A G E N D A
MEETING - City Council
City Council Chambers

Tuesday, August 18, 2026
6:00 PM

Meeting Format
This meeting will be conducted in person in the Sanford City Council Chambers and via remote video and teleconference pursuant to 1 MRSA §403-B (2) (D) and section 6 of the Sanford City Council Rules of Procedure. Members of the public may join the meeting by phone by dialing 1 (929) 205-6099 using Meeting ID 827 5919 3215 and Password 731153, or via computer at https://us02web.zoom.us/j/82759193215?pwd=7Da6889cQ3R07sN4hIBcCJYQyXCleE.1 . Members of the public may also submit comments via the City of Sanford website at www.sanfordmaine.org under Government/ City Council/ Contact the Council.

Pledge of Allegiance

Moment of Silence

Roll Call

Minutes

26-257-01	Ordered, to approve the minutes from the regular City Council Meeting held on August 4, 2026.

Mayor's Report/City Council Sub-Committee Reports

City Manager's Report

Homelessness Update

Communications/Presentations

26-260-01	Presentation on the Sanford Mainers' NECBL Championship win.
26-217-01	Comprehensive Plan Inventory and Analysis Presentation by Berry Dunn
26-237-01	The Quarterly Presentation from the Director of the Sanford Economic Growth Council and the Small Business Advocate.

Public Participation

Public Hearings
The City Council will take public comment on the following:

Consent Agenda

Old Business

New Business

26-256-01	Ordered, to review the proposed slate of officers as put forward for the 2027 Maine Municipal Association (MMA) Executive Committee and to authorize the City Manager to submit the ballot on behalf of the City Council.
26-259-01	Acceptance of FY25 Edward Byrne Memorial Justice Assistance Grant (JAG) – $16,877 for law enforcement equipment and technology.
26-245-01	Ordered to approve and authorize the City Manager to sign the request for release from federal obligations to be sent to the Federal Aviation Administration for approximately 40 acres of land at the Sanford Seacoast Regional Airport in order to sell the parcel to the Sanford Springvale Fish and Game Protective Association, Rubb Buildings and the Sanford Police Department.
26-252-01	Ordered to approve and authorize the City Manager to sign a purchase and sale agreement between the City of Sanford and Rubb Buildings for approximately 20.39 acres at the Sanford Seacoast Regional Airport in the amount of $90,750.00.
26-251-01	Ordered to approve and authorize the City Manager to sign a Purchase and Sale Agreement between the City of Sanford and Sanford Springvale Fish and Game Protective Association for approximately 15.4 acres at the Sanford Seacoast Regional Airport in the amount of $74,250.00.
26-244-01	Ordered to approve and authorize the City Manager to sign a contract for construction of the Vehicle Service Road and Seacoast Taxilane at the Sanford Seacoast Regional Airport with Shaw Brothers in the amount of $1,059,171.10.
26-243-01	Ordered to approve and authorize the City Manager to sign a contract for resident engineering, grant administration, and project closeout for the construction phase of the Vehicle Service Road and Seacoast Taxilane project with McFarland Johnson in the amount of $252,600.00.
26-240-01	Ordered, to formally adopt the proposed Drainage Capital Improvement Plan, recently completed in partnership between the Department of Public Works and the Planning Department, as a broad guidance document for the City regarding analysis of current and future stormwater development conditions.

Council Member Comments

Future Agenda Items

Adjournment

Memo

Number: 26-257-01
To: City Council
From: Lorisa Ricketts, Executive Administrator
Date: 2026-08-18
Subject: Ordered, to approve the minutes from the regular City Council Meeting held on August 4, 2026.

RECOMMENDATION
Ordered, to approve the minutes from the regular City Council Meeting held on August 4, 2026.

Background Information:

Legal Review Status:

Administrative or Department Review:

Financial Impact or Review:

ATTACHMENT(S):
8-4-26 City Council Minutes.pdf

Sanford City Council
Meeting Minutes
Tuesday, August 4, 2026

The Sanford City Council met on Tuesday, August 4, 2026 in person in the City Council Chambers and via remote video and teleconference pursuant to 1 MRSA §403-B (2) (D) and section 6 of the Sanford City Council Rules of Procedure.

MAYOR: Becky A. Brink; **DEPUTY MAYOR:** Maura A. Herlihy; **CITY COUNCILORS:** Councilor Ayn M. Hanselmann; Councilor Jonathan L. Martell; Councilor Peter E. Tranchemontagne; Councilor Nathan H. Hitchcock; Councilor Charlene S. Plante. **CITY STAFF:** Assistant Manager Michelle LaBree; Executive Administrator Lorisa Ricketts; Assistant Director of Information Systems Ben Gore; Codes and Planning Director Jamie Cole; Small Business Advocate Mary Hastings

Others Present in the City Council Chambers: Nancy Lowenberg – Habitat for Humanity; members of Friends of Downtown including Lee Burnett, Lisa Blanchette and Bridget Salantri; Alex Clary; John Henkelman; Eric Hurley; Nymm Thistlewind; Megan Crawford; Rebecca Andrews, Philip Boisclair; Eve Dumont-Wilson

Others Present via Zoom: Public Works Director Matt Hill; Parks and Recreation Director Brady Lloyd; Beverly Morrow; Michael Perry; Dagan VanDemark; Jackie Elliott

Meeting Format

Mayor Brink called the meeting to order at 6:00 PM.

This meeting was conducted in person and via remote video and teleconference pursuant to 1 MRSA §403-B (2) (D) and section 6 of the Sanford City Council Rules of Procedure.

Pledge of Allegiance

Moment of Silence

Roll Call:

Mayor Brink performed the roll call of Councilors present: Deputy Mayor Herlihy, present; Councilor Martell, present; Councilor Hanselmann, present; Councilor Tranchemontagne, present; Councilor Hitchcock, present; Councilor Plante, present.

Minutes

26-232-01 Ordered, to approve the minutes from the regular City Council Meeting held on July 21, 2026.

Councilor Hitchcock moved to approve. Councilor Hanselmann seconded.

Motion passed 7-0.

26-233-01 Ordered, to approve the minutes from the Executive Session of the City Council held on July 21, 2026.

Councilor Plante moved to approve. Councilor Tranchemontagne seconded.

Motion passed 7-0.

Mayor's Report/City Council Sub-Committee Reports

None.

Manager's Report and Homeless Task Force Report

None.

Communications/Presentations

26-212-01 A Presentation of the Community Heart & Soul Summary Report and Action Plan by the Friends of Downtown

Small Business Advocate Mary Hastings presented on this item, along with several members of the Friends of Downtown, namely: Bridget Salantri, Ayn Hanselmann, Lee Burnett, and Lisa Blanchette.

It is envisioned that the action plan can be incorporated into the Comprehensive Plan process and be a guide for policy. Friends of Downtown is discussing various initiatives.

Mayor Brink suggested that the next City Council goal-setting process might incorporate some of the ideas in this report.

Councilor Hanselmann requested a resolution from the City Council, Mayor Brink suggested it could be discussed by subcommittee first and should be reviewed by legal counsel before adoption as well.

Public Participation

None.

Public Hearings

The City Council took public comment on the following:

26-218-01 A Public Hearing to take comments on a Community Development Block Grant for the 2026 Housing assistance Grant Program in the amount of $500,000, to be used for assistance to Habitat for Humanity to complete five single family homes in Sanford on Island Avenue.

Public Hearing opened at 6:34 PM

Nancy Lowenberg from Habitat for Humanity spoke in favor of the project. Several of the Board Members from Habitat for Humanity were also present. She shared a rendering of the project, which will incorporate three two-bedroom and two three-bedroom homes. This project will bring the total number of Habitat homes in Sanford to 13. The first two to three families for this project will be approved soon by the family selection and services team. The application process will be open for the other two homes from September 1 through October 31. Application information will be available at libraries, through the City offices and on the Habitat for Humanity website. If all goes as planned, the first two modular homes will be delivered this fall. By December 2027 the entire project will be complete.

John Henkelmann of South Sanford spoke in support of the project and he urged the City Council to support the project.

Alex Clary also spoke in support of the project and commented on the need for housing in the state.

Eric Hurley of Sanford spoke in support and commented that Habitat for Humanity is an amazing organization.

Nymm Thistlewind spoke in support of the project and said this is an incredible investment in the community.

Megan Crawford of Sanford commented that she had a friend in high school whose family was fortunate enough to get a home through Habitat for Humanity, and that it is a valuable program.

Public Hearing closed at 6:46 PM

Consent Agenda

None.

Old Business

26-231-01 Ordered, to enact a citizen-initiated ordinance instituting a 180-day moratorium on data centers, pursuant to City Charter Section 1301. (This item must be read on two separate occasions. This is the second reading.)

Councilor Hanselmann moved to adopt the ordinance. Councilor Tranchemontagne seconded.

Nymm Thistlewind of Sanford spoke in support of the moratorium and commended the City Council for enacting the emergency moratorium and considering adoption of the citizen-initiated moratorium.

Rebecca Andrews of Springvale spoke in support and commented that Sanford is on a good trajectory but needs to be thoughtful about the type of industry that is brought in. She cautioned against relying on one large business like a data center for economic benefits.

Alex Clary of Sanford spoke in support of the moratorium and said that as he was gathering signatures, he witnessed resounding opposition to a data center in the community. He does not believe the industry is sustainable and urged investment in existing businesses. He is glad to be working on the Industrial Development Standard Task Force.

Eve Dumont-Wilson of Springvale spoke in support of the moratorium. She is a parent and every parent she speaks to about this topic is opposed to a data center in Sanford.

Philip Boisclair of Sanford spoke in support of the moratorium. He believes that data centers will be obsolete in 10 years and urged the Council not to let a project be rushed in before standards are created.

Motion to adopt the ordinance to implement a 180-day moratorium on data centers passed 7-0.

New Business

26-219-01 Resolved, to authorize the City Manager to accept a 2026 Housing Assistance CDBG Grant in the amount of $500,000 to assist Habitat for Humanity York County in the creation of five housing units on Island Avenue.

Deputy Mayor Herlihy moved to adopt the resolution. Councilor Hitchcock seconded.

Several of the Councilors spoke in support of Habitat for Humanity and this particular location.

Motion passed 7-0.

22-373-01 Ordered, to approve the Midtown Mall Maintenance Assessment for the 2026-2027 Fiscal Year.

Assistant Manager LaBree presented on this item.

Councilor Hanselmann suggested a friendly amendment, to approve the Main Street Marketplace Maintenance Assessment.

The snow plowing contract did go out to bid.

Councilor Hitchcock moved to approve. Councilor Tranchemontagne seconded.

Motion passed 7-0.

26-241-01 Ordered, to approve the bid for the demolition of the barn structure at 217 Old Mill Road from Peter Petit Landscaping in the amount of $12,950.00

Assistant Manager LaBree presented on this item.

Councilor Hitchcock moved to approve the bid. Councilor Tranchemontagne seconded.

Motion passed 7-0.

Council Member Comments

Councilor Plante: Encouraged people on the trails committee who do cleanups to email her City email address so she can get people on the Trash Force Facebook page to help.

Councilor Martell: None.

Mayor Brink: None.

Councilor Hitchcock: Sanford Mainers are in the Semifinals this weekend and encouraged people to come and cheer them on.

Councilor Tranchemontagne: None.

Councilor Hanselmann: It is the YMCA's 85th birthday. On Sunday, August 23, there will be a celebration at the YMCA with free food, games, and an inflatable slip n slide.

Deputy Mayor Herlihy: None.

Mayor Brink: None.

Manager Buck: None.

Future Agenda Items

Councilor Plante: None.

Councilor Hitchcock: None.

Councilor Tranchemontagne: None.

Councilor Hanselmann: None.

Councilor Martell: None.

Deputy Mayor Herlihy: None.

Mayor Brink: None.

Adjournment

Meeting adjourned at 7:15 PM.

Respectfully submitted by Lorisa Ricketts, Executive Administrator for the City of Sanford.

Please note that these minutes are a summary of the proceedings, not a complete transcript of the meeting. Full recordings of meetings can be viewed on Town Hall Streams at the following link: https://townhallstreams.com/towns/sanfordme.

Memo

Number: 26-260-01
To: City Council
From: Lorisa Ricketts, Executive Administrator
Date: 2026-08-18
Subject: Presentation on the Sanford Mainers' NECBL Championship win.

RECOMMENDATION

Presentation on the Sanford Mainers' NECBL Championship win.

Background Information:

Legal Review Status:

Administrative or Department Review:

Financial Impact or Review:

Memo

Number: 26-217-01
To: City Council
From: Alix Burbank, Building & Permit Safety Specialist
Date: 2026-08-18
Subject: Comprehensive Plan Inventory and Analysis Presentation by Berry Dunn

RECOMMENDATION

Background Information:

The City of Sanford is working with BerryDunn to update the City's Comprehensive Plan. The Comprehensive Plan establishes a long-term vision for the community and provides policy direction for land use, growth, development, capital investment, and zoning over the next 10 to 20 years. The updated plan will also address the elements required by the Maine Growth Management Act, including public participation, an inventory and analysis, a future land use map and plan, policies and actions, regional coordination, and an implementation strategy.

BerryDunn, the City's Comprehensive Plan consultant, will provide the City Council with an overview of the planning process and progress to date. The presentation will review the draft vision statement options currently being presented to the community and introduce the future land use planning process. BerryDunn will also explain how the Future Land Use Map will help guide future zoning, infrastructure investments, and development priorities, and will outline upcoming public engagement opportunities and the next phases of work, including development of the Future Land Use Map and related policies and actions.

Legal Review Status:

N/A

Administrative or Department Review:

Financial Impact or Review:

ATTACHMENT(S):

City Council Presentation v3.pdf



Source: City of Sanford

City of Sanford 2025 Comprehensive Plan Update

City Council Overview

August 18, 2026

BerryDunn

Shaping SANFORD SPRINGVALE
2025 Comprehensive Plan
A Blueprint for our Future


Source: Community Heart & Soul

Agenda

01 What is a Comprehensive Plan?

02 State of Maine Growth Management Act

03 Engagement Overview

03 What is a Vision Statement?

04 What is Future Land Use?

05 What are Land Use Categories?

06 Next Steps

What is a Comprehensive Plan?

A Comprehensive Plan…



IS A LONG-TERM VISION



CREATES A FRAMEWORK FOR LAND USE PLANNING AND ZONING



PROVIDES PLANNING AND POLICY DIRECTION FOR THE NEXT 10-20 YEARS



REFLECTS THE VISION, VALUES, AND PRIORITIES OF THE SANFORD COMMUNITY



GUIDES LAND USE, GROWTH, DEVELOPMENT, AND CAPITAL INVESTMENT



ACTS AS A ROADMAP TO ACHIEVE THE CITY'S VISION

State of Maine Growth Management Act

The State of Maine requires all Comprehensive Plans to contain the following:

1. A Vision Statement
2. Public Participation
3. Inventory and Analysis
4. Future Land Use Map and Plan
5. Policies and Actions
6. Regional Coordination Strategy
7. Implementation Strategy

Title 30-A, §4326: Growth Management Program Elements

State Required Components for the Inventory and Policies/Actions

Engagement Overview

Events Conducted May 29, 2025: Community Heart & Soul Event (~45 participants)

- **2025 – January 2026**: Sanford Comprehensive Plan Community Survey (826 responses)
- **March – August 2026**: Questions of the Month (384 total responses through July)
- **Ongoing**: Steering Committee Meetings
- **July 3, 2026**: Block Party Land Use Tabling (~50 conversations)

Future Engagement

- **Wednesday, August 19**: Trafton Center Presentation and Q/A Session
- **September 30, 2026**: Community Open House (in-person and online)
- **Ongoing:** Opportunities on Sanford Connects and tabling at community events
- **Late 2026:** Policy and Future Land Use Map Validation
- **Early 2027:** Public hearings to review comprehensive plan

Community Themes

Across engagement activities, the following themes have emerged:

1. Need to address affordability and cost pressure
2. Revitalizing and investing in Downtown Sanford and Springvale
3. Expand local businesses, retail, and dining options
4. Address community safety concerns
5. Maintain and improve public infrastructure
6. Enhance walkability, connectivity, and transportation options
7. Invest in parks, trails, and outdoor recreation
8. Promote economic development and job opportunities
9. Strengthen community connection and engagement
10. Balance small-town feel while planning for growth



What is a Vision Statement?

Focuses on shared community values.

Sets the overall direction and structure for goals, policies, and actions of the plan.

Illustrates a sense of identity.

Tells a story and paints a picture of an ideal future.

Is aspirational and motivates the community to a desired outcome.

Depicts the desired future conditions and qualities of a community.

City of Sanford Draft Vision Statement Overview: Option 1

Sanford MAINE

VISION STATEMENT

Sanford is a welcoming, hardworking Maine community that honors its history and distinct neighborhood identities while embracing thoughtful growth. With a strong sense of connection and pride, the City offers a safe, vibrant, and affordable place to live, work, and gather. Walkable neighborhoods, thriving small businesses, and revitalized commercial areas are balanced with preserved natural resources and rural landscape, accessible outdoor recreation, and high-quality services.

COMMUNITY GOALS

STRENGTHEN COMMUNITY IDENTITY AND CONNECTION

Sanford's sense of community is built upon neighborhood and City pride, camaraderie among residents, a commitment to civic engagement and volunteerism, and a welcoming small-town way of life. Events, programs, and volunteer opportunities create a framework for residents to engage and connect. Sharing Sanford's evolution from an agricultural community and mill town to a regional hub strengthens the City's identity and connects its culture across generations.

SUPPORT A VIBRANT, DIVERSE LOCAL ECONOMY

Sanford is the heart of York County – both as a geographically central hub and an economic center for the region. Encouraging a diverse and balanced economy through targeted business attraction and retention broadens the tax base to support economic resilience. Thoughtfully directing commercial growth to encourage industry in designated areas while supporting small businesses and local entrepreneurs to revitalize downtown to attract visitors and meet the needs of residents will support economic stability and community vibrancy.

REVITALIZE DOWNTOWNS

Infrastructure and aesthetic improvements to downtown Sanford and Springvale will make the downtown areas more walkable, safe, vibrant, and desirable places to visit. Beautification initiatives, convenient parking, public spaces, and well-maintained properties can strengthen the image and perception of Sanford/Springvale.

PROTECT NATURAL RESOURCES AND EXPAND RECREATION

Sanford's natural resources are a defining element of the City's identity. Amenities such as the Mousam River, lakes, ponds, trails, and parks provide residents and visitors with access to nature and enhance quality of life. Protection of farmland, open space, and environmentally sensitive areas is critical to maintaining safe and accessible outdoor recreation opportunities, preserving the rural character of Sanford, and protecting natural areas for sustaining wildlife habitats and the enjoyment of the community.

INVEST IN INFRASTRUCTURE AND QUALITY SERVICES

Reliable infrastructure and high-quality public services form the foundation of a strong, thriving community. Well-maintained roads, utilities, and public systems support daily life, enable economic activity, and improve safety, while accessible transportation networks connect residents to jobs, services, and one another. By aligning infrastructure with planning for long-term growth, Sanford will be able to adapt to shifting needs and regional impacts to deliver essential services and sustain a high quality of life for current and future residents.

PROMOTE HOUSING OPPORTUNITIES AND QUALITY OF LIFE

A diverse and attainable housing supply is essential to sustaining a vibrant, inclusive community where people at different life stages and income levels can live, work, and thrive. Creating a diversity of high-quality and attainable housing options that build safe, well-connected neighborhoods and meet the needs of current residents and the workforce, will strengthen community connections and economic stability. By addressing evolving demographic needs and supporting residents experiencing housing instability, the community advances a shared vision of quality of life that is equitable, supportive, and responsive to changing needs.

STRENGTHEN GOVERNANCE AND IMPLEMENTATION

Clear, transparent, and effective governance provides the structure needed to translate community goals into meaningful outcomes. Modern, predictable processes build confidence among residents, businesses, and stakeholders, while consistent enforcement and accountability reinforce fairness and trust. By fostering collaboration and integrity in decision-making and supporting community-based long-range planning efforts, the City creates a governance framework that is rooted in community values.

FOSTER INCLUSION, HEALTH, AND WELL-BEING

A healthy and resilient community is one where all individuals feel welcome, supported, and connected. Access to and affordability of essential resources – such as education, recreation, food, and health services – underpins overall well-being, while diverse social environments strengthen civic life and belonging. Infrastructure, public facilities, community programs, and policies support social connection and drive civic engagement and volunteerism.

Option 1 – Vision statement + eight community goals

Structure

Vision statement

↓

8 community goals

Goal narrative for each

Eight goal areas

Identity and connection	Infrastructure and quality services
Vibrant local economy	Housing and quality of life
Revitalize downtowns	Governance and implementation
Natural resources and recreation	Inclusion, health, and well-being

Sources: City of Sanford; Draft Vision Statement Options v2; Sanford Vision Workshop

City of Sanford Draft Vision Statement Overview: Option 2



Sanford MAINE

VISION STATEMENT

Sanford is the heart of inland York County: a connected, affordable, and welcoming service center where people can live, work, learn, gather, and grow. Rooted in the history of Sanford and Springvale's mill villages, rural landscapes, and strong sense of community, the City will build on its role as a regional hub by revitalizing downtowns and the mill district, expanding attainable housing choices, supporting local entrepreneurs and employers, improving transportation and public infrastructure, and ensuring that parks, trails, public services, and civic life are safe, inclusive, and accessible to all.

COMMUNITY VALUES

CONNECTION
Sanford values a strong sense of belonging, civic participation, and opportunities for residents to connect through community engagement, arts, culture, volunteerism, and neighborhood pride.

LOCAL OPPORTUNITY
Sanford values a diverse and resilient economy that supports residents, businesses, entrepreneurs, and long-term community prosperity.

LIVABLE PLACES
Sanford values safe, attractive, walkable neighborhoods and downtowns that offer housing choices, transportation options, public spaces, and amenities that enhance daily life.

STEWARDSHIP
Sanford values protecting its natural resources, working lands, open spaces, and recreational assets while expanding opportunities for residents to enjoy them.

RESILIENCE
Sanford values reliable infrastructure, quality services, public safety, and responsible planning that help the community adapt and thrive over time.

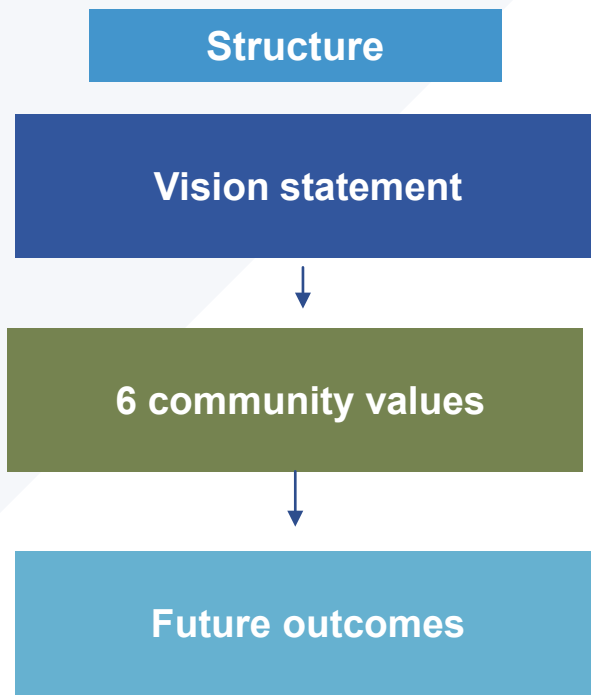
TRUST
Sanford values transparent governance, accountable leadership, and collaborative decision-making that build confidence and support successful implementation.

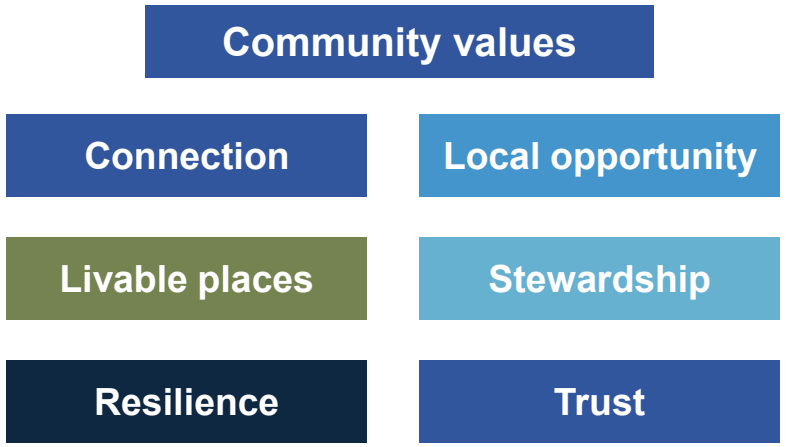
FUTURE OUTCOMES

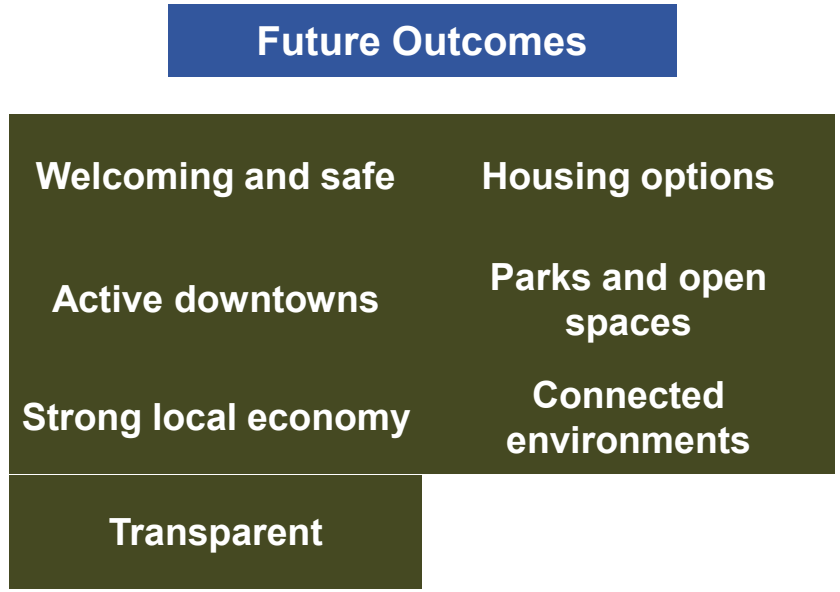
By advancing these values, Sanford will work toward a future where:

- Residents feel welcome, safe, connected, and proud of the community.
- Downtown Sanford and Springvale are active, walkable, and attractive centers.
- Local businesses, employers, and entrepreneurs have opportunities to grow.
- Housing options meet the needs of residents across ages, incomes, and life stages.
- Parks, trails, open space, water resources, farmland, and wildlife habitat are protected and connected.
- Roads, sidewalks, utilities, public facilities, and municipal services support current needs and future growth.
- Public decisions are transparent, consistent, and tied to clear implementation priorities.

Option 2 – Vision, community values, and future outcomes



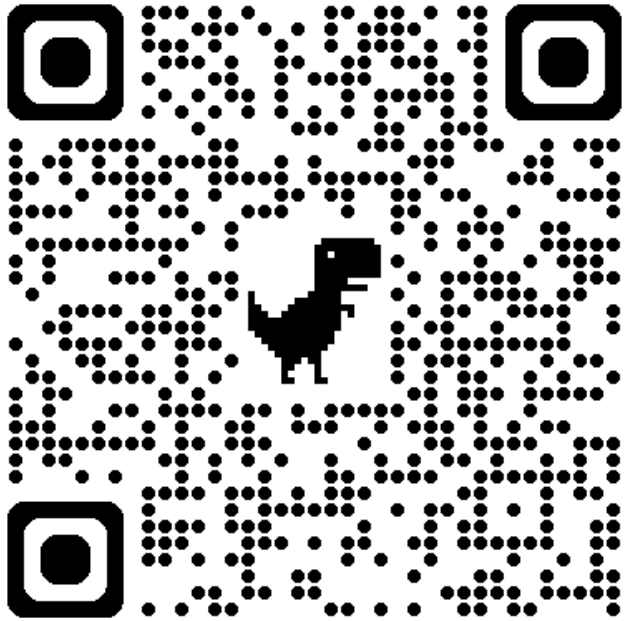




City of Sanford Draft Vision Statement Overview

The community can vote on their favorite vision statement in the August's **Question of the Month** survey.

The winning vision statement will be the statement included in the final plan.



https://www.sanfordmeconnects.com/comprehensive-plan

Why Do We Focus on FLU?

- **Shaping the Future**: FLU helps us imagine what the community could become, not just what it is today.
- **Guiding Decision-Making**: FLU informs future zoning changes, infrastructure investments, and development priorities. It helps align public and private actions with community goals.
- **Reflecting Community Values**: Through public input, the FLU map, policies, and actions capture what residents want their neighborhoods, downtowns, and other spaces to look like in the future.

What is a Part of a FLU Map?

- **Growth Areas** – areas that should see the most amount of growth and infrastructure investment
- **Transition Areas** – moderate growth areas
- **Rural Areas** – non-growth areas
- **Conservation Areas**
- **Land Use Categories** – broad visions for different areas of the City within different growth areas (e.g., village center, urban neighborhood, rural residential)

What are Land Use Categories?

Land Use Categories: The different kinds of places that exist, or could exist, in a community, based on how land is used, the types of buildings, and how people live, work, and get around in those areas.

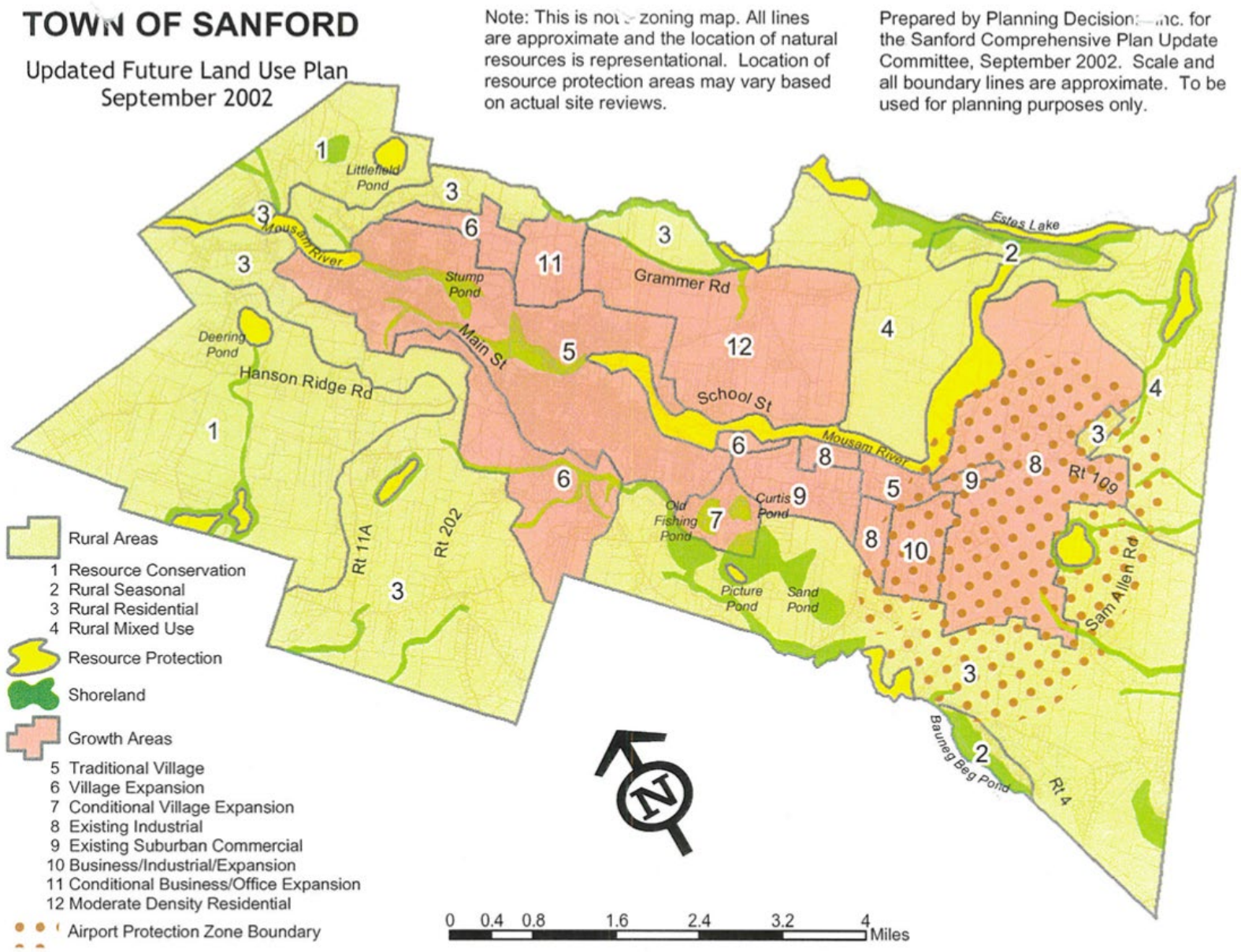
- These land use categories are reflected on land use map, and content in plan can describe characteristics within each category.

Each Category Includes a Mix of Characteristics Like:

- The types of homes (like single-family houses, apartments, or town homes)
- Whether there are businesses, shops, offices, or industry
- How dense or spread out the buildings are
- What transportation options exist (like sidewalks, roads, or transit)
- Whether there are parks, open spaces, or community facilities\

Instead of focusing just on categories like "residential" or "commercial," different categories should describe the look and feel of an area, including the broad scale, design, and mix of uses.

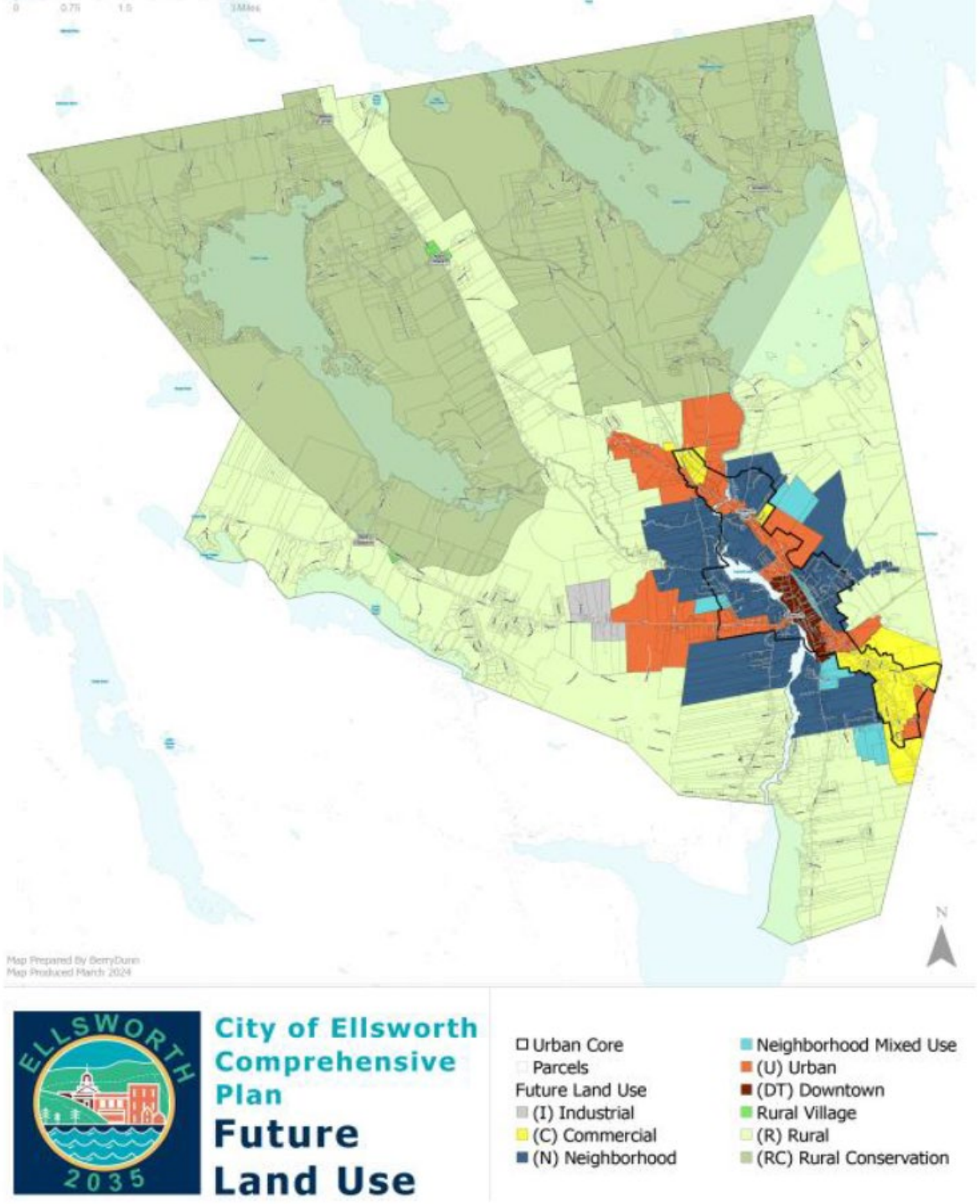
Current Future Land Use Map



Future Land Use Map Example

Ellsworth

- Includes a growth area boundary that delineates growth and non-growth areas
  - Black growth area line
- Includes land use categories to further define the vision for specific areas
  - Areas are broader than the City's current zoning districts



https://www.maine.gov/dacf/municipalplanning/comp_plans/Ellsworth_2025.pdf

Land Use Category Examples: Descriptions

Ellsworth

Neighborhood

Neighborhood areas provide predominantly residential areas with low- to medium-density housing. Neighborhood areas offer a variety of housing types from single-family to multifamily structures. Buildings are typically one-to-three stories in height and are in keeping with the residential character of existing neighborhoods.

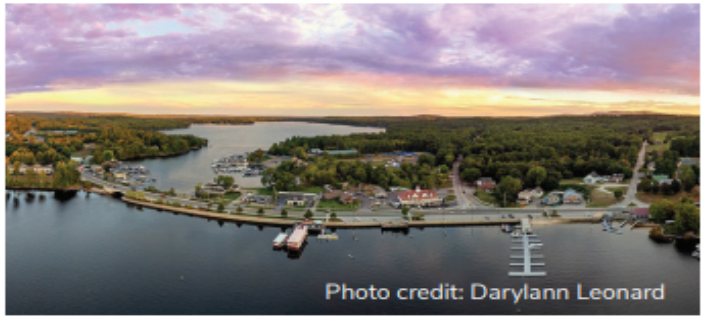
Land Use: Uses are primarily residential with some lower intensity commercial uses, including neighborhood retail, small or home offices, and institutional uses.

Character: Characterized by one-to-three story residential buildings. Residential uses include single-family, two-family, multifamily, and townhouses. Buildings are well-connected to the pedestrian environment and Downtown and Urban areas.

Ellsworth, ME Final Plan

Naples

Village



Character: The Village is a walkable mixed-use area that provides access to a variety of amenities and serves as a destination for visitors. This area is a pedestrian-oriented environment with a well-connected street network, good pedestrian facilities, and numerous public gathering spaces.

Land Uses: Typical land uses include retail, services, restaurants, lodging, offices, recreation, municipal facilities, and medium-density residential.

Building Form: The typical building height is up to three stories. Buildings are oriented toward the street with clear pedestrian connections and designed with active ground floor uses to support a vibrant pedestrian environment. The Village area includes a variety of building styles that are smaller in scale than typical structures in the mixed-use commercial area.

Naples, ME Draft Plan

Next Steps

Upcoming Engagement:

- **Wednesday, August 19**: Trafton Center Presentation and Q/A Session
- **Thursday, August 26**: Steering Committee Meeting
- **September 30, 2026**: Community Open House

Timeline:

- Future Land Use Map Development – August – November 2026
- Policy and Action Development – August – December 2026
- Final Plan Development – January 2027
- Plan review by Planning Board and Public Hearing – February – March 2027
- Plan review by City Council and adoption – March 2027 – April 2027

Memo

Number: 26-237-01
To: City Council
From: Mary Hastings
Date: 2026-08-18
Subject: The Quarterly Presentation from the Director of the Sanford Economic Growth Council and the Small Business Advocate.

RECOMMENDATION

The Quarterly Presentation from the Director of the Sanford Economic Growth Council and the Small Business Advocate.

Background Information:

Legal Review Status:

Administrative or Department Review:

Financial Impact or Review:

ATTACHMENT(S):

2026Q3 EcDev Dashboard.docx.pdf

Sanford
REGIONAL ECONOMIC GROWTH COUNCIL

Our mission is to pursue sustainable economic development growth and policy which diversifies and increases the city tax base, promotes business retention and expansion, fosters high quality jobs, and capitalizes on public-private partnerships to achieve these objectives.

ECONOMIC DEVELOPMENT DASHBOARD
3rd QUARTER - 2026

1. Projects

Project Pipeline

	0-3 months	3-6 months	6+ months
Small Business/Tenants	3	2	0
Medium	1	2	1
Large Business/Land Development	0	1	2

Source: SREGC Staff (updated quarterly)

Review of Development Process (2025)

- (Paused pending Comp Plan recommendations)

2. Housing Development

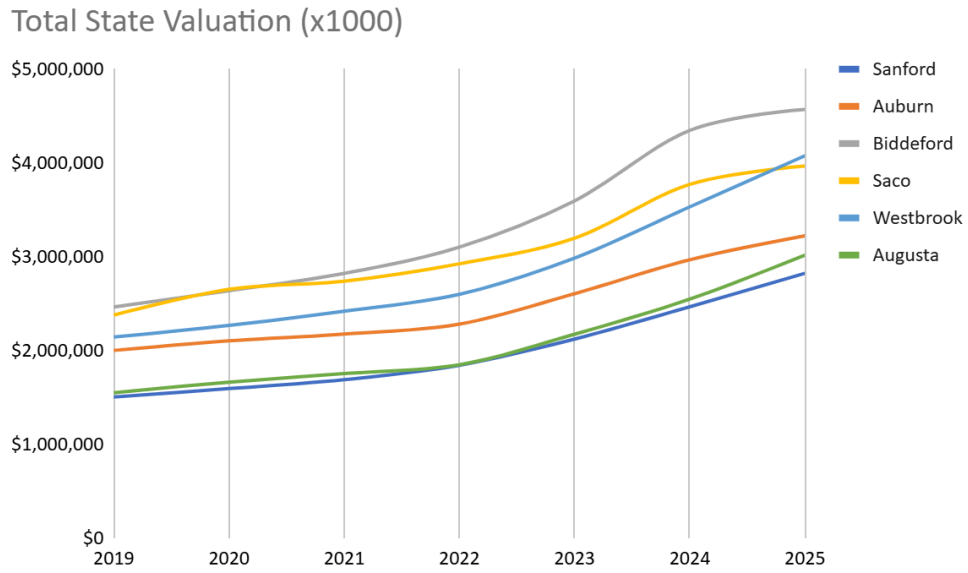
New Housing Construction: Permits Issued & Units by Housing Type

	2021	**2022**	**2023**	**2024**	**2025**	**2026 (2 Qtr)**
Single Family	55	41	55	63*	35	8
Mobile Home	11	6	5	6	7	4
Two Family	0	0	2 (x2 units)	1	1	1
MultiFamily	0	0	1 (83 units)	4 (x39 units)	2 (x36 units)	3 (x34)
TOTAL UNITS	**66**	**47**	**147**	**109**	**79**	

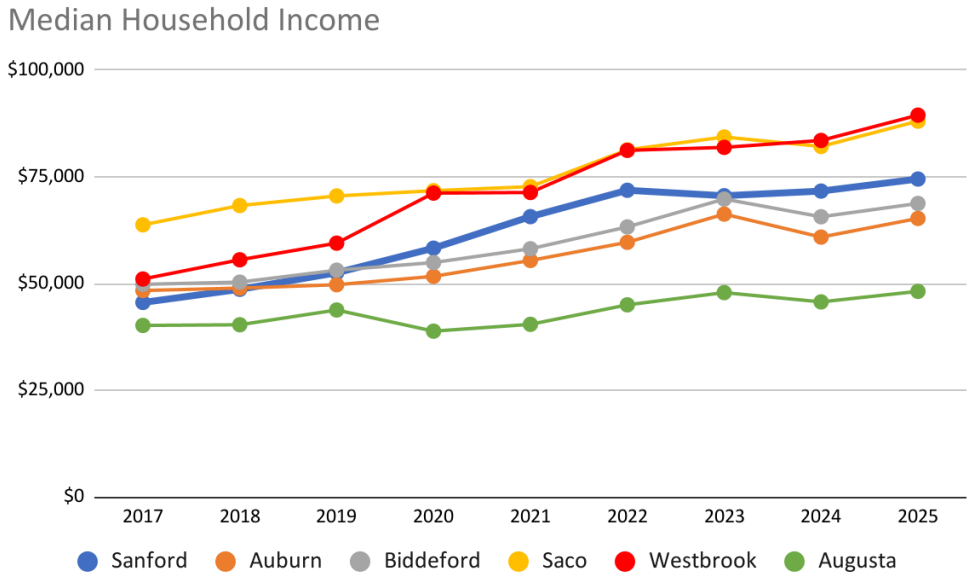
* - NOTE: 2024 single family includes 14 condo units.

Source: City of Sanford Codes Dept; Municity

3. Community Growth



Source: Maine Department of Revenue Services



Source: U.S. Census-American Community Survey; SelectMaineSites

4. Small Business Development

Total Businesses in Sanford – Annual Growth

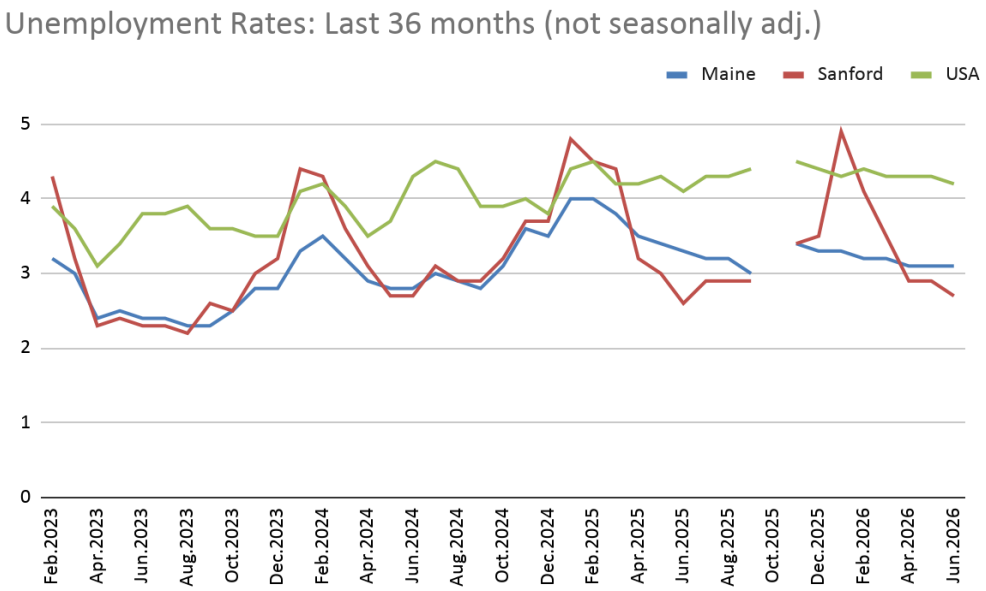
YEAR	Total Businesses		Average Annual Employees		Total Wages (in millions $)		Average Weekly Wage (Gross)	
	#	% Previous Yr	#	% Previous Yr	#	% Previous Yr	#	% Previous Yr
2025	634	-2.5%	6,546	-1.7%	$350.1	3.5%	$1,029	5.2%
2024	650	0.5%	6,659	0.2%	$337.9	3.7%	$976	3.4%
2023	647	0.3%	6,643	-0.5%	$325.6	1.1%	$943	1.6%
2022	645	-1.7%	6,674	-0.8%	$322.2	2.6%	$928	3.3%
2021	656	8.3%	6,727	6.7%	$314.1	10.5%	$898	3.6%
2020	606	3.1%	6,302	-3.4%	$284.3	8.2%	$867	12.0%
2019	588	3.2%	6,525	1.2%	$262.6	5.2%	$774	3.9%

Source: Maine Department of Labor

SREGC Small Business Assistance Projects Completed (2026):

-

5. Employment



Source: Maine Department of Labor

7. Communications/Marketing/Outreach Efforts (2026)

- Renewed Social media effort, positive stories about Sanford: people who have made a difference, private and public investments, Sanford @ work, Sanford @ play, and community cooperation.
- Media outreach: Jagger Mill, TIFs/Development process, Scholarship Program, New Sanford Downtown RLF

Memo

Number: 26-256-01
To: City Council
From: Lorisa Ricketts, Executive Administrator
Date: 2026-08-18
Subject: Ordered, to review the proposed slate of officers as put forward for the 2027 Maine Municipal Association (MMA) Executive Committee and to authorize the City Manager to submit the ballot on behalf of the City Council.

RECOMMENDATION
Review the proposed slate of officers as put forward for the 2027 Maine Municipal Association (MMA) Executive Committee and to authorize the City Manager to submit the ballot on behalf of the City Council.

Background Information:
See attached information on the MMA Executive Committee candidates and the ballot process.

Legal Review Status:

Administrative or Department Review:

Financial Impact or Review:

ATTACHMENT(S):
MMA Exec Committee Ballot 2027.pdf

MAINE MUNICIPAL ASSOCIATION SINCE 1936

60 Community Drive | Augusta, ME 04330-9486
1-800-452-8786 (in state) | (t) 207-623-8428

To: Key Municipal Officials of MMA Member Municipalities

From: Catherine Conlow, Executive Director

Date: July 27, 2026

Subject: MMA Annual Election: Vice President & Executive Committee Members

DEADLINE: Friday August 28, 2026, 12:00 p.m.

CAST YOUR VOTE FOR THE 2027 MMA EXECUTIVE COMMITTEE

Election Process. Your ballot is attached to help chart the future of MMA. You are voting for Vice President and three committee seats. The Maine Municipal Association (MMA) Executive Committee is elected by member municipal select boards and councils to oversee the Association's operations.

Pursuant to MMA by-laws, *these candidates were interviewed by a six-member Nominating Committee, which includes a former Executive Committee past president, an elected municipal officer, a municipal employee, a town or city manager, an MMA affiliate group representative, and an individual from a community-based organization representing the interests of an underrepresented group. As you will note, unlike municipal elections MMA does not provide an option for write-in candidates since our process includes an opportunity to nominate a candidate by petition. The petition process expired on July 20, 2026.*

The candidates have provided a brief biography of themselves for you to reference.

The ballot must be signed by a majority of the municipal officers (e.g., select board or council), or a municipal official designated by a majority of the municipal officers and received by MMA no later than **12:00 p.m. (noon) on Friday, August 28, 2026**. We have enclosed a self-addressed, stamped envelope for your convenience. Ballots will be counted on the afternoon of August 28, with the election results confirmed by MMA President Justin Poirier, Monmouth Town Manager.

Election results will be available no later than September 1, 2026, and can be accessed by either contacting the MMA Executive Office or visiting MMA's website at www.memun.org. A formal announcement of the election results will be made at the MMA Annual Business Meeting, and the newly elected members will be introduced at the Awards Luncheon, both of which will be held during MMA's annual convention on Wednesday, October 7.

The newly elected Executive Committee members will take office on January 1, 2027.

If you have any questions on the election process, please do not hesitate to contact me or Kelly Maines at 1-207-623-8428 or by e-mail at kmaines@memun.org. Thank you.

NOMINATIONS - 2027
Maine Municipal Association
EXECUTIVE COMMITTEE – BIOGRAPHIES

VICE PRESIDENT NOMINEE: 1-YEAR TERM

Shiloh LaFreniere – Town Manager, Town of Jay

Professional & Municipal Experience & Committees:

Jay Town Manager	2014-present
Code Enforcement Officer, Town of Jay	1997-2014
Environmental Code Administrator, Town of Jay	1997-2010
Wellness Coordinator, Town of Jay	2005-2014
E911 Addressing Officer, Town of Jay	2010-2014
Deputy Finance Director, Town of Jay	2012-2014

Education & Certificates:

Bachelor's in business administration
State of Maine Notary Public

Affiliations & Certifications:

- Maine Municipal Association Executive Committee & Strategic Finance Committee
- Maine Town, City and County Management Association Ethics Committee
- Androscoggin Valley Council of Governments – Past President, Executive Committee
- Maine Infrastructure Rebuilding and Resilience Commission Member
- Maine Health Franklin Community Health Network EMS Advisory Board Member
- Institute for Civic Leadership, Maine Development Foundation 2022
- Past Member of the State of Maine Technical Building Codes and Standards Board

EXECUTIVE COMMITTEE NOMINEES: 3-YEAR TERMS

Chris Camire – Town Council Chair, Town of Lisbon

Professional & Municipal Experience & Committees:

Senior Manager, Technical Services, Tyler Technologies, Inc.	2023-present
Manager, Technical Services, Tyler Technologies, Inc.	2021-2023
Town Council, Town of Lisbon	2024-present
General Assembly, Androscoggin Valley Council of Governments (AVCOG)	2026-present

Education & Certificates:

University of Southern Maine – Bachelor of Arts, Political Science and Information & Communications

Michele LaBree Daniels – City Council, City of Brewer

Professional & Municipal Experience & Committees:

City Council Member, City of Brewer	2019-Present
Mayor, City of Brewer	2020-2022 2024-2025
Budget Committee Member, Penobscot County	2020-2024
Telecommunications, Customer Service, Supervisor/Trainer	1995-2015
General Manager, Hospitality Management	1989-1995

Committee Membership 1999-2019:
Member - Greater Bangor Regional Economic Group
Board Member - Brewer Land Trust
Board Member - Brewer Conservation Commission
Member - Greater Bangor Regional Economic Group
Board Member - Brewer Cemetery Board
President - Brewer Library Trustees
Member - Brewer Parks & Recreation Advisory Commission
Liaison - Penobscot County Commissioners

Education & Certificates:
John Bapst Memorial High School
Trinity College, Burlington, Vermont – U.S. History and Canadian Studies
National League of Cities University – Grant Writing Bootcamp
Maine Municipal Association – Ongoing Training
National League of Cities University – Housing as an Economic Development Tool

Affiliations & Certifications:
- National League of Cities – Public Safety & Crime Prevention; Small Cities Council
- Maine Municipal Association Co-Ambassador for NLC Congressional City Conference -Hill Day.

Richard Petrie – Town Manager, Town of Jackman

Professional & Municipal Experience & Committees:

Jackman Town Manager	2025-present
North East Mobile Health Services	
- Chief Executive Officer	2023-2025
- Chief Operations Officer	2021-2023
Atlantic Partners EMS - CEO	2011-2021
Kennebec Valley EMS Council - Regional Director	2000-2011
Chair, Maine Trauma Advisory committee	2018- 2025
Member, Maine Legislative EMS Blue Ribbon Commission	
Member, Maine General Medical Center Institutional Review Board	

Education & Certificates:
- MMA Leadership Program
- Adjunct Faculty, National Ambulance Training Schools (Ireland & Northern Ireland)
- Adjunct Professor, Fiji National University
- Active educator and presenter on leadership, governance, and EMS administration
- Contributing Author: Mosby EMT Text, Legal Issues for EMS

Affiliations & Certifications:
- ICS 100, 200, 700, 800
- Local Health Officer Certification
- Town Meeting & Election Law Training
- General Assistance (Foundations & Advanced)
- Vital Records Training
- Transfer Station Operations (Core 1 & Core 3)
- Notary Public
- BMV Registration Training (Standard & Commercial)

MAINE MUNICIPAL ASSOCIATION SINCE 1936

BALLOT

Election of MMA Vice President and Executive Committee Members

Deadline for Receipt of Ballots – 12:00 noon on Friday, August 28, 2026

VICE-PRESIDENT - 1 YEAR TERM	**Vote for One**
Proposed by MMA Nominating Committee:	
Shiloh LaFreniere, Jay Town Manager	☐

EXECUTIVE COMMITTEE MEMBERS - 3 YEAR TERM	**Vote for Three**
Proposed by MMA Nominating Committee:	
Chris Camire, Lisbon Council Chair	☐
Michele LaBree Daniels, Brewer City Council	☐
Richard Petrie, Jackman Town Manager	☐

Please note that unlike municipal elections, MMA does not provide for "Write-in Candidates" since our process includes an opportunity to nominate a candidate by petition, which ended on July 20, 2026.

The ballot may be cast by a majority of the municipal officers, or a municipal official designated by a majority of the municipal officers of each Municipal member.

DATE: _____ **MUNICIPALITY:** _____

Signed by a Municipal Official designated by a majority of Municipal Officers:

PRINT NAME: _____ **POSITION:** _____

SIGNATURE:

OR

Signed by a majority of Municipal Officers:

Current Number of Officers: _____

PRINT NAME	**SIGNATURE**

Return to: *MMA Annual Election*
Maine Municipal Association
60 Community Drive
Augusta, Maine 04330
Email: kmaines@memun.org

Memo

Number: 26-259-01
To: City Council
From: Eric Small
Date: 2026-08-18
Subject: Acceptance of FY25 Edward Byrne Memorial Justice Assistance Grant (JAG) – $16,877 for law enforcement equipment and technology.

RECOMMENDATION

To accept the federal award in the amount of $16,877.

Background Information:

The Edward Byrne Memorial Justice Assistance Grant, commonly known as the JAG Program, is administered by the U.S. Department of Justice through the Bureau of Justice Assistance. It is the leading source of federal justice funding provided to state and local jurisdictions across the country. The program provides funding to support a broad range of public-safety and criminal-justice needs, including law enforcement equipment and technology, training, crime prevention, prosecution and courts, corrections, and other initiatives designed to improve community safety. The program is named in honor of New York City Police Officer Edward “Eddie” Byrne, who was killed in the line of duty in 1988 while protecting a witness in a drug case.

