 5-23 Rehabilitation Project

- ✈ Investigation process of existing facilities
- ✈ Design process with DM, Delta Airports and McFarland Johnson Permitting applications and approvals
- ✈ Construction Safety Management coordination between the FAA and Airport Users
- ✈ **2015 – 2017:** New Keel section provided the proper structural integrity for future phases.



- Milled out and repaved center 50' Keel Section of 5,800' of RWY 5-23
- Addressed depression on RWY 5-23 to provide pilots with a better operational surface

RWY 5-23 Rehabilitation Project

DM's Project Motto:

“Complete the project as quickly as possible, or as long as it takes to maximize funding and minimize disruption”

Received first funding in 2019 for remaining phases of project

Project includes Phases VI through XIV;
Phases VI through X have been completed

Project phases separated over multiple years to minimize operational impact; maximizing efficiency of funding

Phase Recaps for VI, VII, VIII, IX and X discussed in this presentation

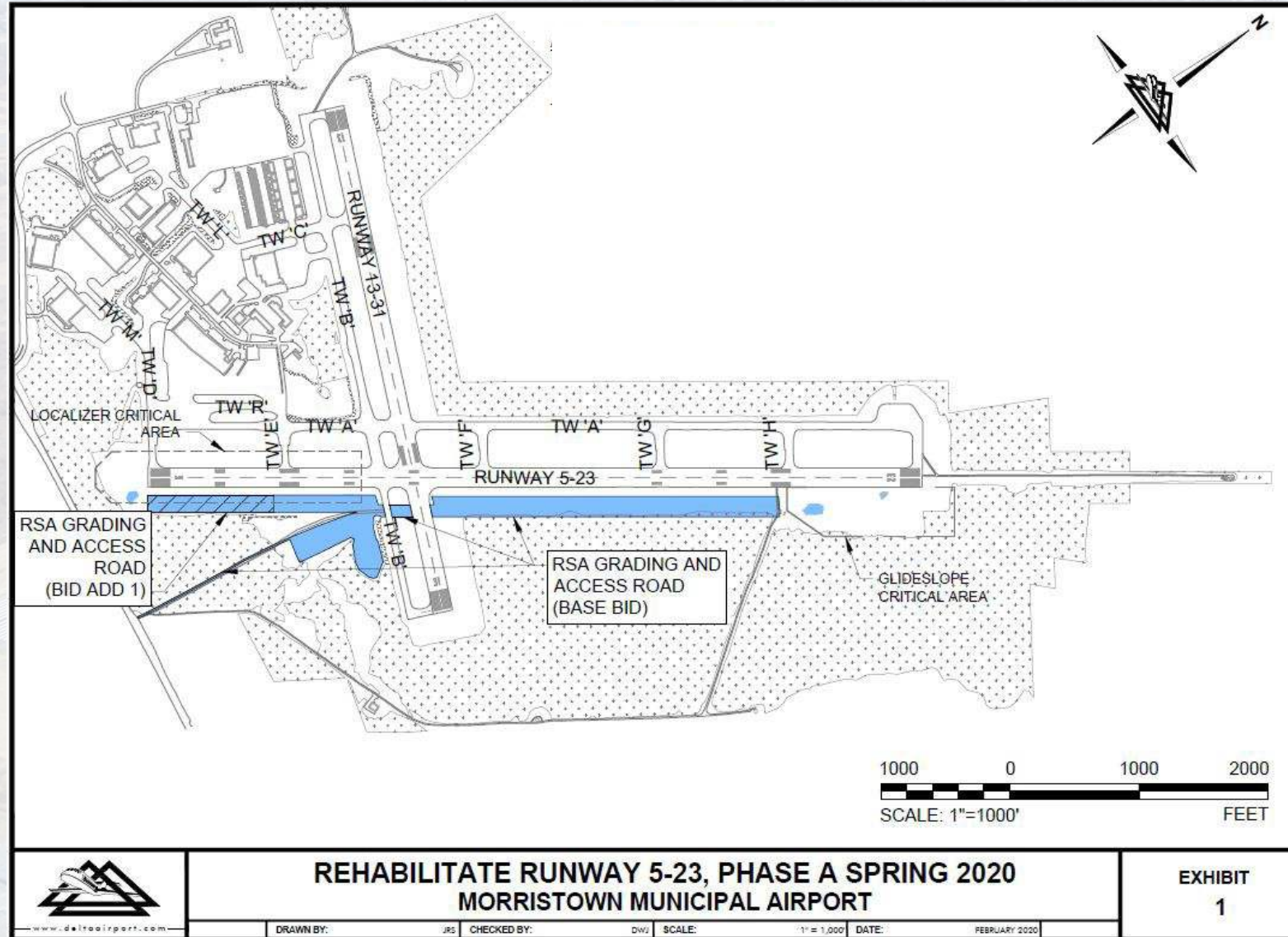
Phase Overview for Phase XI (2025) coming soon

Remaining work summaries for Phases presented when available

An aerial architectural rendering of a large airport terminal complex. The image shows a central terminal building with a green roof, surrounded by numerous hangars, parking lots filled with cars, and several smaller service buildings. To the left, a large parking lot is filled with many small aircraft. The airport is situated next to a body of water, with a highway and a bridge visible in the background. The text "Completed Phases Recap" is overlaid in the center of the image.

Completed Phases Recap

Phase VI: Completed



✈ Phase VI Work Summary:

- ✈ Construction Staging area built
 - ✈ *Completed in January 2020*
- ✈ Construction of access road along east side of RWY 23
- ✈ Grading in Runway Safety Areas

Construction Staging Area (Completed in January 2020 as part of [Phase VI](#))



The staging area for all construction vehicle access during the RWY 5-23 Rehabilitation Project was completed in January 2020.

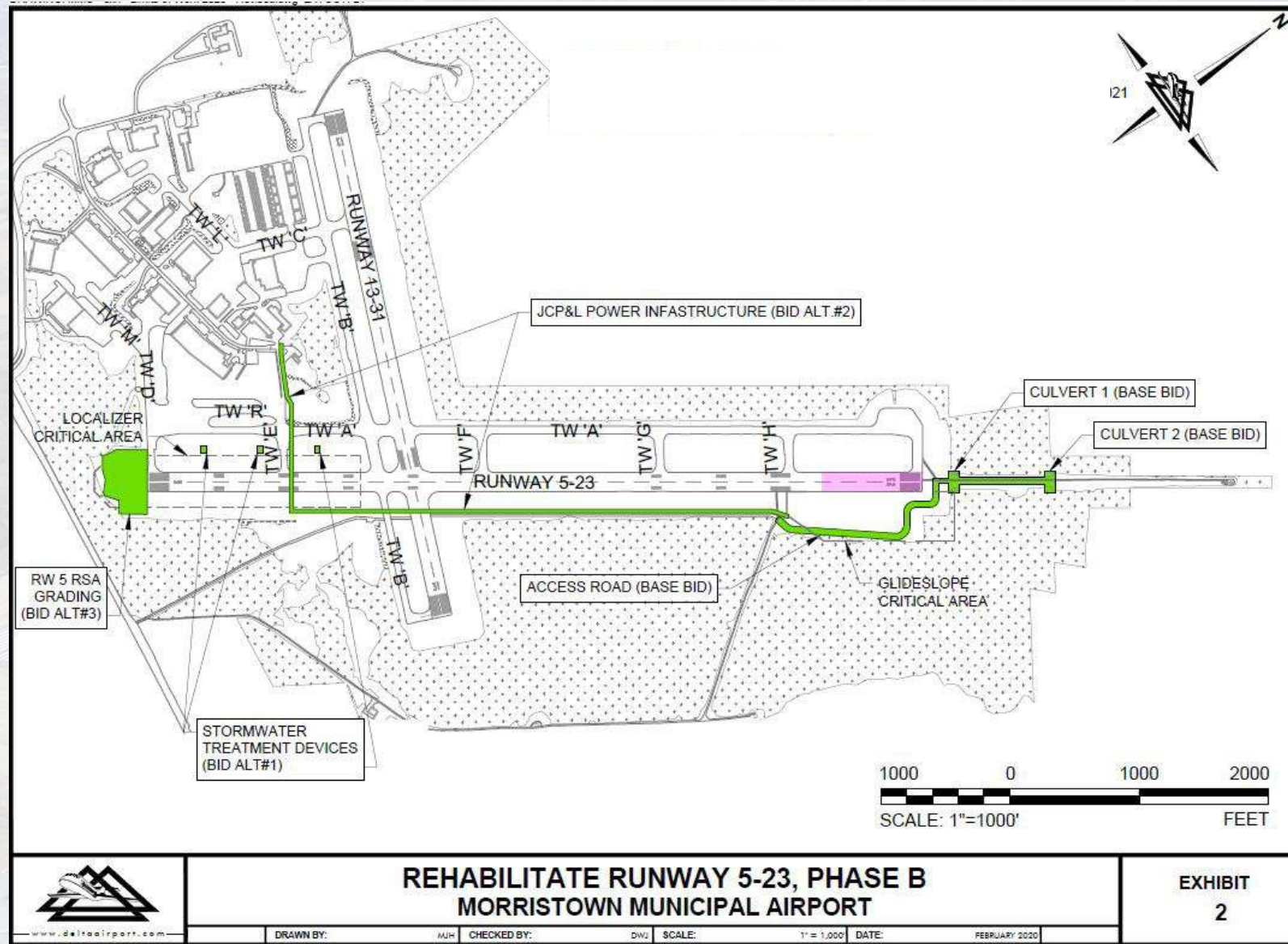
This area provides airport access via Columbia Turnpike, minimizing vehicle traffic operating on airfield.