The Sanford Police Department applied for this funding to purchase law enforcement technology and related equipment that will enhance our department’s operational capabilities and support public safety efforts within the City of Sanford. This equipment will provide our officers with an additional resource to assist with investigations, improve officer safety, and help us use our personnel more efficiently. The important piece for the Council tonight is that this is **$16,877 in federal grant funding** that will allow us to acquire this equipment without placing the full financial burden on Sanford taxpayers.

Legal Review Status:

N/A

Administrative or Department Review:

The requested equipment was identified through a collaborative effort between the Departmentâ€™s Firearms Team and Support Services. Together, they evaluated operational needs and identified equipment that would provide the greatest benefit to officer safety, training, and overall departmental

readiness.

Financial Impact or Review:

There is no anticipated fiscal impact to the Police Department or the City. The $16,877 project cost will be fully funded through the federal Edward Byrne Memorial Justice Assistance Grant.

ATTACHMENT(S):

DOJ_Stakeholder_Award_Notification.pdf

Department of Justice (DOJ)

Office of Justice Programs

Office of Communications

Washington, D.C. 20530

AWARD NOTIFICATION	Award Number: 15PBJA-25-GG-02913-JAGX
Name and Address of Recipient:	SANFORD, CITY OF 919 MAIN ST # 1
City, State and Zip:	SANFORD, ME 04073
Recipient Point of Contact:	Ronni Champlin
Email:	rlchamplin@sanfordmaine.org
Phone:	12076084181
Solicitation Title:	BJA FY25 Edward Byrne Memorial Justice Assistance Grant (JAG) Program – Local Formula
Federal Award Amount: $16,877.00	Federal Award Date: 7/31/26
Awarding Agency:	Office of Justice Programs Bureau of Justice Assistance
Award Type:	Initial
Statutory Authority:	Pub. L. No. 90-351, Title I, Part E, subpart 1 (codified at 34 U.S.C. 10151-10158); see also 28 U.S.C. 530C(a)
Opportunity Category: Mandatory	Assistance Listing Number: 16.738
Project Period Start Date: 10/1/24	Project Period End Date: 9/30/27

Memo

Number: 26-245-01
To: City Council
From: Allison Navia, Airport Manager
Date: 2026-08-18
Subject: Ordered to approve and authorize the City Manager to sign the request for release from federal obligations to be sent to the Federal Aviation Administration for approximately 40 acres of land at the Sanford Seacoast Regional Airport in order to sell the parcel to the Sanford Springvale Fish and Game Protective Association, Rubb Buildings and the Sanford Police Department.

RECOMMENDATION

Review the request for release from federal obligations to be sent to the Federal Aviation Administration for approximately 40 acres of land at the Sanford Seacoast Regional Airport in order to sell the parcel to the Sanford Springvale Fish and Game Protective Association, Rubb Buildings and the Sanford Police Department.

Background Information:

The Airport proposes to release and sell a parcel of land that has been determined to be surplus to current and reasonably foreseeable future aviation needs. The parcel is not required for existing or planned airport operations, safety areas, or future development identified in the Airport Layout Plan or master planning documents. Releasing the property will allow it to be put to a productive use while eliminating ongoing ownership and maintenance responsibilities.

The sale will also provide a net benefit to civil aviation by converting a non-essential asset into financial resources that can be reinvested in eligible airport improvements. This action supports the long-term financial sustainability of the airport, allows capital to be directed toward aviation infrastructure and operational needs, and does not adversely affect the airport's ability to serve current or future aviation demand.

This request for release of airport property from aeronautical use grant assurances requires the sponsors of the Sanford Seacoast Regional Airport (SFM), the City of Sanford, Maine, to complete the following tasks:

1. Prepare a release request for a 40.07 acre portion of Airport Property;

2. Determine a non-aeronautical fair market value through appraisal; and,

3. Update the Exhibit A to reflect the release of the parcel.

The attached letter with enclosures addresses these three tasks.

The goal of the release is to allow the sale of the land in three parcels, 15.4 acres to Sanford Springvale Fish and Game Protective Association (SSFGPA), 20.39 acres to Rubb Buildings and 4.28 acres to the Sanford Police Department. SSFGPA and Rubb have agreed to pay the full purchase price, saving the PD its pro-rated share. The City's attorney confirmed that a new deed can be recorded for the PD parcel upon FAA release that is free from the deed restrictions that airport property deeds contain. The deeds are currently being written up by the City attorney to be used at closing.
The purpose of the sale is to relieve the airport of compliance issues, generate revenue for airport uses, allow for the continued use and expansion of both shooting ranges, and permit expansion in the industrial park on Gatehouse Road.

Once approved by the City Council the release request will be submitted to FAA for its review. The Department of War also needs to release the parcels from the National Emergency Use Provision. The total time to approval is typically about six months.

This project has been underway for about 18 months during which time the Airport Advisory Committee and Municipal Property Subcommittee have reviewed aspects of the land release and sale.

Legal Review Status:
Complete

Administrative or Department Review:
The Airport Manager has overseen and administered the sale of this parcel, working closely with the City Manager. The City's legal counsel has also reviewed the supporting documents and drafted the deeds and easements to be used to execute and record the sale once approved.

Financial Impact or Review:
Revenue from the sale of the parcel of approximately $165,000 will be placed in a special revenue account, ORG 2084, to be used only for the airport operations, airport capital investment, and/or land acquisition purposes described in FAA Order 5190.6C as allowable uses of airport revenue.

The cost of the land release project if it were completed by an aviation consulting firm would be between $60,000 - $90,000. The Airport Manager performed this project, saving significant money. This will be the third land release request completed in the last 14 years at SFM (Sanford Airport Solar and Flemish/ Rubb parcels). If the timing of the approval coincides with the completion of the ongoing airport master plan update we can incorporate the Exhibit A update into that project. If the timing is off the Airport will incur a cost of about $1,500 to update the Exhibit A.

ATTACHMENT(S):
SFM Shooting Range Land Release w. enclosures excpt B. 08.12.2026.pdf

To be placed on City Manager Letterhead

August 12, 2026

Mr. Andre Garcia
Federal Aviation Administration, Airports Division
1200 District Avenue
Burlington, MA 01803 - 5299

RE: Land Release Request
Sanford Seacoast Regional Airport (SFM)
Sale of Shooting Range Parcels

Dear Mr. Garcia,
This request for release of airport property from aeronautical use grant assurances requires the sponsors of the Sanford Seacoast Regional Airport (SFM), the City of Sanford, Maine, to complete the following tasks:

A. Prepare a release request for a 40.07 acre portion of Airport Property;
B. Determine a non-aeronautical fair market value through appraisal; and,
C. Update the Exhibit A to reflect the release of the parcel.

This letter addresses these three tasks.

A. PREPARE AIRPORT LAND PARCEL RELEASE FOR A 40.07 ACRE PARCEL OF AIRPORT PROPERTY

In accordance with Chapter 22 of the FAA's *Airport Compliance Manual*, Order 5190.6C, the Sanford Seacoast Regional Airport requests the FAA release a parcel totaling approximately 40.07 acres from FAA grant obligations and thereby allowing the airport to sell the parcel at fair market value in accordance with Title 14 CFR Part 155.7(d). The land contained in this parcel is not needed for airport aviation development purposes. The necessary elements for land release as described in FAA Order 5190.6C are discussed below.

(1) Identification of the instruments of disposal to which the property concerned is subject.

a. Airport Sponsor Airport Improvement Program Grant Assurances
b. Surplus Property Act of 1944, as amended

(2) A description of the property concerned.

The **"Parcel Descriptions"**, included in Enclosure A, have been created by licensed surveyors, Sebago Technics, dated August 1, 2025. The total land area is approximately 40.07 acres to be subdivided into three lots, 15.40 acres, 20.39 acres, and 4.28 acres.

(3) The condition of the property concerned.

The present condition of the majority of the property is woodland. The property also contains two shooting ranges with a gravel access road, one operated by Sanford Springvale Fish and Game Protective Association (SSFGPA) and the other by the City of Sanford Police Department (SPD). The parcel is included in the City of Sanford, Airport Development Zone. The parcel is outside of all runway safety areas, protection zones, the glideslope critical area, and object free areas and clear of any navigational equipment.

(4) Type of release or modification requested

A release from aviation use grant obligations that will allow the parcel to be sold.

(5) Reasons for requesting the release

The release of the parcel from grant obligations will chiefly eliminate current non-aeronautical use of the obligated property, removing compliance issues. The release will fund future aviation projects with the proceeds being deposited in an identifiable account to be used only for the airport operations and airport capital investment/ land acquisition purposes described in Order 5190.6C. Revenue from the land sale can be used to help finance capacity projects such as additional aircraft parking, expanded terminal space, or improved access roads. These improvements allow the airport to accommodate more aircraft and passengers than the retained land would have supported. Sale proceeds can also be used to meet updated regulatory requirements, such as runway safety area improvements, wildlife hazard mitigation, or airfield lighting upgrades. These investments directly support the safe operation of civil aviation. The sale of the parcel will benefit the airport financially, administratively and operationally.

Ancillary benefits to the region include the sale of land to an industrial business, Rubb Buildings, for its future expansion; a benefit to public safety by permitting investment in and improvement of the SPD shooting range for additional training of its personnel and partners in the region; and the sale would allow the SSFGPA, a local non-profit, to invest in and improve the property for its users in the region.

(6) The expected use or disposition of the property

The property will be used for industrial purposes within the allowable uses specified in the Airport Development Zone as included in the City of Sanford Ordinances. The sale will not compromise future airport operations or expansion. The Purchase and Sale Agreements as well as associated deeds and easements, including avigation easements, are included as Enclosure B.

(7) The facts and circumstances that justify the request

The parcel is not needed for aeronautical development. As depicted on the approved Ultimate Airport Layout Plan, the airport could build dozens more hangars, a maintenance/ repair and overhaul facility, additional aprons, and other aeronautical facilities on other airport property and not utilize this land. Furthermore, the parcels are isolated, located on the far side of a protected area for certain species designated by the Maine Department of Inland Fisheries and Wildlife as threatened or special concern. The parcel is also far from airport infrastructure making connecting it to the Air Operations Area infeasible. The rights to continue flying and creating aeronautical impacts over the parcel will be maintained through an avigation easement for each parcel. Protections for airport operations and oversight for any future development are also contained the City's Airport Development Zoning and ordinances.

(8) The requirements of state or local law, which must be included in any approval document.

The land release was approved by the Sanford City Council at the meeting August 18, 2026. A copy of the agenda and minutes for that meeting is attached as Enclosure C and the City Manager's signature on this request document affirms the approval.

(9) Property Acquisition Description

The parcel was transferred from the US Government through the War Assets Administration by fee

in 1947 and 1948. The parcels and dates of acquisition are illustrated on the Airport Exhibit A - Property Map, Enclosure D, and shown in the next table. A copy of the original deeds is provided in Enclosure E**.**

Property Acquisition							
Original Exhibit A Parcel	Map/ Lot	Grantor	Grantee	Instrument	Date	Book	Page
1	R18A-16	U.S. Gov't	Town of Sanford	Fee	12/30/1947	1113*	303
1	R18A-16	U.S. Gov't	Town of Sanford	Fee	07/15/1948	1116	1

**note this is the correct book; the Exhibit A map contains a typo that will be corrected when updated*

(10) Discussion of Lease versus Sale of the property.
The Airport wishes to sell the parcels of land that are requested to be released. Non-aeronautical leases for use of the parcel could be pursued, but the level of initial and sustained administration, management, maintenance and liability incurred by the Airport are not reasonable or feasible in exchange for the land lease revenue.

In the 2025 airport master plan study it was determined, based on aviation forecasts and the amount of other land available at the airport for development, that it is not forecasted for the parcel under discussion herein to be utilized for aeronautical purposes in the next 20 years. The parcel has no feasible future aeronautical use; as a result, the parcel was shown on both the UALP and the Exhibit A as NA-3 labeled for future release and sale. The airport continues to pursue safety and financial self-sufficiency as its main goals and consequently, the use of this "surplus" land for revenue generation in a way that protects the safety of the public and airport users while still moving toward balancing the airport's revenues and expenses is ideal. The revenue from the sale of the land is needed to pay down Airport bonds, potentially purchase land elsewhere for airport access and development, and purchase equipment and supplies not covered by the Airport Improvement Program or available through local or state funding for the improvement and maintenance of the Airport. For these reasons it is the position of the City of Sanford and the Airport that the sale is sought.

(11) Proceeds expected as a result of the release and the expected use of revenues.
Based on the Fair Market Value of the property as determined through appraisal, a total of $165,000 is expected to be generated from the sale of the parcel. The appraisal document is included in Enclosure F. All proceeds from the sale will go directly to the airport account to support the airport's maintenance and operating budget, capital improvement projects, payoff of Airport bonds, and help fund the local share of AIP grant funding.

(12) Describe any intangible benefits and the merits of the application as an offset against the Fair Market Value of the property. Any non-aviation interest of the sponsor of the surrounding community does not constitute a benefit resulting from a release.
Full fair market value is being received for the sale of the land.

(13) The Airport's source and application of funds for the preceding 3 years
The operational expense and revenue reports for the Airport for the preceding three fiscal years, FY24, 25 and 26, are included in Enclosure G.

(14) Future sources and application of funds needed for continued operation and maintenance of the Airport

The airport generates funds from the airport businesses and users (leases, parking fees, fuel flowage fees), and has received grant funds from FAA, MaineDOT and the City of Sanford. These funds have most recently been used for the planning, engineering and construction necessary to complete an Airport Master Plan Update, reconstruct Taxiway C, and design, permit and construct a Vehicle Service Road and reconstruct a taxilane on the east side of the airfield. The most recent FAA approved Capital Improvement Plan (CIP) for SFM is shown below. SFM currently receives $150,000 of primary entitlement FAA AIP funding annually and additional discretionary funding if the project priority warrants and funds are available. The City of Sanford fully supports FAA AIP projects at the Airport by budgeting matching local funds.

Sanford Seacoast Regional Airport CIP

Year	Project	Total Project Cost	FAA Share	State Share	Local Share
2026	Transfer from Fryeburg - Eastern Slope Regiona... (IZG) to Sanford Seacoast Regional Airport (SFM)	$-150,000.00	$0.00	$0.00	$0.00
2026	BIL AIG & AIP - Taxilane Seacoast 1 & Perimeter Road at RW 14	$1,200,000.00	$1,129,906.00	$60,000.00	$10,094.00
2026	ATP: Phase 1 Land Acquisition	$900,000.00	$810,000.00	$0.00	$90,000.00
2027	Runway 7-25 Sealcoat	$716,800.00	$645,120.00	$35,840.00	$35,840.00
2028	Taxiway D - Design and Construct	$1,509,000.00	$1,358,100.00	$75,450.00	$75,450.00
2028	Taxiways A, B, C, E, F, F1, and G Sealcoat	$166,667.00	$150,000.00	$8,333.00	$8,334.00
2029	Saving Entitlement	$0.00	$0.00	$0.00	$0.00
2030	Self-contained Blower Attachment for carrier vehicle (Assume full carrier, plow, broom, & blower)	$430,000.00	$387,000.00	$21,500.00	$21,500.00
2031	Build New Jet Apron	$5,000,000.00	$4,500,000.00	$250,000.00	$250,000.00
2032	Runway 7 & 25 Approaches	$5,000,000.00	$4,500,000.00	$250,000.00	$250,000.00

(15) The financial capability and intent to accomplish Airport plans included in the current ALP

This parcel's release from grant obligations and subsequent sale is consistent with SFM's goal to generate appropriate non-aeronautical revenue, which the Airport needs to support the aeronautical activities depicted on the current UALP. The revenue generated from this sale will make the Airport as self-sustaining as possible and will reduce the costs imposed upon aeronautical users of the field and taxpayers in the City of Sanford. Airport improvements that are eligible for FAA grant funding currently require either 2.5 or 5% from the City of Sanford, depending on the source. Ineligible costs are 100% locally funded.

(16) Environmental elements as per FAA Order 1050.1E

FAA Order 1050.1E provides a Categorical Exclusion for FAA actions that are administrative or general in nature. Paragraph 307b of the Order states that the release of an airport sponsor from Federal obligations incurred when the sponsor accepted an Airport Improvement Grant is a

categorically excluded administrative action provided any reasonably foreseeable uses of the property do not trigger specific extraordinary circumstances described in Paragraph 304 of the same order. The FAA considers the release of property from grant obligations requiring they be used for aeronautical activities to be an administrative action and, as the FAA has found, based on similar actions, does not normally require an Environmental Assessment or Environmental Impact Statement because they do not individually or cumulatively have a significant impact on the human environment.

(17) Obstructions

The parcels are adjacent to the Airport Property and subject to the restrictions imposed by FAR Part 77. FAA notice of proposed alteration for the proposed use change, SF 7460 will be required for construction or alteration as applicable. This is a federal requirement as well as a requirement of the City of Sanford as part of the local permitting process contained in ordinance. Avigation easements will also be recorded with the transfer of the parcels. Language for the deeds and easements are included in Enclosure B.

B. **DETERMINE FAIR MARKET VALUE THROUGH APPRAISAL OF THE PARCEL**

The Fair Market Value of the property is $165,000 or approximately $4,125.00 per acre. An appraisal was conducted by an independent third party, Pierce & Associates, and is included as Enclosure E. The appraisal was completed on June 1, 2025 and paid for by the purchasing parties. The parties have negotiated amongst themselves to share the cost and agree upon the total for each party. Rubb and SSFGPA are sharing the cost of the Police Department Parcel. The language for this is contained in the Purchase and Sale Agreements included in Enclosure B. Total fair market value will be received by the Airport.

C. **UPDATE AIRPORT EXHIBIT A TO REFLECT THE RELEASE OF THE PARCEL**

Attached as Enclosure C. Upon sale the deeds will be recorded. The book and page numbers will be added to the Exhibit A Land Release Table in row 31, currently row NA-3. The fully updated map will be submitted to FAA at that time.

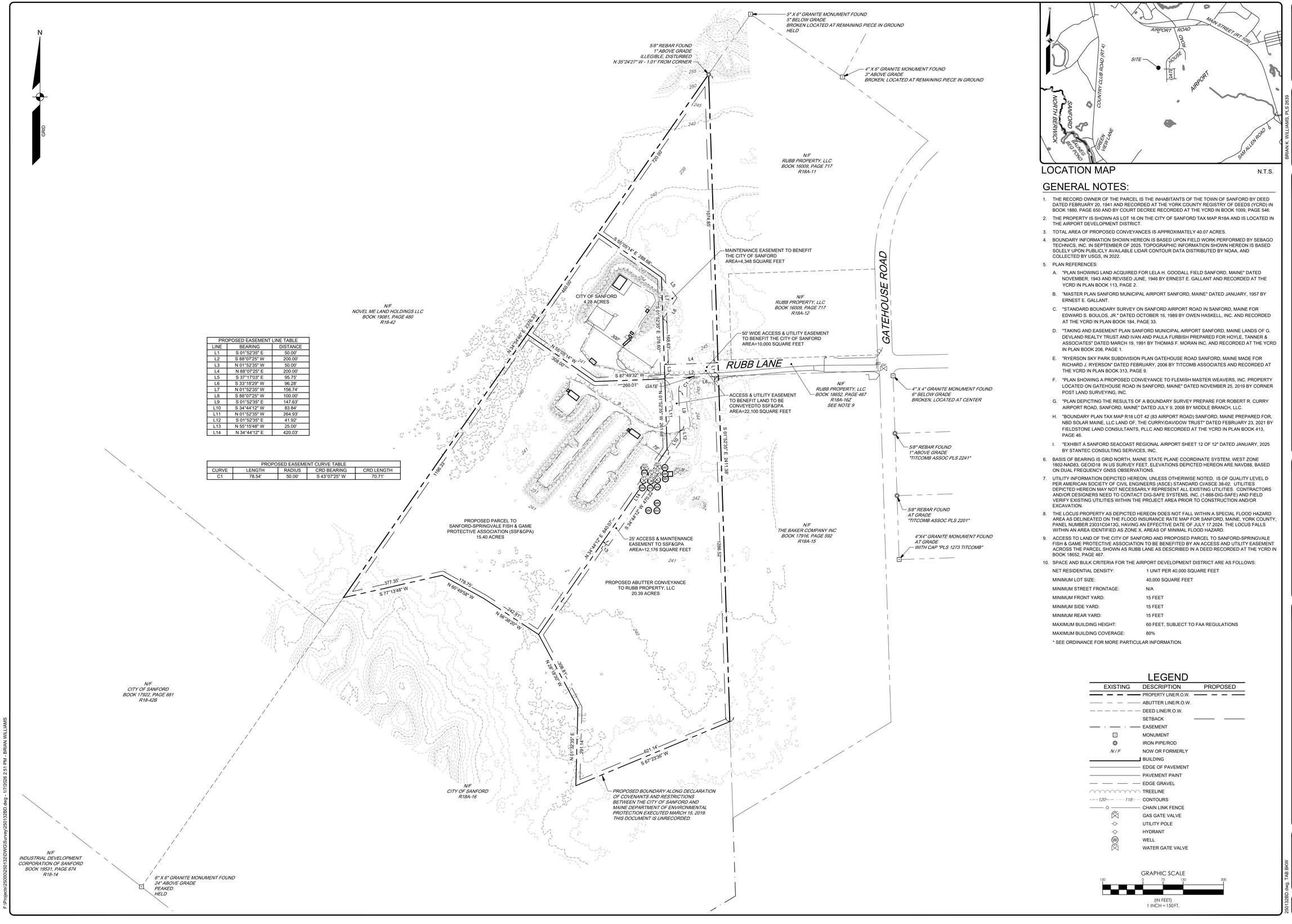
We trust this narrative provides you with the information you need to make a positive determination regarding the proposed release or change of use for the parcel. We also request release from the Department of War's National Emergency Use Provisions for these parcels. If you have any questions, require more information, or would like to discuss this matter further, please contact Allison Navia (Airport Manager) at (207) 324-3172 or by email at anavia@sanfordmaine.org.

Sincerely,

Steven R. Buck
City Manager, City of Sanford

Enclosure A: Survey and Parcel Descriptions
Enclosure B: Purchase and Sale Agreements, Deeds and Easements

Enclosure C: City Council Agenda and Minutes August 18, 2026
Enclosure D: Airport Exhibit A Property Map
Enclosure E: Property Deeds
Enclosure F: Appraisal Report
Enclosure G: Airport Operational Expense and Revenue Reports



LOCATION MAP

N.T.S.

BRIAN K. WILLIAMS, PLS 2839

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE INHABITANTS OF THE TOWN OF SANFORD BY DEED DATED FEBRUARY 20, 1941 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS (YCRD) IN BOOK 1880, PAGE 650 AND BY COURT DECREE RECORDED AT THE YCRD IN BOOK 1009, PAGE 546.
2. THE PROPERTY IS SHOWN AS LOT 16 ON THE CITY OF SANFORD TAX MAP R18A AND IS LOCATED IN THE AIRPORT DEVELOPMENT DISTRICT.
3. TOTAL AREA OF PROPOSED CONVEYANCES IS APPROXIMATELY 40.07 ACRES.
4. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN SEPTEMBER OF 2025. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED SOLELY UPON PUBLICLY AVAILABLE LIDAR CONTOUR DATA DISTRIBUTED BY NOAA, AND COLLECTED BY USGS, IN 2022.
5. PLAN REFERENCES:
   A. "PLAN SHOWING LAND ACQUIRED FOR LELA H. GOODALL FIELD SANFORD, MAINE" DATED NOVEMBER, 1943 AND REVISED JUNE, 1946 BY ERNEST E. GALLANT AND RECORDED AT THE YCRD IN PLAN BOOK 113, PAGE 2.
   B. "MASTER PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE" DATED JANUARY, 1957 BY ERNEST E. GALLANT.
   C. "STANDARD BOUNDARY SURVEY ON SANFORD AIRPORT ROAD IN SANFORD, MAINE FOR EDWARD S. BOULOS, JR." DATED OCTOBER 16, 1989 BY OWEN HASKELL, INC. AND RECORDED AT THE YCRD IN PLAN BOOK 184, PAGE 33.
   D. "TAKING AND EASEMENT PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE LANDS OF G. DEVLAND REALTY TRUST AND IVAN AND PAULA FURBISH PREPARED FOR HOYLE, TANNER & ASSOCIATES" DATED MARCH 19, 1991 BY THOMAS F. MORAN INC. AND RECORDED AT THE YCRD IN PLAN BOOK 208, PAGE 1.
   E. "RYERSON SKY PARK SUBDIVISION PLAN GATEHOUSE ROAD SANFORD, MAINE MADE FOR RICHARD J. RYERSON" DATED FEBRUARY, 2006 BY TITCOMB ASSOCIATES AND RECORDED AT THE YCRD IN PLAN BOOK 313, PAGE 9.
   F. "PLAN SHOWING A PROPOSED CONVEYANCE TO FLEMISH MASTER WEAVERS, INC. PROPERTY LOCATED ON GATEHOUSE ROAD IN SANFORD, MAINE" DATED NOVEMBER 25, 2019 BY CORNER POST LAND SURVEYING, INC.
   G. "PLAN DEPICTING THE RESULTS OF A BOUNDARY SURVEY PREPARE FOR ROBERT R. CURRY AIRPORT ROAD, SANFORD, MAINE" DATED JULY 9, 2008 BY MIDDLE BRANCH, LLC.
   H. "BOUNDARY PLAN TAX MAP R18 LOT 42 (83 AIRPORT ROAD) SANFORD, MAINE PREPARED FOR, NBD SOLAR MAINE, LLC LAND OF, THE CURRY/DAVIDOW TRUST" DATED FEBRUARY 23, 2021 BY FIELDSTONE LAND CONSULTANTS, PLLC AND RECORDED AT THE YCRD IN PLAN BOOK 413, PAGE 46.
   I. "EXHIBIT A SANFORD SEACOAST REGIONAL AIRPORT SHEET 12 OF 12" DATED JANUARY, 2025 BY STANTEC CONSULTING SERVICES, INC.
6. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, GEOID18 IN US SURVEY FEET, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GNSS OBSERVATIONS.
7. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CIASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
8. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR SANFORD, MAINE, YORK COUNTY, PANEL NUMBER 23031C0413G, HAVING AN EFFECTIVE DATE OF JULY 17,2024. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF MINIMAL FLOOD HAZARD.
9. ACCESS TO LAND OF THE CITY OF SANFORD AND PROPOSED PARCEL TO SANFORD-SPRINGVALE FISH & GAME PROTECTIVE ASSOCIATION TO BE BENEFITED BY AN ACCESS AND UTILITY EASEMENT ACROSS THE PARCEL SHOWN AS RUBB LANE AS DESCRIBED IN A DEED RECORDED AT THE YCRD IN BOOK 18652, PAGE 467.
10. SPACE AND BULK CRITERIA FOR THE AIRPORT DEVELOPMENT DISTRICT ARE AS FOLLOWS:

NET RESIDENTIAL DENSITY:	1 UNIT PER 40,000 SQUARE FEET
MINIMUM LOT SIZE:	40,000 SQUARE FEET
MINIMUM STREET FRONTAGE:	N/A
MINIMUM FRONT YARD:	15 FEET
MINIMUM SIDE YARD:	15 FEET
MINIMUM REAR YARD:	15 FEET
MAXIMUM BUILDING HEIGHT:	60 FEET, SUBJECT TO FAA REGULATIONS
MAXIMUM BUILDING COVERAGE:	80%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	DEED LINE/R.O.W.	
	SETBACK	
	EASEMENT	
	MONUMENT	
	IRON PIPE/ROD	
N / F	NOW OR FORMERLY	
	BUILDING	
	EDGE OF PAVEMENT	
	PAVEMENT PAINT	
	EDGE GRAVEL	
	TREELINE	
120	CONTOURS 118	
	CHAIN LINK FENCE	
GG	GAS GATE VALVE	
	UTILITY POLE	
	HYDRANT	
W	WELL	
WG	WATER GATE VALVE	

GRAPHIC SCALE

150 0 75 150 300

(IN FEET)
1 INCH = 150 FT.

REV.	BY:	DATE:	STATUS
A.	BKW	10-24-2025	SUBMITTED TO CLIENT FOR REVIEW
B.	BKW	12-19-2025	REVISED PROPOSED PARCELS AND EASEMENT AREAS
C.	BKW	01-09-2026	ISSUED FOR REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford

LOT DIVISION PLAN

OF A PORTION OF:

SANFORD SEACOAST REGIONAL AIRPORT

199 AIRPORT ROAD
SANFORD, MAINE

FOR:

RUBB USA

1 RUBB LANE
SANFORD, MAINE 04073

RECORD OWNER:
INHABITANTS OF THE TOWN OF SANFORD
919 MAIN STREET
SANFORD, MAINE 04073

DESIGNED	-
DRAWN	JAH
CHECKED	BKW
DATE	08/01/2025
SCALE	1" = 150
PROJECT	250132

SHEET 1 OF 1

F:\Projects\250000s\250132\DWG\Survey\250132BD.dwg - 1/7/2026 2:51 PM - BRIAN WILLIAMS

250132BD.dwg, TAB:BKW

Exhibit A

A certain lot or parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of the parcel herein conveyed on the southeasterly sideline of land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the York County Registry of Deed (YCRD) in Book 19081, Page 480 bearing S 34°54'46" W along said land of Novel ME Land Holdings, LLC a distance of 1,180.00 feet from the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 16009, page 717;

1. Thence S 55°05'14" E along remaining land of the City of Sanford, a distance of 308.00 feet;

2. Thence N 87°49'32" E along remaining land of the City of Sanford, a distance of 260.01 feet to a proposed conveyance to Rubb Property, LLC;

3. Thence S 01°52'35" E along said proposed conveyance to Rubb Property, LLC, a distance of 261.68 feet;

4. Thence S 34°44'12" W along said proposed conveyance to Rubb Property, LLC, a distance of 840.07 feet;

5. Thence N 56°38'20" W along remaining land of City of Sanford, a distance of 242.91 feet;

6. Thence N 60°49'58" W along remaining land of City of Sanford, a distance of 178.75 feet;

7. Thence S 77°13'48" W along remaining land of City of Sanford, a distance of 377.35 feet to said land of Novel ME Land Holdings, LLC;

8. Thence N 34°54'46" E along said land of Novel ME Land Holdings, LLC, a distance of 1,196.33 feet to the **Point of Beginning**.

The above-described lot or parcel contains approximately 15.40 acres.

Together with a right of way for access and utilities being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through a proposed conveyance to Rubb Property, LLC, a distance of 100.00 feet;

2. Thence through a proposed conveyance to Rubb Property, LLC following a curve to the left with a radius of 50.00, an arc length of 78.54 feet, and a chord which bears S 43°07'25" W, a distance of 70.71 feet;

3. Thence S 01°52'35" E through a proposed conveyance to Rubb Property, LLC, a distance of 147.63 feet;

4. Thence S 34°44'12" W through a proposed conveyance to Rubb Property, LLC, a distance of 83.84 feet to the above-described parcel;

5. Thence N 01°52'35" W along the above-described parcel and remaining land of the City of Sanford, a distance of 314.93 feet;

6. Thence N 88°07'25" E though a proposed conveyance to Rubb Property, LLC, a distance of 200.00 feet to said land of Rubb Property, LLC;

7. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described right of way contains approximately 22,100 square feet or 0.51 acres.

Together with an easement for berm access and maintenance being more particularly bounded and described as follows:

Beginning at the southwesterly corner of the above-described right of way and the easterly corner of the above-described parcel;

1. Thence N 34°44'12" E along the above-described right of way and through a proposed conveyance to Rubb Property, LLC, a distance of 83.84 feet;

2. Thence S 01°52'35" E through a proposed conveyance to Rubb Property, LLC, a distance of 41.92 feet;

3. Thence S 34°44'12" W through a proposed conveyance to Rubb Property, LLC, a distance of 470.22;

4. Thence N 55°15'48" W through a proposed conveyance to Rubb Property, LLC, a distance of 25.00 feet to the above-described parcel;

5. Thence N 34°44'12" E along the above-described parcel, a distance of 420.03 feet to the **Point of Beginning**.

The above-described berm access and maintenance easement contains approximately 12,176 square feet or 0.28 acres.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

Reference is made to a plan titled “Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA” last revised January 9, 2026 by Sebago Technics, Inc., job number 250132.

January 8, 2026
BKW:kn

Exhibit A

A certain lot or parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the York County Registry of Deeds (YCRD) in Book 16009, Page 717 and land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the YCRD in Book 19081, Page 480;

1. Thence S 01°52'35" E along said land of Rubb Property, LLC, other land of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, and land now or formerly of The Baker Company, Inc., a distance of 2,411.38 feet to remaining land of the City of Sanford;

2. Thence S 67°23'36" W along remaining land of the City of Sanford, a distance of 621.14 feet;

3. Thence N 01°32'35" E along remaining land of the City of Sanford, a distance of 291.14 feet;

4. Thence N 28°18'30" W along remaining land of the City of Sanford, a distance of 308.81 feet to land to be conveyed to the Sanford-Springvale Fish & Game Protective Association (SSF&GPA);

5. Thence N 34°44'12" E along said land to be conveyed to SSF&GPA, a distance of 840.07 feet;

6. Thence N 01°52'35" W along said land to be conveyed to SSF&GPA and remaining land of the City of Sanford, a distance of 640.28 feet;

7. Thence N 55°05'14" W along remaining land of the City of Sanford, a distance of 288.68 feet to said land of Novel ME Land Holdings LLC;

8. Thence N 34°54'46" E along said land of Novel ME Land Holdings LLC, a distance of 720.00 feet to the **Point of Beginning**.

The above-described parcel contains approximately 20.39 acres.

Reserving and **subject to** a right of way for access and utilities, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through the above-described parcel, a distance of 200.00 feet to remaining land of the City of Sanford;

2. Thence N 01°52'35" W along remaining land of the City of Sanford, a distance of 50.00 feet;

3. Thence N 88°07'25" E through the above-described parcel, a distance of 200.00 feet to said land of Rubb Property, LLC;

4. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described right of way contains approximately 10,000 square feet.

Reserving an easement for access and berm maintenance, being more particularly bounded and described as follows:

Beginning at a point bearing N 01°52'35" W a distance of 168.63 feet from the northwesterly corner of the above-described right of way along remaining land of the City of Sanford;

1. Thence N 01°52'35" W along remaining land of the City of Sanford, a distance of 156.74 feet;

2. Thence S 37°17'03" E through the above-described parcel, a distance of 95.75 feet;

3. Thence S 33°18'29" W through the above-described parcel, a distance of 96.28 feet to the **Point of Beginning**.

The above-described easement contains approximately 4,348 square feet.

Subject to a right of way for access and utilities being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through the above-described parcel, a distance of 100.00 feet;

2. Thence through the above-described parcel following a curve to the left with a radius of 50.00, an arc length of 78.54 feet, and a chord which bears S 43°07'25" W, a distance of 70.71 feet;

3. Thence S 01°52'35" E through the above-described parcel, a distance of 147.63 feet;

4. Thence S 34°44'12" W through the above-described parcel, a distance of 83.84 feet to a proposed conveyance to SSF&GPA;

5. Thence N 01°52'35" W along said proposed conveyance to SSF&GPA and remaining land of the City of Sanford, a distance of 314.93 feet;

6. Thence N 88°07'25" E through the above-described parcel, a distance of 200.00 feet to said land of Rubb Property, LLC;

7. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described right of way contains approximately 22,100 square feet or 0.51 acres.

Subject to an easement for berm access and maintenance being more particularly bounded and described as follows:

Beginning at the southwesterly corner of the above-described right of way and the easterly corner of the said proposed conveyance to SSF&GPA;

1. Thence N 34°44'12" E along the above-described right of way, a distance of 83.84 feet;

2. Thence S 01°52'35" E through the above-described parcel, a distance of 41.92 feet;

3. Thence S 34°44'12" W through the above-described parcel, a distance of 470.22 feet;

4. Thence N 55°15'48" W through the above-described parcel, a distance of 25.00 feet to said proposed conveyance to SSF&GPA;

5. Thence N 34°44'12" E along said proposed conveyance to SSF&GPA, a distance of 420.03 feet to the **Point of Beginning**.

The above-described berm access and maintenance easement contains approximately 12,176 square feet or 0.28 acres.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

Reference is made to a plan titled “Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA” last revised January 9, 2026 by Sebago Technics, Inc., job number 250132.

January 8, 2026
BKW:kn

Exhibit A

A certain parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of the parcel herein conveyed on the southeasterly sideline of land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the York County Registry of Deed (YCRD) in Book 19081, Page 480 bearing S 34°54'46" W along said land of Novel ME Land Holdings, LLC a distance of 720.00 feet from the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 16009, Page 717;

1. Thence S 55°05'14" E along a proposed conveyance to Rubb Property, LLC, a distance of 288.68 feet;

2. Thence S 01°52'35" E along a proposed conveyance to Rubb Property, LLC, a distance of 378.60 feet to a proposed conveyance to the Sanford-Springvale Fish & Game Protective Association (SSF&GPA);

3. Thence S 87°49'32" W along a proposed conveyance to the SSF&GPA, a distance of 260.01 feet;

4. Thence N 55°05'14" W along a proposed conveyance to the SSF&GPA, a distance of 308.00 feet to said land of Novel ME Land Holdings, LLC;

5. Thence N 34°54'46" E along said land of Novel ME Land Holdings, LLC, a distance of 460.00 feet to the **Point of Beginning**.

The above-described parcel contains approximately 4.28 acres.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

January 8, 2026
BKW:kn

AGREEMENT FOR PURCHASE AND SALE OF REAL ESTATE

This Agreement ("Agreement") is entered into by and between the **City of Sanford, Maine** a body corporate and politic with a mailing address of 919 Main Street, Sanford ME 04073, hereinafter called "Seller" and **Rubb Property, LLC,** a Maine limited liability company with a mailing address of 1 Rubb Lane, Sanford ME 04073, hereinafter referred to as "Buyer."

1. Purchase and Sale. Seller agrees to sell and convey to Buyer, and Buyer agrees to buy upon the terms and conditions hereinafter set forth, the land and buildings and improvements located westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, consisting of approximately 20.39 acres, together with appurtenant easements, being more particularly bounded and described in Exhibit A attached hereto. The property will be conveyed together with and subject to an avigation easement in accordance with FAA guidelines and all easements shown on the plan captioned "Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA" last revised August 6, 2026 by Sebago Technics, Inc., job number 250132, attached hereto as Exhibit A-1.

    a. The property will be conveyed with an option to acquire ownership, for no additional consideration, of one-half of the 4.28 acre adjacent land of the City of Sanford lying northeasterly of the parcel herein conveyed, if said city-owned parcel ceases to be used as a shooting range for the City's police department, as shown on Exhibit A-1. The option shall be delivered in a recordable form at closing.

    b. Buyer agrees to convey to Seller at closing a non-exclusive, perpetual right-of-way and pedestrian and vehicular access easement for ingress and egress over the Seller's property described in that certain deed dated April 23, 2021 and recorded at the York County Registry of Deeds in Book 18652, Page 467 in which Rubb Lane is located.

2. Purchase Price. Buyer agrees to pay to Seller for the property the sum of $90,750.00 subject to any adjustments and prorations described herein. The purchase price shall be payable as follows:

    a. Earnest Money Deposit. None

    b. Balance of Price. The full price of $90,750.00 shall be paid to Seller at the time of closing by certified funds.

3. Title. Seller shall convey the property by a duly executed municipal quitclaim deed free and clear of all encumbrances except for restrictions, covenants, easements, liens and encumbrances which do not adversely affect the current use of the property, usual public utilities serving the property, and those encumbrances referenced in Section 1 above. The conveyance hereunder shall be subject to applicable land use availability and zoning laws and regulations. In the event that Seller is not able to convey title as aforesaid, Seller shall make a good faith effort to remedy the matter in a reasonable time, not to exceed sixty (60) days. In the event that the matter cannot be remedied within such time, Buyer may elect to purchase the property notwithstanding such defects as may exist, with no reduction in the purchase price, or at Buyer's option this Agreement shall terminate.

4. Possession. Seller shall deliver possession to Buyer at the time of the closing.

5. Closing. The closing of this transaction shall occur November 3, 2026 at a time and place mutually agreeable to Seller and Buyer or on such earlier date as is mutually agreeable to Buyer and Seller.

6. Prorations. The property is city-owned. Therefore, there shall be no prorations of real estate taxes or utilities or any other assessments against the property.

7. Risk of Loss. The risk of loss or damage to the property by fire or otherwise until delivery of deed, is assumed by Seller, and Seller shall maintain fire and extended insurance coverage on the property until the closing. If, prior to the closing, there shall occur any material damage or destruction of the property by fire or otherwise, such that the property cannot be delivered in as good order and condition as the same now is, reasonable use and wear thereof only excepted, Buyer, at his option, may:

    a. either terminate this Agreement by giving Seller written notice thereof within 15 days of the occurrence of such damage or destruction, in which event, both the Seller and Buyer shall be released from all liability to the other hereunder, or

    b. require the consummation of this Agreement without a herein reduction in the purchase price, in which event the property shall be conveyed as provided, and all proceeds from insurance of the property shall be paid over to Buyer at closing, or upon receipt thereafter.

8. Default; Remedies. In the event that Buyer or Seller defaults on its obligations

under this Agreement, the non-breaching party shall have all available legal or equitable remedies, except that neither party shall be responsible for indirect, punitive or consequential damages.

9. Contingencies. The obligations of both Seller and Buyer under this Agreement are subject to the following contingencies:

    a. That a certain Agreement for Purchase and Sale of Real Estate entered into by the City of Sanford, as seller, and Sanford and Springvale Fish and Game Protective Association, Inc., as buyer, be consummated on the same date as the closing for this property.

    b. That the Seller obtain necessary releases or approvals from any state, local or federal authority, including without limitation the Federal Aviation Administration and Department of War.

    c. That Buyer may obtain a certification from a reputable environmental review company that the property is not in violation of any federal, state, or local law or regulation in regard to contamination of any kind such that liability for clean-up would fall upon Buyer as the owner of the property. If the results of any such environmental inspection is unsatisfactory to Buyer, Buyer may declare this Agreement null and void by notifying Seller on or before October 1, 2026.

    d. Buyer and its agents and representatives shall have the right of access to the property for inspection, surveying and/or engineering purposes prior to closing. Any such inspections or tests shall be a Buyer's cost. If the results of any inspection is unsatisfactory to Buyer, Buyer may declare this Agreement null and void by notifying Seller on or before October 1, 2026.

10. Seller's Warranties/Representations. The Seller makes the following warranties and representations which are being relied upon by Buyer all of which shall be true in all material aspects as of the closing:

    a. Seller is the owner of the property referred to and holds good and marketable title thereto.

    b. There are no judgments, liens, actions, claims or proceedings against Seller as owner of the property.

    c. To the best of Seller's knowledge without inquiry, there are no violations of

any kind pending or threatened against the property.

d. There are no contracts of any kind relating to the property or its operation which would be binding upon Buyer once Buyer takes possession which have not been disclosed in writing to Buyer and accepted by Buyer in writing as being binding on Buyer.

e. The Seller expressly warrants and represents that to the best of Seller's knowledge without inquiry there are no uncontrolled hazardous substances affecting the property which might give rise to a lien under federal or Maine law for the abatement, cleanup, or mitigation thereof. In the event that this representation should prove false, the Seller's obligations under this agreement shall terminate..

11. Buyer's Acknowledgement. Buyer acknowledges that the property is being sold "as is" and that except as specifically set forth in this Agreement, and notwithstanding any materials previously provided by Seller, Seller makes and has made no covenant, representation or warranty as to the suitability of the property for any purpose whatsoever or as to the physical condition of the property. Buyer hereby acknowledges that in determining the condition and suitability of the property for any purpose, Buyer will be relying solely on investigations conducted by it, its employees, agents or subcontractors.

12. Acceptance of Deed. The acceptance of the deed of conveyance by Buyer at the closing shall be deemed to be the full performance and discharge of every agreement, obligation and representation made on the part of Seller, except as expressly set forth herein or in such deed. The parties agree that none of the statements contained herein are collateral agreements. No statements, provisions, covenants, agreements, obligations, or representations contained herein shall survive the closing except as specifically stated herein. The property is being sold and will be conveyed "as is" without any representation or warranties as to habitability, merchantability, fitness, condition or otherwise. Neither party is relying upon any statements or representations not embodied in this Agreement.

13. Brokerage. Seller and Buyer represent and warrant to each other that neither party has engaged the services of any real estate broker with respect to this transaction. Buyer agrees to defend, indemnify and hold Seller and its agents harmless from any claims made by any broker should Buyer's representation in this paragraph be false. Seller agrees to defend, indemnify and hold Buyer and its agents harmless from any claims made by any broker should Seller's representation in this paragraph be false.

The foregoing indemnity shall include all legal fees and costs incurred in defense against any such claim.

14. Closing Costs. The Maine real estate transfer tax shall be paid by Seller and Buyer in accordance with 36 M.R.S.A. §4641-A. All inspections, survey costs, title exam and title insurance premium shall be paid by Buyer. The recording fee for the deed of conveyance and option to Buyer will be paid by Buyer. The recording fee for the easement to Seller and for any title clearance items shall be paid by Seller. Buyer and Seller shall each pay their respective attorney's fees.

15. Binding Effect. This Agreement shall inure to and be binding upon the heirs, successors, executors and assigns of the respective parties who execute this Agreement.

16. Construction. This Agreement sets forth the entire agreement between the parties, and there are no other agreements or understandings between them related to the subject matter hereof. As used in this Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. This Agreement shall be governed by and construed in accordance with the laws of Maine. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

17. Duplicate Originals. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original. Electronic or PDF signatures, including via DocuSign shall have the same effect as an original.

18. Effective Date. The effective date of this Agreement shall be the date it is signed by the last party to sign it.

[Remainder of Page Intentionally Left Blank]

Buyer: RUBB PROPERTY, LLC

By: _____ Date: _____, 2026
David C. Nickerson
Its: Manager

Seller: CITY OF SANFORD.

By: _____ Date: _____, 2026
Steven Buck
Its: City Manager

Exhibit A

A certain lot or parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the York County Registry of Deeds (YCRD) in Book 16009, Page 717 and land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the YCRD in Book 19081,
Page 480;

1. Thence S 01°52'35" E along said land of Rubb Property, LLC, other land of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, and land now or formerly of The Baker Company, Inc., a distance of 2,411.38 feet to remaining land of the City of Sanford;

2. Thence S 67°23'36" W along remaining land of the City of Sanford, a distance of 621.14 feet;

3. Thence N 01°32'35" E along remaining land of the City of Sanford, a distance of 291.14 feet;

4. Thence N 28°18'30" W along remaining land of the City of Sanford, a distance of 308.81 feet to land to be conveyed to the Sanford-Springvale Fish & Game Protective Association (SSF&GPA);

5. Thence N 34°44'12" E along said land to be conveyed to SSF&GPA, a distance of 840.07 feet;

6. Thence N 01°52'35" W along said land to be conveyed to SSF&GPA and remaining land of the City of Sanford, a distance of 640.28 feet;

7. Thence N 55°05'14" W along remaining land of the City of Sanford, a distance of 288.68 feet to said land of Novel ME Land Holdings LLC;

8. Thence N 34°54'46" E along said land of Novel ME Land Holdings LLC, a distance of 720.00 feet to the **Point of Beginning**.

The above-described parcel contains approximately 20.39 acres and is depicted on that certain plan titled “Lot Division Plan of a Portion of Sanford Seacoast Regional Airport

for Rubb USA" dated August 1, 2025, last revised August 8, 2026 by Sebago Technics, Inc., job number 250132 (the "Lot Division Plan") recorded at the YCRD in Plan Book _____, Page ____.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

MEANING AND INTENDING to convey a portion of the property conveyed to Grantor by those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded at the YCRD in Book 1113, Page 303 and Book 1116, Page 1 respectively.

THIS CONVEYANCE IS MADE **SUBJECT TO** an easement and related rights hereby reserved by Grantor and appurtenant to that portion of Grantor's retained land lying westerly of and adjacent to the above-described parcel, said easement and related rights being a right-of-way and pedestrian and vehicular access easement for ingress and egress to and from said portion of Grantor's retained land and the land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, as shown on the Lot Division Plan referenced below, including the right to use, clear, plow snow from, maintain, grade, pave, and repair the same, for the benefit of Grantor, its successors and assigns, in, on, over and under that portion of the above-described parcel as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through the above-described parcel, a distance of 200.00 feet to remaining land of the City of Sanford;

2. Thence N 01°52'35" W along remaining land of the City of Sanford, a distance of 50.00 feet;

3. Thence N 88°07'25" E through the above-described parcel, a distance of 200.00 feet to said land of Rubb Property, LLC;

4. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described right of way contains approximately 10,000 square feet.

The above-described easement and rights shall also include the right to lay, install, maintain, repair, replace and relocate within the easement area, any utilities serving said portions of Grantor's retained land, including, without limitation, facilities for the transmission of electricity, gas, telephone communications, cable television, internet, sewerage (include septic lines), water, storm runoff, or similar services which are now or may in the future become available.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden the above-described parcel and shall benefit and be appurtenant to said portion of Grantor's retained land and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** an easement and related rights hereby reserved by Grantor and appurtenant to that portion of Grantor's retained land lying westerly of and adjacent to the above-described parcel, to permit the existing earthen berm and related infrastructure to remain as presently located within the below described area of the above-described parcel and to allow Grantor and its successors and assigns the right to maintain, repair and replace said berm and related infrastructure, including the right to enter at all reasonable times, with personnel, material, machinery and equipment to conduct such activities, upon that portion of the above-described parcel as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at a point bearing N 01°52'35" W a distance of 168.63 feet from the northwesterly corner of the above-described right of way along remaining land of the City of Sanford;

1. Thence N 01°52'35" W along remaining land of the City of Sanford, a distance of 156.74 feet;

2. Thence S 37°17'03" E through the above-described parcel, a distance of 95.75 feet;

3. Thence S 33°18'29" W through the above-described parcel, a distance of 96.28 feet to the **Point of Beginning**.

The above-described easement contains approximately 4,348 square feet.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden the above-described parcel and shall benefit and be appurtenant to said portion of Grantor's retained land and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the terms and conditions of the easements and related rights granted by Grantor to said SSF&GPA by Municipal Quitclaim Deed of substantially even date herewith recorded at the YCRD in Book _____, Page ____.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the following easement and appurtenant rights and benefits reserved to the Grantor for the use and benefit of the public and appurtenant to the land comprising the Sanford Seacoast Regional Airport, as the same may be expanded, reduced or reconfigured from time to time. The appurtenant rights and benefits include the following uses, rights and restrictions:

The unobstructed use and passage of all types of aircraft in and through the airspace at any height or altitude above the surface of the above-described parcel.

The right of said aircraft to cause noise, vibrations, fumes, deposits of dust, fuel particles (incidental to the normal operation of aircraft), emissions, illumination, wake turbulence; fear, interference with sleep or communication, and any other effects associated with the normal operation of aircraft taking off, landing or operating in the vicinity of the Sanford Seacoast Regional Airport. The Grantee, for itself and its successors and assigns, acknowledges that such impacts may occur and shall not be deemed a nuisance.

As used herein, the term "aircraft" shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include jet, propeller-driven, civil, military or commercial aircraft, including helicopters, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whoever owned or operated.

The right to maintain the airspace above the above-described parcel free and clear of any structure, tree, vegetation, improvement, appurtenance, equipment, utility installation, or other object which penetrates any applicable federal, state or local imaginary surface, obstruction standard, or airspace protection surface associated with the Sanford Seacoast Regional Airport, including, without limitation, those

established by the Federal Aviation Administration ("FAA") in 14 CFR Part 77 or otherwise.

The Grantee agrees that during the life of this easement, no building, structure, tower, antenna, crane, tree, vegetation, solar installation, wind energy facility, or other object shall be erected, placed, allowed to grow, or maintained on the above-described parcel to a height that constitutes an obstruction to navigable airspace or otherwise violates applicable FAA standards, airport zoning requirements, or height limitations established by the Sanford Seacoast Regional Airport. The Grantee may not permit any places of public assembly or gatherings on the above-described parcel. (Examples: churches, schools, day care facilities, hospitals, restaurants, stadiums, office buildings, etc.).

The Grantee agrees to keep the above-described parcel free of the following: structures (permanent or temporary) that might create glare or contain misleading lights; residences; fuel handling and storage facilities; smoke generating activities; and any other structures or activities that create an airport hazard or interfere with airport operations, including uses that: (a) create electrical interference with navigational signals or communications; (b) impair visibility in the vicinity of the Sanford Seacoast Regional Airport; (c) produce glare or lighting that could confuse pilots or air traffic control personnel; (d) attract birds or wildlife hazardous to aircraft operations; or (e) otherwise endanger aircraft operations.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice except in emergencies, to enter the above-described parcel for inspection and enforcement of this easement and appurtenant rights.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice to the Grantee, to enter upon the above-described parcel to trim, cut, remove, mark, light, or otherwise mitigate any tree, vegetation, structure, or other obstruction that violates this easement, if the Grantee fails to do so within a reasonable period after notice. The reasonable cost thereof may be recovered from the Grantee.

To the extent permitted by law, the Grantee, for itself and its successors and assigns, hereby waives, releases, and forever discharges the Grantor and the Sanford Seacoast Regional Airport from claims for damages or compensation arising from: (a) aircraft noise and other ordinary and lawful airport operational impacts occurring after the date of this deed, or (b) caused by the Grantee’s violation of any aspect of this easement or appurtenant rights.

TO HAVE AND TO HOLD said easement and right of way, and all rights appertaining thereto unto the Grantor, its successors, and assigns, until the Sanford Seacoast Regional Airport shall be abandoned and shall cease to be used for public airport purposes. It is understood and agreed that all provisions herein shall run with the land and shall be binding upon the Grantee and all subsequent owners, tenants, and occupants of the above-described parcel and Grantee's successors and assigns until such time that the easement is extinguished.

Exhibit A-1
[Plan]

MUNICIPAL QUITCLAIM DEED

DLN: _____

The **CITY OF SANFORD,** a municipal corporation organized and existing under the laws of the State of Maine, with a mailing address of 919 Main Street, Sanford, Maine 04073 ("Grantor"), FOR CONSIDERATION PAID, does hereby remise, release, bargain, sell, convey and quitclaim to **RUBB PROPERTY, LLC,** a Maine limited liability company with a mailing address of 1 Rubb Lane, Sanford, Maine 04073 ("Grantee"), all its right, title and interest, in and to, certain real property, together with the buildings and improvements thereon, situated in Sanford, York County, Maine, and being more particularly described on Exhibit A attached hereto and made a part hereof.

IN WITNESS WHEREOF, the City of Sanford has caused this instrument to be signed in its corporate name by _____, its _____, duly authorized, this ___ day of _____, 2026.

ATTEST: CITY OF SANFORD

_____ By: _____
Print Name: Print Name:
Its

STATE OF MAINE
COUNTY OF YORK, SS. _____, 2026

PERSONALLY APPEARED the above-named _____, in his/her capacity as _____, of the City of Sanford, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and deed of said municipal corporation.

Before me,

_____
Name:
Notary Public / Attorney at Law
Notary commission expires:

Exhibit A

A certain lot or parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the York County Registry of Deeds ("YCRD") in Book 16009, Page 717 and land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the YCRD in Book 19081, Page 480;

1. Thence S 01°52'35" E along said land of Rubb Property, LLC, other land of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, and land now or formerly of The Baker Company, Inc., a distance of 2,411.38 feet to remaining land of Grantor;

2. Thence S 67°23'36" W along remaining land of Grantor, a distance of 621.14 feet;

3. Thence N 01°32'35" E along remaining land of Grantor, a distance of 291.14 feet;

4. Thence N 28°18'30" W along remaining land of Grantor, a distance of 308.81 feet to land of Sanford-Springvale Fish and Game Protective Association, Inc. ("SSF&GPA") as described in a Municipal Quitclaim Deed recorded at the YCRD in Book _____, Page ____;

5. Thence N 34°44'12" E along said land of SSF&GPA, a distance of 840.07 feet;

6. Thence N 01°52'35" W along said land of SSF&GPA and remaining land of Grantor, a distance of 640.28 feet;

7. Thence N 55°05'14" W along remaining land of Grantor, a distance of 288.68 feet to said land of Novel ME Land Holdings LLC;

8. Thence N 34°54'46" E along said land of Novel ME Land Holdings LLC, a distance of 720.00 feet to the **Point of Beginning**.

The above-described parcel contains approximately 20.39 acres and is depicted on that certain plan titled "Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA" dated August 1, 2025, last revised August 8, 2026 by Sebago Technics, Inc., job number 250132 (the "Lot Division Plan") recorded at the YCRD in Plan Book _____, Page ____.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

MEANING AND INTENDING to convey a portion of the property conveyed to Grantor by those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded at the YCRD in Book 1113, Page 303 and Book 1116, Page 1 respectively.

THIS CONVEYANCE IS MADE **SUBJECT TO** an easement and related rights hereby reserved by Grantor and appurtenant to that portion of Grantor's retained land lying westerly of and adjacent to the above-described parcel, said easement and related rights being a right-of-way and pedestrian and vehicular access easement for ingress and egress to and from said portion of Grantor's retained land and the land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, as shown on the Lot Division Plan referenced below, including the right to use, clear, plow snow from, maintain, grade, pave, and repair the same, for the benefit of Grantor, its successors and assigns, in, on, over and under that portion of the above-described parcel as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through the above-described parcel, a distance of 200.00 feet to remaining land of Grantor;

2. Thence N 01°52'35" W along remaining land of Grantor, a distance of 50.00 feet;

3. Thence N 88°07'25" E through the above-described parcel, a distance of 200.00 feet to said land of Rubb Property, LLC;

4. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described easement area contains approximately 10,000 square feet.

The above-described easement and rights shall also include the right to lay, install, maintain, repair, replace and relocate within the easement area, any utilities serving said portions of Grantor's retained land, including, without limitation, facilities for the transmission of electricity, gas, telephone communications, cable television, internet, sewerage (include septic lines), water, storm runoff, or similar services which are now or may in the future become available.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden the above-

described parcel and shall benefit and be appurtenant to said portion of Grantor's retained land and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** an easement and related rights hereby reserved by Grantor and appurtenant to that portion of Grantor's retained land lying westerly of and adjacent to the above-described parcel, to permit the existing earthen berm and related infrastructure to remain as presently located within the below described area of the above-described parcel and to allow Grantor and its successors and assigns the right to maintain, repair and replace said berm and related infrastructure, including the right to enter at all reasonable times, with personnel, material, machinery and equipment to conduct such activities, upon that portion of the above-described parcel as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at a point bearing N 01°52'35" W a distance of 168.63 feet from the northwesterly corner of the above-described right of way along remaining land of Grantor;

1. Thence N 01°52'35" W along remaining land of Grantor, a distance of 156.74 feet;

2. Thence S 37°17'03" E through the above-described parcel, a distance of 95.75 feet;

3. Thence S 33°18'29" W through the above-described parcel, a distance of 96.28 feet to the **Point of Beginning**.

The above-described easement area contains approximately 4,348 square feet.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden the above-described parcel and shall benefit and be appurtenant to said portion of Grantor's retained land and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the terms and conditions of the easements and related rights granted by Grantor to said SSF&GPA by Municipal Quitclaim Deed of substantially even date herewith recorded at the YCRD in Book _____, Page ____.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the following easement and appurtenant rights and benefits reserved to the Grantor for the use and benefit of the public and appurtenant to the land comprising the Sanford Seacoast Regional Airport, as the same may be expanded, reduced or reconfigured from time to time. The appurtenant rights and benefits include the following uses, rights and restrictions:

The unobstructed use and passage of all types of aircraft in and through the airspace at

any height or altitude above the surface of the above-described parcel.

The right of said aircraft to cause noise, vibrations, fumes, deposits of dust, fuel particles (incidental to the normal operation of aircraft), emissions, illumination, wake turbulence; fear, interference with sleep or communication, and any other effects associated with the normal operation of aircraft taking off, landing or operating in the vicinity of the Sanford Seacoast Regional Airport. The Grantee, for itself and its successors and assigns, acknowledges that such impacts may occur and shall not be deemed a nuisance.

As used herein, the term “aircraft” shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include jet, propeller-driven, civil, military or commercial aircraft, including helicopters, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whoever owned or operated.

The right to maintain the airspace above the above-described parcel free and clear of any structure, tree, vegetation, improvement, appurtenance, equipment, utility installation, or other object which penetrates any applicable federal, state or local imaginary surface, obstruction standard, or airspace protection surface associated with the Sanford Seacoast Regional Airport, including, without limitation, those established by the Federal Aviation Administration ("FAA") in 14 CFR Part 77 or otherwise.

The Grantee agrees that during the life of this easement, no building, structure, tower, antenna, crane, tree, vegetation, solar installation, wind energy facility, or other object shall be erected, placed, allowed to grow, or maintained on the above-described parcel to a height that constitutes an obstruction to navigable airspace or otherwise violates applicable FAA standards, airport zoning requirements, or height limitations established by the Sanford Seacoast Regional Airport. The Grantee may not permit any places of public assembly or gatherings on the above-described parcel. (Examples: churches, schools, day care facilities, hospitals, restaurants, stadiums, office buildings, etc.).

The Grantee agrees to keep the above-described parcel free of the following: structures (permanent or temporary) that might create glare or contain misleading lights; residences; fuel handling and storage facilities; smoke generating activities; and any other structures or activities that create an airport hazard or interfere with airport operations, including uses that: (a) create electrical interference with navigational signals or communications; (b) impair visibility in the vicinity of the Sanford Seacoast Regional Airport; (c) produce glare or lighting that could confuse pilots or air traffic control personnel; (d) attract birds or wildlife hazardous to aircraft operations; or (e) otherwise endanger aircraft operations.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice except in emergencies, to enter the above-described parcel for inspection and enforcement of this easement and appurtenant rights.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice to the Grantee, to enter upon the above-described parcel to trim, cut, remove, mark, light, or

otherwise mitigate any tree, vegetation, structure, or other obstruction that violates this easement, if the Grantee fails to do so within a reasonable period after notice. The reasonable cost thereof may be recovered from the Grantee.

To the extent permitted by law, the Grantee, for itself and its successors and assigns, hereby waives, releases, and forever discharges the Grantor and the Sanford Seacoast Regional Airport from claims for damages or compensation arising from: (a) aircraft noise and other ordinary and lawful airport operational impacts occurring after the date of this deed, or (b) caused by the Grantee's violation of any aspect of this easement or appurtenant rights.

TO HAVE AND TO HOLD said easement and right of way, and all rights appertaining thereto unto the Grantor, its successors, and assigns, until the Sanford Seacoast Regional Airport shall be abandoned and shall cease to be used for public airport purposes. It is understood and agreed that all provisions herein shall run with the land and shall be binding upon the Grantee and all subsequent owners, tenants, and occupants of the above-described parcel and Grantee's successors and assigns until such time that the easement is extinguished.

AGREEMENT FOR PURCHASE AND SALE OF REAL ESTATE

This Agreement ("Agreement") is entered into by and between the **City of Sanford, Maine** a body corporate and politic with a mailing address of 919 Main Street, Sanford ME 04073, hereinafter called "Seller" and **Sanford and Springvale Fish and Game Protective Association, Inc.** a Maine non-profit corporation with a mailing address of 449 Country Club Road, Sanford ME 04073, hereinafter referred to as "Buyer."

1. Purchase and Sale. Seller agrees to sell and convey to Buyer, and Buyer agrees to buy upon the terms and conditions hereinafter set forth, the land and buildings and improvements located westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, consisting of approximately 15.40 acres, together with appurtenant easements, being more particularly bounded and described in Exhibit A attached hereto. The property will be conveyed together with and subject to an avigation easement in accordance with FAA guidelines and all easements shown on the plan captioned "Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA" last revised August 6, 2026 by Sebago Technics, Inc., job number 250132, attached hereto as Exhibit A-1.

    a. The property will be conveyed with an option to acquire ownership, for no additional consideration, of one-half of the 4.28 acre adjacent land of the City of Sanford lying northeasterly of the parcel herein conveyed, if said city-owned parcel ceases to be used as a shooting range for the City's police department, as shown on Exhibit A-1. The option shall be delivered in a recordable form at closing.

2. Purchase Price. Buyer agrees to pay to Seller for the property the sum of $74,250.00 subject to any adjustments and prorations described herein. The purchase price shall be payable as follows:

    a. Earnest Money Deposit. None

    b. Balance of Price. The full price of $74,250.00 shall be paid to Seller at the time of closing by certified funds.

3. Title. Seller shall convey the property by a duly executed municipal quitclaim deed free and clear of all encumbrances except for restrictions, covenants, easements, liens and encumbrances which do not adversely affect the current use of

the property, usual public utilities serving the property, and those encumbrances referenced in Section 1 above. The conveyance hereunder shall be subject to applicable land use availability and zoning laws and regulations. In the event that Seller is not able to convey clear title, Seller shall make a good faith effort to remedy the matter in a reasonable time, not to exceed sixty (60) days. In the event that the matter cannot be remedied within such time, Buyer may elect to purchase the property notwithstanding such defects as may exist, with no reduction in the purchase price, or at Buyer's option this Agreement shall terminate.

4. Possession. Seller shall deliver possession to Buyer at the time of the closing.

5. Closing. The closing of this transaction shall occur November 3, 2026 at a time and place mutually agreeable to Seller and Buyer or on such earlier date as is mutually agreeable to Buyer and Seller.

6. Prorations. The property is city-owned. Therefore, there shall be no prorations of real estate taxes or utilities or any other assessments against the property.

7. Risk of Loss. The risk of loss or damage to the property by fire or otherwise until delivery of deed, is assumed by Seller, and Seller shall maintain fire and extended insurance coverage on the property until the closing. If, prior to the closing, there shall occur any material damage or destruction of the property by fire or otherwise, such that the property cannot be delivered in as good order and condition as the same now is, reasonable use and wear thereof only excepted, Buyer, at his option, may:

    a. either terminate this Agreement by giving Seller written notice thereof within 15 days of the occurrence of such damage or destruction, in which event, both the Seller and Buyer shall be released from all liability to the other hereunder, or

    b. require the consummation of this Agreement without a herein reduction in the purchase price, in which event the property shall be conveyed as provided, and all proceeds from insurance of the property shall be paid over to Buyer at closing, or upon receipt thereafter.

8. Default; Remedies. In the event that Buyer or Seller defaults on its obligations under this Agreement, the non-breaching party shall have all available legal or equitable remedies, except that neither party shall be responsible for indirect, punitive or consequential damages.

9. Contingencies. The obligations of both Seller and Buyer under this contract are subject to the following contingencies:

    a. That a certain Agreement for Purchase and Sale of Real Estate entered into by the City of Sanford, as seller, and Rubb Property, LLC, as buyer, be consummated on the same date as the closing for this property.

    b. That the Seller obtain necessary releases or approvals from any state, local or federal authority, including without limitation the Federal Aviation Administration and Department of War.

    c. That Buyer may obtain a certification from a reputable environmental review company that the property is not in violation of any federal, state, or local law or regulation in regard to contamination of any kind such that liability for clean-up would fall upon Buyer as the owner of the property. If the results of any such environmental inspection is unsatisfactory to Buyer, Buyer may declare this Agreement null and void by notifying Seller on or before October 1, 2026.

    d. Buyer and its agents and representatives shall have the right of access to the property for inspection, surveying and/or engineering purposes prior to closing. Any such inspections or tests shall be a Buyer's cost. If the results of any inspection is unsatisfactory to Buyer, Buyer may declare this Agreement null and void by notifying Seller on or before October 1, 2026.

10. Seller's Warranties/Representations. The Seller makes the following warranties and representations which are being relied upon by Buyer all of which shall be true and correct in all material respects as of the closing:

    a. Seller is the owner of the property referred to and holds good and marketable title thereto.

    b. There are no judgments, liens, actions, claims or proceedings against Seller as owner of the property.

    c. To the best of Seller's knowledge without inquiry, there are no violations of any kind pending or threatened against the property.

    d. There are no contracts of any kind relating to the property or its operation which would be binding upon Buyer once Buyer takes possession which have not been disclosed in writing to Buyer and accepted by Buyer in

writing as being binding on Buyer.

e. The Seller expressly warrants and represents that to the best of Seller's knowledge without inquiry there are no uncontrolled hazardous substances affecting the property which might give rise to a lien under federal or Maine law for the abatement, cleanup, or mitigation thereof. In the event that this representation should prove false, the Seller's obligations under this agreement shall terminate.

11. Buyer's Acknowledgement. Buyer acknowledges that the property is being sold "as is" and that except as specifically set forth in this Agreement, and notwithstanding any materials previously provided by Seller, Seller makes and has made no covenant, representation or warranty as to the suitability of the property for any purpose whatsoever or as to the physical condition of the property. Buyer hereby acknowledges that in determining the condition and suitability of the property for any purpose, Buyer will be relying solely on investigations conducted by it, its employees, agents or subcontractors.

12. Acceptance of Deed. The acceptance of the deed of conveyance by Buyer at the closing shall be deemed to be the full performance and discharge of every agreement, obligation and representation made on the part of Seller, except as expressly set forth herein or in such deed. The parties agree that none of the statements contained herein are collateral agreements. No statements, provisions, covenants, agreements, obligations, or representations contained herein shall survive the closing except as specifically stated herein. The property is being sold and will be conveyed "as is" without any representation or warranties as to habitability, merchantability, fitness, condition or otherwise. Neither party is relying upon any statements or representations not embodied in this Agreement.

13. Brokerage. Seller and Buyer represent and warrant to each other that neither party has engaged the services of any real estate broker with respect to this transaction. Buyer agrees to defend, indemnify and hold Seller and its agents harmless from any claims made by any broker should Buyer's representation in this paragraph be false. Seller agrees to defend, indemnify and hold Buyer and its agents harmless from any claims made by any broker should Seller's representation in this paragraph be false. The foregoing indemnity shall include all legal fees and costs incurred in defense against any such claim.

14. Closing Costs. The Maine real estate transfer tax shall be paid by Seller and Buyer in accordance with 36 M.R.S.A. §4641-A. All inspections, survey costs, title exam and title insurance premium shall be paid by Buyer. The recording fee for the deed

of conveyance to Buyer will be paid by Buyer. The recording fee for the easement to Seller and for any title clearance items shall be paid by Seller. Buyer and Seller shall each pay their respective attorney's fees.

15. Binding Effect. This Agreement shall inure to and be binding upon the heirs, successors, executors and assigns of the respective parties who execute this Agreement.

16. Construction. This Agreement sets forth the entire agreement between the parties, and there are no other agreements or understandings between them related to the subject matter hereof. As used in this Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. This Agreement shall be governed by and construed in accordance with the laws of Maine. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

17. Duplicate Originals. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original. Electronic or PDF signatures, including via DocuSign shall have the same effect as an original.

18. Effective Date. The effective date of this Agreement shall be the date it is signed by the last party to sign it.

[Remainder of Page Intentionally Left Blank]

Buyer: SANFORD AND SPRINGVALE FISH AND GAME PROTECTIVE ASSOCIATION, INC.

By: _____ Date: _____, 2026
Mark Adler
Its: President

Seller: CITY OF SANFORD.

By: _____ Date: _____, 2026
Steven Buck
Its: City Manager

Exhibit A

A certain lot or parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of the parcel herein conveyed on the southeasterly sideline of land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the York County Registry of Deed (YCRD) in Book 19081, Page 480 bearing S 34°54'46" W along said land of Novel ME Land Holdings, LLC a distance of 1,180.00 feet from the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 16009, page 717;

1. Thence S 55°05'14" E along remaining land of the City of Sanford, a distance of 308.00 feet;

2. Thence N 87°49'32" E along remaining land of the City of Sanford, a distance of 260.01 feet to a proposed conveyance to Rubb Property, LLC;

3. Thence S 01°52'35" E along said proposed conveyance to Rubb Property, LLC, a distance of 261.68 feet;

4. Thence S 34°44'12" W along said proposed conveyance to Rubb Property, LLC, a distance of 840.07 feet;

5. Thence N 56°38'20" W along remaining land of City of Sanford, a distance of 242.91 feet;

6. Thence N 60°49'58" W along remaining land of City of Sanford, a distance of 178.75 feet;

7. Thence S 77°13'48" W along remaining land of City of Sanford, a distance of 377.35 feet to said land of Novel ME Land Holdings, LLC;

8. Thence N 34°54'46" E along said land of Novel ME Land Holdings, LLC, a distance of 1,196.33 feet to the **Point of Beginning**.

The above-described lot or parcel contains approximately 15.40 acres and is depicted on that certain plan titled “Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA” dated August 1, 2025, last revised August 8, 2026 by Sebago Technics, Inc., job number 250132 (the “Lot Division Plan”) recorded at the YCRD in

Plan Book _____, Page ____.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

MEANING AND INTENDING to convey a portion of the property conveyed to Grantor by those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded at the YCRD in Book 1113, Page 303 and Book 1116, Page 1 respectively.

THIS CONVEYANCE IS MADE **TOGETHER WITH** the benefit of the non-exclusive easement and right-of-way granted to Grantor by Rubb Property, LLC as described in that certain Easement Deed recorded at the YCRD in Book _____, Page ____, and depicted as "RUBB LANE" on the Lot Division Plan.
THIS CONVEYANCE IS ALSO MADE **TOGETHER WITH** the benefit of a non-exclusive easement and related rights over a portion of Grantor's retained land lying easterly and southeasterly of and adjacent to the above-described parcel which is contemplated to be conveyed to Rubb Property, LLC by Municipal Quitclaim Deed of substantially even date herewith to be recorded at YCRD, said easement and related rights being a right-of-way and pedestrian and vehicular access easement for ingress and egress to and from the above-described parcel and the land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, as shown on the Lot Division Plan, including the right to use, clear, plow snow from, maintain, grade, pave, and repair the same, for the benefit of Grantee, its successors and assigns, in, on, over and under the easement area located within said portion of Grantor's retained land as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through a proposed conveyance to Rubb Property, LLC, a distance of 100.00 feet;

2. Thence through a proposed conveyance to Rubb Property, LLC following a curve to the left with a radius of 50.00, an arc length of 78.54 feet, and a chord which bears S 43°07'25" W, a distance of 70.71 feet;

3. Thence S 01°52'35" E through a proposed conveyance to Rubb Property, LLC, a

distance of 147.63 feet;

4. Thence S 34°44'12" W through a proposed conveyance to Rubb Property, LLC, a distance of 83.84 feet to the above-described parcel;

5. Thence N 01°52'35" W along the above-described parcel and remaining land of the City of Sanford, a distance of 314.93 feet;

6. Thence N 88°07'25" E though a proposed conveyance to Rubb Property, LLC, a distance of 200.00 feet to said land of Rubb Property, LLC;

7. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described right of way contains approximately 22,100 square feet or 0.51 acres.

The above-described easement and rights shall also include the right to lay, install, maintain, repair, replace and relocate within the easement area, any utilities serving the above described parcel, including, without limitation, facilities for the transmission of electricity, gas, telephone communications, cable television, internet, sewerage (include septic lines), water, storm runoff, or similar services which are now or may in the future become available.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden said portion of Grantor's retained land and shall benefit and be appurtenant to the above-described parcel and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **TOGETHER WITH** the benefit of an easement and related rights over a portion of Grantor's retained land lying southeasterly of and adjacent to the above-described parcel which is contemplated to be conveyed to Rubb Property, LLC by Municipal Quitclaim Deed of substantially even date herewith to be recorded at YCRD, to permit the existing earthen berm and related infrastructure to remain as presently located within the below described easement area of said portion of Grantor's retained land and to allow Grantee and its successors and assigns the right to maintain, repair and replace said berm and related infrastructure, including the right to enter at all reasonable times, with personnel, material, machinery and equipment to conduct such activities, upon the easement area located within said portion of Grantor's

retained land as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the southwesterly corner of the above-described right of way and the easterly corner of the above-described parcel;

1. Thence N 34°44'12" E along the above-described right of way and through a proposed conveyance to Rubb Property, LLC, a distance of 83.84 feet;

2. Thence S 01°52'35" E through a proposed conveyance to Rubb Property, LLC, a distance of
   41.92 feet;

3. Thence S 34°44'12" W through a proposed conveyance to Rubb Property, LLC, a distance of 470.22;

4. Thence N 55°15'48" W through a proposed conveyance to Rubb Property, LLC, a distance of
   25.00 feet to the above-described parcel;

5. Thence N 34°44'12" E along the above-described parcel, a distance of 420.03 feet to the **Point of Beginning**.

The above-described berm access and maintenance easement contains approximately 12,176 square feet or 0.28 acres.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden said portion of Grantor's retained land and shall benefit and be appurtenant to the above-described parcel and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the following easement and appurtenant rights and benefits reserved to the Grantor for the use and benefit of the public and appurtenant to the land comprising the Sanford Seacoast Regional Airport, as the same may be expanded, reduced or reconfigured from time to time. The appurtenant rights and benefits include the following uses, rights and restrictions:

The unobstructed use and passage of all types of aircraft in and through the airspace at any height or altitude above the surface of the above-described parcel.

The right of said aircraft to cause noise, vibrations, fumes, deposits of dust, fuel particles (incidental to the normal operation of aircraft), emissions, illumination, wake turbulence; fear, interference with sleep or communication, and any other effects associated with the normal operation of aircraft taking off, landing or operating in the vicinity of the Sanford Seacoast Regional Airport. The Grantee, for itself and its successors and assigns, acknowledges that such impacts may occur and shall not be deemed a nuisance.

As used herein, the term “aircraft” shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include jet, propeller-driven, civil, military or commercial aircraft, including helicopters, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whoever owned or operated.

The right to maintain the airspace above the above-described parcel free and clear of any structure, tree, vegetation, improvement, appurtenance, equipment, utility installation, or other object which penetrates any applicable federal, state or local imaginary surface, obstruction standard, or airspace protection surface associated with the Sanford Seacoast Regional Airport, including, without limitation, those established by the Federal Aviation Administration ("FAA") in 14 CFR Part 77 or otherwise.

The Grantee agrees that during the life of this easement, no building, structure, tower, antenna, crane, tree, vegetation, solar installation, wind energy facility, or other object shall be erected, placed, allowed to grow, or maintained on the above-described parcel to a height that constitutes an obstruction to navigable airspace or otherwise violates applicable FAA standards, airport zoning requirements, or height limitations established by the Sanford Seacoast Regional Airport. The Grantee may not permit any places of public assembly or gatherings on the above-described parcel. (Examples: churches, schools, day care facilities, hospitals, restaurants, stadiums, office buildings, etc.).

The Grantee agrees to keep the above-described parcel free of the following: structures (permanent or temporary) that might create glare or contain misleading lights; residences; fuel handling and storage facilities; smoke generating activities; and any other structures or activities that create an airport hazard or interfere with airport operations, including uses that: (a) create electrical interference with navigational signals or communications; (b) impair visibility in the vicinity of the Sanford Seacoast Regional Airport; (c) produce glare or lighting that could confuse pilots or air traffic control personnel; (d) attract birds or wildlife hazardous

to aircraft operations; or (e) otherwise endanger aircraft operations.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice except in emergencies, to enter the above-described parcel for inspection and enforcement of this easement and appurtenant rights.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice to the Grantee, to enter upon the above-described parcel to trim, cut, remove, mark, light, or otherwise mitigate any tree, vegetation, structure, or other obstruction that violates this easement, if the Grantee fails to do so within a reasonable period after notice. The reasonable cost thereof may be recovered from the Grantee.

To the extent permitted by law, the Grantee, for itself and its successors and assigns, hereby waives, releases, and forever discharges the Grantor and the Sanford Seacoast Regional Airport from claims for damages or compensation arising from: (a) aircraft noise and other ordinary and lawful airport operational impacts occurring after the date of this deed, or (b) caused by the Grantee's violation of any aspect of this easement or appurtenant rights.

TO HAVE AND TO HOLD said easement and right of way, and all rights appertaining thereto unto the Grantor, its successors, and assigns, until the Sanford Seacoast Regional Airport shall be abandoned and shall cease to be used for public airport purposes. It is understood and agreed that all provisions herein shall run with the land and shall be binding upon the Grantee and all subsequent owners, tenants, and occupants of the above-described parcel and Grantee's successors and assigns until such time that the easement is extinguished.

Exhibit A-1
[Plan]

MUNICIPAL QUITCLAIM DEED

DLN: _____

The **CITY OF SANFORD,** a municipal corporation organized and existing under the laws of the State of Maine, with a mailing address of 919 Main Street, Sanford, Maine 04073 ("Grantor"), FOR CONSIDERATION PAID, does hereby remise, release, bargain, sell, convey and quitclaim to **SANFORD SPRINGVALE FISH AND GAME PROTECTIVE ASSOCIATION, INC,** a Maine non-profit corporation with a mailing address of 449 Country Club Road, Sanford, Maine 04073 ("Grantee"), all its right, title and interest, in and to, certain real property, together with the buildings and improvements thereon, situated in Sanford, York County, Maine, and being more particularly described on Exhibit A attached hereto and made a part hereof.

IN WITNESS WHEREOF, the City of Sanford has caused this instrument to be signed in its corporate name by _____, its _____, duly authorized, this ___ day of _____, 2026.

ATTEST: CITY OF SANFORD

_____ By: _____
Print Name: Print Name:
Its

STATE OF MAINE
COUNTY OF YORK, SS. _____, 2026

PERSONALLY APPEARED the above-named _____, in his/her capacity as _____, of the City of Sanford, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and deed of said municipal corporation.

Before me,
_____
Name:
Notary Public / Attorney at Law
Notary commission expires:

Exhibit A

A certain lot or parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of the parcel herein conveyed on the southeasterly sideline of land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the York County Registry of Deed (YCRD) in Book 19081, Page 480 bearing S 34°54'46" W along said land of Novel ME Land Holdings, LLC a distance of 1,180.00 feet from the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 16009, page 717;

1. Thence S 55°05'14" E along remaining land of Grantor, a distance of 308.00 feet;

2. Thence N 87°49'32" E along remaining land of Grantor, a distance of 260.01 feet to a proposed conveyance to Rubb Property, LLC;

3. Thence S 01°52'35" E along said proposed conveyance to Rubb Property, LLC, a distance of
261.68 feet;

4. Thence S 34°44'12" W along said proposed conveyance to Rubb Property, LLC, a distance of
840.07 feet;

5. Thence N 56°38'20" W along remaining land of Grantor, a distance of 242.91 feet;

6. Thence N 60°49'58" W along remaining land of Grantor, a distance of 178.75 feet;

7. Thence S 77°13'48" W along remaining land of Grantor, a distance of 377.35 feet to said land of Novel ME Land Holdings, LLC;

8. Thence N 34°54'46" E along said land of Novel ME Land Holdings, LLC, a distance of 1,196.33 feet to the **Point of Beginning**.

The above-described parcel contains approximately 15.40 acres and is depicted on that certain plan titled “Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA” dated August 1, 2025, last revised August 8, 2026 by Sebago Technics, Inc., job number 250132 (the “Lot Division Plan”) recorded at the YCRD in Plan Book _____, Page ____.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

MEANING AND INTENDING to convey a portion of the property conveyed to Grantor by those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded at the YCRD in Book 1113, Page 303 and Book 1116, Page 1 respectively.

THIS CONVEYANCE IS MADE **TOGETHER WITH** the benefit of the non-exclusive easement and right-of-way granted to Grantor by Rubb Property, LLC as described in that certain Easement Deed recorded at the YCRD in Book _____, Page ____, and depicted as "RUBB LANE" on the Lot Division Plan.

THIS CONVEYANCE IS ALSO MADE **TOGETHER WITH** the benefit of a non-exclusive easement and related rights over a portion of Grantor's retained land lying easterly and southeasterly of and adjacent to the above-described parcel which is contemplated to be conveyed to Rubb Property, LLC by Municipal Quitclaim Deed of substantially even date herewith to be recorded at YCRD, said easement and related rights being a right-of-way and pedestrian and vehicular access easement for ingress and egress to and from the above-described parcel and the land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, as shown on the Lot Division Plan, including the right to use, clear, plow snow from, maintain, grade, pave, and repair the same, for the benefit of Grantee, its successors and assigns, in, on, over and under the easement area located within said portion of Grantor's retained land as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through said portion of Grantor's retained land a distance of 100.00 feet;

2. Thence through said portion of Grantor's retained land following a curve to the left with a radius of 50.00, an arc length of 78.54 feet, and a chord which bears S 43°07'25" W, a distance of 70.71 feet;

3. Thence S 01°52'35" E through said portion of Grantor's retained land, a distance of 147.63 feet;

4. Thence S 34°44'12" W through said portion of Grantor's retained land, a distance of 83.84 feet to the above-described parcel;

5. Thence N 01°52'35" W along the above-described parcel and said portion of Grantor's retained land, a distance of 314.93 feet;

6. Thence N 88°07'25" E though said portion of Grantor's retained land, a distance of 200.00 feet to said land of Rubb Property, LLC;

7. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described easement area contains approximately 22,100 square feet or 0.51 acres.

The above-described easement and rights shall also include the right to lay, install, maintain, repair, replace and relocate within the easement area, any utilities serving the above described parcel, including, without limitation, facilities for the transmission of electricity, gas, telephone communications, cable television, internet, sewerage (include septic lines), water, storm runoff, or similar services which are now or may in the future become available.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden said portion of Grantor's retained land and shall benefit and be appurtenant to the above-described parcel and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **TOGETHER WITH** the benefit of an easement and related rights over a portion of Grantor's retained land lying southeasterly of and adjacent to the above-described parcel which is contemplated to be conveyed to Rubb Property, LLC by Municipal Quitclaim Deed of substantially even date herewith to be recorded at YCRD, to permit the existing earthen berm and related infrastructure to remain as presently located within the below described easement area of said portion of Grantor's retained land and to allow Grantee and its successors and assigns the right to maintain, repair and replace said berm and related infrastructure, including the right to enter at all reasonable times, with personnel, material, machinery and equipment to conduct such activities, upon the easement area located within said portion of Grantor's retained land as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the southwesterly corner of the above-described right of way and the easterly corner of the said proposed conveyance to SSF&GPA;

1. Thence N 34°44'12" E along the above-described right of way, a distance of 83.84 feet;

2. Thence S 01°52'35" E through said portion of Grantor's remaining land, a distance of 41.92 feet;

3. Thence S 34°44'12" W through said portion of Grantor's remaining land, a distance of 470.22 feet;

4. Thence N 55°15'48" W through said portion of Grantor's remaining land, a distance of 25.00 feet to said proposed conveyance to SSF&GPA;

5. Thence N 34°44'12" E along the above-described parcel, a distance of 420.03 feet to the **Point of Beginning**.

The above-described easement area contains approximately 12,176 square feet or 0.28 acres.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden said portion of Grantor's retained land and shall benefit and be appurtenant to the above-described parcel and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the following easement and appurtenant rights and benefits reserved to the Grantor for the use and benefit of the public and appurtenant to the land comprising the Sanford Seacoast Regional Airport, as the same may be expanded, reduced or reconfigured from time to time. The appurtenant rights and benefits include the following uses, rights and restrictions:

The unobstructed use and passage of all types of aircraft in and through the airspace at any height or altitude above the surface of the above-described parcel.

The right of said aircraft to cause noise, vibrations, fumes, deposits of dust, fuel particles (incidental to the normal operation of aircraft), emissions, illumination, wake turbulence; fear, interference with sleep or communication, and any other effects associated with the normal operation of aircraft taking off, landing or operating in the vicinity of the Sanford Seacoast Regional Airport. The Grantee, for itself and its successors and assigns, acknowledges that such impacts may occur and shall not be deemed a nuisance.

As used herein, the term "aircraft" shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include jet, propeller-driven, civil, military or commercial aircraft, including helicopters, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whoever owned or operated.

The right to maintain the airspace above the above-described parcel free and clear of any structure, tree, vegetation, improvement, appurtenance, equipment, utility installation, or other object which penetrates any applicable federal, state or local imaginary surface, obstruction standard, or airspace protection surface associated with the Sanford Seacoast Regional Airport, including, without limitation, those established by the Federal Aviation Administration ("FAA") in 14 CFR Part 77 or otherwise.

The Grantee agrees that during the life of this easement, no building, structure, tower,

antenna, crane, tree, vegetation, solar installation, wind energy facility, or other object shall be erected, placed, allowed to grow, or maintained on the above-described parcel to a height that constitutes an obstruction to navigable airspace or otherwise violates applicable FAA standards, airport zoning requirements, or height limitations established by the Sanford Seacoast Regional Airport. The Grantee may not permit any places of public assembly or gatherings on the above-described parcel. (Examples: churches, schools, day care facilities, hospitals, restaurants, stadiums, office buildings, etc.).

The Grantee agrees to keep the above-described parcel free of the following: structures (permanent or temporary) that might create glare or contain misleading lights; residences; fuel handling and storage facilities; smoke generating activities; and any other structures or activities that create an airport hazard or interfere with airport operations, including uses that: (a) create electrical interference with navigational signals or communications; (b) impair visibility in the vicinity of the Sanford Seacoast Regional Airport; (c) produce glare or lighting that could confuse pilots or air traffic control personnel; (d) attract birds or wildlife hazardous to aircraft operations; or (e) otherwise endanger aircraft operations.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice except in emergencies, to enter the above-described parcel for inspection and enforcement of this easement and appurtenant rights.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice to the Grantee, to enter upon the above-described parcel to trim, cut, remove, mark, light, or otherwise mitigate any tree, vegetation, structure, or other obstruction that violates this easement, if the Grantee fails to do so within a reasonable period after notice. The reasonable cost thereof may be recovered from the Grantee.

To the extent permitted by law, the Grantee, for itself and its successors and assigns, hereby waives, releases, and forever discharges the Grantor and the Sanford Seacoast Regional Airport from claims for damages or compensation arising from: (a) aircraft noise and other ordinary and lawful airport operational impacts occurring after the date of this deed, or (b) caused by the Grantee’s violation of any aspect of this easement or appurtenant rights.

TO HAVE AND TO HOLD said easement and right of way, and all rights appertaining thereto unto the Grantor, its successors, and assigns, until the Sanford Seacoast Regional Airport shall be abandoned and shall cease to be used for public airport purposes. It is understood and agreed that all provisions herein shall run with the land and shall be binding upon the Grantee and all subsequent owners, tenants, and occupants of the above-described parcel and Grantee’s successors and assigns until such time that the easement is extinguished.

MUNICIPAL QUITCLAIM DEED

The **CITY OF SANFORD,** a municipal corporation organized and existing under the laws of the State of Maine, with a mailing address of 919 Main Street, Sanford, Maine 04073, as owner of the real property located at 199 Airport Road, Sanford, Maine known as the Sanford Seacoast Regional Airport and identified as Sanford Tax Lot R18A-16 and more fully described in those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded in the York County Registry of Deeds in Book 1113, Page 303 and Book 1116, Page 1 respectively (the "Airport Parcel"), FOR CONSIDERATION PAID, hereby grants to itself, the **CITY OF SANFORD,** a municipal corporation organized and existing under the laws of the State of Maine, with a mailing address of 919 Main Street, Sanford, Maine 04073, that certain portion of the Airport Parcel described on Exhibit A attached hereto and made a part hereof.

The purpose of this deed is to sever the parcel hereby conveyed from the Airport Parcel.

IN WITNESS WHEREOF, the City of Sanford has caused this instrument to be signed in its corporate name by _____, its _____, duly authorized, this ___ day of _____, 2026.

ATTEST: CITY OF SANFORD

_____ By: _____
Print Name: Print Name:
Its

STATE OF MAINE
COUNTY OF YORK, SS. _____, 2026

PERSONALLY APPEARED the above-named _____, in his/her capacity as _____, of the City of Sanford, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and deed of said municipal corporation.

Before me,

_____
Name:
Notary Public / Attorney at Law
Notary commission expires:

Exhibit A

A certain parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of the parcel herein conveyed on the southeasterly sideline of land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the York County Registry of Deed (YCRD) in Book 19081, Page 480 bearing S 34°54'46" W along said land of Novel ME Land Holdings, LLC a distance of 720.00 feet from the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 16009, Page 717;

1. Thence S 55°05'14" E through remaining land of Grantor, a distance of 288.68 feet;

2. Thence S 01°52'35" E through remaining land of Grantor, a distance of 378.60 feet;

3. Thence S 87°49'32" W through remaining land of Grantor, a distance of 260.01 feet;

4. Thence N 55°05'14" W through remaining land of Grantor, a distance of 308.00 feet to said land of Novel ME Land Holdings, LLC;

5. Thence N 34°54'46" E along said land of Novel ME Land Holdings, LLC, a distance of 460.00 feet to the **Point of Beginning**.

The above-described parcel contains approximately 4.28 acres and is depicted on that certain plan titled "Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA" dated August 1, 2025, last revised August 8, 2026 by Sebago Technics, Inc., job number 250132 (the "Lot Division Plan") recorded at the YCRD in Plan Book _____, Page ____.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

MEANING AND INTENDING to convey a portion of the property conveyed to Grantor by those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded at the YCRD in Book 1113, Page 303 and Book 1116, Page 1 respectively

THIS CONVEYANCE IS MADE **TOGETHER WITH** the benefit of the non-exclusive easement and right-of-way granted to Grantor by Rubb Property, LLC as described in that certain Easement Deed recorded at the YCRD in Book _____, Page ____, and depicted as

“RUBB LANE” on the Lot Division Plan.

THIS CONVEYANCE IS ALSO MADE **TOGETHER WITH** the benefit of a non-exclusive easement and related rights over a portion of Grantor’s retained land lying easterly of and adjacent to the above-described parcel which is contemplated to be conveyed to Rubb Property, LLC by Municipal Quitclaim Deed of substantially even date herewith to be recorded at YCRD, said easement and related rights being a right-of-way and pedestrian and vehicular access easement for ingress and egress to and from the above-described parcel and the land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, as shown on the Lot Division Plan, including the right to use, clear, plow snow from, maintain, grade, pave, and repair the same, for the benefit of Grantee, its successors and assigns, in, on, over and under the easement area located within said portion of Grantor’s retained land as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through said portion of Grantor’s retained land a distance of 200.00 feet to the above-described parcel;

2. Thence N 01°52'35" W along the above-described parcel, a distance of 50.00 feet;

3. Thence N 88°07'25" E through said portion of Grantor’s retained land a distance of 200.00 feet to said land of Rubb Property, LLC;

4. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described easement area contains approximately 10,000 square feet.

The above-described easement and rights shall also include the right to lay, install, maintain, repair, replace and relocate within the easement area, any utilities serving the above described parcel, including, without limitation, facilities for the transmission of electricity, gas, telephone communications, cable television, internet, sewerage (include septic lines), water, storm runoff, or similar services which are now or may in the future become available.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden said portion of Grantor’s retained land and shall benefit and be appurtenant to the above-described parcel and shall be construed as real covenants running with the land enforceable by the parties at law and

in equity.

THIS CONVEYANCE IS ALSO MADE **TOGETHER WITH** the benefit of an easement and related rights over a portion of Grantor's retained land lying easterly of and adjacent to the above-described parcel which is contemplated to be conveyed to Rubb Property, LLC by Municipal Quitclaim Deed of substantially even date herewith to be recorded at YCRD, to permit the existing earthen berm and related infrastructure to remain as presently located within the below described easement area of said portion of Grantor's retained land and to allow Grantee and its successors and assigns the right to maintain, repair and replace said berm and related infrastructure, including the right to enter at all reasonable times, with personnel, material, machinery and equipment to conduct such activities, upon the easement area located within said portion of Grantor's retained land as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at a point bearing N 01°52'35" W a distance of 168.63 feet from the northwesterly corner of that certain easement and right of way described in the Municipal Quitclaim Deed to Sanford Springvale Fish and Game Protective Association, Inc. recorded at the YCRD in Book _____, Page ____ along the above described parcel;

1. Thence N 01°52'35" W along the above-described parcel, a distance of 156.74 feet;

2. Thence S 37°17'03" E through the remaining land of Grantor, a distance of 95.75 feet;

3. Thence S 33°18'29" W through the remaining land of Grantor, a distance of 96.28 feet to the **Point of Beginning**.

The above-described easement area contains approximately 4,348 square feet.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden said portion of Grantor's retained land and shall benefit and be appurtenant to the above-described parcel and shall be construed as real covenants running with the land enforceable by the parties at law and in equity

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the following easement and appurtenant rights and benefits reserved to the Grantor for the use and benefit of the public and appurtenant to the land comprising the Sanford Seacoast Regional Airport, as the same may be expanded, reduced or reconfigured from time to time. The appurtenant rights and benefits include the following uses, rights and restrictions:

> The unobstructed use and passage of all types of aircraft in and through the airspace at any height or altitude above the surface of the above-described parcel.

The right of said aircraft to cause noise, vibrations, fumes, deposits of dust, fuel particles (incidental to the normal operation of aircraft), emissions, illumination, wake turbulence; fear, interference with sleep or communication, and any other effects associated with the normal operation of aircraft taking off, landing or operating in the vicinity of the Sanford Seacoast Regional Airport. The Grantee, for itself and its successors and assigns, acknowledges that such impacts may occur and shall not be deemed a nuisance.

As used herein, the term “aircraft” shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include jet, propeller-driven, civil, military or commercial aircraft, including helicopters, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whoever owned or operated.

The right to maintain the airspace above the above-described parcel free and clear of any structure, tree, vegetation, improvement, appurtenance, equipment, utility installation, or other object which penetrates any applicable federal, state or local imaginary surface, obstruction standard, or airspace protection surface associated with the Sanford Seacoast Regional Airport, including, without limitation, those established by the Federal Aviation Administration ("FAA") in 14 CFR Part 77 or otherwise.

The Grantee agrees that during the life of this easement, no building, structure, tower, antenna, crane, tree, vegetation, solar installation, wind energy facility, or other object shall be erected, placed, allowed to grow, or maintained on the above-described parcel to a height that constitutes an obstruction to navigable airspace or otherwise violates applicable FAA standards, airport zoning requirements, or height limitations established by the Sanford Seacoast Regional Airport. The Grantee may not permit any places of public assembly or gatherings on the above-described parcel. (Examples: churches, schools, day care facilities, hospitals, restaurants, stadiums, office buildings, etc.).

The Grantee agrees to keep the above-described parcel free of the following: structures (permanent or temporary) that might create glare or contain misleading lights; residences; fuel handling and storage facilities; smoke generating activities; and any other structures or activities that create an airport hazard or interfere with airport operations, including uses that: (a) create electrical interference with navigational signals or communications; (b) impair visibility in the vicinity of the Sanford Seacoast Regional Airport; (c) produce glare or lighting that could confuse pilots or air traffic control personnel; (d) attract birds or wildlife hazardous to aircraft operations; or (e) otherwise endanger aircraft operations.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice except in emergencies, to enter the above-described parcel for inspection and enforcement of this easement and appurtenant rights.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice to the Grantee, to enter upon the above-described parcel to trim, cut, remove, mark, light, or

otherwise mitigate any tree, vegetation, structure, or other obstruction that violates this easement, if the Grantee fails to do so within a reasonable period after notice. The reasonable cost thereof may be recovered from the Grantee.

To the extent permitted by law, the Grantee, for itself and its successors and assigns, hereby waives, releases, and forever discharges the Grantor and the Sanford Seacoast Regional Airport from claims for damages or compensation arising from: (a) aircraft noise and other ordinary and lawful airport operational impacts occurring after the date of this deed, or (b) caused by the Grantee's violation of any aspect of this easement or appurtenant rights.

TO HAVE AND TO HOLD said easement and right of way, and all rights appertaining thereto unto the Grantor, its successors, and assigns, until the Sanford Seacoast Regional Airport shall be abandoned and shall cease to be used for public airport purposes. It is understood and agreed that all provisions herein shall run with the land and shall be binding upon the Grantee and all subsequent owners, tenants, and occupants of the above-described parcel and Grantee's successors and assigns until such time that the easement is extinguished.

EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS THAT, **RUBB PROPERTY, LLC,** a Maine limited liability company with a mailing address of 1 Rubb Lane, Sanford, Maine 04073 ("Grantor"), FOR CONSIDERATION PAID, does hereby grant and convey to the **CITY OF SANFORD,** a municipal corporation organized and existing under the laws of the State of Maine, with a mailing address of 919 Main Street, Sanford, Maine ("Grantee"), the following perpetual rights and easement in, on, over and under certain real property of Grantor located in Sanford, York County, Maine, and more particularly described in that certain deed to Grantor dated April 23, 2021 and recorded at the York County Registry of Deeds ("YCRD") in Book 18652, Page 467 ("Grantor's Parcel"), for the benefit of and appurtenant to certain real property of Grantee located in Sanford, York County, Maine, situated westerly of and adjacent to Grantor's Parcel and comprising a portion of the property conveyed to Grantee by those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded at the YCRD in Book 1113, Page 303 and Book 1116, Page 1 respectively ("Grantee's Parcel"), and which rights and easement (together, the "Easement") are more particularly described as follows:

> A non-exclusive, perpetual right-of-way and pedestrian and vehicular access easement for ingress and egress to and from Grantee's Parcel and Old Airport Road a/k/a Gatehouse Road, including the right to use, clear, plow snow from, maintain, grade, pave, repair and/or replace the currently existing private roadway known as Rubb Lane (as depicted on that certain plan titled "Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA" dated August 1, 2025, last revised August 8, 2026 by Sebago Technics, Inc., job number 250132, recorded at the YCRD in Plan Book _____, Page ____), for the benefit of Grantee, its successors and assigns, in, on, over and under Grantor's Parcel. The Easement shall also include the right to lay, install, maintain, repair, replace and relocate within the Easement Area, any utilities serving Grantee's Parcel, including, without limitation, facilities for the transmission of electricity, gas, telephone communications, cable television, internet, sewerage (include septic lines), water, storm runoff, or similar services which are now or may in the future become available.

The Easement granted herein is perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden Grantor's Parcel and shall benefit and be appurtenant to Grantee's Parcel and shall be construed as a real covenant running with the land enforceable by the parties at law and in equity.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, RUBB PROPERTY, LLC has caused this instrument to be executed by _____, its _____, thereunto duly authorized, this ___ day of _____, 2026.

ATTEST:

RUBB PROPERTY, LLC

_____
Print Name:

By: _____
Print Name:
Its

STATE OF MAINE
COUNTY OF YORK, SS.

_____, 2026

PERSONALLY APPEARED the above-named _____, in his/her capacity as _____, of Rubb Property, LLC, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and deed of said limited liability company.

Before me,

_____
Name:
Notary Public / Attorney at Law
Notary commission expires:

MORTGAGEE'S JOINDER AND CONSENT

The undersigned **TD BANK, N.A**. a national banking association with a place of business at One Portland Square, Portland, Maine and a mailing address of P.O. Box 9540, Portland, Maine 04112-9540, being the holder of that certain Commercial Mortgage, Security Agreement and Assignment of Leases and Rents granted to TD Bank, N.A. dated as of December 27, 2011 and recorded at the York County Registry of Deeds in Book 16244, Page 916, and that certain Mortgage and Security Agreement granted to TD Bank, N.A. dated January 26, 2017 and recorded at said Registry of Deeds in Book 17413, Page 74, as affected by that certain Mortgage Modification Agreement dated July 10, 2020 and recorded at said Registry of Deeds in Book 18303, Page 244, and that certain Mortgage Modification Agreement dated November 4, 2025 and recorded at said Registry of Deeds in Book 19779, Page 130 (collectively, the "Mortgage Documents"), hereby joins in and consents to the foregoing Easement Deed and agrees that the Mortgage Documents and the rights of TD Bank N. A. therein shall be subject and subordinate to said Easement Deed.

IN WITNESS WHEREOF, TD BANK, N.A., has caused this instrument to be executed under seal by _____, its _____ thereunto duly authorized, this _____ day of _____, 2026.

WITNESS:

_____

TD BANK, N.A.

By: _____
Name:
Title:

State of Maine
County of Cumberland, ss.

_____, 2026

PERSONALLY APPEARED the above-named _____, _____ of TD Bank, N.A., as aforesaid, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and deed of said TD Bank, N.A.

Before me,

_____
Print Name:
Attorney-at-Law/Notary Public
Notary Commission Expires:

N

GRID

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	DEED LINE/R.O.W.	
	SETBACK	
	EASEMENT	
	MONUMENT	
	IRON PIPE/ROD	
N/F	NOW OR FORMERLY	
	BUILDING	
	EDGE OF PAVEMENT	
	PAVEMENT PAINT	
	EDGE GRAVEL	
	TREELINE	
120 118	CONTOURS	
	CHAIN LINK FENCE	
	GAS GATE VALVE	
	UTILITY POLE	
	HYDRANT	
W	WELL	
	WATER GATE VALVE	

PROPOSED EASEMENT LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 01°52'35" E	50.00'
L2	S 88°07'25" W	200.00'
L3	N 01°52'35" W	50.00'
L4	N 88°07'25" E	200.00'
L5	S 37°17'03" E	95.75'
L6	S 33°18'29" W	96.28'
L7	N 01°52'35" W	156.74'
L8	S 88°07'25" W	100.00'
L9	S 01°52'35" E	147.63'
L10	S 34°44'12" W	83.84'
L11	N 01°52'35" W	264.93'
L12	S 01°52'35" E	41.92'
L13	N 55°15'48" W	25.00'
L14	N 34°44'12" E	420.03'

PROPOSED EASEMENT CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD BEARING	CRD LENGTH
C1	78.54'	50.00'	S 43°07'25" W	70.71'

ITEMS SHOWN IN RED HEREON DEPICT THE EQUAL DIVISION OF THE 4.28-ACRE CITY OF SANFORD PARCEL TO THE SSF&GPA AND RUBB PROPERTIES, LLC IN THE EVENT THE CITY DISCONTINUES ITS USE OF THE RANGE.

5" X 6" GRANITE MONUMENT FOUND
5" BELOW GRADE
BROKEN LOCATED AT REMAINING PIECE IN GROUND
HELD

5/8" REBAR FOUND
1" ABOVE GRADE
ILLEGIBLE, DISTURBED
N 35°24'27" W - 1.01' FROM CORNER

4" X 6" GRANITE MONUMENT FOUND
3" ABOVE GRADE
BROKEN, LOCATED AT REMAINING PIECE IN GROUND

N/F
RUBB PROPERTY, LLC
BOOK 16009, PAGE 717
R18A-11

EXISTING RUBB PROPERTY, LLC
SOUTH OF WETLAND
10.02± ACRES OF UPLAND
EXCLUDING MAP R18A LOT 16Z

MAINTENANCE EASEMENT TO BENEFIT
THE CITY OF SANFORD
AREA=4,348 SQUARE FEET

N/F
NOVEL ME LAND HOLDINGS LLC
BOOK 19081, PAGE 480
R18-42

RUBB PROPERTY, LLC
TOTAL=2.14 ACRES
UPLAND=1.66± ACRES

CITY OF SANFORD
4.28 ACRES

SSF&GPA
TOTAL=2.14 ACRES
UPLAND=1.53± ACRES

N/F
RUBB PROPERTY, LLC
BOOK 16009, PAGE 717
R18A-12

GATEHOUSE ROAD

50' WIDE ACCESS & UTILITY EASEMENT
TO BENEFIT THE CITY OF SANFORD
AREA=10,000 SQUARE FEET

RUBB LANE

ACCESS & UTILITY EASEMENT
TO BENEFIT LAND TO BE
CONVEYED TO SSF&GPA
AREA=22,100 SQUARE FEET

N/F
RUBB PROPERTY, LLC
BOOK 18652, PAGE 467
R18A-16Z
SEE NOTE 9

4" X 4" GRANITE MONUMENT FOUND
6" BELOW GRADE
BROKEN, LOCATED AT CENTER

5/8" REBAR FOUND
1" ABOVE GRADE
"TITCOMB ASSOC PLS 2241"

5/8" REBAR FOUND
AT GRADE
"TITCOMB ASSOC PLS 2201"

4"X4" GRANITE MONUMENT FOUND
AT GRADE
WITH CAP "PLS 1273 TITCOMB"

N/F
THE BAKER COMPANY INC
BOOK 17916, PAGE 592
R18A-15

GATE

NONSIGNIFICANT VERNAL POOL

PROPOSED PARCEL TO
SANFORD-SPRINGVALE FISH & GAME
PROTECTIVE ASSOCIATION (SSF&GPA)
TOTAL=15.40 ACRES
UPLAND=8.51± ACRES

25' ACCESS & MAINTENANCE
EASEMENT TO SSF&GPA
AREA=12,176 SQUARE FEET

PROPOSED ABUTTER CONVEYANCE
TO RUBB PROPERTY, LLC
TOTAL=20.39 ACRES
UPLAND SOUTH OF RUBB LANE=10.25± ACRES
UPLAND NORTH OF RUBB LANE=3.83± ACRES
(UPLANDS MEASURED EXCLUSIVE OF RIGHTS OF WAY)

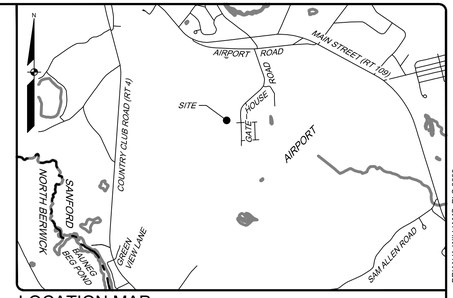
N/F
CITY OF SANFORD
BOOK 17922, PAGE 881
R18-42B

N/F
CITY OF SANFORD
R18A-16

N/F
INDUSTRIAL DEVELOPMENT
CORPORATION OF SANFORD
BOOK 19531, PAGE 674
R18-14

6" X 6" GRANITE MONUMENT FOUND
24" ABOVE GRADE
PEAKED
HELD

PROPOSED BOUNDARY ALONG DECLARATION
OF COVENANTS AND RESTRICTIONS
BETWEEN THE CITY OF SANFORD AND
MAINE DEPARTMENT OF ENVIRONMENTAL
PROTECTION EXECUTED MARCH 15, 2019.
THIS DOCUMENT IS UNRECORDED.



LOCATION MAP

N.T.S.

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE CITY OF SANFORD BY DEED DATED DECEMBER 30, 1947 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS (YCRD) IN BOOK 1113, PAGE 303 AND DEED DATED JULY 15, 1948 RECORDED AT THE YCRD IN BOOK 1116, PAGE 1.
2. THE PROPERTY IS SHOWN AS LOT 16 ON THE CITY OF SANFORD TAX MAP R18A AND IS LOCATED IN THE AIRPORT DEVELOPMENT DISTRICT.
3. TOTAL AREA OF PROPOSED CONVEYANCES IS APPROXIMATELY 40.07 ACRES.
4. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN SEPTEMBER OF 2025. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED SOLELY UPON PUBLICLY AVAILABLE LIDAR CONTOUR DATA DISTRIBUTED BY NOAA, AND COLLECTED BY USGS, IN 2022.
5. PLAN REFERENCES:
   A. "PLAN SHOWING LAND ACQUIRED FOR LELA H. GOODALL FIELD SANFORD, MAINE" DATED NOVEMBER, 1943 AND REVISED JUNE, 1946 BY ERNEST E. GALLANT AND RECORDED AT THE YCRD IN PLAN BOOK 113, PAGE 2.
   B. "MASTER PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE" DATED JANUARY, 1957 BY ERNEST E. GALLANT.
   C. "STANDARD BOUNDARY SURVEY ON SANFORD AIRPORT ROAD IN SANFORD, MAINE FOR EDWARD S. BOULOS, JR." DATED OCTOBER 16, 1989 BY OWEN HASKELL, INC. AND RECORDED AT THE YCRD IN PLAN BOOK 184, PAGE 33.
   D. "TAKING AND EASEMENT PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE LANDS OF G. DEVLAND REALTY TRUST AND IVAN AND PAULA FURBISH PREPARED FOR HOYLE, TANNER & ASSOCIATES" DATED MARCH 19, 1991 BY THOMAS F. MORAN INC. AND RECORDED AT THE YCRD IN PLAN BOOK 208, PAGE 1.
   E. "RYERSON SKY PARK SUBDIVISION PLAN GATEHOUSE ROAD SANFORD, MAINE MADE FOR RICHARD J. RYERSON" DATED FEBRUARY, 2006 BY TITCOMB ASSOCIATES AND RECORDED AT THE YCRD IN PLAN BOOK 313, PAGE 9.
   F. "PLAN SHOWING A PROPOSED CONVEYANCE TO FLEMISH MASTER WEAVERS, INC. PROPERTY LOCATED ON GATEHOUSE ROAD IN SANFORD, MAINE" DATED NOVEMBER 25, 2019 BY CORNER POST LAND SURVEYING, INC.
   G. "PLAN DEPICTING THE RESULTS OF A BOUNDARY SURVEY PREPARE FOR ROBERT R. CURRY AIRPORT ROAD, SANFORD, MAINE" DATED JULY 9, 2008 BY MIDDLE BRANCH, LLC.
   H. "BOUNDARY PLAN TAX MAP R18 LOT 42 (83 AIRPORT ROAD) SANFORD, MAINE PREPARED FOR, NBD SOLAR MAINE, LLC LAND OF, THE CURRY/DAVIDOW TRUST" DATED FEBRUARY 23, 2021 BY FIELDSTONE LAND CONSULTANTS, PLLC AND RECORDED AT THE YCRD IN PLAN BOOK 413, PAGE 46.
   I. "EXHIBIT A SANFORD SEACOAST REGIONAL AIRPORT SHEET 12 OF 12" DATED JANUARY, 2025 BY STANTEC CONSULTING SERVICES, INC.
6. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, GEOID18 IN US SURVEY FEET, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GNSS OBSERVATIONS.
7. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CIASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
8. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR SANFORD, MAINE, YORK COUNTY, PANEL NUMBER 23031C0413G, HAVING AN EFFECTIVE DATE OF JULY 17,2024. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF MINIMAL FLOOD HAZARD.
9. ACCESS TO LAND OF THE CITY OF SANFORD AND PROPOSED PARCEL TO SANFORD-SPRINGVALE FISH & GAME PROTECTIVE ASSOCIATION TO BE BENEFITED BY AN ACCESS AND UTILITY EASEMENT ACROSS THE PARCEL SHOWN AS RUBB LANE AS DESCRIBED IN A DEED RECORDED AT THE YCRD IN BOOK 18652, PAGE 467.
10. A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN APRIL OF 2026 BY GARY M. FULLERTON, LICENSED SOIL SCIENTIST AND SAM HAYDEN, PROFESSIONAL WETLAND SCIENTIST OF SEBAGO TECHNICS, INC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. ALL WETLAND FLAGS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF SUBMETER ACCURACY.
11. A VERNAL POOL SURVEY WAS PERFORMED DURING APRIL OF 2026 BY SAM HAYDEN, PROFESSIONAL WETLAND SCIENTIST OF SEBAGO TECHNICS, INC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9, OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
12. SPACE AND BULK CRITERIA FOR THE AIRPORT DEVELOPMENT DISTRICT ARE AS FOLLOWS:

NET RESIDENTIAL DENSITY:	1 UNIT PER 40,000 SQUARE FEET
MINIMUM LOT SIZE:	40,000 SQUARE FEET
MINIMUM STREET FRONTAGE:	N/A
MINIMUM FRONT YARD:	15 FEET
MINIMUM SIDE YARD:	15 FEET
MINIMUM REAR YARD:	15 FEET
MAXIMUM BUILDING HEIGHT:	60 FEET, SUBJECT TO FAA REGULATIONS
MAXIMUM BUILDING COVERAGE:	80%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

GRAPHIC SCALE
150 0 75 150 300
(IN FEET)
1 INCH = 150 FT.