Importance of Phase VI Construction

- ✈ Access road necessary for equipment to efficiently move to and from the RSA and ultimately to access the approach end of RWY 23 construction areas
- ✈ Grading of RSA enhances proper drainage away from RWY 5-23 providing a stable surface that does not retain water
- ✈ Grading of RSA reduces chance of aircraft damage when deviation from RWY occurs

End of Phase VI Overview

Phase VII: Completed Fall 2021



✈ Phase VII Work Summary:

- ✈ Relocated threshold was installed on RWY 23 approach end for culvert replacement on MALSR road
 - ✈ RWY 5-23 back to full length as of Nov. 7, 2021
- ✈ Completion of additional perimeter road

*Timing of project dependent on availability of grant funding

Importance of Phase VII Construction

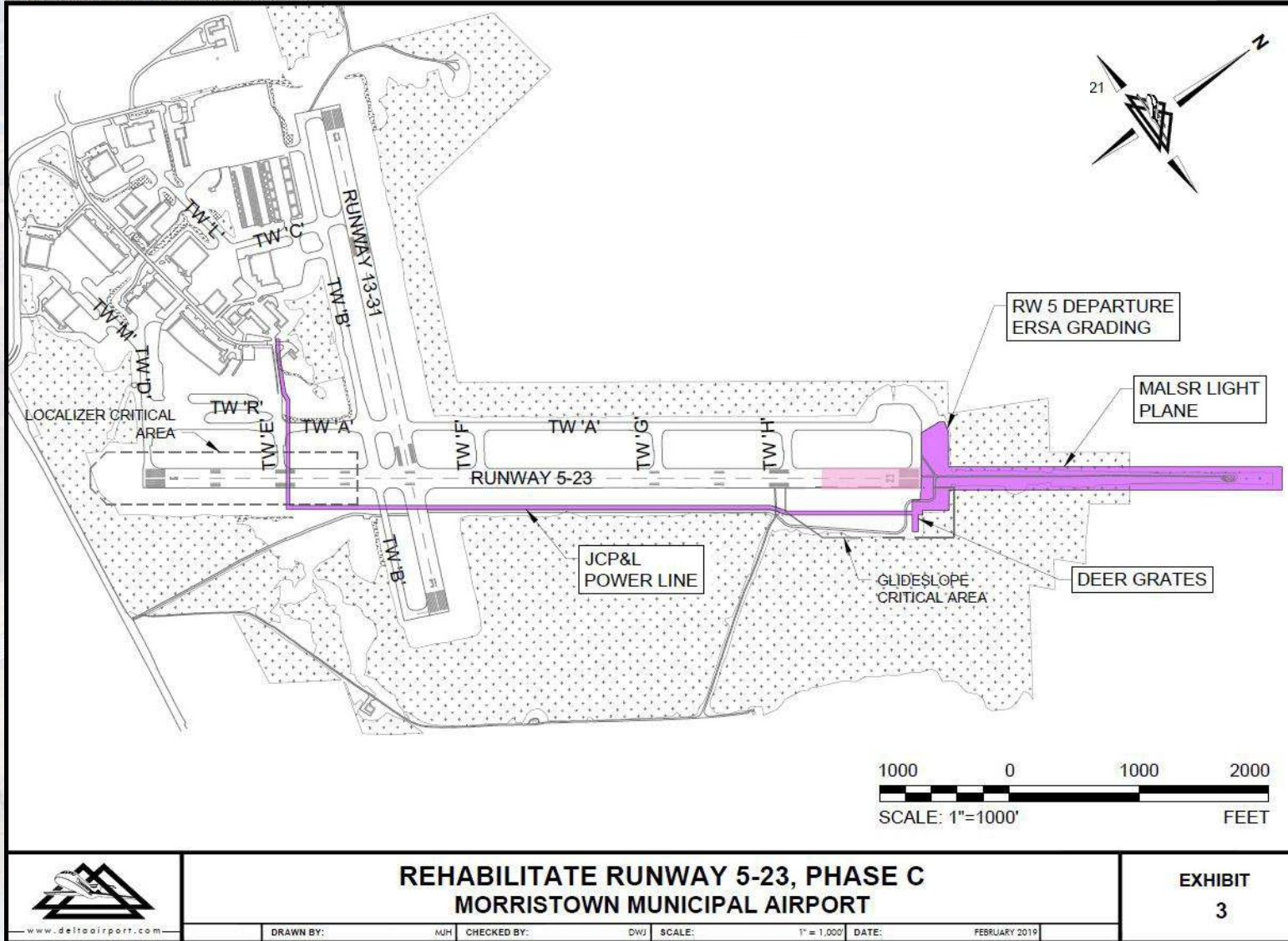
- ✈ Significantly improved RSA by establishing weight-bearing structures under MALSR road for the first 1,000'