BRIAN K. WILLIAMS, PLS 2639

STATE OF MAINE
BRIAN K. WILLIAMS
2639
PROFESSIONAL LAND SURVEYOR

REV.	BY	DATE:	STATUS
A.	BKW	10-24-2025	SUBMITTED TO CLIENT FOR REVIEW
B.	BKW	12-19-2025	REVISED PROPOSED PARCELS AND EASEMENT AREAS
C.	BKW	01-09-2026	ISSUED FOR REVIEW
D.	BKW	04-30-2026	UPDATED FOR WETLANDS AND VERNAL POOL SURVEY
E.	BKW	06-06-2026	REVISED NOTE 1
F.	BKW	08-06-2026	REVISED FOR ITEMS IN RED AND UPLAND ACREAGES

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford

LOT DIVISION PLAN
OF A PORTION OF:
SANFORD SEACOAST REGIONAL AIRPORT
199 AIRPORT ROAD
SANFORD, MAINE
FOR:
RUBB USA
1 RUBB LANE
SANFORD, MAINE 04073

RECORD OWNER:
CITY OF SANFORD
919 MAIN STREET
SANFORD, MAINE 04073

DESIGNED	-
DRAWN	JAH
CHECKED	BKW
DATE	08/01/2025
SCALE	1" = 150
PROJECT	250132

SHEET 1 OF 1

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250132BD1.dwg, TAB:BKW

FUTURE AIRPORT PROPERTY - FEE SIMPLE

KEY	GRANTOR	GRANTEE	ACRES
31	PAYEUR, MARCEL/SUZANNE	CITY OF SANFORD	2.94±
32	VACHON ROBERT Y/CHERYL A	CITY OF SANFORD	3.15±
		TOTAL	6.09±

FUTURE AIRPORT PROPERTY - FEE SIMPLE OR EASEMENT

KEY	GRANTOR	GRANTEE	ACRES
33	WARD ENTERPRISES INC	CITY OF SANFORD	0.58±
34	XOINI OURANIA C	CITY OF SANFORD	0.32±
35	THEODOROU LEONIDAS/LAMBRO	CITY OF SANFORD	1.03±
36	SCARBOROUGH WOODS LLC	CITY OF SANFORD	2.61±
37	ASE REAL ESTATE LLC	CITY OF SANFORD	0.06±
38	ASE REAL ESTATE LLC	CITY OF SANFORD	0.18±
39	ASE REAL ESTATE LLC	CITY OF SANFORD	0.02±
40	NEW MARLISSA LLC	CITY OF SANFORD	0.01±
41	SMADA LLC	CITY OF SANFORD	0.31±
42	SKH LLC	CITY OF SANFORD	0.55±
43	RICHER ASSOCIATES LLC	CITY OF SANFORD	0.41±
44	KLE HOLDING LLC	CITY OF SANFORD	0.01±
45	ROY DONALD J TRUSTEE OF THE	CITY OF SANFORD	2.01±
46	LAPERRIERE WENDI A & GARY L (JTS)	CITY OF SANFORD	0.27±
		TOTAL	8.35±

NON-AERONAUTICAL USE

KEY	GRANTOR	GRANTEE	INST.	ACRES	DATE	COMMENTS
28	CITY OF SANFORD	MAINE DEPT. INLAND FISHERIES AND WILDLIFE	MOU	36.00±	1/29/15	COOPERATIVE AGREEMENT
NA-1	CITY OF SANFORD	CITY OF SANFORD	LEASE	0.33±	6/9/2020	FAA LETTER INTERIM
NA-2	CITY OF SANFORD	SANFORD SOLAR LLC.	LEASE	419.70±	1/16/2018	FAA LETTER
NA-3	CITY OF SANFORD	TBD	TBD	39.34±	FUTURE	
NA-4	CITY OF SANFORD	TBD	LEASE	9.32±	FUTURE	
			TOTAL	504.69±		

EXISTING AIRPORT PROPERTY - FEE SIMPLE

KEY	GRANTOR	GRANTEE	ACRES	YCRD K & PG	DATE	COMMENTS
1	U.S. GOV'T	TOWN OF SANFORD	1,027.00±	1116/303 1116/1	12/30/47 7/15/48	AP-4 AND RELEASE OF TRACTS 1 & 2 AP-4 SUPPLEMENT
2A	MODERN CONTINENTAL PRECAST CO.	TOWN OF SANFORD	4.35±	14114/835	6/04	AIP 3-23-0044-20
2B	MODERN CONTINENTAL PRECAST CO.	TOWN OF SANFORD	6.46±	14114/835	6/04	AIP 3-23-0044-20
2C	MODERN CONTINENTAL PRECAST CO.	TOWN OF SANFORD	4.81±	14114/835	6/04	AIP 3-23-0044-20
9A	ERNEST KOSTIS	TOWN OF SANFORD	4.43±	2736/148	8/5/80	EASEMENT TO MAINTAIN LIGHTING
11A	HARMONY HOMES	TOWN OF SANFORD	5.40±	1880/650	3/19/70	ADAP 7-23-0044-01 LAND EXCHANGE
12	GEORGE ADAMS	TOWN OF SANFORD	8.80±	2354/104	5/24/78	ADAP 7-23-0044-03
14	ROSENFIELD LAND CORPORATION	TOWN OF SANFORD	6.70±	3070/120	3/11/83	AIP 3-23-0044-01
16	KARL P. HILTON	TOWN OF SANFORD	7.65±	1003/404	6/11/43	
17	SANFORD MILLS	TOWN OF SANFORD	18.47±	992/156	6/25/42	
18	ALTA WISE	TOWN OF SANFORD	15.31±	991/175	UNKNOWN	
19	ALTA WISE	TOWN OF SANFORD	27.82±	991/443	2/16/42	
21	G. DEVLAND REALTY TRUST	TOWN OF SANFORD	16.71±	6108/125	6/1/92	AIP 3-23-0044-13
23	IVAN & PAULA FURBISH	TOWN OF SANFORD	0.57±	6116/160	5/11/92	AIP 3-23-0044-13
25	AEROFAB) JOAN B. BUSSIERE	TOWN OF SANFORD	0.66±	10206/191	9/6/01	AIP 3-23-0044-16
26	JOSEPH P. SULLIVAN	TOWN OF SANFORD	0.63±	1427/308	11/1/04	AIP 3-23-0044-20
27B	TOWN OF SANFORD	FLEMISH MASTER WEAVERS INC.	2.98±	15372/268	3/14/09	LAND SWAP
		TOTAL	1,158.75±			

EXISTING AIRPORT PROPERTY - EASEMENT

KEY	GRANTOR	GRANTEE	ACRES	YCRD K & PG	DATE	COMMENTS
5	STRUCTURES AND DESIGN	TOWN OF SANFORD	12.00±	UNKNOWN	1/14/87	
13	GEORGE ADAMS	TOWN OF SANFORD	1.51±	2354/104	5/24/78	ADAP 7-23-0044-03
15	ROSENFIELD LAND CORPORATION	TOWN OF SANFORD	4.30±	3070/120	3/11/83	AIP 3-23-0044-01
20	ALBERT LAVALLY CORPORATION	TOWN OF SANFORD	5.00±	1584/107	2/6/64	FAAP 9-17-026-6101
22	G. DEVLAND REALTY TRUST	TOWN OF SANFORD	63.60±	6108/127	6/1/92	AIP 3-23-0044-13
24	IVAN & PAULA FURBISH	TOWN OF SANFORD	7.80±	6116/155	5/11/92	AIP 3-23-0044-13
27A	FLEMISH MASTER WEAVERS INC.	TOWN OF SANFORD	2.58±	15372/270	3/14/09	LAND SWAP
31	PAYEUR, MARCEL/SUZANNE	CITY OF SANFORD	2.94			
32	VACHON ROBERT Y/CHERYL A	CITY OF SANFORD	3.15			
		TOTAL	102.88±			

LAND RELEASE TABLE

KEY	GRANTOR	GRANTEE	ACRES	YCRD K & PG	DATE	COMMENTS
3	TOWN OF SANFORD	ANDRE TEMPE	8.60±	424/166	12/14/59	RELEASE 7/10/59 TWO LOTS
4	TOWN OF SANFORD	INDUSTRIAL DEV. CORP.	3.60±	1849/649	12/68	RELEASE 3/16/70
5	TOWN OF SANFORD	STRUCTURES AND DESIGN	12.00±	3182/322	10/18/83	RELEASE TWO LOTS 5/6/81
6	TOWN OF SANFORD	THURSTON ERLANDSEN CORPORATION	20.80±	1582/313	12/31/63	RELEASE THREE LOTS 12/16/70
7	TOWN OF SANFORD	INDUSTRIAL DEV. CORP.	16.70±	1948/386	5/12/72	RELEASE LOTS 11 & 12 5/1/72 (LETTER OF INTENT)
8	TOWN OF SANFORD	CONGOLEUM CORP.	2.50±	2765/62	7/11/80	RELEASE 7/10/80
11B	TOWN OF SANFORD	HARMONY HOMES	5.40±	1880/650	3/19/70	ADAP 7-23-0044-01 LAND EXCHANGE
29	CITY OF SANFORD	RUBB	0.80±	18652/467	4/23/21	RELEASE ON 4/26/2021
30	CITY OF SANFORD	FLEMISH MASTER WEAVERS INC.	5.25±	18652/465	4/23/21	RELEASE ON 4/26/2021
NA-3	CITY OF SANFORD	TBD	39.34±	TBD	FUTURE	
		TOTAL	75.65±			

Stantec

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Consultants

Legend

- PARCEL
- RPZ — RUNWAY PROTECTION ZONE
- EXISTING AIRPORT PROPERTY
- EXISTING EASEMENT
- FUTURE AIRPORT PROPERTY
- FUTURE PROPERTY OR EASEMENT
- FUTURE RELEASE AND SALE
- NON-AERONAUTICAL USE
- NON-AERONAUTICAL USE SOLAR DEVELOPMENT
- MAINE DEPT. OF INLAND FISHERIES AND WILDLIFE AGREEMENT
- ILS GLIDE SLOPE CRITICAL AREA
- (18) LOT KEY NUMBER

Notes

0 500' 1000'

1	ALP UPDATE REVISIONS	LFC JAN. 2025
1	ACQUIRE PROPERTY FOR AVIATION USE	DH MAR 2022
1	RELEASE OF TWO PARCELS. ADDED KEY 29 AND 30	DDA JUN 2020
1	KEY NA-2 TO NON-AERONAUTICAL USE SOLAR DEV. ADDED NA-3 & NA-4	DDA FEB. 2018
1	SWITCHED CONSULTANT FROM HTA TO STANTEC AND ADDED KEY 28	DDA FEB. 2017
1	EDIT GRANTOR GRANTEE TABLE	JLC APRIL 2016
1	FUTURE NON-AERONAUTICAL DEVELOPMENT FUTURE SOLAR FARM	JLC MAY 2015
1	RSA, ROFA, RPZ, TOFA, ROFA	JLC NOV. 2014
1	INTERIM NON-AERONAUTICAL USE	JLC SEPT. 2013
1	REVISED PROPERTY LINE FOR KEY 26	JLC JUN. 2013
1	SURPLUS PROPERTY DEED TABLE	JLC DEC. 2012
1	REVISED BOOK/PAGE DATES FOR KEYS 1, 5, 6	JLC FEB. 2011
	Revision	By Date

File Name: KSFM_exhibit-A_20250127.dwg	CEJ Dwn.	DDA Chkd.	ECD Dsgn.	17.02.03 YY.MM.DD

Client/Project
SANFORD SEACOAST REGIONAL AIRPORT

Sanford, Maine

Title
EXHIBIT A

Project No.	Scale
	AS NOTED
Drawing No.	Sheet / Revision
	12 of 12 / 12

K:\Sanford Seacoast\--9 ALP Update\P&L_Exhibit A_20250127\KSFM_exhibit-A_20250127.dwg

ORIGINAL SHEET - ARCH D

Book 1116 Page 1 #1

1

Book 1116

SEE BOOK 1946 PAGE 639

SUPPLEMENTAL QUITCLAIM DEED

WHEREAS, by "Quitclaim Deed" by and between UNITED STATES OF AMERICA, acting by and through WAR ASSETS ADMINISTRATOR (party of the first part), and the INHABITANTS OF THE TOWN OF SANFORD, acting by and through the SANFORD AIRPORT COMMISSION (party of the second part), dated December 30, 1947 and recorded in York County Registry of Deeds, Alfred, Maine, Book 1113, Page 303, the party of the first part has remised, released and forever quitclaimed to the party of the second part all its right, title and interest in and to certain property situated in the Town of Sanford, County of York, State of Maine, known as the "Navel Auxiliary Air Facility", Sanford, Maine and heretofore classified as "airport property" and therein more particularly described: and

WHEREAS, pursuant to Public Law 289, 80th Congress, certain additional property hereafter described has been classified as "airport property"; and

WHEREAS, party of the second part has agreed to accept the said additional property hereafter described subject to applicable reservations, restrictions and conditions as set forth in the Surplus Property Act of 1944, as amended;

Now, Therefore, this indenture, made this 15th day of July, 1948, between THE UNITED STATES OF AMERICA, acting by and through the WAR ASSETS ADMINISTRATOR, under and pursuant to Reorganization Plan One of 1947 (12 Fed. Reg. 4534) and the powers and authority contained in the provisions of the said Surplus Property Act of 1944, as amended, and applicable rules, regulations and orders, and INHABITANTS OF THE TOWN OF SANFORD, a body politic under the laws of the State of Maine, acting by and through the SANFORD AIRPORT COMMISSION,

WITNESSETH: That the said party of the first part, for and in consideration of the assumption by the party of the second part of all the obligations and its taking subject to the said certain reservations, restrictions and conditions and its covenant to abide by and agreement to certain other reservations, restrictions and conditions, all as set out hereinafter, remises, releases, and forever quitclaims to the said party of the second part, its successors and assigns, under and subject to the reservations, restrictions and conditions, exceptions, and reservation of fissionable materials and rights hereinafter set out, all its right, title and interest in the following described property situate in the Town of Sanford, County of York, State of Maine, to-wit:

Beginning at a corner common to the lands of Frank Hurd, Alta M. Wise and Louie E. Whitehouse; thence running southwesterly bounded southeasterly by lands of Louie E. Whitehouse, S. 36° 10' W. 1720 ft.; thence turning and running southeasterly bounded northeasterly by lands of Louie E. Whitehouse, S. 53° 50' E. 715 ft.; thence turning and running southwesterly bounded southeasterly by lands of Philip Thibodeau, S. 36° 10' W. 1,375 ft. to a corner common to the

lands of Karl Hilton, William Hochberg and Philip Thibodeau; thence turning and running northwesterly bounded southwesterly by lands of William Hochberg, N. 50° 06' W. 776.71 ft.; thence turning and running northeasterly N. 32° 14' E. 543.88 ft., more or less, to lands of Frank Hurd; thence turning and running northwesterly bounded southwesterly by lands of owner unknown N. 66° 07' W. 1270.45 ft., more or less, to the northwesterly corner of land of Frank Hurd; thence turning and running northeasterly bounded northwesterly partly by lands of the Sanford Municipal Airport N. 36° 39' E. 1974.17 ft., more or less; thence turning and running southeasterly bounded northeasterly by said Airport S. 56° E. 330 ft., more or less; thence turning and running northeasterly bounded by lands formerly of Emma Merrill, N. 36° 30' E. 2150 ft., more or less, to the most northerly corner of lands owned by Frank Hurd; thence turning and running southeasterly bounded northeasterly by lands of said Hurd, S. 53° 50' E. 362.97 ft., more or less, to lands of Alta M. Wise; thence turning and running southwesterly bounded southeasterly by the same, S. 36° 10' W. 1385.13 ft., more or less; thence turning and running southeasterly bounded northeasterly by the same, S. 53° 50' E. 725.92 ft. to the point of beginning. Containing 114.4 acres.

The above described premises are transferred subject to existing easements for roads, highways, public utilities, railways and pipe lines.

All the right, title, and interest of the party of the first part in and to said parcel of land, being designated as "Tract #2" in the quitclaim deed dated December 30, 1947 above referred to, is hereby remised, released, quitclaimed unto and CONFIRMED in the party of the second part, its successors and assigns, forever.

There is included in this conveyance equipment and certain buildings, together with heating systems installed therein, numbered and listed as follows: 5, 8, 18, 20, 21, 22, 23, 24, 25, 26, 27, 39, 40, 41, 42, 43, 48 and Gasoline Storage Area, No. 15; that portion of Building #4 which is the heating plant.

Necessary Operating Equipment

Description

Item		Unit
1	Box.Aircraft Tool	2
2	Drill, Hand Cap 0- 3/8"	2
3	Drill, Breast 1/8 to ½" Cap.	1
4	File, Flat, Length 10"	3
5	File, Flat, Length 12"	3
6	File, Second Cut, Length 6"	3
7	File, Second Cut, Length 8"	3
8	File, Amer., Standard Flat Second Cut 12" lgth.	3
9	File, Flat, Smooth Length 6"	3
10	File, Half Round, Bastard 8"	3
11	File, Amer. Standard, Half Round 10"	3
12	File, Half Round Bastard 12"	3
13	File, Half Round Bastard 8"	3
14	File, Flat Smooth 10"	3
15	File, Second Cut 8"	3
16	File, American Standard Mill, Length 10", smooth	3

17	File, Round 10"	3
18	File, Round, Smooth 6"	1
19	File, Length 12" NAF-1103-15	1
20	Frames, Hacksaw, Adjustable	1
21	Frames	1
23	Levels	1
24	Nippers	1
25	Wrench, open end 1-1/16 x 1½	1
26	Punch 1/16 x 4"	1
27	Punch	1
28	Screwdriver, Heavy Duty	4
29	Screwdriver, common 3"	2
30	Screwdriver, 4"	3
31	Screwdriver, 6"	3
32	Screwdriver, Crosspoint 1½". Blade Lgth. 5"	3
33	Screwdriver, Reed & Prince	3
34	Screwdriver, Crosspoint, Comb. 4"	3
35	Screwdriver, Cross-slot 6"	3
36	Screwdriver, Electrician 3" blade	1
37	Screwdriver, Electrician 5" blade	1
38	Screwdriver, Offset, 4-3/4" blade	1
39	Screwdriver, Square shank plastic handle 6"-7/16"	4
40	Screwdriver, Square Shank, plastic handle 12"	1
41	Screwdriver, Square Shank, plastic handle 9 x 12	1
42	Wrench, Adjustable Jaw, Length 11"	3
43	Wrench, Double end box 1-5/16 x 1½	2
44	Wrench Allen Head, Size 5/64"	1
45	Wrench, Hexagon 90 deg. ¼" hex	1
46	Wrench, Hexagon 90 deg. 5/8" hex	6
47	Wrench, hex 90 deg. 9/16" hex	9
48	Wrench, Ignition Size 15 and 15/64 60 end 13/64 length 3"	1
49	Wrench, Engineers, Open and Double 15 deg. size 9/16" x 5/8"	2
50	Wrench, Open end, box end combination 7/16 opening	1
51	Wrench, Open end, box, combination 5/8" opening	1
52	Wrench, Open end, box, combination 11/16" opening	2
53	Wrench, Open end, box, combination 3/4" opening	3
54	Wrench, Open end, box, combination 13/16" opening	3
55	Wrench, Open end box, combination 7/8" opening	3
56	Wrench, open end box end, combination 15/16"opening	3
57	Wrench, Open end, Box end, combination 1" opening	2
58	Wrench, Open end, box end, combination 1-1/8" opening	3
60	Hammer, carpenter, claw 8 oz.	2
61	Hammer, copper faced	2
62	Hammer, cellulose	2
63	Hammer, inserted face hide, cl. 2	4
64	Hammer, ball pein, ½ lb. 10"	3
65	Hammer, ball pein	2
66	Hammer, machinists, ball pein	3
67	Hammer, Tinner's	2
68	Hammer, Tinner's	3
69	Handle, File, 1½ x 4½"	3
70	Handle, File	2
71	Handle, reversible ratchet drive ½" lgth. 4 21/64	3
72	Wrench, Speed Handle	3
73	Hammer, Bronze Double Ball Face 3 ozs.	2
74	Iron, Solder, electric 115V	3
75	Letter Set	1
76	Reamer Set Type C	1
77	Rivet Cherry	6
78	Pick	1
85	Bars, Digging	1
86	Cant-Hook	1
87	Cutter, Asbestos, Shingle	1
89	Grindstone, Hand	1
90	Horses, car, steel	6
92	Handles, Pick	10
93	Lantern, Hand, oil	3
94	Mattock	1
96	Spoons, Hole, Post	6
97	Rakes, Iron, Garden	1
98	Rakes, wood, grass	1
101	Saw, 2 men	16
102	Shovel, sq. pt., D-handle	16
104	Shovel, sq. pt., Long Handle	1
111	Truck, Two Wheel, Hand	1
113	Lubricator, Balcrank	1
121	Beacon, 36" revolving on tower	

Book 1116

142	Power Plant	1
143	Cable #16, 20 with Outlets every 400, AN-S-2 Type	14400 ft
144	Complete lighting units with green lens	4
145	Complete lighting units with white lens	16
146	Complete lighting units with yellow white lens	16
147	Trucks for equipment storage	3
148	Lens, green	2
149	Lens, yellow white	6
150	Lens, white	6
151	Cone Adapters	6
152	Light Assembly	25
153	Cones	25
154	Lamps	1
159	Northwest Truck Crane	1
162	Chrysler Trailer Pumper	1
164	International 1½ ton truck with J-4 lighting unit	1
161	Huber Plane Handling Tractor	1

EXCEPTING, HOWEVER, from this conveyance all right, title and interest in and to all its property in the nature of equipment, furnishings and other personal property located on the above described premises which can be removed from the land without material injury to the land or structures located thereon, other than property of such nature located on the premises conveyed hereby which is reasonably necessary for the operation or maintenance of the airport or for the operation or maintenance of the structures and improvements specifically listed hereinabove as being transferred hereby, for any reasonable use for which such structures or improvements are readily adaptable; and further excepting from this conveyance all its structures on said premises other than structures specifically described or enumerated above as being conveyed hereunder; and reserving to the party of the first part for itself and its lessees, licensees, permittees, agents and assigns the right to use the property and structures excepted hereby (if any) in such a manner as will not materially and adversely affect the development, improvement, operation or maintenance of the airport and the right of removal from said premises of such property and structures, all within a reasonable period of time after the date hereof, which shall not be construed to mean any period more than one (1) year after the date of this instrument, together with a right of ingress to and egress from said premises for such purposes.

And further excepting from this conveyance and reserving to the party of the first part, in accordance with Executive Order 9908, approved on December 5, 1947, (12 F. R. 8223), as follows: all uranium, thorium, and all other materials determined pursuant to section 5 (b) (1) of the Atomic Energy Act of 1946 (60 Stat. 761), to be peculiarly essential to the production of fissionable material, contained, in whatever concentration, in deposits in the lands covered by this instrument are hereby reserved for the use of the United States, together with the right of the United States through its authorized agents or representatives at any time to enter upon the land and prospect for, mine, and remove the same, making just compensation for any damage or injury occasioned

thereby. However, such land may be used, and any rights otherwise acquired by this disposition may be exercised, as if no reservation of such materials had been made; except that, when such use results in the extraction of any such material from the land in quantities which may not be transferred or delivered without a license under the Atomic Energy Act of 1946, as it now exists or may hereafter be amended, such material shall be the property of the United States Atomic Energy Commission, and the Commission may require delivery of such material to it by any possessor thereof after such material has been separated as such from the ores in which it was contained. If the Commission requires the delivery of such material to it, it shall pay to the person mining or extracting the same, or to such other person as the Commission determines to be entitled thereto, such sums, including profits, as the Commission deems fair and reasonable for the discovery, mining development, production, extraction, and other services performed with respect to such material prior to such delivery, but such payment shall not include any amount on account of the value of such material before removal from its place of deposit in nature. If the Commission does not require delivery of such material to it, the reservation hereby made shall be of no further force or effect.

Said property transferred hereby was duly declared surplus and was assigned to the War Assets Administrator for disposal, acting pursuant to the provisions of the above mentioned Act, as amended, Executive Order 9689, and applicable rules, regulations and orders.

TO HAVE AND TO HOLD said premises, with appurtenances, except the fissionable materials and other property excepted above and the rights reserved above, and under and subject to the reservations, restrictions and conditions set forth in this instrument, unto the said party of the second part, its successors and assigns forever.

By the acceptance of this deed or any rights hereunder, the said party of the second part, for itself, its successors and assigns agrees that the transfer of the property transferred by this instrument, is accepted subject to the following rescrictions set forth in subparagraphs (1) and (2) of this paragraph, which shall run with the land, imposed pursuant to the authority of Article 4, Section 3, Clause 2 of the Constitution of the United States of America, the Surplus Property Act of 1944, as amendéd, Reorganization Plan One of 1947 (12 Fed. Reg. 4534) and applicable rules, regulations and orders:

(1) That, except as provided in subparagraph (6) of the next succeeding unumbered paragraph, the land, buildings, structures, improvements and equipment in which this instrument transfers any interest shall be used for public airport purposes for the use and benefit of the public, on reasonable terms and without

unjust discrimination and without grant or exercise of any exclusive right for use of the airport within the meaning of the terms "exclusive right" as used in subparagraph (4) of the next succeeding paragraph. As used in this instrument, the term "airport" shall be deemed to include at least all such land, buildings, structures, improvements and equipment.

(2) That, except as provided in subparagraph (6) of the next succeeding paragraph, any landing area, as defined in WAA Regulation 16, dated June 26, 1946, and all structures, improvements, facilities and equipment in which this instrument transfers any interest shall be maintained for the use and benefit of the public at all times in good and serviceable condition, provided, however, that such maintenance shall be required as to structures, improvements, facilities and equipment only during the remainder of their estimated life, as determined by the Civil Aeronautics Administrator or his successor. In the event materials are required to rehabilitate or repair certain of the aforementioned structures, improvements, facilities or equipment, they may be procured by demolition of other structures, improvements, facilities or equipment transferred hereby and located on the above described premises which have outlived their use as airport property in the opinion of the Civil Aeronautics Administrator or his successor.

By the acceptance of this deed or any rights hereunder, the said party of the second part for itself, its successors and assigns, also assumes the obligations, of, covenants to abide by and agrees to, and this transfer is made subject to, the following reservations and restrictions set forth in subparagraphs (1) to (7) inclusive, of this paragraph, which shall run with the land, imposed pursuant to the authority of Article 4, Section 3, Clause 2 of the Constitution of the United States of America, the Surplus Property Act of 1944, as amended, Reorganization Plan One of 1947 (12 Fed. Reg. 4534) and applicable rules, regulations and orders:

(1) That insofar as it is within its powers, the party of the second part shall adequately clear and protect the aerial approaches to the airport by removing, lowering, relocating, marking or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

(2) That the United States of America (hereinafter sometimes referred to as the "Government") through any of its employees or agents shall at all times have the right to make nonexclusive use of the landing area of the airport at which any of the property transferred by this instrument is located or used, without charge: Provided, however, that such use may be limited as may be determined at any time by the Civil Aeronautics Administrator or his successor to be

necessary to prevent undue interference with use by other authorized aircraft; Provided, further, that the Government shall be obligated to pay for damages caused by such use, or if its use of the landing area is substantial, to contribute a reasonable share of the cost of maintaining and operating the landing area, commensurate with the use made by it.

(3) That during any national emergency declared by the President of the Unites States of America or the Congress thereof, the United States of America shall have the right to make exclusive or nonexclusive use and have exclusive or nonexclusive control and possession, without charge, of the air-port at which any of the property transferred by this instrument is located or used, or of such portion thereof as it may desire, provided, however, that the Government shall be responsible for the entire cost of maintaining such part of the airport as it may use exclusively, or over which it may have exclusive possession or control, during the period of such use, possession, or control, and shall be obligated to contribute a reasonable share, commensurate with the use made by it, of the cost of maintenance of such property as it may use nonexclusively or over which it may have nonexclusive control and possession; Provided, further, that the Government shall pay a fair rental for its use, control, or possession, exclusively or nonexclusively of any improvements to the airport made without United States aid.

(4) That no exclusive right for the use of the airport at which the property transferred by this instrument is located shall be vested (directly or indirectly) in any person or persons to the exclusion of others in the same class, the term "exclusive right" being defined to mean:

(a) any exclusive right to use the airport for conducting any particular aeronautical activity requiring operation of aircraft;

(b) any exclusive right to engage in the sale or supplying of aircraft, aircraft accessories, equipment, or supplies (excluding the sale of gasoline and oil) or aircraft services necessary for the operation of aircraft (including the maintenance and repair of aircraft, aircraft engines, propellers, and appliances).

(5) That, except as provided in subparagraph (6) of this paragraph, the property transferred hereby may be successively transferred only with the proviso that any such subsequent transferee assumes all the obligations imposed upon the party of the second part by the provisions of this instrument.

(6) That no property transferred by this instrument shall be used, leased, sold, salvaged, or disposed of by the party of the second part for other than airport purposes without the written consent of the Civil Aeronautics Administrator, which shall be granted only if said Administrator determines that the property can be used, leased, sold, salvaged or disposed of for other than airport

purposes without materially and adversely affecting the development, improvement, operation or maintenance of the airport at which such property is located; Provided, that no structures disposed of hereunder shall be used as an industrial plant, factory, or similar facility within the meaning of Section 23 of the Surplus Property Act of 1944, as amended, unless the party of the second part shall pay to the United States such sum as the War Assets Administrator or his successor in function shall determine to be a fair consideration for the removal of the restriction imposed by this proviso.

(7) The party of the second part does hereby release the Government, and will take whatever action may be required by the War Assets Administrator to assure the complete release of the Government from any and all liability the Government may be under for restoration or other damages under any lease or other agreement covering the use by the Government of the airport, or part thereof, owned, controlled or operated by the party of the second part, upon which, adjactnt to which, or in connection with which, any property transferred by this instrument was located or used; Provided, that no such release shall be construed as depriving the party of the second part of any right it may otherwise have to receive reimbursement under Section 17 of the Federal Airport Act for the necessary rehabilitation or repair of public airports heretofore or hereafter substantially damaged by any Federal agency.

By acceptance of this instrument or any rights hereunder, the party of the second part further agrees with the party of the first part as follows:

(1) That in the event that any of the aforesaid terms, conditions, reservations or restrictions is not met, observed, or complied with by the party of the second part or any subsequent transferee, whether caused by the legal inability of said party of the second part or subsequent transferee to perform any of the obligations herein set out, or otherwise, the title, right of possession and all other rights transferred by this instrument to the party of the second part, or any portion thereof, shall at the option of the party of the first part revert to the party of the first part sixty (60) days following the date upon which demand to this effect is made in writing by the Civil Aeronautics Administrator or his successor in function, unless within said sixty (60) days such default or violation shall have been cured and all such terms, conditions, reservations and restrictions shall have been met, observed or complied with, in which event said reversion shall not occur and title, right of possession, and all other rights transferred hereby, except such, if any, as shall have previously reverted, shall remain vested in the party of the second part, its transferees, successors and assigns,

(2) That if the construction as covenants of any of the foregoing reserva-

tions and restrictions recited herein as covenants or the application of the same as covenants in any particular instance is held invalid, the particular reservations or restrictions in question shall be construed instead merely as conditions upon the breach of which the Government may exercise its option to cause the title, right of possession and all other rights transferred to the party of the second part, or any portion thereof, to revert to it, and the application of such reservations or restrictions as covenants in any other instance and the construction of the remainder of such reservations and restrictions as covenants shall not be affected thereby.

IN WITNESS WHEREOF, the United States of America, acting by and through the War Assets Administration, has caused these presents to be executed in its name and in its behalf by Paul F. Healy, Assistant Deputy Regional Director for Real Property Disposal, Boston, Massachusetts, and the Inhabitants of the Town of Sanford, to evidence its complete acknowledgment of, accord with, acceptance of and agreement to be bound by the terms, conditions, reservations and restrictions set forth in this instrument, has caused these presents to be executed in its name and in its behalf by Leon H. Powers, Secretary and Clerk of the Sanford Airport Commission, and attested by Arthur M. Carignan, Chairman of the Board of Selectmen of said Sanford, and its seal to be hereunto affixed, on the 15th day of July, 1948.

WITNESSES:

Katharine G. Learson

Philip Flin

UNITED STATES OF AMERICA,
Acting by and through
WAR ASSETS ADMINISTRATION

By Paul F. Healy
Assistant Deputy Regional Director for Real Property Disposal
Boston, Massachusetts
War Assets Administration

WITNESSES:

Maurice J. Maurice
Theodore C. Gauthier

INHABITANTS OF THE TOWN OF SANFORD
(Corporate Seal)

By Leon H. Powers
Secretary and Clerk,
Sanford Airport Commission

ATTEST:
Arthur M. Carignan
Chairman, Board of Selectmen

COMMONWEALTH OF MASSACHUSETTS)
) ss
COUNTY OF SUFFOLK)

On the 15th day of July, 1948, before me, Katharine G. Learson, the undersigned, a Notary Public in and for the Commonwealth of Massachusetts, then and there personally appeared Paul F. Healy, Assistant Deputy Regional Director for Real Property Disposal, War Assets Administration, Boston, Massachusetts, duly empowered, authorized and delegated by the WAR ASSETS ADMINISTRATION, pursuant to Delegation of Authority effective April 9, 1948, who signed the fore-

going instrument in behalf of the United States of America, and acknowledged the same to be the free act and deed of said UNITED STATES OF AMERICA.

Katharine G. Learson Notary Public and seal (L.S.)

My commission expires September 25, 1953.

STATE OF MAINE)
COUNTY OF YORK) ss

On the 22nd day of July, 1948, before me personally appeared Leon H. Powers, secretary of the Sanford Airport Commission, to me known and known by me to be the party executing the foregoing instrument on behalf of the Sanford Airport Commission and the Inhabitants of the Town of Sanford, and acknowledged said instrument, by him duly executed to be the free act of the Sanford Airport Commission, as his free act and deed individually and in his capacity as Secretary and Clerk of the Sanford Airport Commission of the Inhabitants of the Town of Sanford.

Leo C. Pelletier (L.S.)

Notary Public in and for said County and State
My commission expires Mar. 6, 1953

UNITED STATES OF AMERICA

War Assets Administration

CERTIFICATE

I, the undersigned, L. S. Wright, Secretary of The General Board War Assets Administration, in my official capacity as such Secretary, and duly authorized in the DELEGATION OF AUTHORITY INCIDENT TO THE CARE, HANDLING AND CONVEYANCING dated April 9, 1948, to make the following certification, do hereby certify:

1. That PAUL F. HEALY is the Assistant Deputy Regional Director for Real Property Disposal, War Assets Administration, duly appointed, authorized and acting in such capacity at the time of the execution of the attached instrument.

2. That the attached DELEGATION OF AUTHORITY INCIDENT TO THE CARE, HANDLING AND CONVEYANCING is a true and correct copy of the original of said DELEGATION OF AUTHORITY, dated April 9, 1948.

Given under my hand this 15th day of July, 1948.

L. S. Wright
Secretary of the General Board
(Title)
Office of Real Property Disposal
(Office)
War Assets Administration

(NOTICE)

DELEGATION OF AUTHORITY NO. 65

DELEGATION OF AUTHORITY INCIDENT TO THE CARE, HANDLING, AND CONVEYANCING OF SURPLUS REAL PROPERTY AND PERSONAL PROPERTY ASSIGNED FOR DISPOSAL THEREWITH

The Deputy Administrator, Office of Real Property Disposal, and each Associ-

ate Deputy Administrator, Office of Real Property Disposal, War Assets Administration; the Regional Director, the Deputy Regional Director for Real Property Disposal, the Associate Deputy Regional Director for Real Property Disposal, and the Assistant Deputy Regional Director for Real Property Disposal, in each and every War Assets Administration Regional Office; the District Director and Deputy District Director for Real Property Disposal, in each and every War Assests Administration District Office, and any person or persons designated to act, and acting, in any of the foregoing capacities, are hereby authorized, individually (1) to execute, acknowledge and deliver any deed, lease, permit, contract, receipt, bill of sale, or other instruments in writing in connection with the care, handling and disposal of surplus real property, or personal property assigned for disposition with real property, located within the United States, its territories and possessions, (2) to accept any notes, bonds, mortgages, deeds of trust or other security instruments taken as consideration in whole or in part for the disposition of such surplus real or personal property, and to do all acts necessary or proper to release and discharge any such instrument or any lien created by such instrument or otherwise created, and (3) to do or perform any other act necessary to effect the transfer of title to any such surplus real or personal property located as above provided; all pursuant to the provisions of the Surplus Property Act of 1944, as amended, (58 Stat. 765; 50 U.S.C. App. Supp. 1611); Public Law 181, 79th Cong. (59 Stat. 533; 50 U.S.C. App. Supp. 1614a, 1614b); Reorganization Plan 1 of 1947 (12 F.R.4534); Public Law 289, 80th Cong. (61 Stat. 678); and War Assets Administration Regulation No. 1 (12 F. R. 6661), as amended.

The Regional Director in each and every War Assets Administration Regional Office is hereby authorized to redelegate to such person or persons as he may designate the authority delegated to him by this instrument.

L. S. Wright, the Secretary of The General Board and Robert Whittet, Associate Deputy Administrator, Office of Real Property Disposal, War Assets Administration, are hereby authorized, individually, to certify true copies of this Delegation and provide such further certification as may be necessary to effectuate the intent of this Delegation in form for recording in any jurisdiction, as may be required.

This Delegation shall be effective as of the opening of business on April 9 1948.

This authority is in addition to delegations of authority previously granted under dates of May 17, 1946; May 29, 1946; July 30, 1946; September 16, 1946; October 31, 1946; November 22, 1946; January 13, 1947; June 6, 1947; and December 1, 1947; but shall not in any manner supeesede provisions of said

delegations as do not conflict with the provisions of this Delegation.

Jess Larson

JESS LARSON
Administrator

Dated: APR 9, 1948.

Recorded according to the original received July 22, 1948, at 11h. 50m. A. M.

KNOW ALL MEN BY THESE PRESENTS That We, Nils Knutson and Kerstin Knutson, both of Stoneham in the County of Middlesex and Commonwealth of Massachusetts, the mortgagees named in a certain mortgage given by Andrew C. Scontras, and Gloria A. Scontras, both of Old Orchard Beach in the County of York and State of Maine, to us, dated the tenth day of September in the year Nineteen Hundred and Forty-two, and recorded with York County Deeds in Book 993, Page 247 do hereby acknowledge that we have received from Andrew C. Scontras and Gloria A. Scontras, the mortgagors named in said Mortgage, full payment and satisfaction of the same; and in consideration thereof we do hereby cancel and discharge the said mortgage, and release and quit-claim unto the said Andrew C. Scontras and Gloria A. Scontras, and their heirs and assigns, forever, the premises thereby conveyed.

In witness whereof, we hereunto set our hands and seals this thirteenth day of July, A.D. 1948.

Nils Knutson (seal)

Kerstin Knutson (seal)

COMMONWEALTH OF MASSACHUSETTS

Middlesex SS: July 13, 1948 Then personally appeared the above subscribed, Nils Knutson and Kerstin Knutson, to me known, and acknowledged the foregoing instrument to be their free act and deed, before me

Doris H. Saxby Notary Public (L.S.)

NOTARY PUBLIC
My Commission Expires October 28, 1949.

Recorded according to the original received July 23, 1948, at 7h. 50m. A.M.

Know All Men by These Presents, That I, Robert G. Marcus of Trenton in the County of Mercer and State of New Jersey mortgagee owner of a certain mortgage given by Edythe Matson of Portland in the County of Cumberland and State of Maine to me, the said Robert G. Marcus dated September 24th, A.D. 1946, and recorded in the York Registry of Deeds, Book 1079, Page 255, do hereby acknowledge that I have received full payment and satisfaction of the same and of the debt thereby secured, and in consideration thereof I do hereby cancel and

#1

Book 1116 Page 303

Locus

eight.

Signed, Sealed and Delivered in presence of — Harold G. Lee (seal)

T. B. Walker (to both) — Viola J. Lee (seal)

State of Maine,
County of York ss. February 7, 1948. Personally appeared the above named Harold G. Lee and acknowledged the above instrument to be his free act and deed.

Before me, Thomas B. Walker Justice of the Peace.

Recorded according to the original received February 9, 1948 at 10h. 15m. A.M.

KNOW ALL MEN BY THESE PRESENTS: that the UNITED STATES OF AMERICA, acting by and through WAR ASSETS ADMINISTRATION, under and pursuant to Reorganization Plan One of 1947 (12 Fed. Reg. 4534), and the powers and authority contained in the provisions of the Surplus Property Act of 1944, as amended, and applicable rules, regulations and orders, part of the first part, in consideration of the assumption by the INHABITANTS OF THE TOWN OF SANFORD, an incorporated town in the State of Maine, acting by and through the Sanford Airport Commission, party of the second part, of all the obligations and its taking subject to certain reservations, restrictions and conditions and its covenants to abide by and agreement to certain other reservations, restrictions and conditions, all as set out hereinafter, does hereby remise, release, and forever quitclaim unto the said INHABITANTS OF THE TOWN OF SANFORD, its successors and assigns, under and subject to the reservations, restrictions and conditions, exceptions, and reservation of property and rights hereinafter set out, all its right, title, and interest in and to the following described property situated in said Sanford, in the County of York, State of Maine, to wit:

SEE BOOK 1946 PAGE 659

PARCEL ONE: consisting of two tracts No. 1 and 2, respectively, and each particularly described as follows:

Tract #1. Beginning at a corner common to the lands of Hiram Willard, Town of Sanford, and the Sanford Airport Corporation; thence in a southeasterly direction bounded northeasterly by lands of the Sanford Airport, S. 53 deg. 32' E. 1,200 ft., more or less; thence in a southwesterly direction bounded southeasterly by lands of the Sanford Airport S. 36 deg. 16' W. 4,265 ft., more or less, to a corner common to the lands of Hiram Willard, Sanford Airport, William N. Campbell and the Bauneg Beg Country Club; thence in a northwesterly direction bounded southwesterly by lands of the Bauneg Beg Country Club, N. 82 deg. 36' W. 1,647.73 ft., more or less, to a corner common to the lands of Hiram Willard, Bauneg Beg Country Club and James Ford; thence in a northeasterly direction bounded northwesterly by lands of James Ford and Town of Sanford, N. 35 deg. 36'

E. 5,063.78 ft., more or less, to a corner common to the lands of Hiram Willard, Peter Morin, Town of Sanford and Sanford Airport Corporation; thence in a southeasterly direction bounded northeasterly by lands of the Sanford Airport Corporation, S. 53 deg. 32' E. 276.99 ft., more or less, to the point of beginning, containing 156.5 acres, more or less, as shown on that certain plat entitled "Sketch of Lands, Sanford Naval Air Station, Sanford, York County, Maine" dated October 14, 1943.

Tract #2. Beginning at a corner common to the lands of Frank Hurd, Alta M. Wise and Louie E. Whitehouse; thence in a southwesterly direction bounded southeasterly by lands of Louie E. Whitehouse S. 36 deg. 10' W. 1565.16 ft., more or less; thence in a southeasterly direction bounded northeasterly by lands of Louie E. Whitehouse, S. 53 deg. 50' E. 715 ft.; thence in a southwesterly direction bounded southeasterly by lands of Philip Thibodeau, S. 36 deg. 10' W. 1,375.15 ft., to a corner common to the lands of Karl Hilton, William Hochberg and Philip Thibodeau; thence in a northwesterly direction bounded southwesterly by lands of William Hochberg, N. 50 deg. 06' W. 776.71 ft.; thence in a northeasterly direction, N. 32 deg. 14' E. 543.88 ft., more or less, to lands of Frank Hurd; thence in a northwesterly direction bounded southwesterly by lands of owner unknown, N. 66 deg. 07' W. 1,270.45 ft., more or less, to the most westerly corner of lands of Frank Hurd; thence in a northeasterly direction bounded partly by lands of the Sanford Airport, N. 36 deg. 39' E. 1,974.17 ft., more or less; thence continuing along the lands of the Sanford Airport, the following two courses and distances, S. 56 deg. E. 330 ft. more or less; thence N. 36 deg. 30' E. 2,150 ft., more or less, to the most northerly corner of lands owned by Frank Hurd; thence S. 53 deg. 50' E. 362.97 ft., more or less, to lands of Alta M. Wise; thence the following two courses and distances along lands of Alta M. Wise, S. 36 deg. 10' W. 1,375.15 ft., more or less; thence S. 53 deg. 50' E. 540.94 ft., more or less; thence N. 12 deg. 59' W. 244.66 ft. to the point of beginning, containing 114.4 acres, more or less, as shown on that certain plat entitled "Sketch of Lands, Sanford Naval Air Station, Sanford, York County, Maine" dated October 14, 1943.

The above described property was acquired by the United States Government by condemnation proceedings entitled "United States of America v. 270.9 Acres of Land in the Town of Sanford, York County, State of Maine, Hiram Willard, et al., Civil 1680, in the District Court of the United States for the District of Maine, Southern Division", having an order of Judgment entered December 6, 1943.

The above-described premises are subject to existing easements for roads, highways, public utilities, railways and pipe lines.

PARCEL TWO: All appurtenant avigation, sewer, access road, electric power

transmission line, (any of the last three rights acquired from the Sanford Airport Corporation by instrument dated November 27, 1943, are expressly excluded) and other easements; and the following government-owned buildings, structures, improvements, utilities and betterments: runways, taxiways, aprons, field lighting system and field markers, drainage system, fencing, water and sewerage system, fuel and oil storage distribution system, electric power and telephone distribution systems, buildings and structures, together with heating systems installed therein, numbered as follows: 1, 2, 3, 9-14 incl., 16, 19, 44-47 incl., 103, and 104.

PARCEL THREE: The following necessary operating equipment:

Item No.	Description	Unit
22	Gun, Lubricating High Pressure	Three (3)
79	Axe, chopping	Four (4)
80	Can, gas 5 gallon safety	Two (2)
81	Digger, Hole Post	One (1)
82	Brooms, Push (Stable)	Two (2)
83	Bars, Crow	Three (3)
84	Brush Hook	One (1)
88	Hammer, sledge, stone	Two (2)
91	Irons, Tire	Four (4)
95	Forks, Pitch Hay	Two (2)
99	Scoops, Snow, Wood 30" x 30"	Two (2)
100	Scythes, with swath	One (1)
103	Shovel, Sq. Point	Three (3)
105	Tampers, hand	One (1)
106	Basket, File	Six (6)
107	Cans, G.I., Waste	Twenty (20)
108	Cabinet, First Aid	One (1)
109	Pump, Drum, Oil, Hand	One (1)
110	Tree, clothes	Twelve (12)
112	Power, grease gun, Alemite	One (1)
114	Fire Extinguishers, CO2, small hand type	Thirteen (13)
115	Runway, contact lights, snow area type, white	Eighty (80)
116	Runway contact lights, snow area type, yellow white	Eighty (80)
117	Runway contact lights, snow area type, green	Twenty-four (24)
118	Boundary Lights, cone mounted, Westinghouse series disconnecting type unit, white	One hundred thirty-eight (138)
119	Boundary lights, cone mounted, Westinghouse series, disconnecting type unit, green	Twenty-four (24)
120	Semi Permanent taxiway lights, blue	One hundred & five (105)
122	Projector, ceiling	One (1)
123	Lights, obstruction, red	Seventeen (17)
124	Green Lens	Four (4)
125	Yellow white lens	Sixteen (16)
126	White lens	Sixteen (16)
127	Cable Assembly, complete	Twelve (12)
128	Light Assembly	Twelve (12)
129	Lamps	Twenty-five (25)
130	Columns, fibre 20"	Fifty (50)
131	Transformers S/17 6.6 amp	Six (6)
132	Plates, base	Four (4)
133	Green lens	Two (2)
134	White Lens	Six (6)
135	Unit, complete	Four (4)
136	Cones	Twenty-five (25)
137	Cone Adapter	Ten (10)
138	Light Assembly	Ten (10)
139	Lamps	Twenty-five (25)
140	Red lens	Four (4)
141	Units, lighting, complete	Two (2)

Item No.	Description	Unit
155	Chevrolet 1½ ton dump truck with plow	One (1)
156	Reo, 3½ ton dump truck with plow	One (1)
157	Jeep, Willys	One (1)
158	Ford, truck, equipped with Sno-Go rotary plow, BNAS853, Serial No. KM45-4-499728	One (1)
160	Bean Fire and Rescue Fog Truck	One (1)
161	Huber Plane, handling tractor	One (1)
163	International I-6 or Case Tractor with Worthington 5 gang mower	One (1)
165	Motor Grader, Adams	One (1)
166	Sander, Burch, for attaching to dump truck	One (1)
	Electric Control Tower Equipment	
1	SCR 624 Transceivers	Two (2)
2	RAL Receivers	Two (2)
3	BC 329 Transmitter	One (1)

EXCEPTING, HOWEVER, from this conveyance all right, title and interest in and to all property in the nature of equipment, furnishings and other personal property located on Parcel One or the land leased from the Inhabitants of the Town of Sanford as hereinafter set out, which can be removed from the land without material injury to the land or structures located thereon, other than property of such nature located on such premises which is required for the efficient operation for airport purposes of the structures and improvements specifically listed hereinabove as being transferred hereby; and further excepting from this conveyance all structures on such premises other than structures specifically described or enumerated above as being conveyed hereunder, and reserving to the party of the first part the right of removal from the premises of the property and structures excepted hereby within a reasonable period of time after the date hereof, which shall not be construed to mean any period less than one (1) year after the date of this instrument. The party of the second part hereby agrees to furnish, without any cost or charge to the party of the first part, the same security and protection for the property and structures excepted from this conveyance as it will provide for its own property at this airport.

Further, the party of the first part, for the considerations hereinabove expressed, does hereby surrender, subject to the terms and conditions of this instrument, to the party of the second part the former's leasehold interest in and to the premises set forth and described in a lease from the Inhabitants of the Town of Sanford to the United States of America, dated December 7, 1943, and known as NOy-(R)-34195, as modified by Supplemental Agreement known as NOy-(R)-35497 dated March 13, 1944, covering 1250 acres more or less of land situated in Sanford, County of York, State of Maine.

The party of the second part does hereby release the party of the first part from any and all claims which exist or may arise under the provisions of the aforesaid lease, as so modified, except claims which may be submitted under Section 17 of the Federal Airport Act.

1250 Acres leased by Sanford to USA

Said property transferred hereby was duly declared surplus and was assigned to the War Assets Administrator for disposal, acting pursuant to the provisions of the abovementioned Act, as amended, Reorganization Plan One of 1947, applicable rules, regulations and orders.

That by the acceptance of this instrument or any rights hereunder, the said party of the second part, for itself, its successors and assigns, agrees that the aforesaid surrender of leasehold interest and transfer of other property shall be subject to the following restrictions, set forth in subparagraphs (1) and (2) of this paragraph, which shall run with the land, imposed pursuant to the authority of Article 4, Section 3, Clause 2 of the Constitution of the United States of America, the Surplus Property Act of 1944, as amended, Reorganization Plan One of 1947, and applicable rules, regulations and orders:

(1) That the aforesaid leased premises and all property described in Parcels ONE, TWO and THREE above which together shall hereinafter be called the "airport", shall be used for public airport purposes, and only for such purposes, on reasonable terms and without unjust discrimination and without grant or exercise of any exclusive right for use of the airport within the meaning of Section 303 of the Civil Aeronautics Act of 1938. As used herein, "public airport purposes" shall be deemed to exclude use of the structures conveyed hereby, or any portion thereof, for manufacturing or industrial purposes. However, until, in the opinion of the Civil Aeronautics Administration or its successor Government agency, it is needed for public airport purposes, any particular structure transferred hereby may be utilized for non-manufacturing or non-industrial purposes in such manner as the party of the second part deems advisable, provided that such use does not interfere with the operation of the remainder of the airport as a public airport.

(2) That the entire landing area, as defined in WAA Regulation 16, dated June 26, 1946, and any amendments thereto, and all structures, improvements, facilities and equipment of the airport shall be maintained at all times in good and serviceable condition to assure its efficient operation; provided, however, that such maintenance shall be required as to structures, improvements, facilities and equipment only during the remainder of their estimated life as determined by the Civil Aeronautics Administration or its successor Government agency. In the event materials are required to rehabilitate or repair certain of the aforementioned structures, improvements, facilities or equipment, they may be procured by demolition of other structures, improvements, facilities or equipment transferred hereby and located on the above described premises, which have outlived their use as airport property in the opinion of the Civil Aeronautics Administration or its successor Government agency.

That by the acceptance of this instrument, or any rights hereunder, the party of the second part, for itself, its successors and assigns, also assumes the obligations of, covenants to abide by and agrees to, and this surrender and transfer is made subject to, the following reservations and restrictions set forth in subparagraphs (1) to (6) of this paragraph, which shall run with the land, imposed pursuant to the authority of Article 4, Section 3, Clause 2 of the Constitution of the United States of America, the Surplus Property Act of 1944, as amended, said Reorganization Plan One of 1947, and applicable rules, regulations and orders.

(1) That insofar as is within its powers and reasonably possible, the party of the second part, and all subsequent transferees, shall prevent any use of land either within or outside the boundaries of the airport, including the construction, erection, alteration, or growth of any structure or other object thereon, which use would be a hazard to the landing, taking-off, or maneuvering of aircraft at the airport, or otherwise limit its usefulness as an airport.

(2) That the building areas and non-aviation facilities, as such terms are defined in WAA Regulation 16 dated June 26, 1946, of or on the airport shall be used, altered, modified, or improved only in a manner which does not interfere with the efficient operation of the landing area and of the airport facilities, as defined in WAA Regulation 16, as above set forth.

(3) That itinerant aircraft owned by the United States of America (hereinafter sometimes referred to as the "Government"), or operated by any of its employees or agents on Government business, shall at all times have the right to use the airport in common with others; provided, however that such use may be limited as may be determined at any time by the Civil Aeronautics Administration or the successor Government agency to be necessary to prevent interference with use by other authorized aircraft, so long as such limitation does not restrict the Government's use to less than fifteen (15) per centum of capacity of the landing area of the airport. Government use of the airport by virtue of the provisions of this subparagraph shall be without charge of any nature other than payment for damage caused by such itinerant aircraft.

(4) That during the existence of any emergency declared by the President of the United States of America, or the Congress thereof, the Government shall have the right without charge, except as indicated below, to the full, unrestricted possession, control and use of the landing area, building areas, and airport facilities, as such terms are defined in said WAA Regulation 16, including any additions or improvements thereto made subsequent to the declaration of any part of the airport as surplus; provided, however, that the Government shall be responsible during the period of such use for the entire cost of maintaining all

such areas, facilities and improvements, or the portions used, and shall pay a fair rental for the use of any installations or structures which have been added thereto without Federal aid.

(5) That no exclusive right for the use of any landing area, as such term is defined in WAA Regulation 16, dated June 26, 1946, or air navigation facilities, included in or on the airport, shall be granted or exercised.

(6) That the airport may be successively transferred only with the approval of the Civil Aeronautics Administration or the successor Government agency, and with the proviso that such subsequent transferee assumes all the obligations imposed upon the party of the second part by the provisions of this instrument.

By acceptance of this instrument, or any right hereunder, the party of the second part further agrees with the party of the first part as follows:

(1) That upon a breach of any of the aforesaid reservations or restrictions by the party of the second part or any subsequent transferee, whether caused by the legal inability of said party of the second part or subsequent transferee to perform any of the obligations herein set out, or otherwise, the title, right of possession and all other rights transferred to the party of the second part, or any portion thereof, shall at the option of the party of the first part revert to the party of the first part upon demand made in writing by the War Assets Administration or its successor Government agency at least sixty (60) days prior to the date fixed for the revesting of such title, right of possession and other rights transferred or any portion thereof; Provided, that, as to installations or structures which have been added to the premises without Federal aid, the Government shall have the option to acquire title to or use of the same at the then fair market value of the rights therein to be acquired by the Government.

(2) That if the construction as covenants of any of the foregoing reservations and restrictions recited herein as covenants, or the application of the same as covenants in any particular instance is held invalid, the particular reservations or restrictions in question shall be construed instead merely as conditions upon the breach of which the Government may exercise its option to cause the title, right of possession and all other rights transferred to the party of the second part, of any portion thereof, to revert to it, and the application of such reservations or restrictions as covenants in any other instance and the construction of the remainder of such reservations and restrictions as covenants shall not be affected thereby.

(3) That the United States Government, Department of the Navy, may and does hereby reserve the right to use storage space in any and all buildings included in "Parcel Two" hereof, until disposal of the property stored therein.

TO HAVE AND TO HOLD the property transferred hereby, except the property and rights excepted and reserved above, and under and subject to the aforesaid reservations, restrictions and conditions, unto the said party of the second part, its successors and assigns forever.

IN WITNESS WHEREOF, the United States of America, acting by and through the War Assets Administration, has caused these presents to be executed in its name and in its behalf by Paul F. Healy, Assistant Deputy Zone Administrator for Real Property Disposal, Boston, Massachusetts, and the Inhabitants of the Town of Sanford, to evidence its complete acknowledgment of, accord with, acceptance of and agreement to be bound by the terms, conditions, reservations and restrictions set forth in this instrument, has caused these presents to be executed in its name and in its behalf by - - - , Secretary and Clerk of the Sanford Airport Commission, and attested by - - - , Chairman of the Board of Selectmen of said Sanford, and its seal to be hereunto affixed, on the 30th day of December, 1947.

WITNESSES:

Katharine G. Learson
Philip Fern

UNITED STATES OF AMERICA,
Acting by and through
WAR ASSETS ADMINISTRATION
By Paul F. Healy
Assistant Deputy Zone Administrator
for Real Property Disposal
Boston, Massachusetts
War Assets Administration

INHABITANTS OF THE TOWN OF SANFORD
(Corporate Seal)
By Leon H. Powers
Secretary and Clerk,
Sanford Airport Commission

WITNESSES:

Maurice J. Maurice
Theodore C. Gauthier

ATTEST:

Arthur M. Carignan
Chairman, Board of Selectmen

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF SUFFOLK ss On the 3rd day of February, 1948, before me, Katharine G. Learson, the undersigned, a Notary Public in and for the Commonwealth of Massachusetts, then and there personally appeared Paul F. Healy, Assistant Deputy Zone Administrator for Real Property Disposal, War Assets Administration, Boston, Massachusetts, duly empowered, authorized and delegated by the WAR ASSETS ADMINISTRATION, pursuant to Delegation of Authority effective December 1, 1947, who signed the foregoing instrument in behalf of the United States of America, and acknowledged the same to be the free act and deed of said UNITED STATES OF AMERICA.

Katharine G. Learson Notary Public (L.S.)
My commission expires September 25, 1953

STATE OF MAINE
COUNTY OF YORK ss On the 9th day of February, 1948, before me personally appeared Leon H. Powers, Secretary of the Sanford Airport Commission, to me

known and known by me to be the party executing the foregoing instrument on behalf of the Sanford Airport Commission and the Inhabitants of the Town of Sanford, and acknowledged said instrument, by him duly executed to be the free act of the Sanford Airport Commission, as his free act and deed individually and in his capacity as Secretary and Clerk of the Sanford Airport Commission of the Inhabitants of the Town of Sanford.

Leo C. Pelletier Notary Public in and for said County and State (L.S.)
My commission expires March 8, 1953

CERTIFICATE

I, the undersigned L. S. Wright, Secretary, Real Property Review Board, Washington, D. C., War Assets Administration, in my official capacity as such Secretary, Real Property Review Board, and duly authorized in the DELEGATION OF AUTHORITY INCIDENT TO THE CARE, HANDLING AND CONVEYANCING dated December 1, 1947, to make the following certification, do hereby certify:

1. That L. S. Wright is the Secretary, Real Property Review Board Washington, D. C., War Assets Administration, duly appointed, authorized and acting in such capacity at the time of the execution of the attached instrument.

2. That the attached DELEGATION OF AUTHORITY INCIDENT TO THE CARE, HANDLING AND CONVEYANCING is a true and correct copy of the original of said DELEGATION OF AUTHORITY, dated December 1, 1947.

Given under my hand this 30th day of December, 1947.

L. S. Wright Secretary Real Property Review Board
War Assets Administration
Washington, D. C.

DELEGATION OF AUTHORITY NO. 50

DELEGATION OF AUTHORITY INCIDENT TO THE CARE, HANDLING, AND CONVEYANCING OF SURPLUS REAL PROPERTY AND PERSONAL PROPERTY ASSIGNED FOR DISPOSAL THEREWITH

The Deputy Administrator, Office of Real Property Disposal, and each Associate Deputy Administrator, Office of Real Property Disposal, War Assets Administration; the Zone Administrator, the Deputy Zone Administrator for Real Property Disposal, the Associate Deputy Zone Administrator for Real Property Disposal, and the Assistant Deputy Zone Administrator for Real Property Disposal, in each and every War Assets Administration Zone Office; the Regional Director and the Deputy Regional Director for Real Property Disposal, in each and every War Assets Administration Regional Office; the District Director and Deputy District Director for Real Property Disposal, War Assets Administration District Office, Columbia, South Carolina; and any person or persons designated to act, and acting, in any of the foregoing capacities, are hereby authorized, individually (1) to execute, acknowledge and deliver any deed, lease, permit, contract, receipt, bill of sale, or other instruments in writing in connection with the

care, handling and disposal of surplus real property, or personal property assigned for disposition with real property, located within the United States, its territories and possessions, (2) to accept any notes, bonds, mortgages, deeds of trust or other security instruments taken as consideration in whole or in part for the disposition of such surplus real or personal property, and to do all acts necessary or proper to release and discharge any such instrument or any lien created by such instrument or otherwise created, and (3) to do or perform any other act necessary to effect the transfer of title to any such surplus real or personal property located as above provided; all pursuant to the provisions of the Surplus Property Act of 1944, as amended, (58 Stat. 765; 50 U.S.C. App. Supp. 1611); Public Law 181, 79th Cong. (59 Stat. 533; 50 U.S.C. App. Supp. 1614a, 1614b); Reorganization Plan 1 of 1947 (12 F.R. 4534); Public Law 289, 80th Cong. (61 Stat. 678); and War Assets Administration Regulation No. 1 (12 F.R. 6661).

The Zone Administrator in each and every War Assets Administration Zone Office is hereby authorized to redelegate to such person or persons as he may designate the authority delegated to him by this instrument.

L. S. Wright, the Secretary of the Real Property Review Board and R. Whittet, Associate Deputy Administrator, Office of Real Property Disposal, War Assets Administration, are hereby authorized, individually, to certify true copies of this Delegation and provide such further certification as may be necessary to effectuate the intent of this Delegation in form for recording in any jurisdiction, as may be required.

This Delegation shall be effective as of the opening of business on DEC 1, 1947.

This authority is in addition to, but shall not in any manner supersede delegations of authority previously granted under dates of May 17, 1946; May 29, 1946; July 30, 1946; September 16, 1946; October 31, 1946; November 22, 1946; January 13, 1947; and June 6, 1947; as do not conflict with the provisions of this Delegation.

Dated: DEC 1, 1947 Jess Larson Acting Administrator.

Recorded according to the original received February 9, 1948 at 1h. P.M.

State of Maine

York ss Feb. 7, 1948

The tax or taxes secured by the within lien having been paid in full the said lien is hereby discharged.

PIERCE & ASSOCIATES *APPRAISAL & CONSULTING SERVICES*

VALUATION
OF

A 39.4 ACRE PORTION OF THE 1,271.85 ACRE PARCEL DESIGNATED AS LOT 16 ON CITY OF SANFORD ASSESSOR'S MAP 18A (SUBJECT PORTION LOCATED IN THE NORTHWEST SECTION OF THE LARGER PARCEL) SANFORD, ME 04073

AN APPRAISAL REPORT
IN A
STANDARD FORMAT

DATE OF VALUATION: APRIL 10, 2025
DATE OF REPORT: JUNE 1, 2025

PREPARED FOR

MR. DAVID NICKERSON, PRESIDENT/CEO
RUBB INC.
&
MARK ADLER, PRESIDENT
SANFORD-SPRINGVALE FISH & GAME PROTECTIVE ASSOCIATION
1 RUBB LANE
SANFORD, ME 04073

PREPARED BY

C. DOUGLAS PIERCE
MAINE CERTIFIED GENERAL REAL ESTATE APPRAISER #1680

PIERCE & ASSOCIATES *APPRAISAL & CONSULTING SERVICES*

Mr. David Nickerson, President/CEO - Rubb Inc. June 1, 2025
& Mark Adler, President - Sanford-Springvale Fish & Game Protective Association
1 Rubb Lane
Sanford, ME 04073

Re: Appraisal Report
+/- 39.4 acres of land on the northwest side of a 1,271.85-acre parcel owned by the City of Sanford; Part of Lot 16 on City of Sanford Assessor's Map 18A
Sanford, ME 04073

Dear Mr. Nickerson & Mr. Adler:

In accordance with your request, I have completed the attached appraisal report in a standard format for the above-referenced property.

The subject parcel is a proposed subdivided 39.4-acre portion of a larger lot (1,271.85 acres) at the Sanford Airport owned by the City of Sanford. The proposed parcel has not yet been surveyed, but a descriptive sketch of the proposed parcel with a legal description is provided in the Addenda Section of this report.

This appraisal was made to express an opinion of **Market Value** of the fee simple interest in the subject property as if available for sale on the open market, appraised "as is" as of April 10, 2025, the date of my last physical inspection of the property. The function of my opinion of value is for your use in determining a potential acquisition price for the subject property from the current owner, the City of Sanford.

Market Value is defined in the UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE of the Appraisal Foundation, revised December 1990 and FDIC Rule 12 CFR, Part 323 as the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is unaffected by an undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and,
5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sale concessions granted by anyone associated with the sale.

32 Pine Country Drive . Buxton, ME 04093 . (207) 883-0609 . Cell (207) 671-2487

The proposed written narrative appraisal report will be prepared under the Appraisal Report option of Standards Rule 2-2(a) of the 2024-2025 edition of USPAP. The current edition of USPAP gives appraisers the flexibility to vary the level of information contained in a report depending on the intended use and intended users of the appraisal. The current report would be considered an appraisal report presented in a standard format. My standard report format provides a moderate level of detail. It summarizes the information collected and analyzed during the appraisal process, the appraisal methods employed in valuing the subject real estate, and the reasoning that supports my analyses, opinions, and conclusions. It meets or exceeds the former requirements for a Summary Appraisal Report as defined in the 2012-2013 edition of USPAP.

In addition, this appraisal report will be subject to the Uniform Appraisal Standards for Federal Land Acquisitions (Yellow Book Appraisal).

The scope of my appraisal will include the application of the most appropriate approach to value when dealing with raw land like the subject property – the Sales Comparison Approach.

The analysis and conclusions within the enclosed standard report are based upon field research, interviews with market participants, and publicly available data collected by the appraiser. The accompanying report has been prepared in accordance with the Uniform Standards of Professional Appraisal Practice. Herein is a summary description and analysis of the real estate, all pertinent data, valuation methodology, supporting relevant exhibits, and addenda to the attached report. The analyses, opinions, and conclusions in this report were developed in accordance with Title XI of the Financial Institution Reform, Recovery, and Enforcement Act of 1989 (FIRREA) and the Standards of Professional Practice (USPAP), as adopted by the Appraisal Foundation.

Based on the investigation and analyses outlined in this report and found within the appraiser's files, it is my opinion that as of April 10, 2025, the market value of fee simple interest in the property appraised "as is" and as if available for sale in the open market is

ONE HUNDRED SIXTY-FIVE THOUSAND DOLLARS
$165,000

The signatory of this report personally inspected the property, performed the analyses, applied the appropriate valuation techniques, and reached the value conclusions stated in the report.

Respectfully submitted,

C. Douglas Pierce
State of Maine Certified General Real Estate Appraiser #1680

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SUMMARY OF SALIENT FACTS & CONCLUSIONS
39.4 Acres of Land
Off Rubb Lane
Sanford, ME 04073

Appraisal Report Information	
Purpose of the Appraisal	To Estimate Market Value "As Is"
Report Type	Standard Appraisal Report
Conformity	USPAP and FIRREA
Property Rights Appraised	Fee Simple Estate
Intended User of the Appraisal	Rubb Inc. & Sanford-Springvale Fish & Game Protective Association
Intended Use of the Appraisal	To Determine Land Acquisition Price
Valuation & Appraisal Dates	
Date of Inspection	April 10, 2025
Issuance of Report	June 1, 2025
Effective Appraisal Dates	April 10, 2025
Estimated Exposure Time	18 Months
Property Information	
Tax Identification Number	To Be Determined – a portion of Map 18A/Lot 16 City of Sanford Assessor
Owner of Record	City of Sanford
Site Information	
Site Area	Approximately 39.4 acres or 1,716,264 SF
Flood Zone	Minimal flood risk, Zone X, according to FEMA Map #230156 Panel 0010 F, dated 7/20/1998
Property Zoning	City of Sanford Airport Development District (AD)
Topography	Mostly level and at road grade
Shape	Irregular, triangular in shape

Road Frontage	Approved easement access to Rubb Lane to be completed by Rubb Inc. as a condition of sale (See Hypothetical Conditions & Special Assumptions)
Utilities	Public utilities are available nearby at Gatehouse Road but not at subject site.
Highest and Best Use	Industrial Development
Functional Utility	Average; level sight but irregular parcel shape
Economic Obsolescence	None
Locational Obsolescence	None (Assuming access easement granted by Rubb Inc.)
Property Assessment	N/A
Value Indications:	
Cost Approach	N/A
Sales Comparison Approach	$165,000
Income Capitalization Approach	N/A
FINAL "AS IS" MARKET VALUE	**$165,000**

GENERAL ASSUMPTIONS AND LIMITING CONDITIONS

-- The legal description and/or metes and bounds as pointed out by the client are assumed to be correct.

-- The appraiser has made no survey of the property and no responsibility is assumed in connection with such matters.

-- No responsibility is assumed for matters of a legal nature affecting title to the property nor is an opinion of title rendered. The title is assumed to be good and merchantable but not necessarily owned in fee by the client as of the date of this opinion.

-- Information furnished by others is assumed to be true, correct and reliable. A reasonable effort has been made to verify such information; however, the appraiser assumes no responsibility for its accuracy.

-- It is assumed that there are no hidden or apparent conditions of the property, sub-soil, or structures that would render it more or less valuable. No responsibility is assumed for such conditions or for engineering that may be required to discover them.

-- It is assumed that there is full compliance with all applicable federal, state and local environmental regulations and laws unless noncompliance is stated.

-- It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless nonconformity has been stated. All values stated herein are contingent upon proper zoning, existing or proposed, and that zoning be granted by the local zoning authorities and adhered to regardless of the proposed use.

-- It is assumed that all required licenses and consents have been obtained from legislative or administrative authority for any use on which the value estimate contained in this appraisal is based.

-- It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted within the report.

-- The appraiser will not be required to give testimony or appear in court because of having made this appraisal, with reference to the property in question, unless arrangements have been made previously.

-- Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of the appraiser, and in any event, only with proper written qualification and only in its entirety.

-- If there are any improvements of value, the distribution of the total valuation in this report between land and improvements applies only under the reported highest and best use of the property. The allocations of value for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used.

-- No environmental impact studies were requested or made in conjunction with this report and the appraiser hereby reserves the right to alter, amend, revise or rescind any of the value opinions based upon any subsequent environmental impact studies, research or investigation.

-- Neither all nor any part of the contents of this appraisal or copy thereof shall be conveyed to the public through advertising, public relations, news, sales or any other media without written consent and approval of the appraiser. Nor shall the appraiser, firm or professional organization of which the appraiser is a member be identified without written consent of the appraiser.

-- Unless otherwise stated in this report, the existence of hazardous substances, including without limitation asbestos, polychlorinated biphenyl, petroleum leakage, or agricultural chemicals, which may or may not be present on the property were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. The appraiser, however, is not qualified to test for such substances. The presence of such hazardous substances may affect the value of the property. The value estimated herein is predicated on the assumption that no such hazardous substances exist on or in the property or in such proximity thereto which would cause a loss in value. No responsibility is assumed for any such hazardous substances, or for any expertise or knowledge required to discover them.

-- The appraiser certifies that the value estimate in this report is based on the assumption that the property is not negatively affected by structural defects, hidden defects, or defects not openly detectable by visual inspection on the date of the appraisal. The appraiser does not claim expertise in the identification of structural or engineering defects and only reports obvious items noted by visual inspection of the subject property. It is possible that tests and inspections made by a qualified inspection expert would reveal the existence of such conditions that would negatively affects its value.

-- The Americans with Disabilities Act ("ADA") became effective January 26, 1992. I have not made a specific compliance survey and analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect upon the value of the property. Since I have no direct evidence relating to this issue, I did not consider possible noncompliance with the requirements of ADA in estimating the value of the property.

-- Acceptance of and/or use of this report constitutes acceptance of the foregoing general assumptions and general limiting conditions.

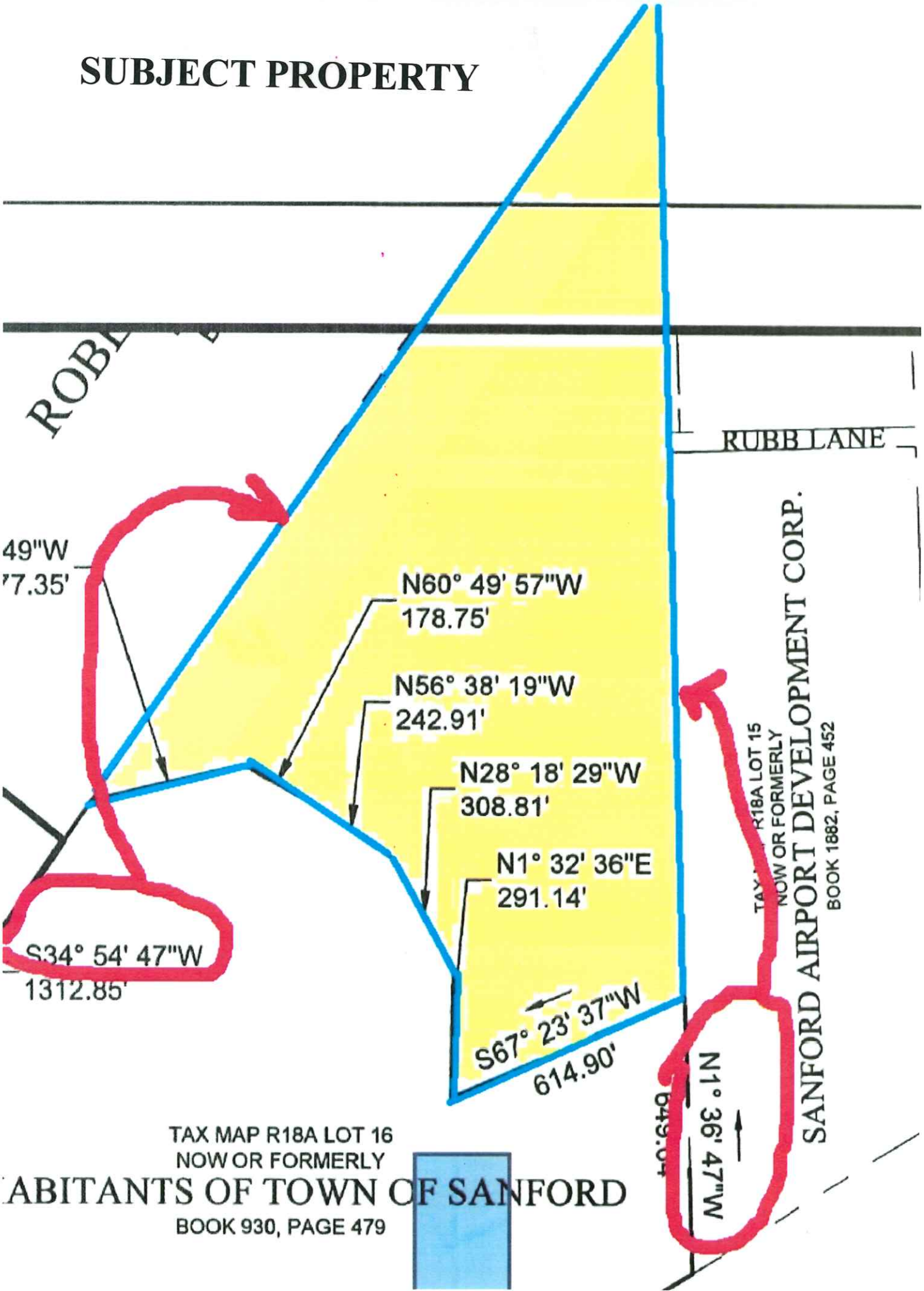
HYPOTHETICAL ASSUMPTIONS & LIMITING CONDITIONS

1. Rubb Inc., one of the proposed buyers of the subject land,will execute an access easement for the subject from Rubb Lane. The parameters of this easement will meet the requirements for City of Sanford Zoning. For the purposes of this report, I am assuming that the easement is in place as of the date of valuation.

SPECIAL ASSUMPTIONS AND LIMITING CONDITIONS

1. The structural improvements on the subject parcel are not permanently attached to the site and are therefore considered personal property. On the whole, these structures contribute nominal value to the site.

2. The Uniform Standards For Federal Land Acquisitions (Yellow Book) indicates a jurisdictional exception to USPAP: "Appraisers should not link an opinion of market value made for federal acquisition purposes to a specific exposure time."


SUBJECT PROPERTY
RUBB LANE
49"W
7.35'
N60° 49' 57"W
178.75'
N56° 38' 19"W
242.91'
N28° 18' 29"W
308.81'
N1° 32' 36"E
291.14'
S34° 54' 47"W
1312.85'
S67° 23' 37"W
614.90'
N1° 36' 47"W
649.04'
TAX MAP R18A LOT 16
NOW OR FORMERLY
ABITANTS OF TOWN OF SANFORD
BOOK 930, PAGE 479
TAX MAP R18A LOT 15
NOW OR FORMERLY
SANFORD AIRPORT DEVELOPMENT CORP.
BOOK 1882, PAGE 452

SUBJECT PROPERTY AERIAL



2. 

Rubb Lane Leading to Subject Parcel



Interior of Parcel - Parking Area



Shooting Range with Berms on Either Side



Shooters' Shelter



Target Marquee on Firing Range



Shelter on Range for Shooters on Concrete Slab



Target Marquee on Shooting Range



Interior of Parcel Showing Rolling Terrain and Minimal Wetlands



Interior of Parcel Showing Minimal Wetlands



Parcel Interior Showing Level Terrain



Storage Trailer on Site



Shooters' Shelter Rest Area

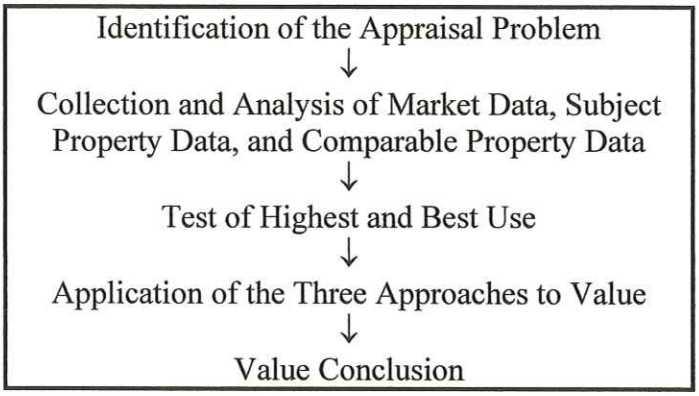
The Appraisal Process

The term *appraisal* refers to the process of developing an opinion of value. More specifically it is defined as:

> *"An analysis, opinion, or conclusion relating to the nature, quality, value, or utility of specified interest in, or aspects of, identified real estate."*[1]

Real estate appraisal involves selective research into appropriate market areas; the assemblage of pertinent data; the application of appropriate analytical techniques; and the application of knowledge, experience, and professional judgment to develop an opinion of value or appropriate solution to a real estate problem.

The specific steps involved in the appraisal process are shown in the diagram below.



Regulatory Environment

Appraisers and the appraisal process are subject to both state and federal regulation. All appraisals, analyses and opinions of value are required to conform to the Uniform Standards of Professional Appraisal Practice (USPAP) as established by the Financial Institution Reform, Recovery, and Enforcement Act of 1989 (FIRREA). The Uniform Standards set forth the procedures to be followed in developing an appraisal, analysis, or opinion and the manner in which they may be communicated (the appraisal report).

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[1]The Dictionary of Real Estate Appraisal, Seventh Edition, The Appraisal Institute, Chicago, Illinois, 2022.

Property Identification

The subject parcel is a proposed subdivided portion of a lot owned by the City of Sanford. The property represents a 39.4-acre, irregular-shaped area of land to be carved-out of City of Sanford's Lot 16 on Assessor's Map 18A in Sanford Maine. The client has provided a description of the proposed subdivided parcel (See Addenda). One of the potential buyer's, Rubb, Inc. will record an easement across Rubb's adjacent property that will meet all zoning requirements allowing legal access to the proposed subdivided parcel (See Hypothetical Condition).

Property Ownership

Appraisal standards require the analysis of any prior sales of the property within a three-year period from the date of appraisal. In addition, any current agreement of sale, option, or listing of the property must also be disclosed.

An examination of the official records of the City of Sanford Assessor's Office and the York County Registry of Deeds reveals that the subject property is part of a large parcel (1271.85 Acres) currently owned by the City of Sanford.

No sale or other ownership transfer of the subject real estate has occurred over the last three years. Currently the Sanford-Springvale Fish & Game Protective Association, Inc. (SSF&G) has a use agreement governing this proposed subdivided parcel (last amended 2/2025) allowing the SSF&G to use the property as a target practice area. Rubb Inc. is the abutter to the parcel.

Negotiations are underway for Rubb Inc. and the SSF&G to acquire the subject 39.4 acres. It is my understanding that no acquisition price has been determined and no P&S has been signed by all parties.

Purpose and Intended Use of the Appraisal

The purpose of this appraisal is to estimate the Market Value of the fee simple interest in the property as if available for sale on the open market, appraised "as is" as of April 10, 2025. This appraisal has been requested by David Nickerson of Rubb Inc. (owns a facility adjacent to the subject) and Mark Adler, the President of the Sanford-Springvale Fish & Game Protective Association (has had a use agreement with the City of Sanford since 1995 and uses the property as a practice firing range). These two parties are the intended users. The intended use of this appraisal report is for determining a potential acquisition price for the subject land. Use of this appraisal by anyone other than the intended user and for any purpose other than the intended use is prohibited.

Definition of "Market Value"

The purpose of this appraisal is to estimate the Market Value of the subject. The Office of the Comptroller of the Currency defines Market Value as:

> *"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:*
>
> *(1) Buyer and seller are typically motivated;*
>
> *(2) Both parties are well informed or well advised and acting in what they consider their own best interests;*
>
> *(3) A reasonable time is allowed for exposure in the open market;*
>
> *(4) Payment is made in terms of cash in U. S. dollars or in terms of financial arrangements comparable thereto; and*
>
> *(5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."* [2]

[2] Office of the Comptroller of the Currency, 12 CFR Part 34 Section 34.42 (f).

Definition of Market Value "As Is"

Market value "as is" is defined by the Appraisal Institute as:

> *"The value of specific ownership rights to an identified parcel of real estate as of the effective date of the appraisal; relates to what physically exists and is legally permissible and excludes assumptions concerning hypothetical market conditions or possible rezoning."3*

Property Rights Appraised

The property rights appraised herein are those of the Fee Simple Estate. Fee Simple Estate refers to absolute ownership unencumbered by any other interest or estate; subject only to the four powers of government.

Overview of Sanford Regional Airport & Airport Industrial Park

The subject property is 39.4 acres of land on the periphery of the Sanford Seacoast Regional Airport in the Airport Industrial Park. The Airport is a general aviation airport owned by the City of Sanford, serving York County, southeast New Hampshire, and the south coast region of Maine. It is located in southwestern Maine, midway between the coast and the Maine/New Hampshire border, only eight miles from the Maine Turnpike. Much of the land is owned or has been sold to third parties by the City of Sanford or the Industrial Development Corporation – IDC. The IDC raised monies through bond sales in the early 1960's and with the money raised, it purchased a large tract of land in South Sanford in the vicinity of the Airport. In 1962, the Sanford Industrial Estates was formed as a place for manufacturing industries to locate their operations. Essential infrastructure including roads, sewer, water and power were developed to allow buildings to be quickly constructed. In 2001, the original industrial park approached capacity and the IDC undertook to develop a second park contiguous to the first. Several lots have been sold and developed by industrial businesses. The IDC and the City of Sanford continue to sell lots. The area is now made up of 600 acres in 3 parks; approximately 77 parcels with 48 occupants (includes three with vacant buildings). The parks include: Airport Industrial Park; Evonik Cyro Road Industrial Park; and, Sanford Industrial Estates. Some of the 29 vacant parcels are owned by third parties with a few held for possible future development and/or speculation purposes. Many are owned by the City of Sanford or the IDC. There is very limited demand for industrial space in the Sanford area and the IDC reports that there has been no real appreciation in the land for several years.

The subject land parcel is zoned Airport Development in the AD Support Sub-district. Permitted non-residential uses are extensive – utilities, construction, manufacturing, wholesale, retail, finance & insurance, healthcare, education etc. Nonetheless, demand for commercial/industrial parcels in the area is scarce.

Effective and Reporting Dates

The effective date of the appraisal is the date at which the value estimate applies and establishes the market conditions that provide the context for the value opinion. The date of the report reflects the issuance date of the appraisal report and indicates the perspective of the appraiser on the market or property use conditions as of the effective date. The following dates apply to the valuation of the subject:

Date of Inspection:	April 10, 2025
Date of the Appraisal Report	June 1, 2025
Effective Date of the Market Value Estimate "As Is"	April 10, 2025

Scope of the Appraisal

The Scope of Work rule requires the appraiser to identify the problem to be solved; determine and perform the scope of work necessary to develop credible assignment results, and disclose the "Scope of Work" for the particular subject property under valuation. Otherwise, the Scope of Work rule typically refers to the extent of the process in which the data are collected, confirmed, analyzed, and reported.

This appraisal was completed in conformity with the current 2024-2025 Uniform Standards of Professional Appraisal Practice, adopted by the Appraisal Standards Board of the Appraisal Foundation. The following describes the scope of the work performed:

- A physical inspection of the subject property was made with respect to physical characteristics, site characteristics, and surrounding land use patterns.
- Research of the subject's ownership history, taxation, zoning, legal description, and site and improvement data was undertaken. In this case, the records of the City of Sanford Assessor's Office, Planning Office and Code Enforcement Office, and the York County Registry of Deeds Offices were relied upon for confirmation.
- An analysis was made of the subject's overall market conditions, neighborhood and regional characteristics, and supply and demand factors.
- A Highest and Best Use study of the subject property was completed.
- Summary descriptions of the subject's area data and accompanying neighborhood data were reported.
- Research of public records, interviews with real estate professionals, and published sources of real estate data were undertaken in order to locate and confirm comparable data to include land sales. Where possible, comparable market information was verified with the buyer, seller, or their representatives.
- Analysis of the subject property and comparable market data was completed using appropriate appraisal techniques. All three approaches - Cost, Sales Comparison, and Income Capitalization were considered.
- The scope of my valuation revolved around the application of the Sales Capitalization Approach, the only methodology thought appropriate in this case of vacant land valuation. An extensive search of the airport area in southern Sanford was conducted and six comparable land parcel transactions were identified. A thorough analysis of

these transactions including a detailed price adjustment process was completed to arrive at an indicated value per acre for the subject property.

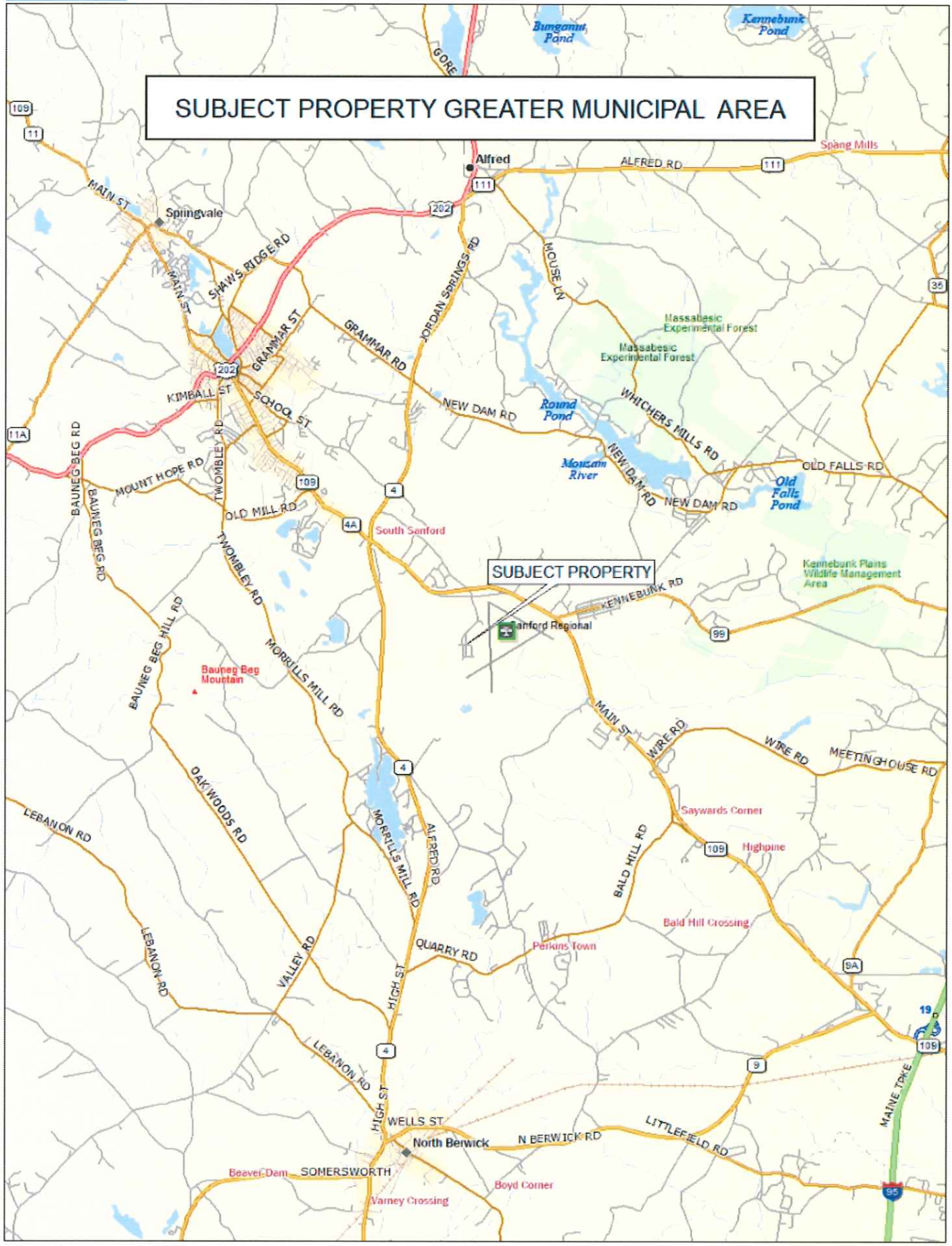
- The data were organized and this appraisal report was prepared. The resulting value indications have been analyzed and the final value conclusions for the subject property are presented in the Reconciliation.

Appraisal Reporting

This report is prepared under the Appraisal Report option of Standards Rule 2-2(a) of the 2024-2025 edition of USPAP. The current edition of USPAP gives appraisers the flexibility to vary the level of information contained in a report depending on the intended use and intended users of the appraisal. The current report is considered an appraisal presented in a standard report format. My standard report format provides a moderate level of detail. It summarizes the information collected and analyzed during the appraisal process, the appraisal methods employed in valuing the subject real estate, and the reasoning that supports my analyses, opinions, and conclusions. It meets or exceeds the former requirements for a Summary Appraisal Report as defined in the 2012-2013 edition of USPAP.

Competency Provision

C. Douglas Pierce has extensive expertise in the appraisal of properties similar to the subject in the greater Sanford area. The appraiser is deemed qualified by education, training, and experience in the preparation of such reports to comply with the competency provision as required by USPAP.


SUBJECT PROPERTY GREATER MUNICIPAL AREA
SUBJECT PROPERTY
Alfred
Springvale
South Sanford
North Berwick
Saywards Corner
Highpine
Bald Hill Crossing
Perkins Town
Boyd Corner
Varney Crossing
Beaver Dam
SOMERSWORTH
Bauneg Beg Mountain
Massabesic Experimental Forest
Kennebunk Plains Wildlife Management Area
Spang Mills
Bungamut Pond
Kennebunk Pond
Round Pond
Mousam River
Old Falls Pond
Sanford Regional
MAIN ST
ALFRED RD
SHAWS RIDGE RD
GRAMMAR ST
GRAMMAR RD
JORDAN SPRINGS RD
MCUSE LN
KIMBALL ST
SCHOOL ST
NEW DAM RD
WHITCHERS MILLS RD
OLD FALLS RD
BAUNEG BEG RD
MOUNT HOPE RD
TWOMBLEY RD
OLD MILL RD
KENNEBUNK RD
BAUNEG BEG HILL RD
MORRILLS MILL RD
WIRE RD
MEETINGHOUSE RD
OAK WOODS RD
LEBANON RD
ALFRED RD
BALD HILL RD
QUARRY RD
VALLEY RD
HIGH ST
WELLS ST
N BERWICK RD
LITTLEFIELD RD
MAINE TPKE
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Data Zoom 11-0

Regional Analysis

Portland MSA: The subject property is located in the City of Sanford in York County, Maine. It is also located in the Portland-South Portland, ME Metropolitan Statistical Area, hereinafter called the Portland MSA, as defined by the U.S. Office of Management and Budget. The Portland MSA is 2,080 square miles in size and ranks 104th in population out of the nation's 382 metropolitan statistical areas.

The Portland MSA is comprised of three Maine counties – Cumberland, Sagadahoc, and York Counties. As of the 2010 Federal Census, the Portland MSA had a reported population of 514,098 persons, representing 38.7% of the total population of the State of Maine. From 2010 to 2021, the MSA's population has increased to 554,383, a growth rate of 7.8% overall (0.7% annually). The MSA's population has increased almost twice as fast as the State over this time period and in fact represents over 80% of the state's overall population growth. Over the next five years, population in the Portland MSA is projected to increase by 0.9% per year to 578,349. Over that same time period, the population of York County is also projected to increase by 0.9% per year, and the population of Maine by only 0.4% per year.

The Portland MSA's households increased from 213,436 to 233,725 between 2010 and 2021 (+9.5%, an overall growth rate above the rate of population growth). Between 2021 and 2026, the number of households is expected to increase by another 11,510 households to 245,235. 56.9% of the MSA's households are classified as homeowners, and 23.9% as renters. The median home value in the MSA was $304,626 in 2021, and the average home was built in 1979.

Employment: For the year 2024, the Portland MSA had a civilian labor force of 315,044 and unemployment of 8,349 persons, an unemployment rate of 2.7%. In comparison, the State of Maine's unemployment averaged 3.1% for 2024.

Major employers in the Portland MSA include Maine Health and Bath Iron Works with over 5,000 employees each, and L.L. Bean and Unum Provident Insurance with over 2,500 employees each. Seven of the area's top 20 employers are in the healthcare sector,

and three others are academic institutions (University of Southern Maine, Bowdoin College, and the University of New England).

City of Sanford

The subject property is located in the City of Sanford in York County. The community has a total area of 48.75 square miles, of which 47.78 square miles is land. The City is bordered to the north by the Towns of Shapleigh and Alfred, to the east by the Town of Kennebunk, to the southeast by the Town of Wells, to the south by the Town of North Berwick, and to the west by the Town of Lebanon.

The City of Sanford is located about 20 miles west of the Maine Turnpike, and about 20 miles northeast of New Hampshire's Route 16 (Spaulding Turnpike). Primary highway access to the subject community is via Route 109 traveling west from the Maine Turnpike. Other state highways that pass through the community include Route 4 (running north-south from the Berwicks to Alfred), Route 11, and Route 202 (running northeast to southwest from Waterboro to Lebanon). The principal form of transportation in the local area is the automobile, although Sanford does contain a regional airport that is owned and operated by the City of Sanford and located four miles southeast of the City center. This facility offers charter and air taxi service but no scheduled air carrier service.

As of the 2020 Federal Census, the City of Sanford contained a total population of 21,982, making it the seventh largest municipality in Maine. The community's population increased by 5.7% over the last decade from 20,798 in 2010, the first real population growth since 1990 when it increased by 13.6% from 18,020 to 20,463. The City had a total of 8,908 households as of 2020, an increase of 4.8% over the 2010 figure of 8,500 households.

Sanford's median household income from 2019 through 2023 of $70,570 was about 18% below York County's median household income of $82,904 and 30.0% below the Portland MSA's median household income of $92,117.

In terms of median home values, Sanford's 2024 median price of $391,300 is also below its surrounding areas, almost 12% below York County's median home value of $436,100

and 20% below the Portland MSA's $490,180. As of that date, an estimated 69% of Sanford's housing units were owner-occupied, while 31% were renter occupied.

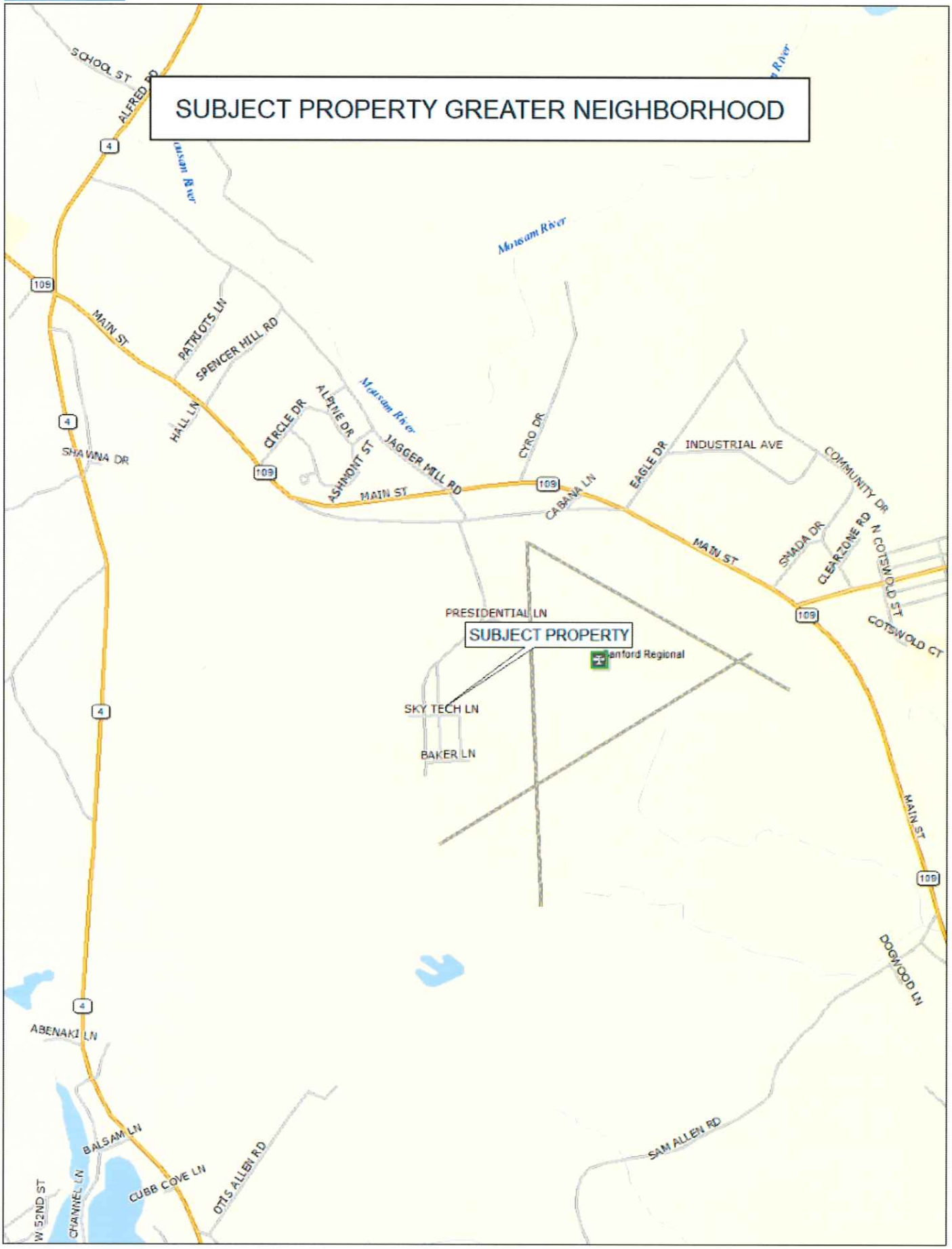
For the year 2024, the City of Sanford contained a total labor force of 11,760 persons, of whom 11,368 were employed for an unemployment rate of 3.3%. Over the past 12-18 months, Sanford's unemployment rate has consistently been anywhere from 70 to 100 basis points higher than the County and Portland MSA comparable rates.

Market Analysis – Sanford Area Industrial Market

Sanford's inventory of industrial space is primarily concentrated on the south side of the City of Sanford, near the airport and on the north side of Main Street (Route 109). It includes a small industrial park setting on Smada Drive, the larger Sanford Industrial Park located off Eagle Drive on Industrial Avenue and Community Drive, and a newer set of industrial lots along Cyro Drive. All three of these parks still contain a number of unimproved lots that are available for sale. These lots are owned by Smada LLC and the Sanford Industrial Development Corporation.

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Data Zoom 13-0

Neighborhood

The subject property is 39.4 acres of land on the periphery of the Sanford Seacoast Regional Airport in the Airport Industrial Park.

The Airport is a general aviation airport owned by the City of Sanford, serving York County, southeast New Hampshire, and the south coast region of Maine. It is located on 1,115.29 acres in southwestern Maine, midway between the coast and the Maine/New Hampshire border, only eight miles from the Maine Turnpike.

Much of the periphery land is owned or has been sold to third parties by the City of Sanford or the Industrial Development Corporation – IDC. The IDC raised monies through bond sales in the early 1960's and with the money raised, it purchased a large tract of land in South Sanford in the vicinity of the Airport. In 1962, the Sanford Industrial Estates was formed as a place for manufacturing industries to locate their operations. Essential infrastructure including roads, sewer, water and power were developed to allow buildings to be quickly constructed. In 2001, the original industrial park approached capacity and the IDC undertook to develop a second park contiguous to the first. Several lots have been sold and developed by industrial businesses.

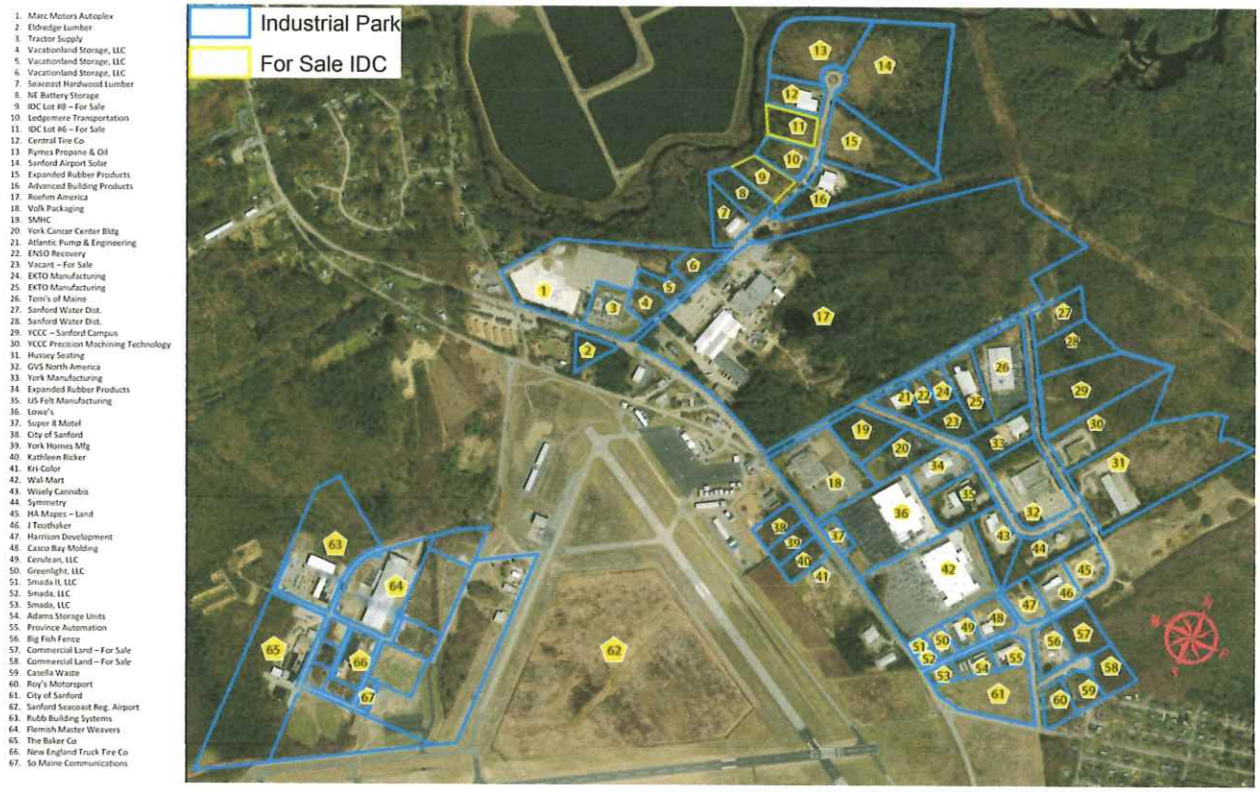
The IDC and the City of Sanford continue to sell lots. The area is now made up of 600 acres in 3 parks; approximately 77 parcels with 48 occupants (includes three with vacant buildings). The parks include: Airport Industrial Park; Evonik Cyro Road Industrial Park; and, Sanford Industrial Estates. Some of the 29 vacant parcels are owned by third parties with a few held for possible future development and/or speculation purposes. Many are owned by the City of Sanford or the IDC. There is very limited demand for industrial space in the Sanford area and the IDC reports that there has been no real appreciation in the land for several years.

The Airport Industrial Park is a low density development with limited land uses primarily light industrial and manufacturing. Gatehouse Road is the primary access to the park which has public water and sewer.

The subject land parcel is zoned Airport Development in the AD Support Sub-district. Permitted non-residential uses are extensive – utilities, construction, manufacturing, wholesale, retail, finance & insurance, healthcare, education etc. Demand for commercial/industrial parcels in the area is scarce. There are several businesses located in close proximity to the subject including: The Baker Company; NATCO Products – Flemish Master Weavers Division; Rubb Building Systems; Air Tech, Inc. and New England Truck Tire.

Overall, the subject land is irregular (triangular) in shape and is currently being used by the Sanford-Springvale Fish & Game Protective Association which has had a use agreement with the City of Sanford since 1995.

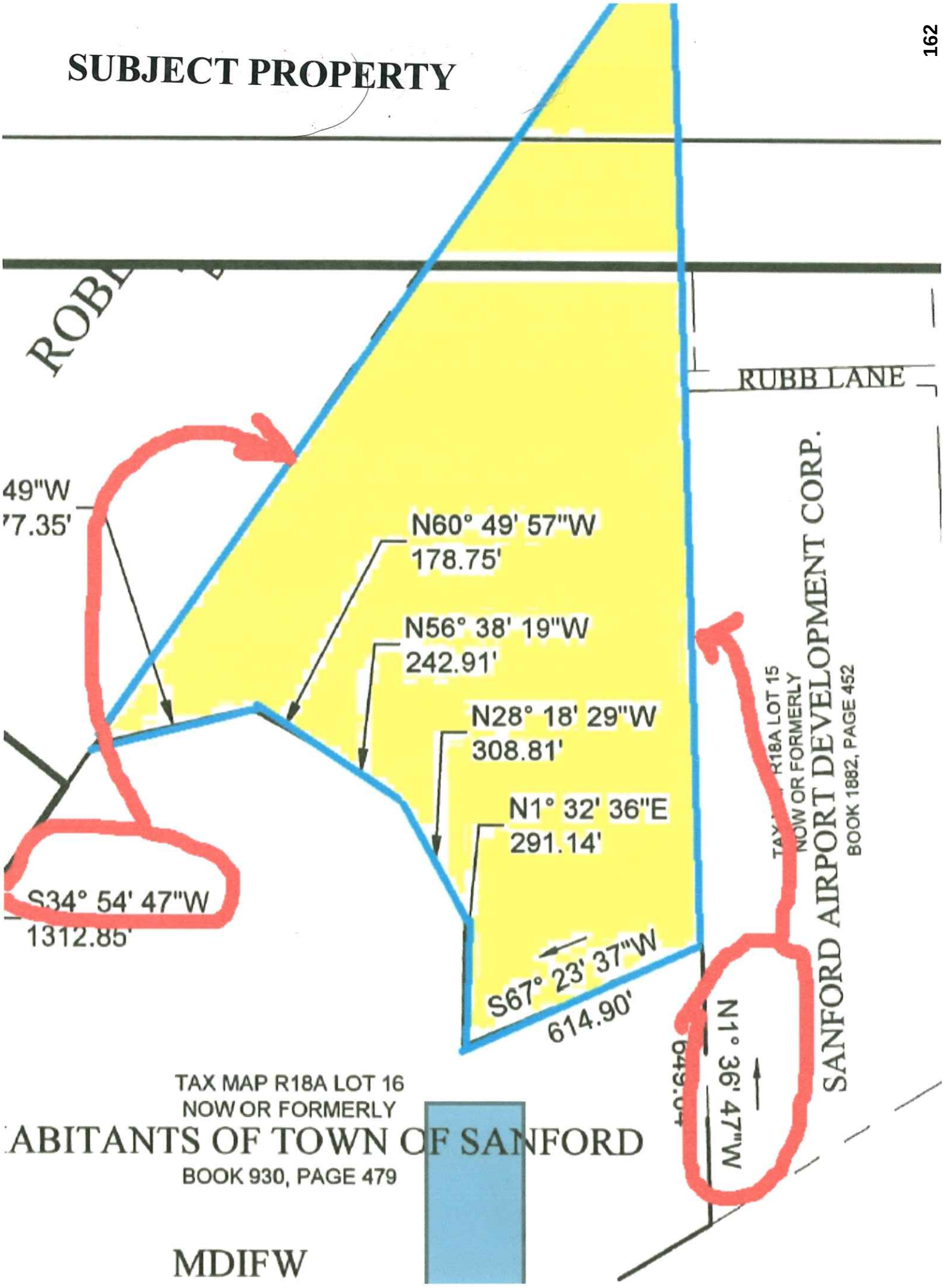
The Industrial Development Corporation of Sanford (IDC) was established as a local non-profit corporation in 1959 by a group of area business, banking, and professional companies and individuals. It is considered an important component of the community's efforts to attract new business to Sanford after the Goodall-Sanford mill operations were closed and remains a strong force in the community today.



The IDC raised a significant amount of money through the sale of bonds to people and businesses in and around Sanford. With the money raised, the IDC purchased a large tract of land in South Sanford in the vicinity of the airport, and in 1962 Sanford Industrial Estates was formed. This is a place for manufacturing industries to locate their operations. The infrastructure including roads, sewer, water, and power were developed to allow a building to be quickly constructed.

Recently, the IDC undertook the development of a second industrial park, the Sanford Industrial Park, located on Cyro Road, the infrastructure was added and lots were made ready for sale and building construction. That park has just two shovel-ready industrial lots remaining and the IDC is already on the lookout for their next park, a Sanford Tech Park.

The IDC is a co-founder and member organization of the Sanford Regional Economic Growth Council and remains committed to supporting the efforts to bring new businesses to Sanford.


SUBJECT PROPERTY
RUBB LANE
49"W
7.35'
N60° 49' 57"W
178.75'
N56° 38' 19"W
242.91'
N28° 18' 29"W
308.81'
N1° 32' 36"E
291.14'
S34° 54' 47"W
1312.85'
S67° 23' 37"W
614.90'
N1° 36' 47"W
649.04'
TAX MAP R18A LOT 15
NOW OR FORMERLY
SANFORD AIRPORT DEVELOPMENT CORP.
BOOK 1882, PAGE 452
TAX MAP R18A LOT 16
NOW OR FORMERLY
ABITANTS OF TOWN OF SANFORD
BOOK 930, PAGE 479
MDIFW

LEGAL DESCRIPTION – City of Sanford Parcel to be sold to Rubb, Inc. and Sanford-Springvale Fish and Game Protective Association – 2025

A certain lot or parcel of land, together with improvements thereon, situated on the westerly side of Gatehouse Road, in the City of Sanford, County of York, State of Maine bounded and described as follows:

Beginning at an iron rod set in the westerly intersection of land of Rubb Property LLC, and land of the Curry/Davidow Trust; as described in a document recorded at the York County Registry of Deeds in book 17908, page 597; and land now or formerly of the Inhabitants of the Town of Sanford as described in a document recorded at the York County Registry of Deeds book 1880, page 650;

Thence, South 2° 15' 0'' East, along land of Rubb Property LLC, a distance of 1,063,85' to a point;

Thence, South 2 ° 15' 00'' East by said remaining land of Rubb Property LLC a distance of 60.00' to land of The Baker Company, Inc. as described in a document recorded at the York County Registry of Deeds in book 17913, page 626;

Thence, South 2 ° 15' 00'' East by said land of Baker Company, Inc., a distance of 1,261.20 feet to a point;

Thence, South 67° 23' 37'' West, through land now of formerly of the Inhabitants of Sanford (Sanford Airport), a distance of 614.90 feet to a point;

Thence, North 01° 32' 36'' East, through land now or formerly of the Inhabitants of Sanford (Sanford Airport), a distance of 291.14 feet to a point;

Thence, North 28° 18' 29'' West, through land now or formerly of the Inhabitants of Sanford (Sanford Airport), a distance of 308.31 feet to a point;

Thence, North 56° 38' 19'' West, through land now or formerly of the Inhabitants Sanford (Sanford Airport), a distance of 242.91 feet to a point;

Thence, North 60° 49' 57'' West, through land now of formerly Inhabitants of Sanford (Sanford Airport), a distance of 178.75 feet to a point;

Thence, South 77° 13' 49'' West, through land now or formerly Inhabitants of Sanford (Sanford Airport), a distance of 377.35', more or less, to a point on the easterly line of land now or formerly of Robert R. Curry, et al as described in Deed Book 10988, Page 323 of the York County Registry of Deeds;

Thence, North 34° 54' 47'' East, along land now or formerly of the Curry/Davidow Trust, a distance of 2,340.60', more or less, to the point of beginning.

The area above hereinabove described contains 39.4 acres, more or less.

The basis of bearings is the Grid North Meridian.