End of Phase VII Overview

Phase VIII* Completed December 2022

DRAWING: MMU - exh - Limits of Work 2021.dwg LAYOUT: L1



✈ Phase VIII Summary:

- ✈ Relocated RWY 23 Threshold to allow:
 - ✈ Regrading of Runway End Safety Area
 - ✈ MALSR replacement
 - ✈ *Upgraded to rising lighting plane*
 - ✈ Installation of JCP&L Power Line
 - ✈ *If not completed in earlier phase*
- ✈ Replacement of deer grates

* Timing dependent on Phase II, Stage B completion and funding availability

Important Impacts of Phase VIII Construction

Current MALSR system was outdated and needed to be upgraded. New MALSR System installed on a rising plane and provides greater visibility during IFR conditions.

Grading work provides enhanced Runway Safety Area when departing RWY 5



End of Phase VIII Overview

Phase IX Completed September 2023



✈ Phase IX Summary:

✈ Drainage Culvert Installation:

- ✈ Replaced existing drainage culvert underneath RWY 5-23 and Taxiway A
- ✈ Installed 72-inch concrete box culvert
- ✈ RWY 5-23 closed for 27 days

Important Impacts of Phase IX Construction

As part of the original development of MMU, a 36-inch drainage pipe was installed in order to allow water flow underneath Runway 5-23. There were no records to indicate the pipe was ever replaced/upgraded

Phase IX addressed this issue, improving water drainage across the airfield and strengthening the runway foundation in anticipation of a newly paved surface within the overall Runway 5-23 Rehabilitation Project



End of Phase IX Overview

Phase X Completed November 2024



✈ Phase X Summary

- ✈ Relocated RWY 5 Threshold to allow:
 - Construction of a subbase bedding for an eventual Engineered Materials Arresting System (EMAS)
 - Installation of stabilizing retention wall
 - Relocation of Runway 5-23 localizer
 - Installation of Runway End Identifier Lights (REILs)
 - ~1,000 feet of pavement work

* Timing dependent on Phase II, Stage B completion and funding availability

Important Impacts of Phase X Construction

Phase X laid the groundwork for the future installation of an EMAS system, enhancing the runway safety area (RSA) for Runway 5-23. Phase X also addressed and corrected roughly 1,000 feet of pavement in preparation for a brand-new Runway 5-23 surface at the conclusion of the rehabilitation project



End of Phase X Overview

Look Ahead: Phases XI through XIV

Phase	Date	Project Work Areas
Phase XI	2025 (TBD)	<ul style="list-style-type: none">Runway 5-23 paving and EMAS block purchase
Phase XII	2026 (TBD)	<ul style="list-style-type: none">Runway 5-23 pavingRunway 5 EMAS bed paving and block purchase
Phase XIII	2027 (TBD)	<ul style="list-style-type: none">Runway 5 EMAS bed block installationRunway 5-23 paving
Phase XIV	2028 (TBD)	<ul style="list-style-type: none">Runway 5-23 paving

Overall Runway 5-23 Rehabilitation Project Impacts Throughout Phases

- Full Airport Closures
- Runway 5-23 Closures
- Runway 13-31 Closures
- Nightly Runway and Airport Closures
- Instrument Approach Impacts

Overall Runway 5-23 Rehabilitation Project Benefits

- New Runway 5-23 surface
- New Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) System
- Enhanced Runway safety areas
- Engineered Material Arresting System (EMAS) installation
- Upgraded runway and taxiway lighting components
- Mitigate environmental impacts; such as flooding concerns with waterways around the airport

Online Resources

www.mmuair.com

- Airfield Alerts:
 - www.mmuair.com home page
 - Enter email under “MMU Alerts”
- Follow [@MMUairport](https://twitter.com/MMUairport) on Twitter

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