The subject parcel is a proposed subdivided 39.4-acre portion of a larger lot (1,271.85 acres) at the Sanford Airport owned by the City of Sanford. The subject property represents a 39.4-acre, irregular-shaped area of land to be carved-out, of a larger parcel owned by City of Sanford on Assessor's Map 18A/Lot 16 in Sanford Maine. One of the potential buyer's, Rubb, Inc. will record an easement across Rubb's adjacent property that will meet all zoning requirements allowing legal access to the proposed subdivided parcel (See Hypothetical Condition).

According to FEMA Map 230156 0010 F, the land is in Zone X, an area of minimum flood risk.

The following sections further detail the characteristics of the subject site and improvements.

Legal Description

The proposed parcel has not yet been surveyed, but a descriptive sketch of the proposed parcel with a legal description is provided in the Addenda Section of this report.

Real Estate Taxes

Given that the subject land is not yet a legal, taxed parcel in the City of Sanford, no tax data was available.

Zoning Requirements

The subject property is located in the Airport Development Zone (AD). The purpose of the Airport Development Zone is to create an area that includes the airport, adjacent clear zones and adjacent properties with potential for providing support services to the airport and to promote smooth and efficient functioning of the airport. The AD Zone is divided into two Sub-districts: 1) The AD Airport Sub-district which includes all of the land area owned by the City or private property owners that is used for airport runways and airport runway direct access activities; this area is commonly referred to as the area within the

fence (controlled access); and, 2) AD Support Sub-district which is all of the land in the AD Zone that is not in the previously described Airport Sub-district. The subject is located within the AD Support Sub-district.

The range of development activities that are permitted in this zoning all require Site Plan Review. Uses are numerous, all non-residential and include: retail trade, wholesale trade, manufacturing, transportation and warehousing, finance & insurance offices, utilities, educational services, arts recreation and entertainment, accommodations and food services, professional, scientific and technical services, etc.

Space and bulk standards are outlined below:

Minimum Lot Size	40,000 SF
Minimum Street Frontage	N/A
Minimum Front Setback	15 feet
Minimum Side Setback	15 feet
Minimum Rear Setback	15 feet
Maximum Impervious Service	80%
Maximum Building Height	60 feet
Floor Area Ratio	4.8

HIGHEST AND BEST USE

The first step in the appraisal process is the determination of Highest and Best Use. "Highest and Best Use" may be defined as:

> *"The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value."*[3]

The validity of an appraisal is dependent upon the consideration and conclusion of highest and best use. Often expressed as "the most profitable legal use," the concept requires a thoughtful analysis of many factors. The highest and best use of a property is shaped by competitive forces within the market where the property is located. Thus, in-depth analysis of supply and demand characteristics, investor behavior, and physical characteristics of the site and improvements is essential. The value of a vacant site is directly related to its highest and best use. On the other hand, an improved property may have the same or a different highest and best use than the land supporting the improvements when considered as vacant land. Therefore, for improved property, both highest and best use decisions must be separately considered, both "as vacant" land and "as improved" property. In this case, the subject property is undeveloped land.

Legally permissible uses, with Site Plan Review at the subject site located in the Airport Development Zone Support Sub-district cover a broad range of non-residential uses. Land uses in the vicinity of the subject land are dominated by industrial uses.

After taking into consideration all of the factors that contribute to value, in particular neighborhood land uses and zoning, it is the appraiser's opinion that the Highest & Best Use of the subject land as vacant as of the valuation date, would be for industrial development; although the odd, triangular, shape of the parcel limits the pool of potential occupants.

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[3] *The Dictionary of Real Estate Appraisal, Fifth Edition,* The Appraisal Institute, Chicago, Illinois, 2010.

APPROACHES TO VALUE ESTIMATE

In the appraisal process, under ideal circumstances there are three basic approaches to an estimate of market value. These approaches are the Cost Approach, Sales Comparison Approach, and Income Capitalization Approach. Each is briefly summarized as follows:

- **Cost Approach**: The Cost Approach is a valuation method that combines value for the land as if vacant and available for development with the depreciated cost of replacing the existing improvements (plus entrepreneurial profit, where applicable). This approach is applicable when each component above is independently measurable and when the sum of all components is believed to reflect market value. The Cost Approach is not applicable to unimproved land or obsolete improvements, nor is it particularly appropriate where market participants do not relate value to cost.
- **Sales Comparison Approach**: This approach develops a value estimate by directly comparing the subject against other recent sales of improved or unimproved properties that are similar in function, size, use, and income potential to the appraised property. This approach is also based upon the principle of substitution, as it assumes that an informed market participant will pay no more for the subject than the cost of acquiring an equally desirable substitute property. This approach is meaningful when there are a sufficient number of recent reliable transactions to create value patterns in the market.
- **Income Capitalization Approach**: The Income Capitalization Approach analyzes a property's capacity to generate monetary benefits and converts these benefits into an indication of market value. This approach is suitable for either income producing real estate or property possessing the potential to produce income, but inappropriate for property that has no readily discernible earning power. The Income Capitalization Approach defines the value of a property as the present worth of the anticipated future benefits of ownership.

In the present appraisal, the appraiser relied on the Sales Comparison Approach to estimate the value of the subject unimproved land.

SALES COMPARISON APPROACH

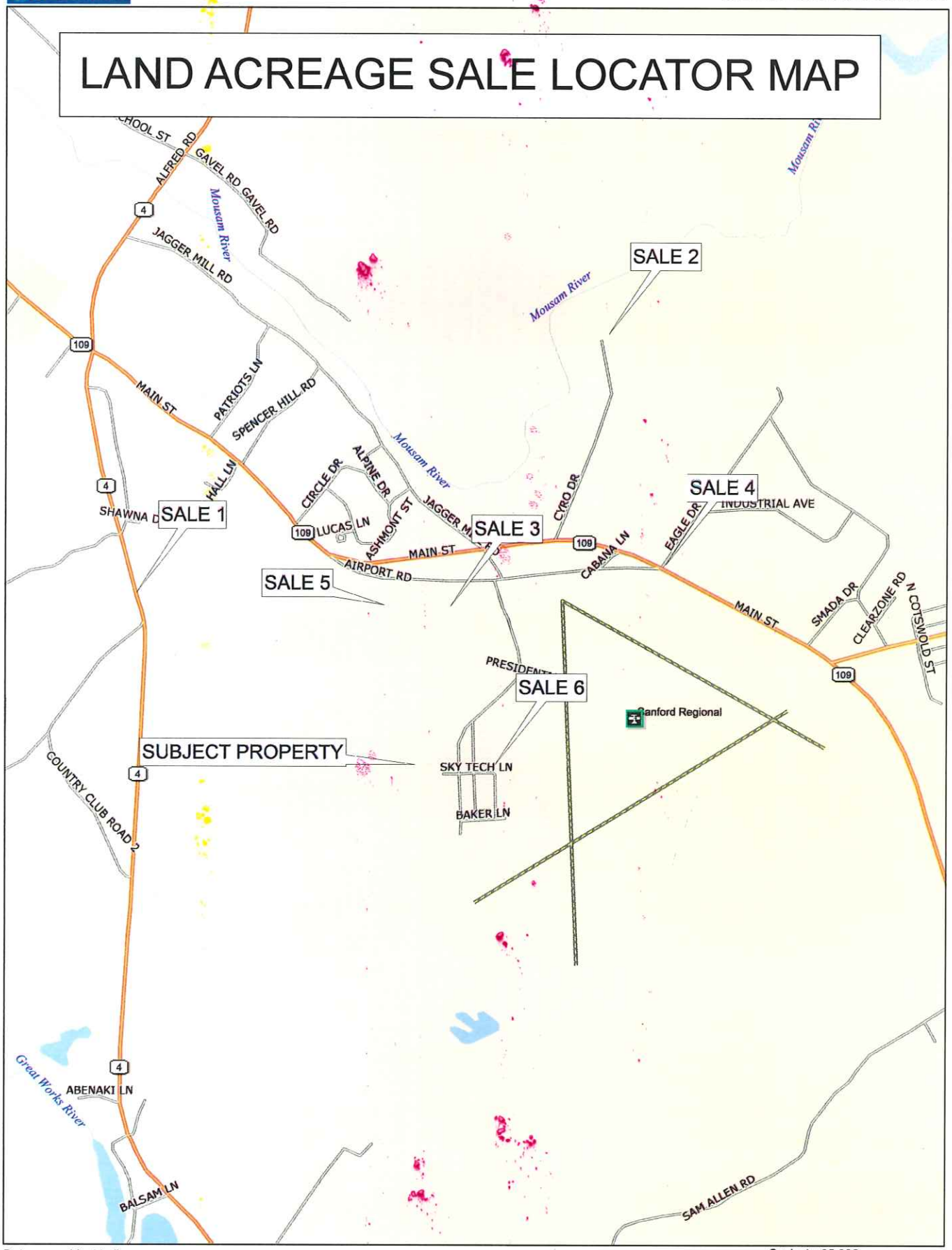
In this section of the appraisal, the value of the subject land is derived from an analysis of several area sales of land parcels acquired for potential industrial/commercial development. An exhaustive investigation into three Sanford industrial parks yielded a total of six sales that could be considered truly comparable to the subject site located within the Airport Industrial Park. Sanford has three distinct industrial parks, namely, Evonik Cyro Industrial Park, Airport Industrial Park, and Sanford Industrial Estates. Price paid per acre was used as the yardstick of comparison.

These sales are presented in the following Land Acreage Sale Summary along with their respective, photographs and City of Sanford Assessor's maps. Due to the overall recent low volume of industrial/commercial land acreage sale activity in the local market, the appraiser's investigation went back to 2019. One sale was consummated in 2019, three sales transpired during 2021, and two sales that occurred in 2024. All of the sales were thought to provide reliable indicators of market value for the subject's land parcel as a developable site. After the presentation of the preceding, the sales will be analyzed.

DeLorme

DeLorme Street Atlas USA® 2011

LAND ACREAGE SALE LOCATOR MAP



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TN
MN (14.6°W)

Scale 1 : 25,000
1" = 2,083.3 ft
Data Zoom 13-0

SUMMARY OF COMMERCIAL/INDUSTRIAL LAND ACREAGE SALES, SANFORD, MAINE

Sale #	Grantor/Grantee	Location	Sale Date	County Book/Page Map/Lot	Sale Price/Acre	Lot Size (Acres)	Sale Price Per Acre	Comments
1.	Sanford Library Association, Inc. To Industrial Corporation of Sanford	East Side of Country Club Road - Sanford	10/11/2024	York County 19531/674 Map R18/Lot 14	$350,000	110.0	$3,182	Sale of one vacant parcel of land suitable for commercial development located along the east side of Country Club Road in southern Sanford. Topography is level to slightly rolling overall. Sale's verification revealed there are extensive wetlands located in the interior middle of this parcel of land – approximately forty acres characterized by parties to the sales as a cedar swamp. This tract of land has approximately 1,133 feet of frontage along the east side of Route 4. Private water and private sewer. All cash transaction. Airport District Zoning District.
2.	Industrial Development Corp of Sanford To Sanford Airport Solar, LLC	End of Cyro Road Sanford	4/08/2019	York County 18052/829 Map R18B Lots 3 & 11	$245,000	38.87	$6,303	Sale of two vacant parcels of land abutting one another suitable for commercial development located off a cul-de-sac of Cyro Drive in southern Sanford. Terrain is level and above road grade to Cyro Drive. Sale's verification revealed the grantee's original intent after purchase was to construct arrays of solar panels on this composite land parcel. These combined tracts of land are part of a larger parent parcel of 450 acres of land for a quasi/private public energy project with a Florida based known as Nex ER Energy Resources. The grantee via a long term lease with City of Sanford, to develop a 50-megawatt photovoltaic solar solar energy generating facility. This combined parcel has a total of 341.25 feet of road frontage along Cyro Road. Level to rolling terrain. Currently improved with a small wood frame field office building. Since this sale's closing, the grantee has decided not to place any solar panels on this composite parcel of land. Industrial Business Zoning. Private septic and well for water. Al cash transaction.

Sale #	Grantor/Grantee	Location	Sale Date	Book/Page Map/Lot	Lot Sale Price	Acreage Size (Acres)	Sales Price Per Acre	Comments
3.	Charles L. Nickerson and James L. Audiffred, Trustees Curry/Davidow Trust To NBD Solar Maine, LLC	83 Airport Road Sanford	2/26/2021	York County 18572/482 Map 18/Lot 42	$375,000	106	$3,537	Sale of a vacant parcel of land suitable for industrial development located off Airport Road in southern Sanford. Below and above road grade to Airport Road via a very steep uphill driveway Overall site is very elongated in shape. Since the sale closing, this property has been improved with a solar energy facility consisting of a large number of solar array panels located at the far back reach of the site. Access road roughed in at time of sale.This land parcel has approximately 70 feet road frontage on the south side of Airport Road. Private water and sewer. Level terrain at the middle and rear of parcel. AD Airport Industrial District Zoning. All cash transaction.
4.	Roehm America, LLC To Industrial Development Of Sanford	Northwest Corner Main Street And Eagle Drive Sanford	4/23/2024	York County 19429/343 Map R18/Lot 30A	$400,000	38	$10,526	Sale of a vacant parcel of land suitable for commercial/industrial development located at the northwest corner of Main Street (Route 109) and Eagle Drive. The tract of land has dual frontage - approximately 310 feet along the north side of Main Street and approximately 2,063 feet along the west side of Eagle Drive. Very high visibility and accessibility situs. Level to slightly rolling topography. Public water and sewer. Industrial Business Zoning. All cash transaction. Sale's verification revealed the grantee acquired the parcel in order to re-develop into seven lots to sell to the public.
5.	Curtis Lake Christian Church To Andrew M. Sheriff	17 Airport Road Sanford	3/1/2021	York County 18602/533 Map R18/ Lots 46A & 47	$175,000	37	$4,730	Sale of a vacant parcel of land suitable for industrial development located off the south side of Airport Road in southern Sanford. Sale's verification revealed the original intent by the grantee was to develop the parcel with solar panels. This venture was abandoned to hold the property for eventual other development projects. This comprised two lots together in total reflect a staggered frontage of approximately 278 feet along Airport Road. This composite tract of land's topography is characterized by a moderate to steep slope off Airport Road going southward towards rear of site. Private water and sewer. All cash transaction. Airport District Zoning.

Sale #	Grantor/Grantee	Location	Sale Date	County Book/Page Map/Lot	Sale Price/Acre	Lot Size (Acres)	Sale Price Per Acre	Comments
6.	City of Sanford To Flemish Master Weavers, LLC	Sky Tech Lane Sanford	4/23/2021	York County 18652/465 Map R18/Lot A-3	$31,000	5.25	$5,905	Sale of a level triangular shaped parcel of land acquired for the storage of truck vehicles, etc. in the aftermath of a former land lease with the City of Sanford. This triangular shaped parcel of land has approximately 275.5 feet frontage along Sky Tech Lane. All level terrain. Airport Development District Zoning. All cash transaction.



Sale #1 – Property on Right Side of Photo – Looking North up Route 4/Country Club Road



Sale #1- Looking Northeast from Route 4/Country Club Road

SALE #1

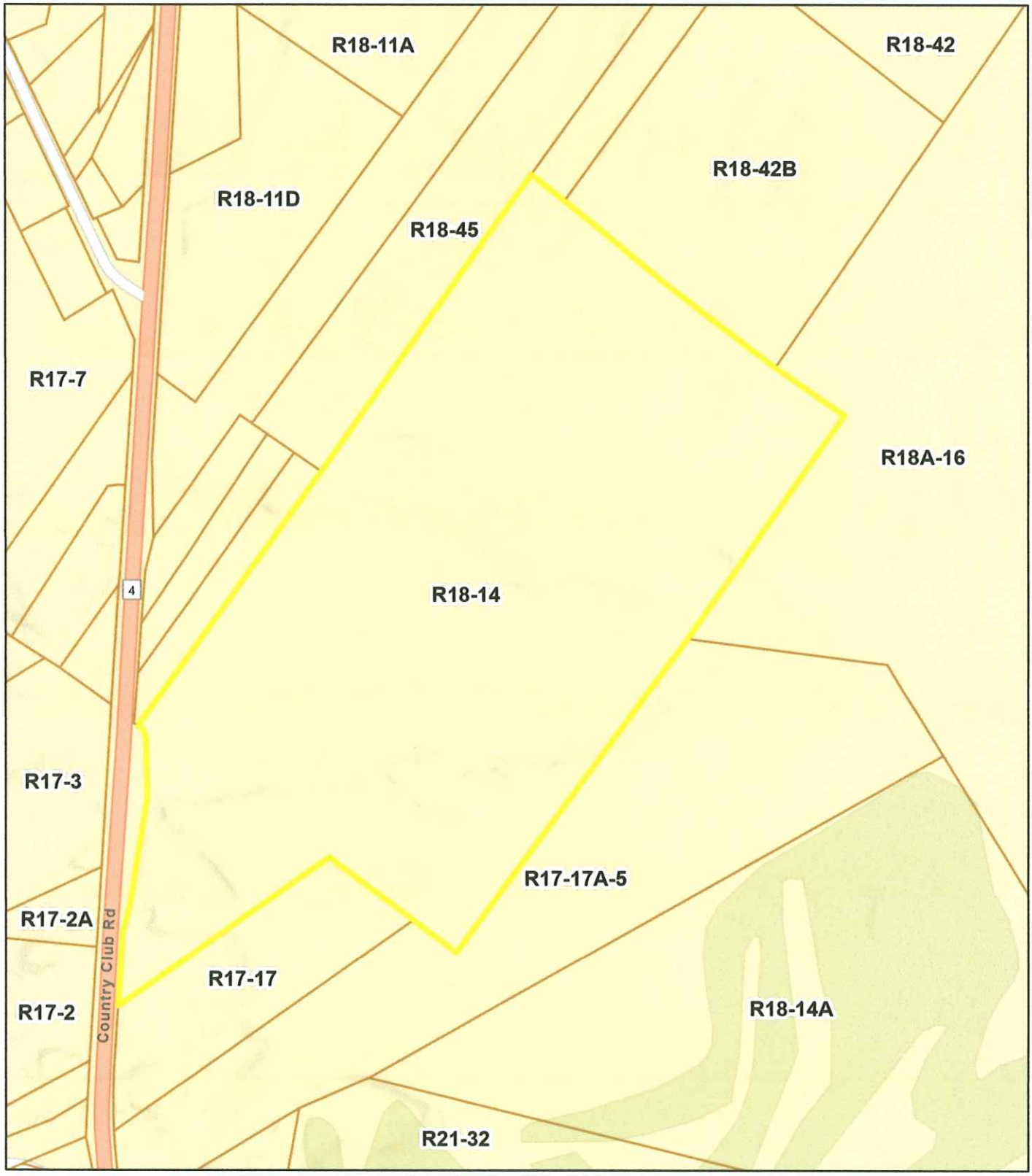
Country Club Road

1 inch = 548 Feet

0 548 1096 1644

May 29, 2025

CAI Technologies
Precision Mapping. Geospatial Solutions.
www.cai-tech.com



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Sale #2 – Showing Frontage of Site on Cyro Road – Property on Left



Sale #2 – Interior of Site Looking Southeast

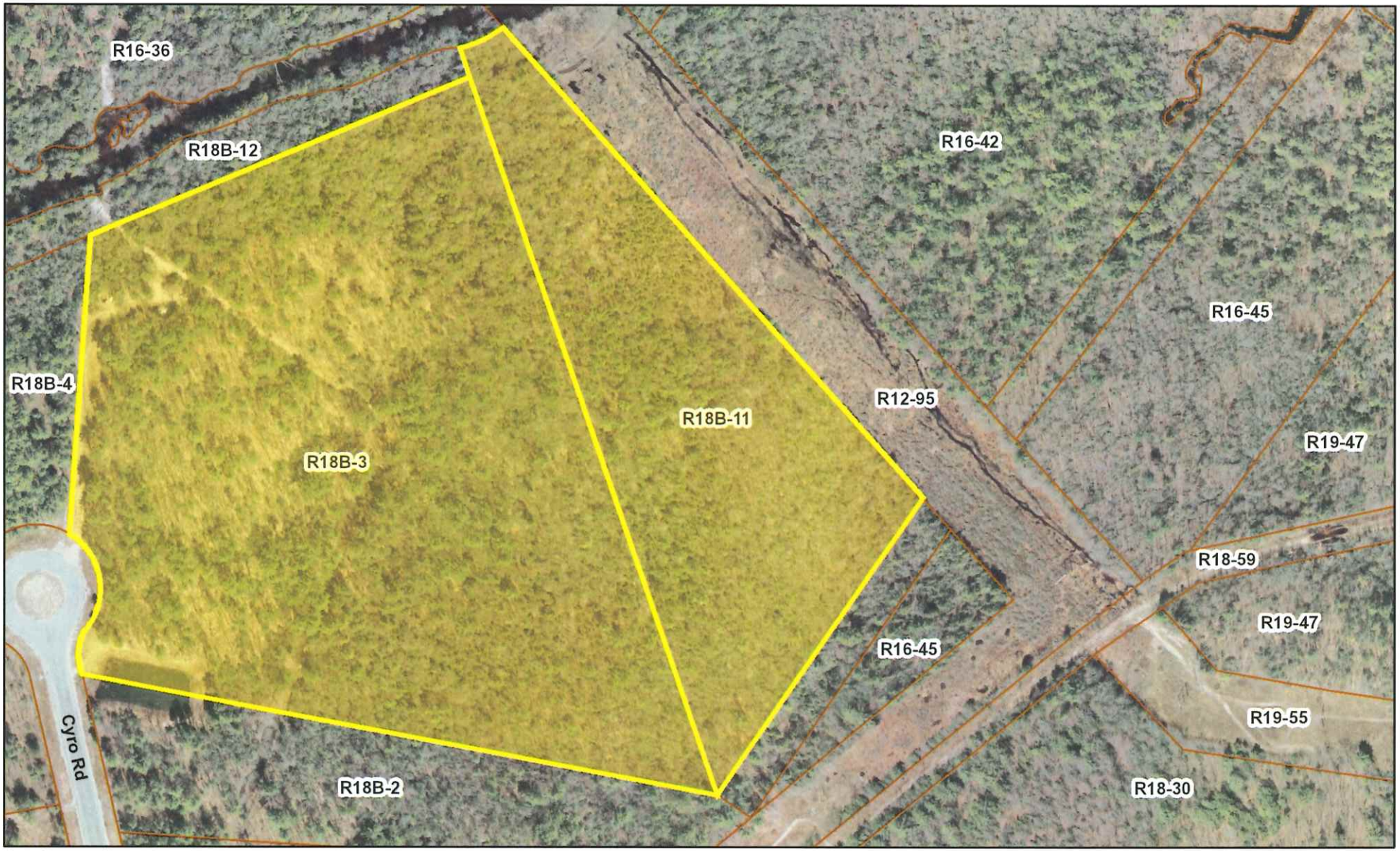
LAND SALE #2

Sanford, ME

1 inch = 273 Feet

0 273 546 819

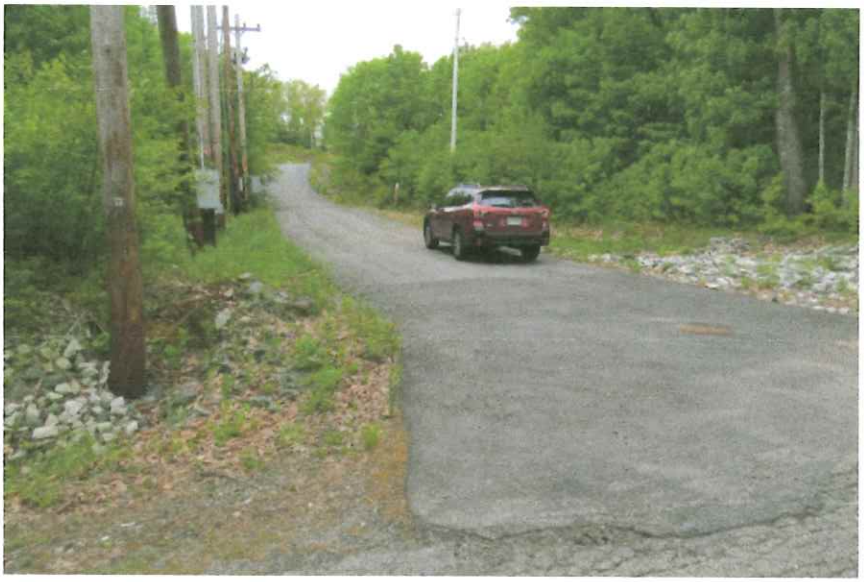
January 20, 2020



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Sale #3 – Rear of Site Looking South With Solar Panels in the Distance



Sale #3 – Driveway to Sale #3 off Airport Road Looking Southwest

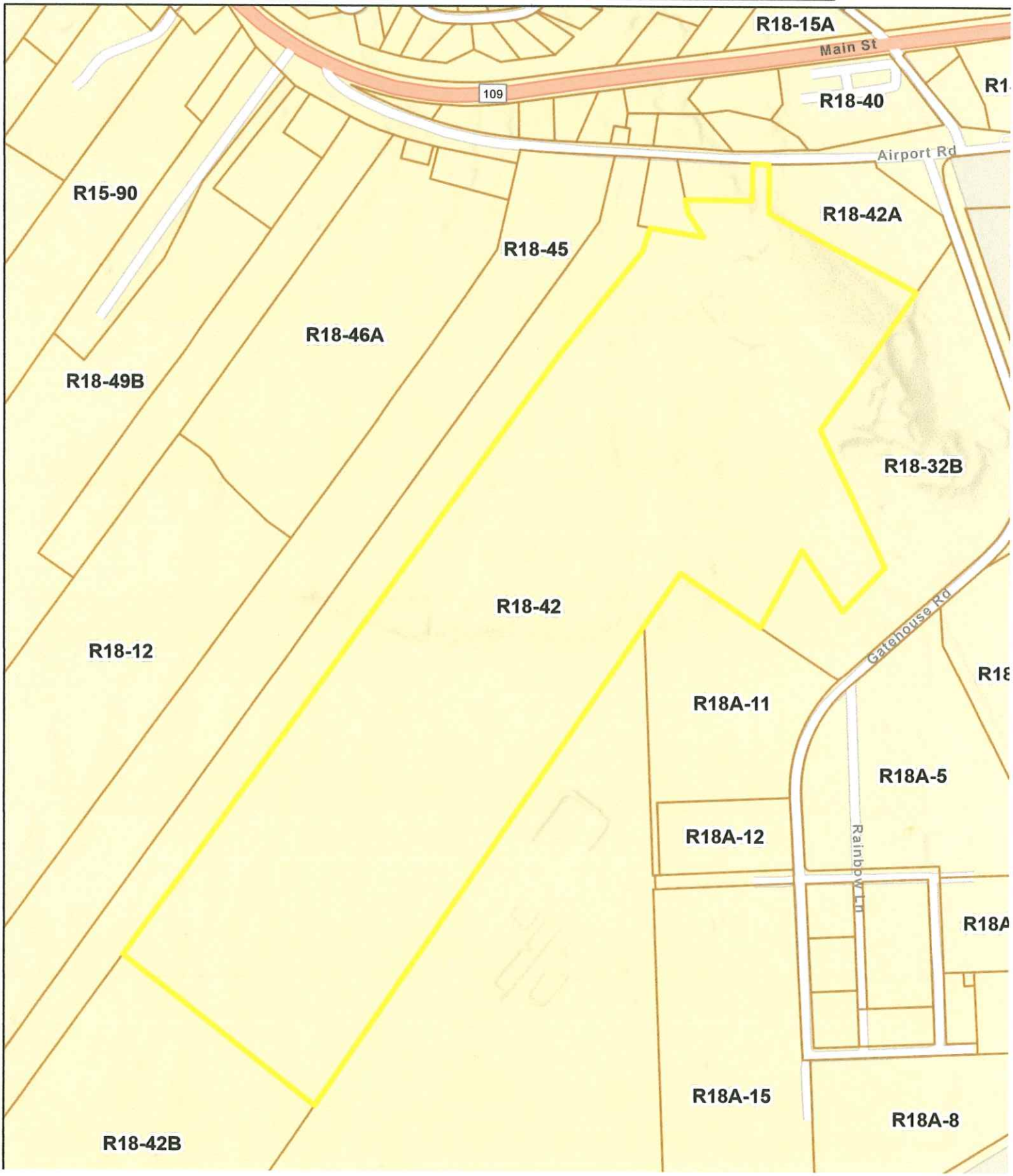
SALE #3

83 Airport Road

May 29, 2025

1 inch = 548 Feet

0 548 1096 1644



Sale #4 – Intersection of Eagle Drive with Route 109/Main Street





Sale #4 – Interior of Parcel

SALE #4

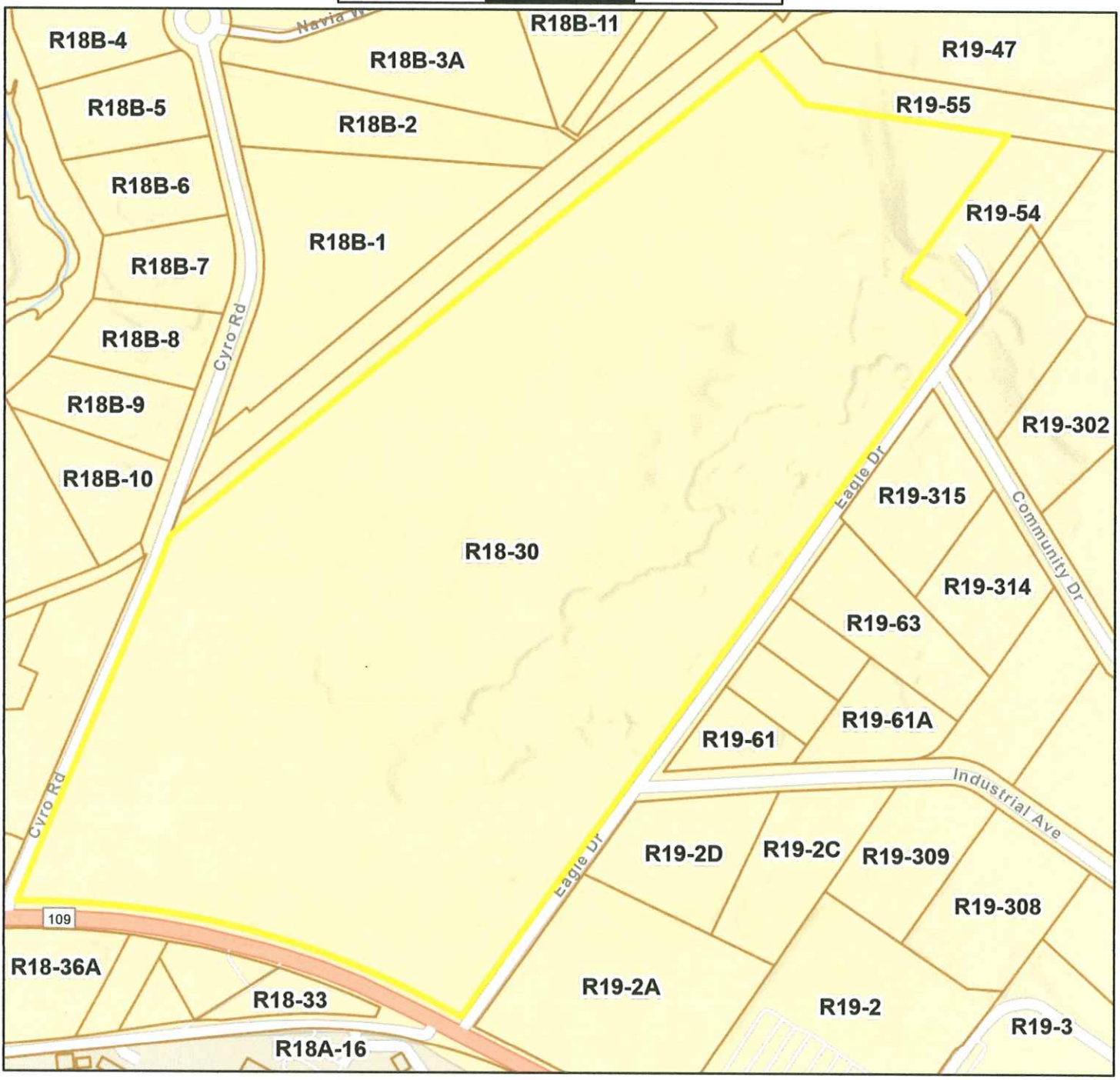
Eagle Drive & Main Street

1 inch = 548 Feet

0 548 1096 1644

May 29, 2025

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Parcel Lines - No Ortho

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Sale #5 – Driveway Entrance off Airport Road Looking South



Sale #5 – Looking South from Interior of Sale #5 Parcel

SALE #5

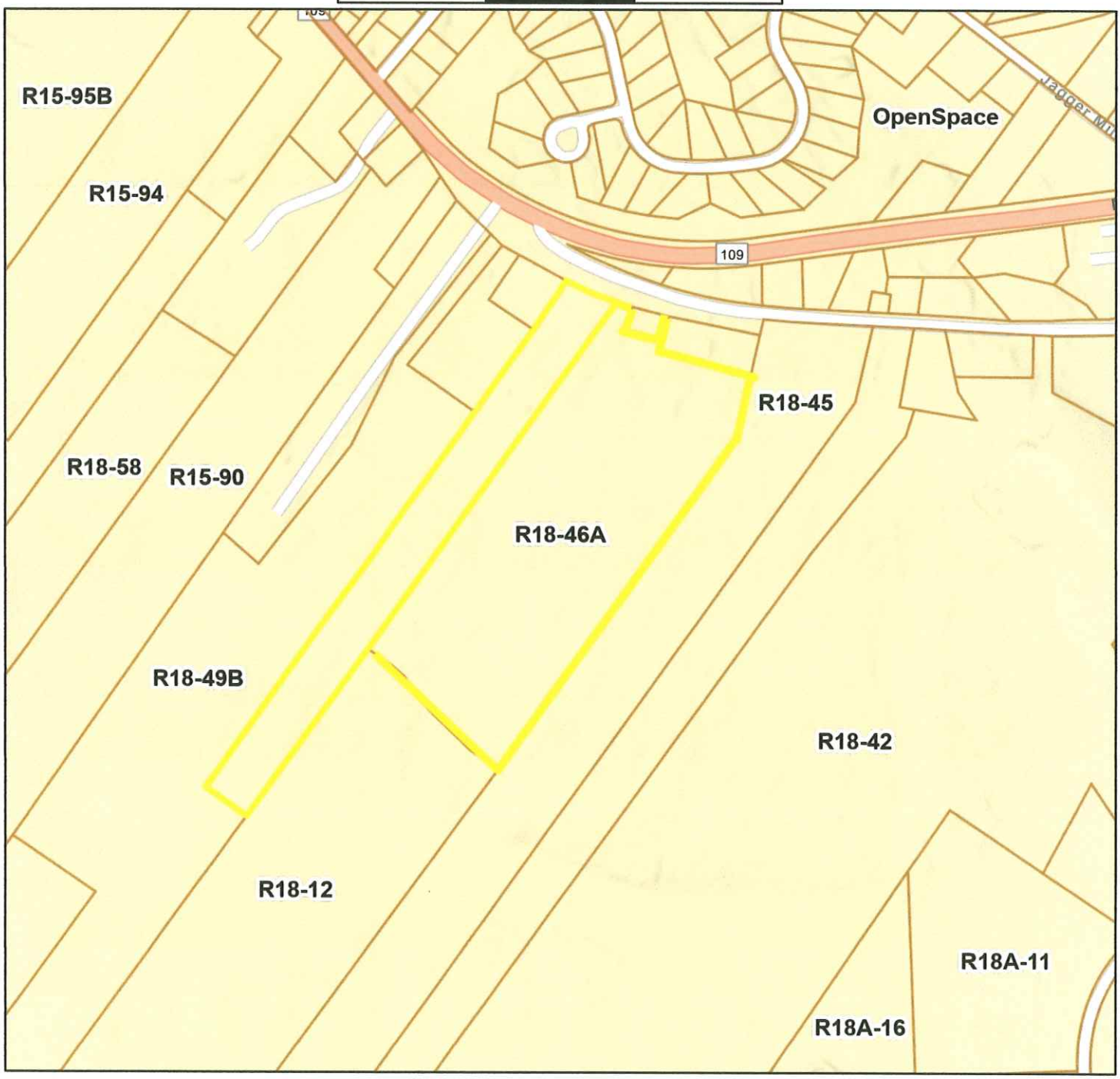
17 AIRPORT ROAD

1 inch = 548 Feet

May 29, 2025

0 548 1096 1644

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Parcel Lines - No Ortho

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Sale #6 – Looking Northeast



Sale #6 – Corner of Sky Tech Lane – Property on Right

SALE #6

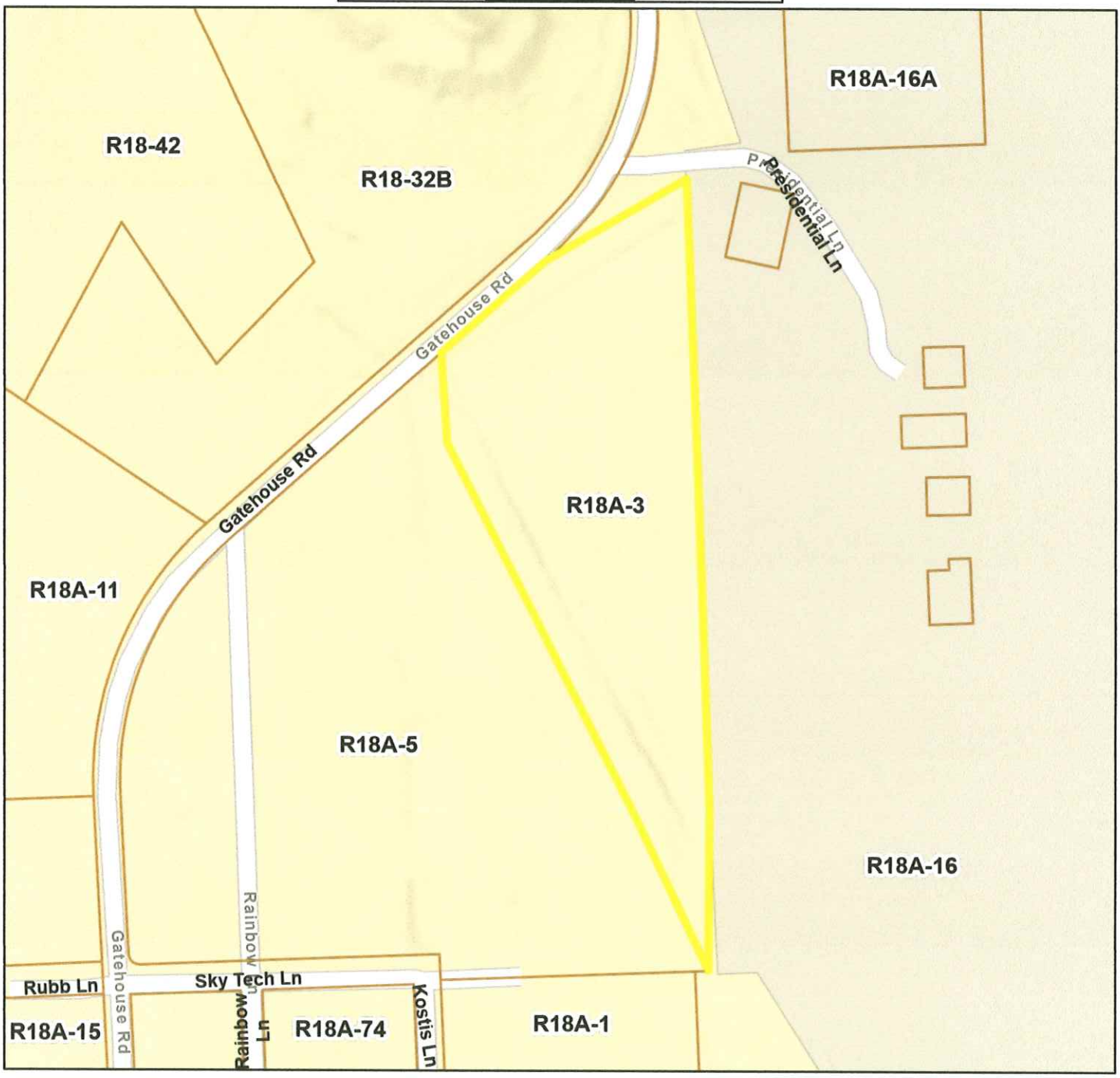
OFF SKY TECH LANE

1 inch = 274 Feet

0 274 548 822

May 29, 2025

CAI Technologies
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www.cai-tech.com



Parcel Lines - No Ortho

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

Comparable Land Sales Analysis

Initial inspection of the available market data suggests a fairly wide value range for these sales, ranging from a low of $3,182 per developable acre to a high of $10,526 per developable acre. Each of the sales was then directly contrasted to the characteristics of the subject property.

Property Rights Conveyed

No adjustments were required as all sales were acquired in fee simple interest.

Financing

In all cases, the sellers received all cash, thus no adjustments were warranted.

Conditions of Sale

Sale's verification of Sale #2 revealed a very highly motivated buyer that was willing to pay premium above market value levels to accommodate the overall acquisition of an abutting larger land parcel of approximately 450 acres for a quasi/private public energy project. The adjacent tract of land is now improved with a major electric sub-station. The appraiser deemed it appropriate to apply a downward adjustment to this comparable.

Market Conditions

Area industrial developers, town assessors, local industrial property owners, industrial brokers, and Sanford Economic Development officials all seem to be of a consensus that over the past several years and even up to current times, there only exists a tepid demand for industrial land development in the three industrial parks surrounding the Sanford Airport. Due to the preceding, the appraiser deemed it appropriate to not to apply any upward adjustments for market conditions.

Physical Characteristics

In terms of physical characteristics of the site and improvements, the appraiser considered six variables – regional & site location, acreage size, site shape, site topography, the presence of wetlands and access/road frontage. The adjustments are based on the appraiser's experience and market indicators, and are displayed in the attached adjustment grid.

<u>Location</u>

All of the land parcels associated with Sales #1 - # 6 were thought to reflect varyingly superior location dynamics than discovered at the subject property situs. Most notably,

Sale #4 represented a corner land parcel with very high visibility at the intersection of Eagle Drive and Main Street with attendant commercial vehicular traffic. Sale #1 was considered superior having good exposure along Route 4 or Country Club Drive versus the subject site's total distant exposure from the intersection of Gatehouse Road and Rubb Lane. Likewise, the parcels of land affiliated with Sales #2, #3, #5 and # 6 appear to reflect similar superior exposures. Due to the preceding, downward adjustments were applied to all of the six comparables.

Acreage Size

After taking into consideration the economies of scale principle, upward adjustments were applied to two of sales, namely Sales #1 (110 acres) and #3 (104 acres) in order to recognize the perspective larger size land parcels tend to sell at lower per acre price than smaller size parcels. The land parcels associated with these two comparables are moderately larger than the subject's approximate thirty-nine acres, thus prompting upward adjustments. A downward adjustment to Sale #6 was warranted given its small size (5.25 acres).

Site Topography

Field inspections and sale's verifications revealed that the land parcels associated with Sales #2, #3 and #5 reflected varyingly inferior topography elements characterized by their attendant rolling terrain in parts of the land parcels when compared to the subject level site which has been finished off with gravel in some locales and at road grade. Due to this cited inferiority the appraiser thought it appropriate to apply upward adjustments to these three sales.

Site Shape

Sale's verifications and analysis of municipal records revealed the land parcel associated with Sale #5 was felt to be superior due to its rectangular shape thus affording more optimal development possibilities when related to the subject's essentially triangular shape thus making maximum land area use impossible when considering setback requirements, optimal placing of a building on the site, etc. Therefore, a downward adjustment was believed proper to this one comparable. In contrast, it appeared the land parcels associated with the five remaining sales had their own site configuration

shortcomings due to their rather irregular shapes, particularly Sale #3 with an elongated configuration.

Access/Frontage

Sale's verifications, field inspections, and examination of municipal records, York County Registry of Deeds, etc. relative to Sales #1through #6 revealed varying superior road frontage/access characteristics compared to the subject parcel, hence warranting downward adjustments to all of the six comparables. In contrast, the appraiser recognizes the less than optimal road frontage and legal access to the subject parcel all possibly allowable via a hypothetical 25 foot wide driveway easement off Rubb Lane.

Wetlands

Sale's verifications revealed all of the sales with the exception of Sale #1 reflected just a nominal presence if any existence of wetlands associated with the land parcels of Sales #2 through #6. Field inspections of the subject property revealed only a nominal presence of wetlands on the southwest periphery of the site. In contrast, sale's verification revealed approximately forty acres of a cedar swamp located in the middle of Sale #1's parcel, thus reducing the optimal development potential of the total 110 acres. Accordingly due to the preceding, the appraiser thought it appropriate to apply an upward adjustment to Sale #1.

Conclusion

As is evident from the attached adjustment grid, none of the foregoing sales has feature for feature comparability with the subject. The final adjusted sale prices span a range from a low of $3,182/ per acre to a high of $5,105 per acre, with a mean average value indicator of $4,237 per acre and a median value indicator of $4,343 per acre. As each of the sales required adjustment, and no one sale is considered to be uniquely representative of conditions at the subject site, the appraiser concluded that the value of the subject land can be fairly estimated at the reconciled sale price unit indicator of $4,200 per acre. Considering this value and the subject's approximate 39.4-acre size, yields a value estimate for the subject's land parcel of $165,480 or $165,000.

INDICATED VALUE BY THE SALES COMPARISON APPROACH
FOR "AS IS" MARKET VALUE
OF
SUBJECT PROPERTY

ONE HUNDRED SIXTY-FIVE THOUSAND DOLLARS
$165,000

LAND ACREAGE SALES ADJUSTMENT GRID
SANFORD MAINE

	Subject	Sale #1	Sale #2	Sale #3	Sale #4	Sale #5	Sale #6
Location	Off Rubb Lane	Off Country Club Rd.	End of Cyro Road	83 Airport Road	SWC Main Street & Eagle Drive	17 Airport Road	Off Sky Tech Lane
Sale Date		10/11/2024	4/8/2019	2/26/2021	4/23/2024	3/1/2021	4/23/2021
Sale Price		$350,000	$245,000	$375,000	$400,000	$175,000	$31,000
Number of Acres	39.40	110.00	38.87	106.00	38.00	37.00	5.25
Sale Price Per Acre		$3,182	$6,303	$3,538	$10,526	$4,730	$5,905
Property Rights Conveyed	Fee Simple	Similar	Similar	Similar	Similar	Similar	Similar
Adjustments		0%	0%	0%	0%	0%	0%
Financing Terms	Conventional	Similar	Similar	Similar	Similar	Similar	Similar
Adjustments		0%	0%	0%	0%	0%	0%
Condition of Sale	Typical	Similar	Highly Motivated Buyer	Similar	Similar	Similar	Similar
Adjustments		0%	-10%	0%	0%	0%	0%
Market Conditions	5/10/2025	Oct-24	Apr-19	Feb-21	Apr-24	Mar-21	Apr-21
Adjustments		0%	0%	0%	0%	0%	0%
Adjusted Sale Price		$350,000	$220,500	$375,000	$400,000	$175,000	$31,000
Adjusted Sale Price Per Acre		$3,182	$5,673	$3,538	$10,526	$4,730	$5,905
Location	Average	Superior	Superior	Superior	Superior	Superior	Superior
Adjustments		-5%	-5%	-5%	-30%	-5%	-5%
Acreage Size		Larger	Similar	Larger	Similar	Similar	Smaller
Adjustments		+10%	0%	+10%	0%	0%	-10%
Access/Road Frontage	Hypothetical 25 foot wide easement off Rubb Lane	Superior	Superior	Superior	Superior	Superior	Superior
Adjustments		-15%	-10%	-5%	-25%	-10%	-10%
Site Shape	Irregular	Irregular	Irregular	Elongated	Irregular	Rectangular	Triangular
Adjustments		0%	0%	0%	0%	-5%	0%
Site Topography	Basically level	Similar	Level to rolling terrain	Level to rolling terrain	Similar	Moderate to steep slope	Similar
Adjustments		0%	+5%	+5%	0%	+10%	0%
Wetlands	Nominal Presence	40% Wetlands	None	None	None	None	None
Adjustments		+10%	0%	0%	0%	0%	0%
NET ADJUSTMENTS		0%	-10%	5%	-55%	-10%	-25%
FINAL ADJUSTED SALES PRICE		$350,000	$198,450	$393,750	$180,000	$157,500	$23,250
ADJUSTED SALES PRICE PER ACRE		$3,182	$5,105	$3,715	$4,737	$4,257	$4,429

RECONCILIATION AND FINAL VALUE ESTIMATE

Reconciliation is the process whereby the appraiser analyzes alternate value indications to arrive at a final value estimate. Each approach to value is typically weighed as to its appropriateness, adequacy and the quality of supporting data and its probable validity and reliability.

To estimate the market value of the subject, one traditional approach to value was utilized with the following results:

Indicated Value by Cost Approach	NA
Indicated Value by Sales Comparison Approach	$165,000
Indicated Value by Income Capitalization Approach	N/A
FINAL ESTIMATE OF VALUE	**$165,000**

FINAL VALUE ESTIMATE

The Sales Comparison Approach to value is the appropriate methodology to estimate the value of the subject vacant land parcel. The appraiser conducted an extensive and thorough search for comparable land sales and identified six comparable transactions. These sales were analyzed via a detailed adjustment process and a credible, well justified final value estimate for the subject land was concluded.

Therefore, after taking into consideration all of the factors that contribute to value with the sole weight given to the Sales Comparison Approach, it is the appraiser's opinion the subject property had an estimated market value, assuming fee simple interest as of April 10, 2025 of **ONE HUNDRED SIXTY FIVE THOUSAND DOLLARS.**

FINAL VALUE CONCLUSION
$165,000

CERTIFICATION

I CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT…...

-- the statements of fact contained in this report are true and correct;
-- the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and assumptions and are my personal, unbiased professional analyses, opinions, and conclusions;
-- I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;
-- my compensation is not contingent on an action or event resulting from the analyses, opinions, or conclusions in, or the use of, this report;
-- my analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Supplemental Standards of Professional Practice of The Appraisal Institute and the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation;
-- the use of this report is subject to the requirements of The Appraisal Institute relating to review by its duly authorized representatives;
-- C. Douglas Pierce has made a personal inspection of the subject property;
-- I have performed no services as an appraiser or in any capacity, regarding the subject property within the 3-year period immediately preceding acceptance of this assignment;
-- No one provided significant professional assistance to the person signing this report;
-- neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser or The Appraisal Institute or the MAI or SRA designations) shall be disseminated to the public through advertising media, public relations media, news media, sales media, or any other public means of communication without the prior written consent and approval of the undersigned;
-- this appraisal assignment was not based on a requested minimum valuation, a specific valuation, or the approval of a loan; and,
-- I am are fully qualified and competent by training, knowledge and experience to perform this appraisal, and I am properly certified by the appropriate state agency.

Respectfully submitted,

C. Douglas Pierce

C. Douglas Pierce, President
Pierce & Associates
Maine Certified General Real Estate Appraiser #1680

ADDENDA

PIERCE & ASSOCIATES

APPRAISAL & CONSULTING SERVICES

March 19, 2025

Mr. David Nickerson, President/CEO
Rubb ~~USA~~ Inc.
&
Mark Adler, President
Sanford-Springvale Fish & Game Protective Association
1 Rubb Lane
Sanford, ME 04073

Re: Appraisal Report
+/- 38 acres of land at on the west side of a 1271.85-acre parcel owned by the City of Sanford
Part of Lot 16 on City of Sanford Assessor's Map 18A
Sanford, ME 04073

Dear Mr. Nickerson & Mr. Adler:

Thank you for considering me to complete an appraisal of the subject property.

The subject parcel is a proposed subdivided 38-acre portion of a larger lot at the Sanford Airport (1,271.85 acres) owned by the City of Sanford. Notably, this proposed parcel has not yet been surveyed but a survey and a proposed legal description of the parcel should be prepared as a prerequisite to complete the appraisal.

It is my understanding that I am estimating the current market value of the fee simple interest in the property for your use in determining a potential acquisition price for the subject property. The date of my valuation will be the date of my site inspection estimated to be no later than May 15, 2025.

Market Value is defined in the UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE of the Appraisal Foundation, revised December 1990 and FDIC Rule 12 CFR, Part 323 as the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is unaffected by an undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market;
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and,
5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sale concessions granted by anyone associated with the sale.

32 Pine Country Drive . Buxton, Maine . (207) 883-0609 . Cell (207) 671-2487

The proposed written narrative appraisal report will be prepared under the Appraisal Report option of Standards Rule 2-2(a) of the 2024-2025 edition of USPAP. The current edition of USPAP gives appraisers the flexibility to vary the level of information contained in a report depending on the intended use and intended users of the appraisal. The current report would be considered an appraisal report presented in a standard format. My standard report format provides a moderate level of detail. It summarizes the information collected and analyzed during the appraisal process, the appraisal methods employed in valuing the subject real estate and, the reasoning that supports my analyses, opinions, and conclusions. It meets or exceeds the former requirements for a Summary Appraisal Report as defined in the 2012-2013 edition of USPAP.

In addition, this appraisal report will be subject to the Uniform Appraisal Standards for Federal Land Acquisitions (Yellow Book Appraisal).

The scope of my appraisal will include the application of the most appropriate approach to value when dealing with raw land like the subject property – the Sales Comparison Approach.

The appraisal will be completed and I will deliver an electronic copy and two hard copies of the Appraisal Report to you by June 1, 2025. The fee, based on the overall scope of the assignment, as well as the time required to complete the appraisal will be $3,800.

If the foregoing is agreeable to you, please authorize the engagement of this assignment by signing this letter and returning it to me accompanied by a retainer check of $1,900. I request that the balance of $1,900 be paid upon delivery of the report.

Respectfully submitted,

C. Douglas Pierce

C. Douglas Pierce
State of Maine Certified General Real Estate Appraiser #1680

Accepted: _____

David Nickerson, President & CEO
Rubb ~~USA~~ Inc.

Date: 10 March 2025

Rubb will process $1,900.00 retainer ASAP

Accepted: _____

Mark Adler, President
Sanford-Springvale Fish & Game Protective Association

Date: _____

QUALIFICATIONS OF APPRAISER

C. DOUGLAS PIERCE

Doug Pierce has over 30 years of experience in the appraisal of different types of commercial, industrial, residential and special use real estate. Expertise involves effectively dealing with a very broad range of appraisal problems: specialties include appraising loan workout realty assets; valuing industrial facilities, mobile home parks, auto dealerships, mixed use properties, apartment buildings, retail facilities, office complexes, churches, schools and hospitality properties; and, reviewing complex cash flows. Mr. Pierce has successfully completed appraisal assignments spanning the full spectrum of complexity and depth from generating basic evaluation reports to producing thorough, complete self-contained appraisal reports. His experience in providing commercial real estate consultancy services includes property cash flow analysis, third party reviews, impact studies, market analyses for office, retail, industrial and multi-family property types, and site acquisition.

EDUCATION: Franklin and Marshall College, Lancaster, PA, BA Economics - 1971

CERTIFICATION: State of Maine Certified General Appraiser #1680

EXPERIENCE:

1989 – Present	President, Pierce & Associates, Natick, MA & Scarborough & Buxton, ME
1988 – 1989	Property Tax Field Representative, Zayre Stores, Framingham, MA
1987 – 1988	Director of Appraisal Department, Shawmut Bank, Boston, MA
1986 – 1987	Real Estate Appraiser & Consultant, West Newton, MA
1980 – 1986	Commercial Appraiser, Amerifirst Appraisal Co., Miami, FL
1980 – 1985	Commercial Appraiser, Appraisal Masters, Inc., Miami, FL
1971 – 1980	Real Estate Development, Sales & Leasing, V.P., D.M. Investments Inc., Miami, FL

AREAS SERVED: Cumberland, York, Oxford, Sagadahoc, Waldo, Androscoggin, Penobscot, Knox, Lincoln, Kennebec and Hancock Counties: other select markets in Maine's interior

CLIENTS: Commercial banks; land trusts; accountants; environmental consulting companies; conservation commissions; attorneys; commercial real estate investors and brokerage firms; various governmental agencies; estates; and individuals.

PROPERTIES: Commercial and industrial properties, including shopping centers, lodging properties of all types, warehouses, manufacturing facilities, office buildings, apartments, retail buildings, restaurants, affordable housing projects, mixed use projects, condominium projects, residential subdivisions, conservation easements, etc.

SCOPE: Prepared feasibility studies and economic analyses supporting marketing and business location decisions; completed appraisals for impact studies on telecommunication towers, and estate and tax planning; prepared valuations for eminent domain determinations, financing arrangements, and public conservation land purchases; and provided appraisals for property tax abatement cases.

AFFILIATIONS:

Appraisal Institute, Affiliate Member
2004 Vice President of State of Maine Chapter of the Appraisal Institute
The Land for Public Trust
Appalachian Mountain Club
Portland Chamber of Commerce

APPRAISAL INSTITUTE EDUCATION:

Course 1A-1 Real Estate Appraisal Principles
Course 1A-2 Basic Valuation Procedures
Course SPPA Standards of Professional Practice, Part A
Course SPPB Standards of Professional Practice, Part B
Course 310 Basic Income Capitalization
Course 320 General Applications
Course 340 Standards of Professional Practice, Part C
Course 510 Advance Income Capitalization
Course 520 Highest and Best Use & Market Analysis
Course 530 Advanced Sales Comparison & Cost Approaches
Course 540 Valuation Analysis and Report Writing
Course 705 Litigation Appraising; Specialized Topics and Applications
Course 803 Fundamentals of Separating Real Property, Personal Property and Intangible Assets
Seminar - Subdivision Analysis
Seminar - Computer Assisted Income Capitalization Approach
Seminar - Real Estate Risk Analyses
Seminar - Environmental Risk & Real Estate Appraisal Process
Seminar - Appraising Easements
Seminar - Appraisal of Timberland
Seminar - Attacking & Defending an Appraisal in Litigation

PARTIAL LIST OF CLIENTS:

Key Bank, Portland, ME
Camden National Bank, Camden, ME
Kennebec Savings Bank, Augusta, ME
Bangor Savings Bank, Bangor, ME
Optima Bank & Trust, Portsmouth, NH
Machias Savings Bank, Machias, ME
Evergreen Credit Union, Portland, ME
Katahdin Trust Company, Presque Isle
Bar Harbor Bank & Trust, Bar Harbor, ME
Penobscot River Restoration Trust, Brunswick, ME
Norway Savings Bank, Portland, ME
Maine Housing Authority, Augusta Maine
Town of Orono, Orono, ME
Orono Land Trust, Orono, ME
Partners Bank, Sanford, ME
Peoples United Bank, Portland, ME
Law Firm of Perkins Thompson, Portland, ME
Maine Bureau of General Services, Augusta, ME
Gorham Savings Bank, Gorham, ME
Kennebunk Savings Bank, Kennebunk, ME
Private Individuals

State of Maine

DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION
OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION
BOARD OF REAL ESTATE APPRAISERS

License Number CG1680

Be it known that

CHARLES DOUGLAS PIERCE

has qualified as required by Title 32 MRS Chapter 123 and is licensed as:

CERTIFIED GENERAL APPRAISER

ISSUE DATE
December 7, 2024

Acting Commissioner

EXPIRATION DATE
December 31, 2025

Detach

STATE OF MAINE
DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION
OFFICE OF PROFESSIONAL AND OCCUPATIONAL REGULATION
BOARD OF REAL ESTATE APPRAISERS

License Number CG1680
CHARLES DOUGLAS PIERCE
CERTIFIED GENERAL APPRAISER

ISSUED 12/07/2024 **EXPIRES** 12/31/2025

STATE OF MAINE
DEPARTMENT OF PROFESSIONAL AND FINANCIAL REGULATION
35 State House Station
Augusta, Maine 04333-0035
(207) 624-8603

Acting Commissioner

JENSEN BAIRD GARDNER & HENRY

ATTORNEYS AT LAW
TEN FREE STREET
P.O. BOX 4510
PORTLAND, MAINE 04112
(207) 775-7271
TELECOPIER (207) 775-7935

JOHN D. BRADFORD
WALTER E. WEBBER
DONALD A. KOPP
KENNETH M. COLE III
NICHOLAS E. NADZO
FRANK H. FRYE
DAVID J. JONES
MICHAEL A. NELSON
RALPH W. AUSTIN
JOAN LABRIQUE COOK
RONALD A. EPSTEIN
WILLIAM H. DALE
JOSEPH H. GROFF III
R. BRUCE SLEEPER
DEBORAH M. MANN
LESLIE E. LOWRY III
KEITH R. JACQUES
PATRICIA McDONOUGH DUNN
MICHAEL J. QUINLAN
ELIZABETH T. HIGH
JAMES N. KATSIARICAS
PETER D. LAFOND
JOHN R. GOLDSBURY
MILDA A. CASTNER
EMILY A. BLOCH
ANNE H. JORDAN
SCOTT A. ROBERTSON
BARRY P. FERNALD
SALLY J. DAGGETT
MATTHEW A. WOODWARD

RAYMOND E. JENSEN
M. DONALD GARDNER
MERTON G. HENRY
OF COUNSEL

KENNETH BAIRD
(1914-1987)

YORK COUNTY
OFFICE
419 ALFRED STREET
BIDDEFORD, MAINE 04005
(207) 282-5107
TELECOPIER (207) 282-8301

VIA TELEFAX
AND U.S. MAIL

April 6, 1995

Mr. John E. Webb
Town Administrator
Sanford Town Hall
267 Main Street
Sanford, Maine 04073

Re: Sanford-Springvale Fish and Game Protective Association, Inc. Use Agreement

Dear Jack:

Enclosed please find a copy of the Sanford-Springvale Fish and Game Protective Association, Inc. ("SSFG") Use Agreement. SSFG has reviewed the Agreement and its attorney has indicated that it is consistent with the parties' discussions last week.

The Use Agreement needs Board of Selectmen approval, but does not require town meeting approval because it is for a term of only one year.

After you have had a chance to review it, please call me. Thanks.

Sincerely,

Bill

William H. Dale

WHD:gb

Enclosure

cc: Gordon Paul, Police Chief

Mtg Hear 5/23

USE AGREEMENT

THIS USE AGREEMENT is made and entered into as of the ____ day of _____, 1995, by and between the **TOWN OF SANFORD, MAINE** ("Sanford"), a municipal corporation existing under the laws of the State of Maine and located in the County of York, State of Maine, and **SANFORD-SPRINGVALE FISH AND GAME PROTECTIVE ASSOCIATION, INC.** ("SSFG"), a non-profit corporation located in Sanford, County of York and State of Maine, and having a mailing address of P.O. Box 788, Sanford, Maine 04073.

WHEREAS, SSFG wishes to use for target practice and related recreational purposes certain real property owned by Sanford; and

WHEREAS, Sanford, acting through its municipal officers, is willing to allow SSFG to use said premises under the terms and conditions contained herein.

NOW, THEREFORE, in consideration of the mutual conditions and covenants contained herein, the parties agree as follows:

1. Description of Property. Subject to the terms of this Use Agreement, Sanford agrees to allow SSFG to use the Sanford Police Department's rifle range at the Town-owned airport (the "Premises"), situated in said Sanford, more particularly shown on Exhibit A attached hereto.

2. Use of Property. Use of the Premises shall be limited to SSFG target practice and firearms-related SSFG recreational purposes subject to the Sanford Police Department's continuing right of access, entry and use of the

Premises and the Sanford Police Department's exclusive use of the existing shed on the Premises. Further, SSFG use of the Premises is subject to any and all federal, State and local laws, as may be amended from time to time, including any Federal Aviation Administration ("FAA") regulations, and such reasonable use restrictions imposed by Sanford on SSFG activities, as may be amended from time to time, including those restrictions shown on the attached Exhibit B, the terms of which are expressly incorporated into this Use Agreement. Mutual compliance with the use restrictions set forth in Exhibit B, both for the Premises and for SSFG's existing facility, is an integral part of this Use Agreement. SSFG may construct improvements on the Premises consistent with its target practice and firearms-related recreational use of the Premises, but SSFG shall neither commit nor permit waste on the Premises and shall not destroy or remove any improvements on the Premises at the beginning of, or put on the Premises by either party during the term of, this Use Agreement without the consent of Sanford.

3. Rent. SSFG shall pay as rent to Sanford the sum of One Dollar ($1.00) per year payable in advance on the 1st day of April of each year.

4. Duration. The term of this Use Agreement shall be for a period of one (1) year beginning April 1, 1995, unless sooner terminated for cause as provided in Paragraph 7. The term of this Use Agreement shall be automatically renewed for an identical term of one (1) year each April 1 unless either

party gives written notice to the other party that it has exercised its option not to renew the Use Agreement thirty (30) days prior to the expiration of the then-current term.

5. Sublease or Assignment. The Premises shall not be sublet in whole or in part, or this Use Agreement assigned or transferred, without the prior, express, and written consent of Sanford. Any attempted unauthorized assignment, sublease, or license to occupy shall be void, and shall terminate this Use Agreement at Sanford's option.

6. Indemnity and Insurance. SSFG shall assume all risks incident to the use of the Premises and shall defend and indemnify Sanford, its officers, agents and employees from and against any and all loss, damage, or expense arising under this Use Agreement.

SSFG shall include Sanford as an additional named insured on SSFG's liability insurance in an amount not less than Three Hundred Thousand Dollars ($300,000), or such larger amount as may reflect an increase in the maximum exposure of Sanford under the Maine Tort Claims Act, to cover any such claims; provided, further, that SSFG shall provide a Certificate of Insurance showing the same at the time of commencement of this Use Agreement and annually thereafter at the same time it pays the rent under Paragraph 2.

7. Default. If, during the term of this Use Agreement, or any extension of the term, SSFG shall default in the payment of rent or in the performance of any of the covenants or conditions required by this Use Agreement, and if default is

not corrected within ten (10) days after delivery of written notice from Sanford specifying the default and sent by registered mail, Sanford shall have the right at its election to terminate this Use Agreement or to re-enter the Premises and remove all persons and/or improvements from the Premises, or to take any other action for the enforcement of any right or remedy available to Sanford at law.

8. Improvements. Any improvements made to the Premises as provided in Paragraph 2 shall be done so in accordance with all applicable federal, State and local laws and with the prior written consent of Sanford. Consent to reasonable improvements shall not be unreasonably withheld by Sanford. Any improvements made by SSFG to the Premises shall be considered the personal property of SSFG.

9. Amendment. This Use Agreement may be amended only by written agreement by and between the parties.

10. Notices. Any notice required to be given hereunder by either party shall be in writing and shall be mailed or delivered in hand to Sanford c/o Town Administrator, Sanford Town Hall, 267 Main Street, Sanford Maine 04073 and to SSFG c/o SSFG President, Sanford-Springvale Fish and Game Protective Association, Inc., P.O. Box 788, Sanford Maine 04073 or at such other addresses as may be designated from time to time be designated in writing by the addressee to the other party.

EXHIBIT A

[Property Description]

Witnesses:

TOWN OF SANFORD

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Board of Selectmen

Witness:

SANFORD-SPRINGVALE FISH AND GAME PROTECTIVE ASSOCIATION, INC.

_____

By: _____
Its

EXHIBIT B

SSFG use of the Premises shall be subject to the following terms and conditions:

1. The use of drugs or alcoholic beverages on the Premises is prohibited.
2. The entrance gate to the Premises shall be secured by a double padlock arrangement and SSFG shall ensure that such locks are secured each time SSFG, its officers, agents and members exit the Premises.
3. The use of fully automatic weapons on the Premises is prohibited. Use of firearms with a caliber of .50 or greater, with the exception of black powder, is prohibited on the Premises.
4. The Premises shall be used during daylight hours only, i.e., sunrise to sunset.

Further, as an integral part of the Use Agreement, SSFG's use of its existing Route 4 facility ("existing facility") in Sanford shall be subject to the following terms and conditions:

A. SSFG shall use its existing facility solely for hunter safety and related educational and instructional programs. SSFG shall limit the number of such programs to eight (8) four-hour sessions per calendar year and, commencing January 1, 1996, with no more than two (2) of those four-hour sessions per

calendar year quarter. In addition, 3 of the 8 programs held each year shall be conducted with firearms no larger than .22 caliber.

B. Any rights SSFG has with respect to its use and hours of operation at the existing facility under federal, State and local law shall remain unaltered as they exist as of the date this Use Agreement is executed between SSFG and Sanford.

C. SSFG may request that the parties re-examine the terms and conditions governing SSFG use of its existing facility at any time if a change in law or circumstance requires SSFG to make such request.

ACCESS EASEMENT

KNOW ALL BY THESE PRESENTS THAT, **Rubb Property, LLC**, a Maine limited liability company having a place of business in Sanford, Maine ("Grantor"), for consideration paid, grants to the **City of Sanford, Maine**, a municipal corporation organized and existing under the laws of the State of Maine with an address of 919 Main Street, Sanford, Maine 04073 ("Sanford") and **Sanford-Springvale Fish and Game Protective Association,** a _____ with an address c/o Robert Couture, PO Box 788 Sanford, Maine 04073 ("Fish & Game", and together with Sanford, "Grantee"), an access easement appurtenant to:

(i) Sanford's land at 199 Airport Road, Sanford, Maine (Sanford Assessor's Database R18A, Lot 16), more particularly described in the Deed from Harmony Homes Corporation to the Inhabitants of the Town of Sanford dated August 3, 1970, and recorded in the York County Registry of Deeds at Book 1880, Page 650, and

(ii) Fish & Game's land at 449 Country Club Road, Sanford, Maine (Sanford Assessor's Database R17, Lot 2 and R18A, Lot 16-101) and more particularly described in the Deed from Ruby W. Cobb to Fish & Game dated December 31, 1986, and recorded in said Registry of Deeds at Book 4165, Page 116 (collectively the "Benefitted Land").

This access easement burdens that certain portion of Grantor's land described as being twenty-five (25') feet wide by sixty (60') feet long along the southerly boundary of the property owned by The Baker Company, Inc. and being a portion of Rubb Lane (the "Access Easement Area"), which Access Easement Area is a portion of Grantor's land more particularly described in the Municipal Quitclaim Deed from the City of Sanford to Grantor of near or even date herewith to be recorded in said Registry of Deeds prior hereto. The Access Easement Area is more particularly shown on the plan attached to and made a part hereof as Exhibit A.

Subject to the restrictions set forth below, said right of way and easement, as currently maintained or as may be improved by the Grantee, shall be for all purposes now or hereafter customary of a road or way, including the right to pass and repass, in common with others, by foot or by vehicle, (including emergency and rescue vehicles) to and from the Benefitted Land to the Gatehouse Road, f/k/a Old Airport Road, Sanford, Maine, together with the right to enter onto the Access Easement Area with persons, machinery and equipment to perform all work necessary or convenient for exercising such rights, including, without limitation, construction, excavating, grading, re-grading, trenching, placement of drainage facilities, blacktop, sand, gravel and other materials customary of a roadway, and removal of vegetation which would be adverse to or interfere with the driveway, and the right to make such other improvements to the Access Easement Area as the Grantee may require for purposes of providing vehicular and pedestrian access in connection with Grantee's use of the Benefitted Land. The Grantee, its successors and assigns, shall have no right to erect or construct a building, structure, fence, lampposts, or any other permanent structure in the Access Easement Area.

Reserving tor the Grantor, its successors and assigns, the use and enjoyment of the Access Easement Area for all such purposes as will not unreasonably interfere with the perpetual use thereof by the Grantee, its successors and assigns, for the purposes herein mentioned, including without limitation the right to access the Access Easement Area, provided, however Grantor and its successors and assigns shall not erect or construct any building or structure of any kind within the Access Easement Area, and shall not park or permit the parking of vehicles or storage of any kind within the Access Easement Area.

If by the actions of either Grantor or Grantee the Access Easement Area requires improvement, reconstruction, maintenance or repair, the responsible party shall bear the full expense of such improvement, reconstruction, maintenance and repair.

Notwithstanding anything to the contrary set forth herein, and the Grantee, by its acceptance of this Easement Deed, for itself and its successors and assigns, covenants and agrees that the above-described easement, shall be subject to the following restrictions, covenants and requirements, which restrictions, covenants and requirements shall run with the land and shall be binding upon the owner of the Benefited Property:

1. Grantee shall not park or permit the parking of vehicles or storage of any kind within the Access Easement Area.

2. Grantee shall restore the surface of the Access Easement Area wherever disturbed by Grantee, in the exercise of its rights hereunder, as closely as reasonably practicable to the condition of such surface before being disturbed, including the restoration of any landscaping and trees.

3. Grantee shall enter upon the Access Easement Area and shall exercise its rights hereunder at its sole risk and expense. Grantee hereby releases Grantor, its successors and assigns from, and agrees to indemnify, defend (with counsel acceptable to Grantor) and hold Grantor, and its successors and assigns harmless from and against any and all losses, costs, claims, expenses and liabilities suffered by Grantor, its successors or assigns, on account of any injury to persons or damage to property (i) arising out of the exercise by Grantee of its rights hereunder; or (ii) caused by Grantee, or any agents, employees, invitees or contractors of Grantee while Grantee, or any agents, employees, invitees or contractors of Grantee, are on the Access Easement Area pursuant to, or are exercising the rights granted by, this easement; or (iii) on account of any breach by Grantee of the agreements, covenants, and warrantees of Grantee set forth herein.

4. As a condition to the exercise by Grantee of its rights hereunder, Grantee shall obtain and keep in force general liability insurance with respect to the Access Easement Area and activities related thereto in such amounts as Grantor shall reasonably request from time to time, which insurance shall name Grantor, its mortgagee, and their respective successors and assigns, as additional insured and which shall provide for not less than 20 days' notice to Grantor, its successors and assigns, prior to any termination, expiration or modification of such coverage. Grantees shall deliver evidence of such insurance to Grantor upon request.

5. Grantee shall keep the Access Easement Area free of any mechanics lien arising out of or relating to any work done in connection with or relating to Grantee's use of the easement. If any mechanics lien is filed as a result of any work done by or for the benefit of Grantee, and such lien is not released within 10 days after written demand by Grantor, Grantor shall have the right, but not the obligation, to pay the claim giving rise to such lien, and any other amounts necessary to cause such lien to be released, whereupon Grantee shall reimburse Grantor upon demand.

All of the terms, provisions and covenants set forth herein shall run with the land and shall be binding upon and inure to the benefit of and be enforceable by the respective successors and assigns of Grantor and Grantee.

This Agreement contains the entire agreement between Grantor and Grantee, and there are no other terms, conditions, promises, undertakings, statements or representations, express or implied, concerning the items contemplated by this Agreement.

This Agreement shall be governed by and interpreted under the laws of the State of Maine.

[signatures appear on following page]

IN WITNESS WHEREOF, the said Grantor and Grantee have through their authorized agents caused this instrument to be signed and sealed this ____ day of _____, 2021.

RUBB PROPERTY, LLC

_____ By_____
Witness _____
_____

CITY OF SANFORD, MAINE

_____ By_____
Witness _____
_____

SANFORD-SPRINGVALE FISH AND GAME PROTECTIVE ASSOCIATION

_____ By_____
_____
_____

STATE OF MAINE
YORK, SS. _____ ___, 2021

Personally appeared the above-named _____, _____ of Rubb Property, LLC, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said limited liability company.

Before me,

_____
Notary Public/Attorney at Law

_____
Printed Name

EXHIBIT A

Plan of Access Easement Area

RUBB013/1489963

AMENDMENT NO. 1 TO THE USE AGREEMENT
BETWEEN
CITY OF SANFORD, MAINE
AND
SANFORD - SPRINGVALE FISH AND GAME PROTECTIVE ASSOCIATION, INC

THIS AMENDMENT NO. 1 TO USE AGREEMENT, (hereinafter "Amendment") is made and entered into to be effective this 18th day of February, 2025, by and between the City of Sanford, Maine, with offices at 919 Main Street, Sanford, Maine 04073 and at the Sanford Seacoast Regional Airport (KSFM), Sanford, Maine, (hereinafter called "Lessor" or "Landlord") and Sanford - Springvale Fish and Game Protective Association, Inc., a non-profit corporation located in Sanford, County of York State of Maine, and having a mailing address of PO Box 788, Sanford, Maine 04073 (hereinafter called "Lessee", "Tenant" or "SSFG").

RECITALS:

WHEREAS, Landlord and Tenant entered into a Use Agreement dated April 18, 1995 (hereinafter the "Lease"), pursuant to which Tenant acquired the right to occupy certain premises and perform certain non-aviation recreational activities at the Sanford Seacoast Regional Airport (hereinafter called "Airport"); and,

WHEREAS, the Lessor and Lessee acknowledge there is duty and requirement to abide by Federal Grant Assurances now existing and in force by the U.S. Department of Transportation's Federal Aviation Administration (FAA); and,

WHEREAS, the Lease to contains language and provisions contrary to or in conflict with Federal Grant Assurances; and,

WHEREAS, the land being used was not properly released from FAA restrictions; and,

WHEREAS, the Lessor and Lessee mutually agree it is in the best interest of both parties to pursue a remedy in the form of a formal release from federal obligations and sale of the real property to SSFG; and,

WHEREAS, Tenant and Landlord desire to make amendments to the lease as a short-term remedy and a step toward the release and sale of the property.

NOWTHEREFORE, in consideration of the foregoing and of the mutual covenants and agreements herinafter contained, Landlord and Tenant covenant and agree for themselves, their successors, legal representatives and assigns as follows:

WITNESSETH:

1. Article 1. Description of Property. Is Amended to **ADD**:

A. Lessee shall accept the Premises in its present condition without any liability or obligation on the part of the Lessor to make any alteration, improvements, or repairs of any kind on or about the Premises.

2. Article 2. Use of Property. is Amended to **ADD**:

A. Lessee shall not hereafter make use of the premises in any manner which might create electrical or electronic interference with navigational signals or radio communications, impair the ability of pilots to visually distinguish the airfield, or otherwise endanger the landing, taking off, or maneuvering of aircraft. Lessor reserves the right to require the abatement of any such hazard at the expense of Lessee.

3. Article 4. Duration. Is amended to **DELETE ENTIRE SECTION and REPLACE WITH:**

A. From the Effective Date of Amendment No. 1 and provided this lease is still in effect and has not been terminated for any reason this Agreement will automatically renew on a month to month basis upon the same terms and conditions as set forth herein. Lessor or Lessee may terminate this Agreement for any reason with ninety (90) days written notice as provided in Article 10. Notices. It is the intent of the Lessor and Lessee to make every effort in good faith to work toward securing all the items necessary to for the eventual sale of the property from Lessor to Lessee.

B. Termination Upon Destruction or Other Casualty. Except as otherwise provided in this Agreement, in the event that the Premises or any part thereof shall be destroyed or damaged in whole or part by fire, water, or any other cause, or if any other casualty or unforeseen occurrence shall likewise render the fulfillment of this Agreement by Lessor impossible, then thereupon this Agreement shall terminate and Lessee shall pay fees for said Premises only up to the time of such termination and Lessee shall hereby waive any claim for damages or compensation should this Agreement be so terminated.

4. Article 6. Indemnity and Insurance. **DELETE ENTIRE SECTION and REPLACE WITH:**

A. Lessee shall defend, indemnify and hold harmless Lessor, and their officers, agents and employees from and against any and all claims, demands, suits, judgments, costs and expenses asserted by any person or persons, including agents or employees of the City of Sanford or Lessee, by person of death or injury to persons, or loss or damage to property, resulting from Lessee's operations hereunder or as the result of anything done or omitted by Lessee hereunder, except to the extent that such claims, demands, suits, judgment, costs and expenses may be attributed to the negligent act, judgment acts or omissions of Lessor, or their agents or employees, or invitees. Lessor shall in no way be liable for any damage resulting from any acts or negligence on the part of Lessee. Lessee shall in no way be liable for any damages resulting from any acts or negligence on the part of Lessor.

Neither Lessor, nor Lessee shall be liable to the other or any persons claiming through the other by right of subrogation or otherwise for any damage either to the Premises (including those Airport facilities used in common) as to Lessee, from fire or any casualty usually included in the so called

standard "existing coverage" endorsements as contained in fire insurance policies issued in the State of Maine, whether or not such damage was caused by the negligence of Lessor, or Lessee, their respective agents, employees or others except to the extent any such waiver of subrogation may be prohibited by any party's own insurance or would serve to invalidate or abrogate any party's insurance.

B. Lessee shall obtain and maintain continuously in effect at all times during the term of this Agreement at Lessee's sole expense, general liability insurance with an insurance carrier licensed to do business in the State of Maine. Coverage shall be general liability insurance of one million dollars ($1,000,000). Lessee shall include Lessor as additional insured on all Lessee's insurance coverages required.

Lessee shall furnish to Lessor certificates of insurance evidencing that the required insurance coverages are in effect, and said certificates shall provide that Lessor be given at least thirty (30) days notice, in writing, prior to modification or termination of said coverages.

5. Article 8. Improvements. Is Amended to **ADD**:

A. Airport Improvement. During the Term of this Agreement, it may become necessary to institute and carry forward extensive programs of construction, expansion, maintenance and repair on the Airport premises, including but not limited to the Leased Premises. Lessee recognizes that, during such times, it may be inconvenienced and such programs may partially or fully impair Lessee's use of the Airport. Lessor reserves the right to make any such improvements, as it deems necessary to the Airport as it sees fit, regardless of the desires or view of Lessee, and without interference or hindrance. Lessee agrees that the Airport shall not be liable for such inconvenience or disruption, except for reasonable or proportional abatement of rent during the period of impaired use of the Airport.

6. Article 10. Notices. **DELETE ENTIRE SECTION and REPLACE WITH:**

All notices or demands provided for or that may be given by either party to the other under the terms of this Agreement shall be in writing, signed by the party giving notice or making the demand, and shall be deemed validly served or delivered upon physical delivery or upon deposit in the United States Postal Service certified mail and addressed as follows:

To Lessor:

City Manager's Office
Sanford City Hall
919 Main Street
Sanford, Maine 04073

With a carbon copy to:

Airport Manager's Office
9 Presidential Lane
Sanford, Maine 04073

To Lessee:
Sanford-Springvale Fish and Game Protection Association Inc.
ATTN: SSFG President
PO Box 788
Sanford, Maine 04073

or such other address as the addressee may designate by written notice to the other party delivered in accordance with the provisions of this ARTICLE.

7. ADD Article 11. General Clauses.

A. Additional Services. Lessor shall have no responsibility or liability to furnish any services to Lessee other than those specified in this Agreement, but Lessee may negotiate with Lessor for any additional services it may request and shall pay for such additional services the consideration so negotiated.

B. Subordination. This Agreement shall be subordinate to the provisions of any existing or future agreement between the Lessor and the United States relative to the operation or maintenance of the Airport, the execution of which has been or may be required as a condition precedent to the expenditure of Federal funds for the development of the Airport. In the event the Lessor shall take any action and/or make any agreement under this paragraph voluntarily and not as a result of any federal, state, or other authority in effect forcing Lessor to so act or agree, the result of which so substantially affects the normal operations of Lessee at the Airport that it becomes economically or physically unfeasible or impractical for Lessee to continue this Lease, then Lessee shall be entitled to a pro rata reduction of rents to such an extent as will allow Lessee to continue this lease under economically and physically feasible circumstances. If such reduction shall not, however, be sufficient to allow Lessee to continue this lease on an economically and/or physically feasible basis, then Lessee shall have the right to terminate this Agreement without further liability and remove or sell its buildings, improvements, equipment and facilities in accordance with the terms of ARTICLE VIII. hereof, except that Lessor shall have, subject, however, to the rights of a permitted mortgagee, the option to purchase from Lessee said buildings, improvements, equipment and facilities at a price equal to the then fair market value of the same. If the Lessor and the Lessee shall be unable to agree as to the said fair market value, then the same shall be determined by a single, independent appraiser acceptable to each of the Lessor and the Lessee, otherwise by three (3) independent appraisers, one to be chosen by the Lessor, one to be chosen by the Lessee and the third to be chosen by the two appraisers so chosen by the Lessor and the Lessee.

C. Reasonable Access for Incpestion. Lessor shall be permitted access to the Premises to confirm compliance with the lease, airport rules and regulations, minimum standards, and any applicable ordinances, codes and statutes. Inspections shall be conducted at agreed upon times and with a reasonable advance notice. Failure to permit the Lessor access to the Premises shall be construed as a default in the terms of this agreement and may result in termination of the lease.

D. National Emergency Use Provision. Lessor shall, during the time of war or national emergency and in accordance with 14 CFR §155.9, have the right to lease the landing area of the Airport, or any part thereof, to the United States for use by its Armed Forces, and if any provisions of such lease are inconsistent with the provisions of this Agreement, Lessee may determine this Agreement under the same terms and conditions as herein provided for termination at the expiration of the Term of this Agreement.

E. Nondiscrimination . Lessee hereby covenants and agrees that in the use and occupancy of the leased premises, it will not on the grounds of race, color, national origin, sex or age discriminate or permit discrimination against any person or group of persons in any manner. Lessee shall also use the Premises in compliance with all other requirements imposed by or pursuant to Title 49, Code of Federal Regulations, Subtitle A, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation Effectuation of Title VI of the Civil Rights Act of 1964, and as such Regulations may be amended. In the event of a breach of any of the above nondiscrimination covenants, Lessor shall have the right to terminate this Lease, and to re-enter and repossess the Premises and hold the same as if this Lease had never been made or issued.

F. Protection of Airport Operation. Lessor shall have the right to take any action it considers necessary to protect general operation of the Airport and the aerial approaches to the Airport against obstructions and to prevent Lessee from erecting or permitting to be erected any building or other structure in or adjacent to the Airport, which, in the opinion of Lessor, will limit the usefulness of the Airport or constitute a hazard to aircraft. Lessee, in the use of the roadways, approaches, taxiways and runways of the aircraft landing field and in the use of the adjacent areas for storage of aircraft, or in the use of their buildings shall abide by and conform to any and all reasonable rules and regulations now existing or as may be hereinafter promulgated by Lessor and will comply with requirements of any federal, state or local law or regulation which relates to the operation of the Airport, including, but not limited to, abide, at Lessee's sole cost and expense, with any federal security or certification requirements which relate to its operation of the Airport.

8. ADD Article 12. Waivers Not Contunuing; Force Majeure

Any waiver of any breach of covenants herein contained to be kept and performed by Lessee or Lessor shall not be deemed or considered as a continuing waiver and shall not operate to bar or prevent Lessee or Lessor from declaring a forfeiture for any succeeding breach either of the same or of a different condition or covenant.

In the event that either Lessor, or Lessee shall be delayed or hindered in or prevented from the performance of any act required hereunder by reason of strikes, lockouts, labor troubles, inability to procure materials, failure of power, acts of God, restrictive governmental laws or regulations, riots, insurrections, war, or other reason of a like nature not the fault of the party delayed in performing work or doing acts required under the terms of this Agreement, then performance of such act shall be excused for the period of the delay and the period for the performance of any such act shall be extended for a period equivalent to the period of such delay.

IN WITNESS WHEREOF, the parties have hereunto set their hands and seals to be effective the day and date first above written.

LESSOR

CITY OF SANFORD, MAINE

By: _____

Steven R. Buck, Its City Manager

LESSEE

SANFORD - SPRINGVALE FISH AND GAME PROTECTIVE ASSOCIATION INC

By: _____

Mark Adler, Its President

CITY OF SANFORD

YEAR-TO-DATE BUDGET REPORT

FOR 2024 13

ACCOUNTS FOR: 1000 GENERAL FUND			ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
11514000 AIRPORT									
11514000	500100	SALARIES	225,490	0	225,490	225,657.27	.00	-167.07	100.1%
11514000	500115	OTSALARIES	9,645	0	9,645	7,662.05	.00	1,983.07	79.4%
11514000	500125	PTSALARIES	31,000	0	31,000	22,671.89	.00	8,328.11	73.1%
11514000	500151	SICK	9,354	0	9,354	9,819.16	.00	-465.48	105.0%
11514000	500175	ALLOWANCES	2,650	0	2,650	3,774.97	.00	-1,124.97	142.5%
11514000	500200	NON CONTR	8,140	0	8,140	13,661.62	.00	-5,521.62	167.8%
11514000	500201	CONTRACT	9,958	0	9,958	9,345.66	.00	611.98	93.9%
11514000	500205	DUES	700	0	700	796.00	.00	-96.00	113.7%
11514000	500207	TRAVEL	1,790	0	1,790	1,487.51	.00	302.49	83.1%
11514000	500208	ADVERTISE	1,000	0	1,000	256.00	.00	744.00	25.6%
11514000	500209	SUBSCRIP	0	0	0	159.92	.00	-159.92	100.0%
11514000	500210	TRAINING	875	0	875	474.95	.00	400.05	54.3%
11514000	500300	SUPPLIES	39,080	0	39,080	38,169.31	.00	910.69	97.7%
11514000	500301	POSTAGE	350	0	350	192.73	.00	157.27	55.1%
11514000	500302	OFFICE SUP	400	0	400	369.39	.00	30.61	92.3%
11514000	500303	PRINT SUPP	300	0	300	.00	.00	300.00	.0%
11514000	500304	TOOLS	0	0	0	429.00	.00	-429.00	100.0%
11514000	500306	EQUP MAINT	9,800	0	9,800	7,380.60	.00	2,419.40	75.3%
11514000	500307	BLDG MAINT	3,100	0	3,100	18,868.89	.00	-15,768.89	608.7%
11514000	500351	UTIL PHONE	1,080	0	1,080	1,080.00	.00	.00	100.0%
11514000	500354	UTIL WATER	1,681	0	1,681	1,551.11	.00	130.07	92.3%
11514000	500355	UTIL SEWER	280	0	280	236.76	.00	43.24	84.6%
11514000	500356	UTIL ELECT	18,564	0	18,564	26,173.90	.00	-7,609.90	141.0%
11514000	500401	VEH GAS	5,460	0	5,460	2,726.94	.00	2,733.06	49.9%
11514000	500402	VEH DIESEL	20,045	0	20,045	11,762.90	.00	8,282.10	58.7%
11514000	500403	NATURAL GA	2,900	0	2,900	2,199.22	.00	700.78	75.8%
11514000	500404	VEH MAINT	900	0	900	1,086.72	.00	-186.72	120.7%
11514000	500501	RADIOMAINT	200	0	200	996.37	.00	-796.37	498.2%
TOTAL AIRPORT			404,742	0	404,742	408,990.84	.00	-4,249.02	101.0%
TOTAL GENERAL FUND			404,742	0	404,742	408,990.84	.00	-4,249.02	101.0%
TOTAL EXPENSES			404,742	0	404,742	408,990.84	.00	-4,249.02	

CITY OF SANFORD

YEAR-TO-DATE BUDGET REPORT

FOR 2024 13

	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
GRAND TOTAL	404,742	0	404,742	408,990.84	.00	-4,249.02	101.0%

** END OF REPORT - Generated by Ronni L Champlin **

CITY OF SANFORD

YEAR-TO-DATE BUDGET REPORT

FOR 2025 13

ACCOUNTS FOR: 1000 GENERAL FUND			ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
11514000 AIRPORT									
11514000	500100	SALARIES	235,071	0	235,071	231,497.32	.00	3,573.88	98.5%
11514000	500115	OTSALARIES	10,200	0	10,200	11,926.93	.00	-1,726.73	116.9%
11514000	500125	PTSALARIES	28,500	0	28,500	26,118.11	.00	2,381.89	91.6%
11514000	500151	SICK	8,869	0	8,869	12,406.14	.00	-3,536.74	139.9%
11514000	500175	ALLOWANCES	4,150	0	4,150	3,149.98	.00	1,000.02	75.9%
11514000	500200	NON CONTR	10,070	0	10,070	13,080.27	.00	-3,010.27	129.9%
11514000	500201	CONTRACT	10,024	0	10,024	6,968.12	.00	3,056.20	69.5%
11514000	500205	DUES	721	0	721	751.00	.00	-30.00	104.2%
11514000	500207	TRAVEL	1,790	0	1,790	2,228.70	.00	-438.70	124.5%
11514000	500208	ADVERTISE	1,000	0	1,000	368.00	.00	632.00	36.8%
11514000	500209	SUBSCRIP	240	0	240	240.98	.00	-.98	100.4%
11514000	500210	TRAINING	875	0	875	1,000.00	.00	-125.00	114.3%
11514000	500300	SUPPLIES	47,080	0	47,080	40,030.15	.00	7,049.85	85.0%
11514000	500301	POSTAGE	350	0	350	369.66	.00	-19.66	105.6%
11514000	500302	OFFICE SUP	400	0	400	606.73	.00	-206.73	151.7%
11514000	500303	PRINT SUPP	300	0	300	100.49	.00	199.51	33.5%
11514000	500304	TOOLS	200	0	200	269.43	.00	-69.43	134.7%
11514000	500306	EQUP MAINT	12,000	0	12,000	13,406.00	.00	-1,406.00	111.7%
11514000	500307	BLDG MAINT	4,100	0	4,100	9,955.90	.00	-5,855.90	242.8%
11514000	500318	FOOD AND B	0	0	0	267.59	.00	-267.59	100.0%
11514000	500351	UTIL PHONE	1,080	0	1,080	1,080.00	.00	.00	100.0%
11514000	500354	UTIL WATER	1,625	0	1,625	2,270.16	.00	-645.32	139.7%
11514000	500355	UTIL SEWER	292	0	292	214.80	.00	77.20	73.6%
11514000	500356	UTIL ELECT	28,392	0	28,392	33,273.65	.00	-4,881.65	117.2%
11514000	500401	VEH GAS	4,718	0	4,718	2,992.27	.00	1,725.73	63.4%
11514000	500402	VEH DIESEL	17,726	0	17,726	12,118.81	.00	5,607.19	68.4%
11514000	500403	NATURAL GA	3,000	0	3,000	2,551.18	.00	448.82	85.0%
11514000	500404	VEH MAINT	2,625	0	2,625	3,107.80	.00	-482.80	118.4%
11514000	500501	RADIOMAINT	200	0	200	2,198.63	.00	-1,998.63	1099.3%
TOTAL AIRPORT			435,599	0	435,599	434,548.80	.00	1,050.16	99.8%
TOTAL GENERAL FUND			435,599	0	435,599	434,548.80	.00	1,050.16	99.8%
		TOTAL EXPENSES	435,599	0	435,599	434,548.80	.00	1,050.16	

CITY OF SANFORD

YEAR-TO-DATE BUDGET REPORT

FOR 2025 13

	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
GRAND TOTAL	435,599	0	435,599	434,548.80	.00	1,050.16	99.8%

** END OF REPORT - Generated by Ronni L Champlin **

CITY OF SANFORD

YEAR-TO-DATE BUDGET REPORT

FOR 2026 13

ACCOUNTS FOR: 1000 GENERAL FUND			ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
11514000 AIRPORT									
11514000	500100	SALARIES	249,389	0	249,389	206,576.42	.00	42,812.98	82.8%
11514000	500115	OTSALARIES	11,034	0	11,034	12,903.23	.00	-1,869.23	116.9%
11514000	500125	PTSALARIES	30,778	0	30,778	9,580.02	.00	21,197.58	31.1%
11514000	500151	SICK	8,982	0	8,982	8,836.94	.00	145.38	98.4%
11514000	500175	ALLOWANCES	4,530	0	4,530	810.00	.00	3,720.00	17.9%
11514000	500200	NON CONTR	10,070	0	10,070	30,058.51	.00	-19,988.51	298.5%
11514000	500201	CONTRACT	9,383	0	9,383	4,640.37	.00	4,742.27	49.5%
11514000	500205	DUES	751	0	751	778.00	.00	-27.00	103.6%
11514000	500207	TRAVEL	1,790	0	1,790	2,404.70	.00	-614.70	134.3%
11514000	500208	ADVERTISE	1,000	0	1,000	526.00	.00	474.00	52.6%
11514000	500209	SUBSCRIP	240	0	240	240.98	.00	-.98	100.4%
11514000	500210	TRAINING	600	0	600	-425.00	.00	1,025.00	-70.8%
11514000	500300	SUPPLIES	45,800	0	45,800	33,071.35	.00	12,728.65	72.2%
11514000	500301	POSTAGE	350	0	350	270.06	.00	79.94	77.2%
11514000	500302	OFFICE SUP	400	0	400	659.86	.00	-259.86	165.0%
11514000	500303	PRINT SUPP	300	0	300	43.00	.00	257.00	14.3%
11514000	500304	TOOLS	300	0	300	4,786.80	.00	-4,486.80	1595.6%
11514000	500306	EQUP MAINT	16,700	0	16,700	21,716.49	.00	-5,016.49	130.0%
11514000	500307	BLDG MAINT	3,100	0	3,100	50,174.78	.00	-47,074.78	1618.5%
11514000	500318	FOOD AND B	460	0	460	237.35	.00	222.65	51.6%
11514000	500351	UTIL PHONE	1,080	0	1,080	1,080.00	.00	.00	100.0%
11514000	500353	UTIL PROPA	0	0	0	450.15	.00	-450.15	100.0%
11514000	500354	UTIL WATER	1,648	0	1,648	2,968.72	.00	-1,320.72	180.1%
11514000	500355	UTIL SEWER	292	0	292	214.80	.00	77.20	73.6%
11514000	500356	UTIL ELECT	28,392	0	28,392	32,880.42	.00	-4,488.42	115.8%
11514000	500401	VEH GAS	4,242	0	4,242	3,208.30	.00	1,033.70	75.6%
11514000	500402	VEH DIESEL	14,711	0	14,711	14,692.69	.00	18.31	99.9%
11514000	500403	NATURAL GA	3,000	0	3,000	3,631.19	.00	-631.19	121.0%
11514000	500404	VEH MAINT	825	0	825	2,439.85	.00	-1,614.85	295.7%
11514000	500501	RADIOMAINT	500	0	500	.00	.00	500.00	.0%
11514000	500900	TRANSFER	0	0	0	5,260.22	.00	-5,260.22	100.0%
TOTAL AIRPORT			450,647	0	450,647	454,716.20	.00	-4,069.24	100.9%
TOTAL GENERAL FUND			450,647	0	450,647	454,716.20	.00	-4,069.24	100.9%
TOTAL EXPENSES			450,647	0	450,647	454,716.20	.00	-4,069.24	

YEAR-TO-DATE BUDGET REPORT

FOR 2026 13

	ORIGINAL APPROP	TRANFRS/ ADJSTMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCES	AVAILABLE BUDGET	PCT USED
GRAND TOTAL	450,647	0	450,647	454,716.20	.00	-4,069.24	100.9%

** END OF REPORT - Generated by Ronni L Champlin **

YEAR-TO-DATE BUDGET REPORT

FOR 2024 13

ACCOUNTS FOR: 1000 GENERAL FUND

		ORIGINAL ESTIM REV	ESTIM REV ADJ	REVISED ESTIM REV	ACTUAL YTD REVENUE	REMAINING REVENUE	% COLL
1000 GENERAL FUND							
1000 414004	SFM PARKING/TIE-DOWNS	-8,000.00	0.00	-8,000.00	-8,982.00	982.00	112.3%
1000 414012	SOLAR LEASE	-183,365.00	0.00	-183,365.00	-183,365.00	0.00	100.0%
1000 414016	PRIVATE HANGAR LEASES	-66,305.00	0.00	-66,305.00	-62,258.36	-4,046.64	93.9%
1000 414022	GATE CARDS	-400.00	0.00	-400.00	-560.00	160.00	140.0%
1000 414025	MAS OPERATING FEES	-3,800.00	0.00	-3,800.00	-4,033.00	233.00	106.1%
1000 414027	SHG OP/ACCESS FEE	-3,000.00	0.00	-3,000.00	-2,393.29	-606.71	79.8%
1000 414028	SMA-FUEL FLOWAGE FEE	-28,500.00	0.00	-28,500.00	-24,106.18	-4,393.82	84.6%
1000 414030	SASO AGREEMENTS	-7,000.00	0.00	-7,000.00	-6,000.00	-1,000.00	85.7%
1000 414032	MISC AIRPORT REVENUE	-600.00	0.00	-600.00	-600.00	0.00	100.0%
1000 414033	FOOD TRUCK COURT	-18,294.00	0.00	-18,294.00	-18,293.52	-0.48	100.0%
1000 414034	SMA EAST FBO LEASE	-13,767.00	0.00	-13,767.00	-14,052.60	285.60	102.1%
1000 414038	SOLAR MAINTENANCE CONTRACT	-110,000.00	0.00	-110,000.00	-118,976.00	8,976.00	108.2%
TOTAL GENERAL FUND		-443,031.00	0.00	-443,031.00	-443,619.95	588.95	100.1%
TOTAL GENERAL FUND		-443,031.00	0.00	-443,031.00	-443,619.95	588.95	100.1%
TOTAL REVENUES		-443,031.00	0.00	-443,031.00	-443,619.95	588.95	

YEAR-TO-DATE BUDGET REPORT

FOR 2024 13

ORIGINAL ESTIM REV	ESTIM REV ADJ	REVISED ESTIM REV	ACTUAL YTD REVENUE	REMAINING REVENUE	% COLL
GRAND TOTAL					
-443,031.00	0.00	-443,031.00	-443,619.95	588.95	100.1%

** END OF REPORT - Generated by Ronni L Champlin **

YEAR-TO-DATE BUDGET REPORT

FOR 2025 13

ACCOUNTS FOR: 1000 GENERAL FUND

		ORIGINAL ESTIM REV	ESTIM REV ADJ	REVISED ESTIM REV	ACTUAL YTD REVENUE	REMAINING REVENUE	% COLL
1000 GENERAL FUND							
1000	414004	SFM PARKING/TIE-DOWNS					
		-8,000.00	0.00	-8,000.00	-8,919.00	919.00	111.5%
1000	414012	SOLAR LEASE					
		-183,365.00	0.00	-183,365.00	-220,441.41	37,076.41	120.2%
1000	414016	PRIVATE HANGAR LEASES					
		-68,385.00	0.00	-68,385.00	-68,742.08	357.08	100.5%
1000	414022	GATE CARDS					
		-400.00	0.00	-400.00	-1,080.00	680.00	270.0%
1000	414025	MAS OPERATING FEES					
		-3,800.00	0.00	-3,800.00	-4,519.40	719.40	118.9%
1000	414027	SHG OP/ACCESS FEE					
		-3,000.00	0.00	-3,000.00	-2,562.79	-437.21	85.4%
1000	414028	SMA-FUEL FLOWAGE FEE					
		-28,000.00	0.00	-28,000.00	-23,724.38	-4,275.62	84.7%
1000	414030	SASO AGREEMENTS					
		-7,000.00	0.00	-7,000.00	-7,480.00	480.00	106.9%
1000	414032	MISC AIRPORT REVENUE					
		-600.00	0.00	-600.00	-600.00	0.00	100.0%
1000	414033	FOOD TRUCK COURT					
		-18,294.00	0.00	-18,294.00	-18,293.52	-0.48	100.0%
1000	414034	SMA EAST FBO LEASE					
		-14,195.00	0.00	-14,195.00	-14,207.66	12.66	100.1%
1000	414035	AIRPORT EVENTS					
		-600.00	0.00	-600.00	0.00	-600.00	.0%
1000	414038	SOLAR MAINTENANCE CONTRACT					
		-120,383.00	0.00	-120,383.00	-120,383.00	0.00	100.0%
TOTAL GENERAL FUND							
		-456,022.00	0.00	-456,022.00	-490,953.24	34,931.24	107.7%
TOTAL GENERAL FUND							
		-456,022.00	0.00	-456,022.00	-490,953.24	34,931.24	107.7%
TOTAL REVENUES							
		-456,022.00	0.00	-456,022.00	-490,953.24	34,931.24	

YEAR-TO-DATE BUDGET REPORT

FOR 2025 13

	ORIGINAL ESTIM REV	ESTIM REV ADJ	REVISED ESTIM REV	ACTUAL YTD REVENUE	REMAINING REVENUE	% COLL
GRAND TOTAL	-456,022.00	0.00	-456,022.00	-490,953.24	34,931.24	107.7%

** END OF REPORT - Generated by Ronni L Champlin **

YEAR-TO-DATE BUDGET REPORT

FOR 2026 13

ACCOUNTS FOR: 1000 GENERAL FUND

		ORIGINAL ESTIM REV	ESTIM REV ADJ	REVISED ESTIM REV	ACTUAL YTD REVENUE	REMAINING REVENUE	% COLL
1000 GENERAL FUND							
1000 414000	AIRPORT REVENUE	0.00	0.00	0.00	93,749.35	-93,749.35	100.0%
1000 414004	SFM PARKING/TIE-DOWNS	-9,000.00	0.00	-9,000.00	-7,798.00	-1,202.00	86.6%
1000 414012	SOLAR LEASE	-183,365.00	0.00	-183,365.00	-220,441.41	37,076.41	120.2%
1000 414016	PRIVATE HANGAR LEASES	-77,952.00	0.00	-77,952.00	-76,515.14	-1,436.86	98.2%
1000 414022	GATE CARDS	-400.00	0.00	-400.00	-660.00	260.00	165.0%
1000 414025	MAS OPERATING FEES	-4,000.00	0.00	-4,000.00	-5,070.00	1,070.00	126.8%
1000 414027	SHG OP/ACCESS FEE	-3,000.00	0.00	-3,000.00	-2,607.08	-392.92	86.9%
1000 414028	SMA-FUEL FLOWAGE FEE	0.00	0.00	0.00	-30,370.03	30,370.03	100.0%
1000 414030	SASO AGREEMENTS	-7,000.00	0.00	-7,000.00	-8,336.86	1,336.86	119.1%
1000 414032	MISC AIRPORT REVENUE	-600.00	0.00	-600.00	-400.00	-200.00	66.7%
1000 414033	FOOD TRUCK COURT	-18,294.00	0.00	-18,294.00	-9,122.30	-9,171.70	49.9%
1000 414034	SMA EAST FBO LEASE	-14,195.00	0.00	-14,195.00	-18,696.90	4,501.90	131.7%
1000 414038	SOLAR MAINTENANCE CONTRACT	-105,525.00	0.00	-105,525.00	-157,226.18	51,701.18	149.0%
TOTAL GENERAL FUND		-423,331.00	0.00	-423,331.00	-443,494.55	20,163.55	104.8%
TOTAL GENERAL FUND		-423,331.00	0.00	-423,331.00	-443,494.55	20,163.55	104.8%
TOTAL REVENUES		-423,331.00	0.00	-423,331.00	-443,494.55	20,163.55	

YEAR-TO-DATE BUDGET REPORT

FOR 2026 13

ORIGINAL ESTIM REV	ESTIM REV ADJ	REVISED ESTIM REV	ACTUAL YTD REVENUE	REMAINING REVENUE	% COLL
GRAND TOTAL					
-423,331.00	0.00	-423,331.00	-443,494.55	20,163.55	104.8%

** END OF REPORT - Generated by Ronni L Champlin **

Memo

Number: 26-252-01
To: City Council
From: Allison Navia, Airport Manager
Date: 2026-08-18
Subject: Ordered to approve and authorize the City Manager to sign a purchase and sale agreement between the City of Sanford and Rubb Buildings for approximately 20.39 acres at the Sanford Seacoast Regional Airport in the amount of $90,750.00.

RECOMMENDATION

Review and approve a purchase and sale agreement between the City of Sanford and Rubb Buildings for approximately 20.39 acres at the Sanford Seacoast Regional Airport in the amount of $90,750.00.

Background Information:

The purpose of the sale is to relieve the airport of compliance issues, generate revenue for airport uses, allow for the continued use and expansion of both shooting ranges, and permit expansion in the industrial park on Gatehouse Road. The parcel cannot be sold until the FAA and Department of War release the land from federal obligations. FAA's obligations restrict the land to aeronautical use only. The DOW has a National Emergency Use Provision contained in the airport's deed grants the U.S. government the right to reoccupy or make joint/exclusive use of transferred airport land or facilities during a declared war or national emergency. Both must be lifted to sell the land.

The appraised value of the parcel was used to determine fair market price. That is the total contained in the purchase and sale agreement. Rubb has agreed to share the cost of the police department range with the Sanford Springvale Fish and Game Protective Association. In recognition of this, should the City cease using the range at some point in the future, that parcel will be split and deeded to Rubb and SSFGPA. Two maps are included. One is the official survey of the property and the other shows the division line of the City parcel, should it ever be needed.

Closing will take place within 30 days or receiving the federal approvals or in November 2026, whichever occurs sooner. It is not likely that we will receive approval prior to November.

The sale of this parcel is an accordance with the airport's approved Ultimate Airport Layout Plan and aligns with the business plan. Proceeds will be utilized to offset future airport costs, as required by FAA rules.

Legal Review Status:

Complete

Administrative or Department Review:

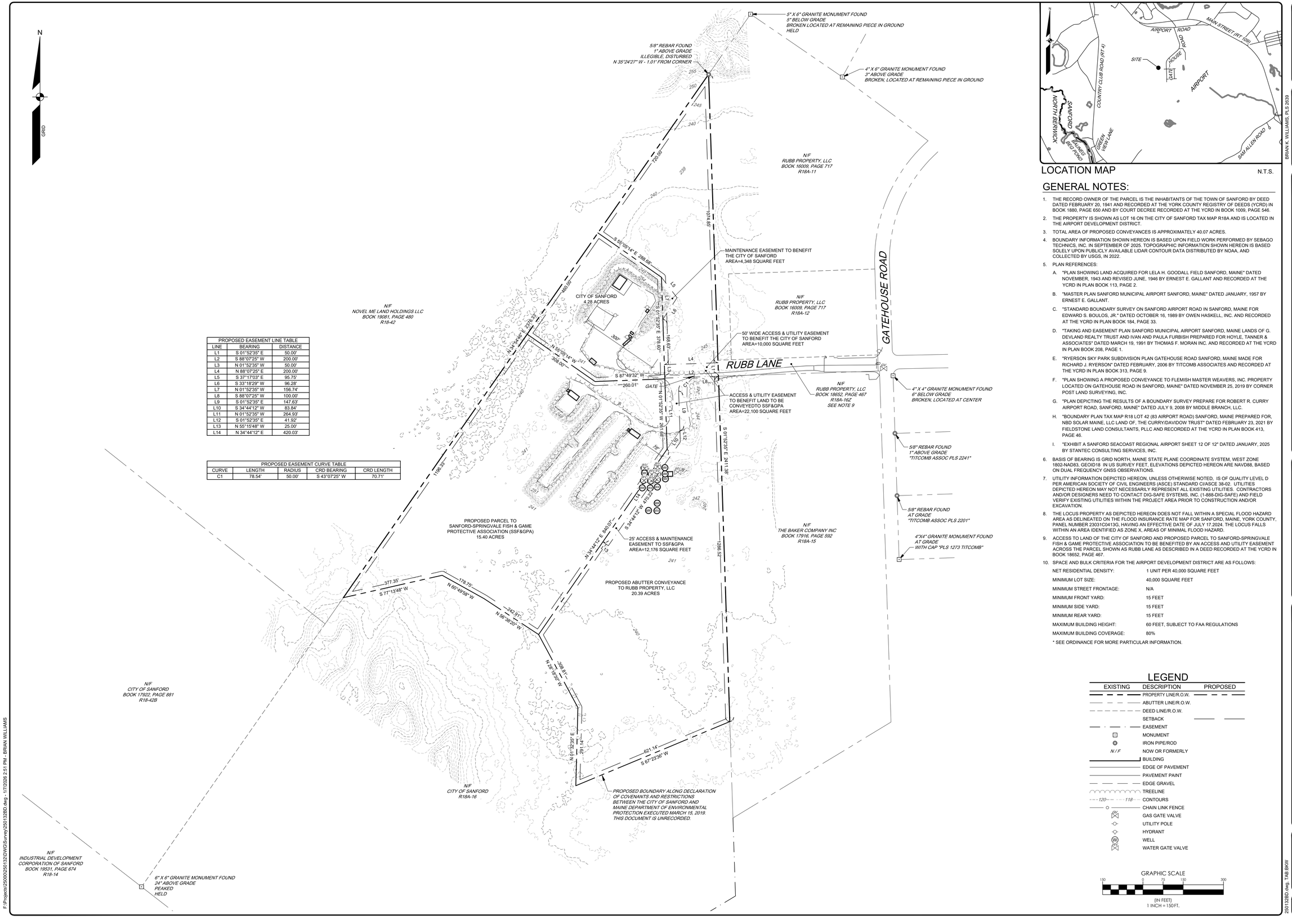
The City Manager and Airport Manager have worked to oversee this process. City legal counsel has reviewed the agreement and drafted the deeds and easements necessary.

Financial Impact or Review:

Revenue from the sale of the parcel of approximately $165,000 will be placed in a special revenue account, ORG 2084, to be used only for the airport operations, airport capital investment, and/or land acquisition purposes described in FAA Order 5190.6C as allowable uses of airport revenue.

ATTACHMENT(S):

250132LD-BKW 20260109.pdf
Purchase and Sale Rubb (8-12-2026).pdf
250132BD1-BKW Equal Division and Uplands Plan-20260806.pdf



PROPOSED EASEMENT LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 01°52'35" E	50.00'
L2	S 88°07'25" W	200.00'
L3	N 01°52'35" W	50.00'
L4	N 88°07'25" E	200.00'
L5	S 37°17'03" E	95.75'
L6	S 33°18'29" W	96.28'
L7	N 01°52'35" W	156.74'
L8	S 88°07'25" W	100.00'
L9	S 01°52'35" E	147.63'
L10	S 34°44'12" W	83.84'
L11	N 01°52'35" W	264.93'
L12	S 01°52'35" E	41.92'
L13	N 55°15'48" W	25.00'
L14	N 34°44'12" E	420.03'

PROPOSED EASEMENT CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD BEARING	CRD LENGTH
C1	78.54'	50.00'	S 43°07'25" W	70.71'

LOCATION MAP

N.T.S.

BRIAN K. WILLIAMS, PLS 2839

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE INHABITANTS OF THE TOWN OF SANFORD BY DEED DATED FEBRUARY 20, 1941 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS (YCRD) IN BOOK 1880, PAGE 650 AND BY COURT DECREE RECORDED AT THE YCRD IN BOOK 1009, PAGE 546.
2. THE PROPERTY IS SHOWN AS LOT 16 ON THE CITY OF SANFORD TAX MAP R18A AND IS LOCATED IN THE AIRPORT DEVELOPMENT DISTRICT.
3. TOTAL AREA OF PROPOSED CONVEYANCES IS APPROXIMATELY 40.07 ACRES.
4. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN SEPTEMBER OF 2025. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED SOLELY UPON PUBLICLY AVAILABLE LIDAR CONTOUR DATA DISTRIBUTED BY NOAA, AND COLLECTED BY USGS, IN 2022.
5. PLAN REFERENCES:
   A. "PLAN SHOWING LAND ACQUIRED FOR LELA H. GOODALL FIELD SANFORD, MAINE" DATED NOVEMBER, 1943 AND REVISED JUNE, 1946 BY ERNEST E. GALLANT AND RECORDED AT THE YCRD IN PLAN BOOK 113, PAGE 2.
   B. "MASTER PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE" DATED JANUARY, 1957 BY ERNEST E. GALLANT.
   C. "STANDARD BOUNDARY SURVEY ON SANFORD AIRPORT ROAD IN SANFORD, MAINE FOR EDWARD S. BOULOS, JR." DATED OCTOBER 16, 1989 BY OWEN HASKELL, INC. AND RECORDED AT THE YCRD IN PLAN BOOK 184, PAGE 33.
   D. "TAKING AND EASEMENT PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE LANDS OF G. DEVLAND REALTY TRUST AND IVAN AND PAULA FURBISH PREPARED FOR HOYLE, TANNER & ASSOCIATES" DATED MARCH 19, 1991 BY THOMAS F. MORAN INC. AND RECORDED AT THE YCRD IN PLAN BOOK 208, PAGE 1.
   E. "RYERSON SKY PARK SUBDIVISION PLAN GATEHOUSE ROAD SANFORD, MAINE MADE FOR RICHARD J. RYERSON" DATED FEBRUARY, 2006 BY TITCOMB ASSOCIATES AND RECORDED AT THE YCRD IN PLAN BOOK 313, PAGE 9.
   F. "PLAN SHOWING A PROPOSED CONVEYANCE TO FLEMISH MASTER WEAVERS, INC. PROPERTY LOCATED ON GATEHOUSE ROAD IN SANFORD, MAINE" DATED NOVEMBER 25, 2019 BY CORNER POST LAND SURVEYING, INC.
   G. "PLAN DEPICTING THE RESULTS OF A BOUNDARY SURVEY PREPARE FOR ROBERT R. CURRY AIRPORT ROAD, SANFORD, MAINE" DATED JULY 9, 2008 BY MIDDLE BRANCH, LLC.
   H. "BOUNDARY PLAN TAX MAP R18 LOT 42 (83 AIRPORT ROAD) SANFORD, MAINE PREPARED FOR, NBD SOLAR MAINE, LLC LAND OF, THE CURRY/DAVIDOW TRUST" DATED FEBRUARY 23, 2021 BY FIELDSTONE LAND CONSULTANTS, PLLC AND RECORDED AT THE YCRD IN PLAN BOOK 413, PAGE 46.
   I. "EXHIBIT A SANFORD SEACOAST REGIONAL AIRPORT SHEET 12 OF 12" DATED JANUARY, 2025 BY STANTEC CONSULTING SERVICES, INC.
6. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, GEOID18 IN US SURVEY FEET, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GNSS OBSERVATIONS.
7. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CIASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
8. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR SANFORD, MAINE, YORK COUNTY, PANEL NUMBER 23031C0413G, HAVING AN EFFECTIVE DATE OF JULY 17,2024. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF MINIMAL FLOOD HAZARD.
9. ACCESS TO LAND OF THE CITY OF SANFORD AND PROPOSED PARCEL TO SANFORD-SPRINGVALE FISH & GAME PROTECTIVE ASSOCIATION TO BE BENEFITED BY AN ACCESS AND UTILITY EASEMENT ACROSS THE PARCEL SHOWN AS RUBB LANE AS DESCRIBED IN A DEED RECORDED AT THE YCRD IN BOOK 18652, PAGE 467.
10. SPACE AND BULK CRITERIA FOR THE AIRPORT DEVELOPMENT DISTRICT ARE AS FOLLOWS:

NET RESIDENTIAL DENSITY:	1 UNIT PER 40,000 SQUARE FEET
MINIMUM LOT SIZE:	40,000 SQUARE FEET
MINIMUM STREET FRONTAGE:	N/A
MINIMUM FRONT YARD:	15 FEET
MINIMUM SIDE YARD:	15 FEET
MINIMUM REAR YARD:	15 FEET
MAXIMUM BUILDING HEIGHT:	60 FEET, SUBJECT TO FAA REGULATIONS
MAXIMUM BUILDING COVERAGE:	80%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	DEED LINE/R.O.W.	
	SETBACK	
	EASEMENT	
	MONUMENT	
	IRON PIPE/ROD	
N / F	NOW OR FORMERLY	
	BUILDING	
	EDGE OF PAVEMENT	
	PAVEMENT PAINT	
	EDGE GRAVEL	
	TREELINE	
120	CONTOURS 118	
	CHAIN LINK FENCE	
GG	GAS GATE VALVE	
	UTILITY POLE	
	HYDRANT	
W	WELL	
WG	WATER GATE VALVE	

GRAPHIC SCALE

150 0 75 150 300

(IN FEET)
1 INCH = 150 FT.

BRIAN K. WILLIAMS
2839
STATE OF MAINE
PROFESSIONAL LAND SURVEYOR

REV.	BY:	DATE:	STATUS
A.	BKW	10-24-2025	SUBMITTED TO CLIENT FOR REVIEW
B.	BKW	12-19-2025	REVISED PROPOSED PARCELS AND EASEMENT AREAS
C.	BKW	01-09-2026	ISSUED FOR REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford

LOT DIVISION PLAN

OF A PORTION OF:

SANFORD SEACOAST REGIONAL AIRPORT

199 AIRPORT ROAD
SANFORD, MAINE

FOR:

RUBB USA

1 RUBB LANE
SANFORD, MAINE 04073

RECORD OWNER:
INHABITANTS OF THE TOWN OF SANFORD
919 MAIN STREET
SANFORD, MAINE 04073

DESIGNED	-
DRAWN	JAH
CHECKED	BKW
DATE	08/01/2025
SCALE	1" = 150
PROJECT	250132

SHEET 1 OF 1

F:\Projects\250000\250132\DWG\Survey\250132BD.dwg - 1/7/2026 2:51 PM - BRIAN WILLIAMS

250132BD.dwg, TAB:BKW

AGREEMENT FOR PURCHASE AND SALE OF REAL ESTATE

This Agreement ("Agreement") is entered into by and between the **City of Sanford, Maine** a body corporate and politic with a mailing address of 919 Main Street, Sanford ME 04073, hereinafter called "Seller" and **Rubb Property, LLC,** a Maine limited liability company with a mailing address of 1 Rubb Lane, Sanford ME 04073, hereinafter referred to as "Buyer."

1. Purchase and Sale. Seller agrees to sell and convey to Buyer, and Buyer agrees to buy upon the terms and conditions hereinafter set forth, the land and buildings and improvements located westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, consisting of approximately 20.39 acres, together with appurtenant easements, being more particularly bounded and described in Exhibit A attached hereto. The property will be conveyed together with and subject to an avigation easement in accordance with FAA guidelines and all easements shown on the plan captioned "Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA" last revised August 6, 2026 by Sebago Technics, Inc., job number 250132, attached hereto as Exhibit A-1.

    a. The property will be conveyed with an option to acquire ownership, for no additional consideration, of one-half of the 4.28 acre adjacent land of the City of Sanford lying northeasterly of the parcel herein conveyed, if said city-owned parcel ceases to be used as a shooting range for the City's police department, as shown on Exhibit A-1. The option shall be delivered in a recordable form at closing.

    b. Buyer agrees to convey to Seller at closing a non-exclusive, perpetual right-of-way and pedestrian and vehicular access easement for ingress and egress over the Seller's property described in that certain deed dated April 23, 2021 and recorded at the York County Registry of Deeds in Book 18652, Page 467 in which Rubb Lane is located.

2. Purchase Price. Buyer agrees to pay to Seller for the property the sum of $90,750.00 subject to any adjustments and prorations described herein. The purchase price shall be payable as follows:

    a. Earnest Money Deposit. None

    b. Balance of Price. The full price of $90,750.00 shall be paid to Seller at the time of closing by certified funds.

3. Title. Seller shall convey the property by a duly executed municipal quitclaim deed free and clear of all encumbrances except for restrictions, covenants, easements, liens and encumbrances which do not adversely affect the current use of the property, usual public utilities serving the property, and those encumbrances referenced in Section 1 above. The conveyance hereunder shall be subject to applicable land use availability and zoning laws and regulations. In the event that Seller is not able to convey title as aforesaid, Seller shall make a good faith effort to remedy the matter in a reasonable time, not to exceed sixty (60) days. In the event that the matter cannot be remedied within such time, Buyer may elect to purchase the property notwithstanding such defects as may exist, with no reduction in the purchase price, or at Buyer's option this Agreement shall terminate.

4. Possession. Seller shall deliver possession to Buyer at the time of the closing.

5. Closing. The closing of this transaction shall occur November 3, 2026 at a time and place mutually agreeable to Seller and Buyer or on such earlier date as is mutually agreeable to Buyer and Seller.

6. Prorations. The property is city-owned. Therefore, there shall be no prorations of real estate taxes or utilities or any other assessments against the property.

7. Risk of Loss. The risk of loss or damage to the property by fire or otherwise until delivery of deed, is assumed by Seller, and Seller shall maintain fire and extended insurance coverage on the property until the closing. If, prior to the closing, there shall occur any material damage or destruction of the property by fire or otherwise, such that the property cannot be delivered in as good order and condition as the same now is, reasonable use and wear thereof only excepted, Buyer, at his option, may:

    a. either terminate this Agreement by giving Seller written notice thereof within 15 days of the occurrence of such damage or destruction, in which event, both the Seller and Buyer shall be released from all liability to the other hereunder, or

    b. require the consummation of this Agreement without a herein reduction in the purchase price, in which event the property shall be conveyed as provided, and all proceeds from insurance of the property shall be paid over to Buyer at closing, or upon receipt thereafter.

8. Default; Remedies. In the event that Buyer or Seller defaults on its obligations

under this Agreement, the non-breaching party shall have all available legal or equitable remedies, except that neither party shall be responsible for indirect, punitive or consequential damages.

9. Contingencies. The obligations of both Seller and Buyer under this Agreement are subject to the following contingencies:

    a. That a certain Agreement for Purchase and Sale of Real Estate entered into by the City of Sanford, as seller, and Sanford and Springvale Fish and Game Protective Association, Inc., as buyer, be consummated on the same date as the closing for this property.

    b. That the Seller obtain necessary releases or approvals from any state, local or federal authority, including without limitation the Federal Aviation Administration and Department of War.

    c. That Buyer may obtain a certification from a reputable environmental review company that the property is not in violation of any federal, state, or local law or regulation in regard to contamination of any kind such that liability for clean-up would fall upon Buyer as the owner of the property. If the results of any such environmental inspection is unsatisfactory to Buyer, Buyer may declare this Agreement null and void by notifying Seller on or before October 1, 2026.

    d. Buyer and its agents and representatives shall have the right of access to the property for inspection, surveying and/or engineering purposes prior to closing. Any such inspections or tests shall be a Buyer's cost. If the results of any inspection is unsatisfactory to Buyer, Buyer may declare this Agreement null and void by notifying Seller on or before October 1, 2026.

10. Seller's Warranties/Representations. The Seller makes the following warranties and representations which are being relied upon by Buyer all of which shall be true in all material aspects as of the closing:

    a. Seller is the owner of the property referred to and holds good and marketable title thereto.

    b. There are no judgments, liens, actions, claims or proceedings against Seller as owner of the property.

    c. To the best of Seller's knowledge without inquiry, there are no violations of

any kind pending or threatened against the property.

d. There are no contracts of any kind relating to the property or its operation which would be binding upon Buyer once Buyer takes possession which have not been disclosed in writing to Buyer and accepted by Buyer in writing as being binding on Buyer.

e. The Seller expressly warrants and represents that to the best of Seller's knowledge without inquiry there are no uncontrolled hazardous substances affecting the property which might give rise to a lien under federal or Maine law for the abatement, cleanup, or mitigation thereof. In the event that this representation should prove false, the Seller's obligations under this agreement shall terminate..

11. Buyer's Acknowledgement. Buyer acknowledges that the property is being sold "as is" and that except as specifically set forth in this Agreement, and notwithstanding any materials previously provided by Seller, Seller makes and has made no covenant, representation or warranty as to the suitability of the property for any purpose whatsoever or as to the physical condition of the property. Buyer hereby acknowledges that in determining the condition and suitability of the property for any purpose, Buyer will be relying solely on investigations conducted by it, its employees, agents or subcontractors.

12. Acceptance of Deed. The acceptance of the deed of conveyance by Buyer at the closing shall be deemed to be the full performance and discharge of every agreement, obligation and representation made on the part of Seller, except as expressly set forth herein or in such deed. The parties agree that none of the statements contained herein are collateral agreements. No statements, provisions, covenants, agreements, obligations, or representations contained herein shall survive the closing except as specifically stated herein. The property is being sold and will be conveyed "as is" without any representation or warranties as to habitability, merchantability, fitness, condition or otherwise. Neither party is relying upon any statements or representations not embodied in this Agreement.

13. Brokerage. Seller and Buyer represent and warrant to each other that neither party has engaged the services of any real estate broker with respect to this transaction. Buyer agrees to defend, indemnify and hold Seller and its agents harmless from any claims made by any broker should Buyer's representation in this paragraph be false. Seller agrees to defend, indemnify and hold Buyer and its agents harmless from any claims made by any broker should Seller's representation in this paragraph be false.

The foregoing indemnity shall include all legal fees and costs incurred in defense against any such claim.

14. Closing Costs. The Maine real estate transfer tax shall be paid by Seller and Buyer in accordance with 36 M.R.S.A. §4641-A. All inspections, survey costs, title exam and title insurance premium shall be paid by Buyer. The recording fee for the deed of conveyance and option to Buyer will be paid by Buyer. The recording fee for the easement to Seller and for any title clearance items shall be paid by Seller. Buyer and Seller shall each pay their respective attorney's fees.

15. Binding Effect. This Agreement shall inure to and be binding upon the heirs, successors, executors and assigns of the respective parties who execute this Agreement.

16. Construction. This Agreement sets forth the entire agreement between the parties, and there are no other agreements or understandings between them related to the subject matter hereof. As used in this Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. This Agreement shall be governed by and construed in accordance with the laws of Maine. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

17. Duplicate Originals. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original. Electronic or PDF signatures, including via DocuSign shall have the same effect as an original.

18. Effective Date. The effective date of this Agreement shall be the date it is signed by the last party to sign it.

[Remainder of Page Intentionally Left Blank]

Buyer: RUBB PROPERTY, LLC

By: _____ Date: _____, 2026
David C. Nickerson
Its: Manager

Seller: CITY OF SANFORD.

By: _____ Date: _____, 2026
Steven Buck
Its: City Manager

Exhibit A

A certain lot or parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the York County Registry of Deeds (YCRD) in Book 16009, Page 717 and land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the YCRD in Book 19081,
Page 480;

1. Thence S 01°52'35" E along said land of Rubb Property, LLC, other land of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, and land now or formerly of The Baker Company, Inc., a distance of 2,411.38 feet to remaining land of the City of Sanford;

2. Thence S 67°23'36" W along remaining land of the City of Sanford, a distance of 621.14 feet;

3. Thence N 01°32'35" E along remaining land of the City of Sanford, a distance of 291.14 feet;

4. Thence N 28°18'30" W along remaining land of the City of Sanford, a distance of 308.81 feet to land to be conveyed to the Sanford-Springvale Fish & Game Protective Association (SSF&GPA);

5. Thence N 34°44'12" E along said land to be conveyed to SSF&GPA, a distance of 840.07 feet;

6. Thence N 01°52'35" W along said land to be conveyed to SSF&GPA and remaining land of the City of Sanford, a distance of 640.28 feet;

7. Thence N 55°05'14" W along remaining land of the City of Sanford, a distance of 288.68 feet to said land of Novel ME Land Holdings LLC;

8. Thence N 34°54'46" E along said land of Novel ME Land Holdings LLC, a distance of 720.00 feet to the **Point of Beginning**.

The above-described parcel contains approximately 20.39 acres and is depicted on that certain plan titled “Lot Division Plan of a Portion of Sanford Seacoast Regional Airport

for Rubb USA" dated August 1, 2025, last revised August 8, 2026 by Sebago Technics, Inc., job number 250132 (the "Lot Division Plan") recorded at the YCRD in Plan Book _____, Page ____.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

MEANING AND INTENDING to convey a portion of the property conveyed to Grantor by those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded at the YCRD in Book 1113, Page 303 and Book 1116, Page 1 respectively.

THIS CONVEYANCE IS MADE **SUBJECT TO** an easement and related rights hereby reserved by Grantor and appurtenant to that portion of Grantor's retained land lying westerly of and adjacent to the above-described parcel, said easement and related rights being a right-of-way and pedestrian and vehicular access easement for ingress and egress to and from said portion of Grantor's retained land and the land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, as shown on the Lot Division Plan referenced below, including the right to use, clear, plow snow from, maintain, grade, pave, and repair the same, for the benefit of Grantor, its successors and assigns, in, on, over and under that portion of the above-described parcel as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through the above-described parcel, a distance of 200.00 feet to remaining land of the City of Sanford;

2. Thence N 01°52'35" W along remaining land of the City of Sanford, a distance of 50.00 feet;

3. Thence N 88°07'25" E through the above-described parcel, a distance of 200.00 feet to said land of Rubb Property, LLC;

4. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described right of way contains approximately 10,000 square feet.

The above-described easement and rights shall also include the right to lay, install, maintain, repair, replace and relocate within the easement area, any utilities serving said portions of Grantor's retained land, including, without limitation, facilities for the transmission of electricity, gas, telephone communications, cable television, internet, sewerage (include septic lines), water, storm runoff, or similar services which are now or may in the future become available.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden the above-described parcel and shall benefit and be appurtenant to said portion of Grantor's retained land and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** an easement and related rights hereby reserved by Grantor and appurtenant to that portion of Grantor's retained land lying westerly of and adjacent to the above-described parcel, to permit the existing earthen berm and related infrastructure to remain as presently located within the below described area of the above-described parcel and to allow Grantor and its successors and assigns the right to maintain, repair and replace said berm and related infrastructure, including the right to enter at all reasonable times, with personnel, material, machinery and equipment to conduct such activities, upon that portion of the above-described parcel as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at a point bearing N 01°52'35" W a distance of 168.63 feet from the northwesterly corner of the above-described right of way along remaining land of the City of Sanford;

1. Thence N 01°52'35" W along remaining land of the City of Sanford, a distance of 156.74 feet;

2. Thence S 37°17'03" E through the above-described parcel, a distance of 95.75 feet;

3. Thence S 33°18'29" W through the above-described parcel, a distance of 96.28 feet to the **Point of Beginning**.

The above-described easement contains approximately 4,348 square feet.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden the above-described parcel and shall benefit and be appurtenant to said portion of Grantor's retained land and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the terms and conditions of the easements and related rights granted by Grantor to said SSF&GPA by Municipal Quitclaim Deed of substantially even date herewith recorded at the YCRD in Book _____, Page ____.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the following easement and appurtenant rights and benefits reserved to the Grantor for the use and benefit of the public and appurtenant to the land comprising the Sanford Seacoast Regional Airport, as the same may be expanded, reduced or reconfigured from time to time. The appurtenant rights and benefits include the following uses, rights and restrictions:

The unobstructed use and passage of all types of aircraft in and through the airspace at any height or altitude above the surface of the above-described parcel.

The right of said aircraft to cause noise, vibrations, fumes, deposits of dust, fuel particles (incidental to the normal operation of aircraft), emissions, illumination, wake turbulence; fear, interference with sleep or communication, and any other effects associated with the normal operation of aircraft taking off, landing or operating in the vicinity of the Sanford Seacoast Regional Airport. The Grantee, for itself and its successors and assigns, acknowledges that such impacts may occur and shall not be deemed a nuisance.

As used herein, the term "aircraft" shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include jet, propeller-driven, civil, military or commercial aircraft, including helicopters, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whoever owned or operated.

The right to maintain the airspace above the above-described parcel free and clear of any structure, tree, vegetation, improvement, appurtenance, equipment, utility installation, or other object which penetrates any applicable federal, state or local imaginary surface, obstruction standard, or airspace protection surface associated with the Sanford Seacoast Regional Airport, including, without limitation, those

established by the Federal Aviation Administration ("FAA") in 14 CFR Part 77 or otherwise.

The Grantee agrees that during the life of this easement, no building, structure, tower, antenna, crane, tree, vegetation, solar installation, wind energy facility, or other object shall be erected, placed, allowed to grow, or maintained on the above-described parcel to a height that constitutes an obstruction to navigable airspace or otherwise violates applicable FAA standards, airport zoning requirements, or height limitations established by the Sanford Seacoast Regional Airport. The Grantee may not permit any places of public assembly or gatherings on the above-described parcel. (Examples: churches, schools, day care facilities, hospitals, restaurants, stadiums, office buildings, etc.).

The Grantee agrees to keep the above-described parcel free of the following: structures (permanent or temporary) that might create glare or contain misleading lights; residences; fuel handling and storage facilities; smoke generating activities; and any other structures or activities that create an airport hazard or interfere with airport operations, including uses that: (a) create electrical interference with navigational signals or communications; (b) impair visibility in the vicinity of the Sanford Seacoast Regional Airport; (c) produce glare or lighting that could confuse pilots or air traffic control personnel; (d) attract birds or wildlife hazardous to aircraft operations; or (e) otherwise endanger aircraft operations.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice except in emergencies, to enter the above-described parcel for inspection and enforcement of this easement and appurtenant rights.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice to the Grantee, to enter upon the above-described parcel to trim, cut, remove, mark, light, or otherwise mitigate any tree, vegetation, structure, or other obstruction that violates this easement, if the Grantee fails to do so within a reasonable period after notice. The reasonable cost thereof may be recovered from the Grantee.

To the extent permitted by law, the Grantee, for itself and its successors and assigns, hereby waives, releases, and forever discharges the Grantor and the Sanford Seacoast Regional Airport from claims for damages or compensation arising from: (a) aircraft noise and other ordinary and lawful airport operational impacts occurring after the date of this deed, or (b) caused by the Grantee’s violation of any aspect of this easement or appurtenant rights.

TO HAVE AND TO HOLD said easement and right of way, and all rights appertaining thereto unto the Grantor, its successors, and assigns, until the Sanford Seacoast Regional Airport shall be abandoned and shall cease to be used for public airport purposes. It is understood and agreed that all provisions herein shall run with the land and shall be binding upon the Grantee and all subsequent owners, tenants, and occupants of the above-described parcel and Grantee's successors and assigns until such time that the easement is extinguished.

Exhibit A-1
[Plan]

N

GRID

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY LINE/R.O.W.	
	ABUTTER LINE/R.O.W.	
	DEED LINE/R.O.W.	
	SETBACK	
	EASEMENT	
	MONUMENT	
	IRON PIPE/ROD	
N / F	NOW OR FORMERLY	
	BUILDING	
	EDGE OF PAVEMENT	
	PAVEMENT PAINT	
	EDGE GRAVEL	
	TREELINE	
120 118	CONTOURS	
	CHAIN LINK FENCE	
	GAS GATE VALVE	
	UTILITY POLE	
	HYDRANT	
	WELL	
	WATER GATE VALVE	

ITEMS SHOWN IN RED HEREON DEPICT THE EQUAL DIVISION OF THE 4.28-ACRE CITY OF SANFORD PARCEL TO THE SSF&GPA AND RUBB PROPERTIES, LLC IN THE EVENT THE CITY DISCONTINUES ITS USE OF THE RANGE.

PROPOSED EASEMENT LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 01°52'35" E	50.00'
L2	S 88°07'25" W	200.00'
L3	N 01°52'35" W	50.00'
L4	N 88°07'25" E	200.00'
L5	S 37°17'03" E	95.75'
L6	S 33°18'29" W	96.28'
L7	N 01°52'35" W	156.74'
L8	S 88°07'25" W	100.00'
L9	S 01°52'35" E	147.63'
L10	S 34°44'12" W	83.84'
L11	N 01°52'35" W	264.93'
L12	S 01°52'35" E	41.92'
L13	N 55°15'48" W	25.00'
L14	N 34°44'12" E	420.03'

PROPOSED EASEMENT CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD BEARING	CRD LENGTH
C1	78.54'	50.00'	S 43°07'25" W	70.71'

5"X 6" GRANITE MONUMENT FOUND
5" BELOW GRADE
BROKEN LOCATED AT REMAINING PIECE IN GROUND
HELD

5/8" REBAR FOUND
1" ABOVE GRADE
ILLEGIBLE, DISTURBED
N 35°24'27" W - 1.01' FROM CORNER

4" X 6" GRANITE MONUMENT FOUND
3" ABOVE GRADE
BROKEN, LOCATED AT REMAINING PIECE IN GROUND

N/F
RUBB PROPERTY, LLC
BOOK 16009, PAGE 717
R18A-11

EXISTING RUBB PROPERTY, LLC
SOUTH OF WETLAND
10.02± ACRES OF UPLAND
EXCLUDING MAP R18A LOT 16Z

MAINTENANCE EASEMENT TO BENEFIT
THE CITY OF SANFORD
AREA=4,348 SQUARE FEET

N/F
NOVEL ME LAND HOLDINGS LLC
BOOK 19081, PAGE 480
R18-42

RUBB PROPERTY, LLC
TOTAL=2.14 ACRES
UPLAND=1.66± ACRES

CITY OF SANFORD
4.28 ACRES

SSF&GPA
TOTAL=2.14 ACRES
UPLAND=1.53± ACRES

N/F
RUBB PROPERTY, LLC
BOOK 16009, PAGE 717
R18A-12

GATEHOUSE ROAD

50' WIDE ACCESS & UTILITY EASEMENT
TO BENEFIT THE CITY OF SANFORD
AREA=10,000 SQUARE FEET

RUBB LANE

ACCESS & UTILITY EASEMENT
TO BENEFIT LAND TO BE
CONVEYED TO SSF&GPA
AREA=22,100 SQUARE FEET

N/F
RUBB PROPERTY, LLC
BOOK 18652, PAGE 467
R18A-16Z
SEE NOTE 9

4" X 4" GRANITE MONUMENT FOUND
6" BELOW GRADE
BROKEN, LOCATED AT CENTER

5/8" REBAR FOUND
1" ABOVE GRADE
"TITCOMB ASSOC PLS 2241"

5/8" REBAR FOUND
AT GRADE
"TITCOMB ASSOC PLS 2201"

4"X4" GRANITE MONUMENT FOUND
AT GRADE
WITH CAP "PLS 1273 TITCOMB"

N/F
THE BAKER COMPANY INC
BOOK 17916, PAGE 592
R18A-15

NONSIGNIFICANT VERNAL POOL

PROPOSED PARCEL TO
SANFORD-SPRINGVALE FISH & GAME
PROTECTIVE ASSOCIATION (SSF&GPA)
TOTAL=15.40 ACRES
UPLAND=8.51± ACRES

25' ACCESS & MAINTENANCE
EASEMENT TO SSF&GPA
AREA=12,176 SQUARE FEET

PROPOSED ABUTTER CONVEYANCE
TO RUBB PROPERTY, LLC
TOTAL=20.39 ACRES
UPLAND SOUTH OF RUBB LANE=10.25± ACRES
UPLAND NORTH OF RUBB LANE=3.83± ACRES
(UPLANDS MEASURED EXCLUSIVE OF RIGHTS OF WAY)

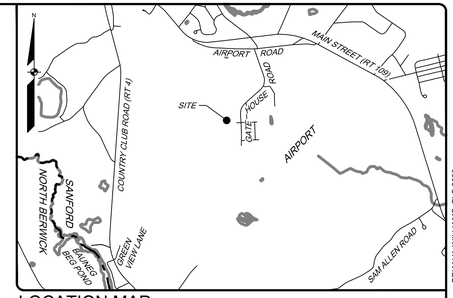
N/F
CITY OF SANFORD
BOOK 17922, PAGE 881
R18-42B

N/F
CITY OF SANFORD
R18A-16

N/F
INDUSTRIAL DEVELOPMENT
CORPORATION OF SANFORD
BOOK 19531, PAGE 674
R18-14

6" X 6" GRANITE MONUMENT FOUND
24" ABOVE GRADE
PEAKED
HELD

PROPOSED BOUNDARY ALONG DECLARATION
OF COVENANTS AND RESTRICTIONS
BETWEEN THE CITY OF SANFORD AND
MAINE DEPARTMENT OF ENVIRONMENTAL
PROTECTION EXECUTED MARCH 15, 2019.
THIS DOCUMENT IS UNRECORDED.



LOCATION MAP

N.T.S.

BRIAN K. WILLIAMS, PLS 2639

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE CITY OF SANFORD BY DEED DATED DECEMBER 30, 1947 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS (YCRD) IN BOOK 1113, PAGE 303 AND DEED DATED JULY 15, 1948 RECORDED AT THE YCRD IN BOOK 1116, PAGE 1.
2. THE PROPERTY IS SHOWN AS LOT 16 ON THE CITY OF SANFORD TAX MAP R18A AND IS LOCATED IN THE AIRPORT DEVELOPMENT DISTRICT.
3. TOTAL AREA OF PROPOSED CONVEYANCES IS APPROXIMATELY 40.07 ACRES.
4. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN SEPTEMBER OF 2025. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED SOLELY UPON PUBLICLY AVAILABLE LIDAR CONTOUR DATA DISTRIBUTED BY NOAA, AND COLLECTED BY USGS, IN 2022.
5. PLAN REFERENCES:
   A. "PLAN SHOWING LAND ACQUIRED FOR LELA H. GOODALL FIELD SANFORD, MAINE" DATED NOVEMBER, 1943 AND REVISED JUNE, 1946 BY ERNEST E. GALLANT AND RECORDED AT THE YCRD IN PLAN BOOK 113, PAGE 2.
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   D. "TAKING AND EASEMENT PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE LANDS OF G. DEVLAND REALTY TRUST AND IVAN AND PAULA FURBISH PREPARED FOR HOYLE, TANNER & ASSOCIATES" DATED MARCH 19, 1991 BY THOMAS F. MORAN INC. AND RECORDED AT THE YCRD IN PLAN BOOK 208, PAGE 1.
   E. "RYERSON SKY PARK SUBDIVISION PLAN GATEHOUSE ROAD SANFORD, MAINE MADE FOR RICHARD J. RYERSON" DATED FEBRUARY, 2006 BY TITCOMB ASSOCIATES AND RECORDED AT THE YCRD IN PLAN BOOK 313, PAGE 9.
   F. "PLAN SHOWING A PROPOSED CONVEYANCE TO FLEMISH MASTER WEAVERS, INC. PROPERTY LOCATED ON GATEHOUSE ROAD IN SANFORD, MAINE" DATED NOVEMBER 25, 2019 BY CORNER POST LAND SURVEYING, INC.
   G. "PLAN DEPICTING THE RESULTS OF A BOUNDARY SURVEY PREPARE FOR ROBERT R. CURRY AIRPORT ROAD, SANFORD, MAINE" DATED JULY 9, 2008 BY MIDDLE BRANCH, LLC.
   H. "BOUNDARY PLAN TAX MAP R18 LOT 42 (83 AIRPORT ROAD) SANFORD, MAINE PREPARED FOR, NBD SOLAR MAINE, LLC LAND OF, THE CURRY/DAVIDOW TRUST" DATED FEBRUARY 23, 2021 BY FIELDSTONE LAND CONSULTANTS, PLLC AND RECORDED AT THE YCRD IN PLAN BOOK 413, PAGE 46.
   I. "EXHIBIT A SANFORD SEACOAST REGIONAL AIRPORT SHEET 12 OF 12" DATED JANUARY, 2025 BY STANTEC CONSULTING SERVICES, INC.
6. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, GEOID18 IN US SURVEY FEET, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GNSS OBSERVATIONS.
7. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CIASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
8. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR SANFORD, MAINE, YORK COUNTY, PANEL NUMBER 23031C0413G, HAVING AN EFFECTIVE DATE OF JULY 17,2024. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF MINIMAL FLOOD HAZARD.
9. ACCESS TO LAND OF THE CITY OF SANFORD AND PROPOSED PARCEL TO SANFORD-SPRINGVALE FISH & GAME PROTECTIVE ASSOCIATION TO BE BENEFITED BY AN ACCESS AND UTILITY EASEMENT ACROSS THE PARCEL SHOWN AS RUBB LANE AS DESCRIBED IN A DEED RECORDED AT THE YCRD IN BOOK 18652, PAGE 467.
10. A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN APRIL OF 2026 BY GARY M. FULLERTON, LICENSED SOIL SCIENTIST AND SAM HAYDEN, PROFESSIONAL WETLAND SCIENTIST OF SEBAGO TECHNICS, INC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. ALL WETLAND FLAGS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF SUBMETER ACCURACY.
11. A VERNAL POOL SURVEY WAS PERFORMED DURING APRIL OF 2026 BY SAM HAYDEN, PROFESSIONAL WETLAND SCIENTIST OF SEBAGO TECHNICS, INC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9, OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
12. SPACE AND BULK CRITERIA FOR THE AIRPORT DEVELOPMENT DISTRICT ARE AS FOLLOWS:

NET RESIDENTIAL DENSITY:	1 UNIT PER 40,000 SQUARE FEET
MINIMUM LOT SIZE:	40,000 SQUARE FEET
MINIMUM STREET FRONTAGE:	N/A
MINIMUM FRONT YARD:	15 FEET
MINIMUM SIDE YARD:	15 FEET
MINIMUM REAR YARD:	15 FEET
MAXIMUM BUILDING HEIGHT:	60 FEET, SUBJECT TO FAA REGULATIONS
MAXIMUM BUILDING COVERAGE:	80%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

GRAPHIC SCALE
150 0 75 150 300
(IN FEET)
1 INCH = 150 FT.

REV.	BY	DATE:	STATUS
F.	BKW	08-06-2026	REVISED FOR ITEMS IN RED AND UPLAND ACREAGES
E.	BKW	08-06-2026	REVISED NOTE 1
D.	BKW	04-30-2026	UPDATED FOR WETLANDS AND VERNAL POOL SURVEY
C.	BKW	01-09-2026	ISSUED FOR REVIEW
B.	BKW	12-19-2025	REVISED PROPOSED PARCELS AND EASEMENT AREAS
A.	BKW	10-24-2025	SUBMITTED TO CLIENT FOR REVIEW

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

STATE OF MAINE
BRIAN K. WILLIAMS
2639
PROFESSIONAL LAND SURVEYOR

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite A
South Portland, ME 04106
207-200-2100

South Portland, Bridgton, Sanford

LOT DIVISION PLAN
OF A PORTION OF:
SANFORD SEACOAST REGIONAL AIRPORT
199 AIRPORT ROAD
SANFORD, MAINE
FOR:
RUBB USA
1 RUBB LANE
SANFORD, MAINE 04073

RECORD OWNER:
CITY OF SANFORD
919 MAIN STREET
SANFORD, MAINE 04073

DESIGNED	-
DRAWN	JAH
CHECKED	BKW
DATE	08/01/2025
SCALE	1" = 150
PROJECT	250132

SHEET 1 OF 1

F:\Projects\250000\250132\DWG\Survey\250132BD1.dwg - 8/7/2026 8:47 AM - BRIAN WILLIAMS

250132BD1.dwg, TAB:BKW

Memo

Number: 26-251-01
To: City Council
From: Allison Navia, Airport Manager
Date: 2026-08-18
Subject: Ordered to approve and authorize the City Manager to sign a Purchase and Sale Agreement between the City of Sanford and Sanford Springvale Fish and Game Protective Association for approximately 15.4 acres at the Sanford Seacoast Regional Airport in the amount of $74,250.00.

RECOMMENDATION

Review and approve a Purchase and Sale Agreement between the City of Sanford and Sanford Springvale Fish and Game Protective Association for approximately 15.4 acres at the Sanford Seacoast Regional Airport in the amount of $74,250.00.

Background Information:

The purpose of the sale is to relieve the airport of compliance issues, generate revenue for airport uses, allow for the continued use and expansion of both shooting ranges, and permit expansion in the industrial park on Gatehouse Road. The parcel cannot be sold until the FAA and Department of War release the land from federal obligations. FAA's obligations restrict the land to aeronautical use only. The DOW has a National Emergency Use Provision contained in the airport's deed grants the U.S. government the right to reoccupy or make joint/exclusive use of transferred airport land or facilities during a declared war or national emergency. Both must be lifted to sell the land.

The appraised value of the parcel was used to determine fair market price. That is the total contained in the purchase and sale agreement. Sanford Springvale Fish and Game Protective Association and Rubb have agreed to share the cost of the police department range in order for the City to incur no cost . In recognition of this, should the City cease using the range at some point in the future, that parcel will be split and deeded to Rubb and SSFGPA. Two maps are included. One is the official survey of the property and the other shows the division line of the City parcel, should it ever be needed.

Closing will take place within 30 days or receiving the federal approvals or in November 2026, whichever occurs sooner. It is not likely that we will receive approval prior to November.

The sale of this parcel is an accordance with the airport's approved Ultimate Airport Layout Plan and aligns with the business plan. Proceeds will be utilized to offset future airport costs, as required by FAA rules.

Legal Review Status:

Complete

Administrative or Department Review:

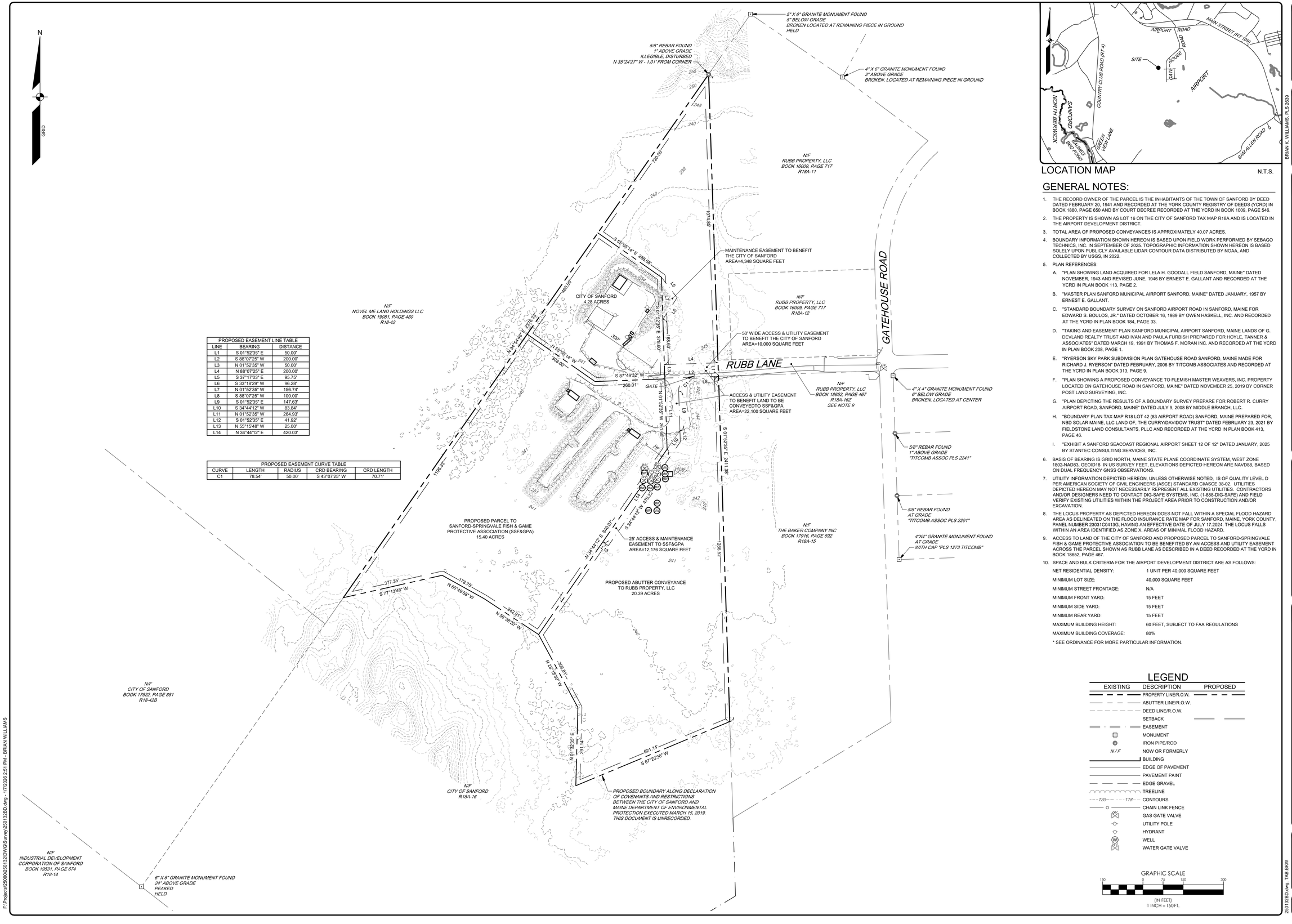
The City Manager and Airport Manager have overseen and administered this process. City legal counsel has reviewed the agreement and drafted deeds and easements to facilitate the closing.

Financial Impact or Review:

Revenue from the sale of the parcel will be placed in a special revenue account, ORG 2084, to be used only for the airport operations, airport capital investment, and/or land acquisition purposes described in FAA Order 5190.6C as allowable uses of airport revenue.

ATTACHMENT(S):

250132LD-BKW 20260109.pdf
250132BD1-BKW Equal Division and Uplands Plan-20260806.pdf
Purchase and Sale SSFGPA (8-12-2026).pdf



PROPOSED EASEMENT LINE TABLE		
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LOCATION MAP

N.T.S.

GENERAL NOTES:

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   H. "BOUNDARY PLAN TAX MAP R18 LOT 42 (83 AIRPORT ROAD) SANFORD, MAINE PREPARED FOR, NBD SOLAR MAINE, LLC LAND OF, THE CURRY/DAVIDOW TRUST" DATED FEBRUARY 23, 2021 BY FIELDSTONE LAND CONSULTANTS, PLLC AND RECORDED AT THE YCRD IN PLAN BOOK 413, PAGE 46.
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MINIMUM REAR YARD:	15 FEET
MAXIMUM BUILDING HEIGHT:	60 FEET, SUBJECT TO FAA REGULATIONS
MAXIMUM BUILDING COVERAGE:	80%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	PROPERTY LINE/R.O.W.	
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	DEED LINE/R.O.W.	
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	EASEMENT	
	MONUMENT	
	IRON PIPE/ROD	
N / F	NOW OR FORMERLY	
	BUILDING	
	EDGE OF PAVEMENT	
	PAVEMENT PAINT	
	EDGE GRAVEL	
	TREELINE	
120	CONTOURS 118	
	CHAIN LINK FENCE	
GV	GAS GATE VALVE	
	UTILITY POLE	
	HYDRANT	
W	WELL	
WV	WATER GATE VALVE	

GRAPHIC SCALE

150 0 75 150 300

(IN FEET)
1 INCH = 150 FT.

BRIAN K. WILLIAMS, PLS 2839

STATE OF MAINE — BRIAN K. WILLIAMS 2839 — PROFESSIONAL LAND SURVEYOR

REV.	BY:	DATE:	STATUS
A.	BKW	10-24-2025	SUBMITTED TO CLIENT FOR REVIEW
B.	BKW	12-19-2025	REVISED PROPOSED PARCELS AND EASEMENT AREAS
C.	BKW	01-09-2026	ISSUED FOR REVIEW

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SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite 4A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford

LOT DIVISION PLAN

OF A PORTION OF:

SANFORD SEACOAST REGIONAL AIRPORT

199 AIRPORT ROAD
SANFORD, MAINE

FOR:

RUBB USA

1 RUBB LANE
SANFORD, MAINE 04073

RECORD OWNER:
INHABITANTS OF THE TOWN OF SANFORD
919 MAIN STREET
SANFORD, MAINE 04073

DESIGNED	-
DRAWN	JAH
CHECKED	BKW
DATE	08/01/2025
SCALE	1" = 150
PROJECT	250132

SHEET 1 OF 1

F:\Projects\250000\250132\DWG\Survey\250132BD.dwg - 1/7/2026 2:51 PM - BRIAN WILLIAMS

250132BD.dwg TAB:BKW

N

GRID

LEGEND

EXISTING	DESCRIPTION	PROPOSED
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	MONUMENT	
	IRON PIPE/ROD	
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	BUILDING	
	EDGE OF PAVEMENT	
	PAVEMENT PAINT	
	EDGE GRAVEL	
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	GAS GATE VALVE	
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	HYDRANT	
W	WELL	
	WATER GATE VALVE	

ITEMS SHOWN IN RED HEREON DEPICT THE EQUAL DIVISION OF THE 4.28-ACRE CITY OF SANFORD PARCEL TO THE SSF&GPA AND RUBB PROPERTIES, LLC IN THE EVENT THE CITY DISCONTINUES ITS USE OF THE RANGE.

PROPOSED EASEMENT LINE TABLE		
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L4	N 88°07'25" E	200.00'
L5	S 37°17'03" E	95.75'
L6	S 33°18'29" W	96.28'
L7	N 01°52'35" W	156.74'
L8	S 88°07'25" W	100.00'
L9	S 01°52'35" E	147.63'
L10	S 34°44'12" W	83.84'
L11	N 01°52'35" W	264.93'
L12	S 01°52'35" E	41.92'
L13	N 55°15'48" W	25.00'
L14	N 34°44'12" E	420.03'

PROPOSED EASEMENT CURVE TABLE				
CURVE	LENGTH	RADIUS	CRD BEARING	CRD LENGTH
C1	78.54'	50.00'	S 43°07'25" W	70.71'

5" X 6" GRANITE MONUMENT FOUND
5" BELOW GRADE
BROKEN LOCATED AT REMAINING PIECE IN GROUND
HELD

5/8" REBAR FOUND
1" ABOVE GRADE
ILLEGIBLE, DISTURBED
N 35°24'27" W - 1.01' FROM CORNER

4" X 6" GRANITE MONUMENT FOUND
3" ABOVE GRADE
BROKEN, LOCATED AT REMAINING PIECE IN GROUND

N/F
RUBB PROPERTY, LLC
BOOK 16009, PAGE 717
R18A-11

EXISTING RUBB PROPERTY, LLC
SOUTH OF WETLAND
10.02± ACRES OF UPLAND
EXCLUDING MAP R18A LOT 16Z

MAINTENANCE EASEMENT TO BENEFIT
THE CITY OF SANFORD
AREA=4,348 SQUARE FEET

N/F
NOVEL ME LAND HOLDINGS LLC
BOOK 19081, PAGE 480
R18-42

RUBB PROPERTY, LLC
TOTAL=2.14 ACRES
UPLAND=1.66± ACRES

CITY OF SANFORD
4.28 ACRES

SSF&GPA
TOTAL=2.14 ACRES
UPLAND=1.53± ACRES

N/F
RUBB PROPERTY, LLC
BOOK 16009, PAGE 717
R18A-12

GATEHOUSE ROAD

50' WIDE ACCESS & UTILITY EASEMENT
TO BENEFIT THE CITY OF SANFORD
AREA=10,000 SQUARE FEET

RUBB LANE

ACCESS & UTILITY EASEMENT
TO BENEFIT LAND TO BE
CONVEYED TO SSF&GPA
AREA=22,100 SQUARE FEET

N/F
RUBB PROPERTY, LLC
BOOK 18652, PAGE 467
R18A-16Z
SEE NOTE 9

4" X 4" GRANITE MONUMENT FOUND
6" BELOW GRADE
BROKEN, LOCATED AT CENTER

5/8" REBAR FOUND
1" ABOVE GRADE
"TITCOMB ASSOC PLS 2241"

5/8" REBAR FOUND
AT GRADE
"TITCOMB ASSOC PLS 2201"

4"X4" GRANITE MONUMENT FOUND
AT GRADE
WITH CAP "PLS 1273 TITCOMB"

N/F
THE BAKER COMPANY INC
BOOK 17916, PAGE 592
R18A-15

GATE

NONSIGNIFICANT VERNAL POOL

PROPOSED PARCEL TO
SANFORD-SPRINGVALE FISH & GAME
PROTECTIVE ASSOCIATION (SSF&GPA)
TOTAL=15.40 ACRES
UPLAND=8.51± ACRES

25' ACCESS & MAINTENANCE
EASEMENT TO SSF&GPA
AREA=12,176 SQUARE FEET

PROPOSED ABUTTER CONVEYANCE
TO RUBB PROPERTY, LLC
TOTAL=20.39 ACRES
UPLAND SOUTH OF RUBB LANE=10.25± ACRES
UPLAND NORTH OF RUBB LANE=3.83± ACRES
(UPLANDS MEASURED EXCLUSIVE OF RIGHTS OF WAY)

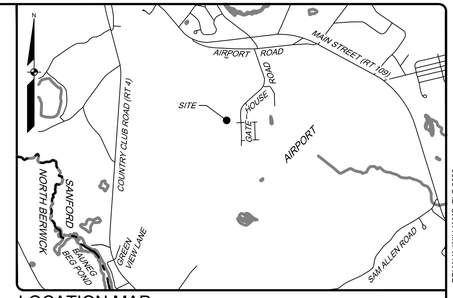
N/F
CITY OF SANFORD
BOOK 17922, PAGE 881
R18-42B

N/F
CITY OF SANFORD
R18A-16

N/F
INDUSTRIAL DEVELOPMENT
CORPORATION OF SANFORD
BOOK 19531, PAGE 674
R18-14

6" X 6" GRANITE MONUMENT FOUND
24" ABOVE GRADE
PEAKED
HELD

PROPOSED BOUNDARY ALONG DECLARATION
OF COVENANTS AND RESTRICTIONS
BETWEEN THE CITY OF SANFORD AND
MAINE DEPARTMENT OF ENVIRONMENTAL
PROTECTION EXECUTED MARCH 15, 2019.
THIS DOCUMENT IS UNRECORDED.



LOCATION MAP

N.T.S.

BRIAN K. WILLIAMS, PLS 2639

GENERAL NOTES:

1. THE RECORD OWNER OF THE PARCEL IS THE CITY OF SANFORD BY DEED DATED DECEMBER 30, 1947 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS (YCRD) IN BOOK 1113, PAGE 303 AND DEED DATED JULY 15, 1948 RECORDED AT THE YCRD IN BOOK 1116, PAGE 1.
2. THE PROPERTY IS SHOWN AS LOT 16 ON THE CITY OF SANFORD TAX MAP R18A AND IS LOCATED IN THE AIRPORT DEVELOPMENT DISTRICT.
3. TOTAL AREA OF PROPOSED CONVEYANCES IS APPROXIMATELY 40.07 ACRES.
4. BOUNDARY INFORMATION SHOWN HEREON IS BASED UPON FIELD WORK PERFORMED BY SEBAGO TECHNICS, INC. IN SEPTEMBER OF 2025. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED SOLELY UPON PUBLICLY AVAILABLE LIDAR CONTOUR DATA DISTRIBUTED BY NOAA, AND COLLECTED BY USGS, IN 2022.
5. PLAN REFERENCES:
   A. "PLAN SHOWING LAND ACQUIRED FOR LELA H. GOODALL FIELD SANFORD, MAINE" DATED NOVEMBER, 1943 AND REVISED JUNE, 1946 BY ERNEST E. GALLANT AND RECORDED AT THE YCRD IN PLAN BOOK 113, PAGE 2.
   B. "MASTER PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE" DATED JANUARY, 1957 BY ERNEST E. GALLANT.
   C. "STANDARD BOUNDARY SURVEY ON SANFORD AIRPORT ROAD IN SANFORD, MAINE FOR EDWARD S. BOULOS, JR." DATED OCTOBER 16, 1989 BY OWEN HASKELL, INC. AND RECORDED AT THE YCRD IN PLAN BOOK 184, PAGE 33.
   D. "TAKING AND EASEMENT PLAN SANFORD MUNICIPAL AIRPORT SANFORD, MAINE LANDS OF G. DEVLAND REALTY TRUST AND IVAN AND PAULA FURBISH PREPARED FOR HOYLE, TANNER & ASSOCIATES" DATED MARCH 19, 1991 BY THOMAS F. MORAN INC. AND RECORDED AT THE YCRD IN PLAN BOOK 208, PAGE 1.
   E. "RYERSON SKY PARK SUBDIVISION PLAN GATEHOUSE ROAD SANFORD, MAINE MADE FOR RICHARD J. RYERSON" DATED FEBRUARY, 2006 BY TITCOMB ASSOCIATES AND RECORDED AT THE YCRD IN PLAN BOOK 313, PAGE 9.
   F. "PLAN SHOWING A PROPOSED CONVEYANCE TO FLEMISH MASTER WEAVERS, INC. PROPERTY LOCATED ON GATEHOUSE ROAD IN SANFORD, MAINE" DATED NOVEMBER 25, 2019 BY CORNER POST LAND SURVEYING, INC.
   G. "PLAN DEPICTING THE RESULTS OF A BOUNDARY SURVEY PREPARE FOR ROBERT R. CURRY AIRPORT ROAD, SANFORD, MAINE" DATED JULY 9, 2008 BY MIDDLE BRANCH, LLC.
   H. "BOUNDARY PLAN TAX MAP R18 LOT 42 (83 AIRPORT ROAD) SANFORD, MAINE PREPARED FOR, NBD SOLAR MAINE, LLC LAND OF, THE CURRY/DAVIDOW TRUST" DATED FEBRUARY 23, 2021 BY FIELDSTONE LAND CONSULTANTS, PLLC AND RECORDED AT THE YCRD IN PLAN BOOK 413, PAGE 46.
   I. "EXHIBIT A SANFORD SEACOAST REGIONAL AIRPORT SHEET 12 OF 12" DATED JANUARY, 2025 BY STANTEC CONSULTING SERVICES, INC.
6. BASIS OF BEARING IS GRID NORTH, MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE 1802-NAD83, GEOID18 IN US SURVEY FEET, ELEVATIONS DEPICTED HEREON ARE NAVD88, BASED ON DUAL FREQUENCY GNSS OBSERVATIONS.
7. UTILITY INFORMATION DEPICTED HEREON, UNLESS OTHERWISE NOTED, IS OF QUALITY LEVEL D PER AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) STANDARD CIASCE 38-02. UTILITIES DEPICTED HEREON MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. CONTRACTORS AND/OR DESIGNERS NEED TO CONTACT DIG-SAFE SYSTEMS, INC. (1-888-DIG-SAFE) AND FIELD VERIFY EXISTING UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND/OR EXCAVATION.
8. THE LOCUS PROPERTY AS DEPICTED HEREON DOES NOT FALL WITHIN A SPECIAL FLOOD HAZARD AREA AS DELINEATED ON THE FLOOD INSURANCE RATE MAP FOR SANFORD, MAINE, YORK COUNTY, PANEL NUMBER 23031C0413G, HAVING AN EFFECTIVE DATE OF JULY 17,2024. THE LOCUS FALLS WITHIN AN AREA IDENTIFIED AS ZONE X, AREAS OF MINIMAL FLOOD HAZARD.
9. ACCESS TO LAND OF THE CITY OF SANFORD AND PROPOSED PARCEL TO SANFORD-SPRINGVALE FISH & GAME PROTECTIVE ASSOCIATION TO BE BENEFITED BY AN ACCESS AND UTILITY EASEMENT ACROSS THE PARCEL SHOWN AS RUBB LANE AS DESCRIBED IN A DEED RECORDED AT THE YCRD IN BOOK 18652, PAGE 467.
10. A WETLAND DELINEATION WAS PERFORMED ON THIS PROJECT SITE IN APRIL OF 2026 BY GARY M. FULLERTON, LICENSED SOIL SCIENTIST AND SAM HAYDEN, PROFESSIONAL WETLAND SCIENTIST OF SEBAGO TECHNICS, INC. THIS DELINEATION CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN THE 1987 WETLANDS DELINEATION MANUAL AND NORTHEAST REGIONAL SUPPLEMENT AUTHORED AND PUBLISHED BY THE U.S. ARMY CORPS OF ENGINEERS. ALL WETLAND FLAGS WERE LOCATED USING GLOBAL POSITIONING SYSTEMS (GPS) TECHNOLOGY CAPABLE OF SUBMETER ACCURACY.
11. A VERNAL POOL SURVEY WAS PERFORMED DURING APRIL OF 2026 BY SAM HAYDEN, PROFESSIONAL WETLAND SCIENTIST OF SEBAGO TECHNICS, INC. THIS SURVEY CONFORMS TO THE STANDARDS AND METHODS OUTLINED IN CHAPTER 335, SECTION 9, OF THE NATURAL RESOURCE PROTECTION ACT, MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
12. SPACE AND BULK CRITERIA FOR THE AIRPORT DEVELOPMENT DISTRICT ARE AS FOLLOWS:

NET RESIDENTIAL DENSITY:	1 UNIT PER 40,000 SQUARE FEET
MINIMUM LOT SIZE:	40,000 SQUARE FEET
MINIMUM STREET FRONTAGE:	N/A
MINIMUM FRONT YARD:	15 FEET
MINIMUM SIDE YARD:	15 FEET
MINIMUM REAR YARD:	15 FEET
MAXIMUM BUILDING HEIGHT:	60 FEET, SUBJECT TO FAA REGULATIONS
MAXIMUM BUILDING COVERAGE:	80%

* SEE ORDINANCE FOR MORE PARTICULAR INFORMATION.

GRAPHIC SCALE
150 0 75 150 300
(IN FEET)
1 INCH = 150 FT.

REV.	BY	DATE:	STATUS
A.	BKW	10-24-2025	SUBMITTED TO CLIENT FOR REVIEW
B.	BKW	12-19-2025	REVISED PROPOSED PARCELS AND EASEMENT AREAS
C.	BKW	01-09-2026	ISSUED FOR REVIEW
D.	BKW	04-30-2026	UPDATED FOR WETLANDS AND VERNAL POOL SURVEY
E.	BKW	06-06-2026	REVISED NOTE 1
F.	BKW	08-06-2026	REVISED FOR ITEMS IN RED AND UPLAND ACREAGES

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

STATE OF MAINE
BRIAN K. WILLIAMS
2639
PROFESSIONAL LAND SURVEYOR

SEBAGO TECHNICS
SEBAGOTECHNICS.COM
75 John Roberts Road, Suite A
South Portland, ME 04106
207-200-2100
South Portland, Bridgton, Sanford

LOT DIVISION PLAN

OF A PORTION OF:

SANFORD SEACOAST REGIONAL AIRPORT

199 AIRPORT ROAD
SANFORD, MAINE

FOR:

RUBB USA

1 RUBB LANE
SANFORD, MAINE 04073

RECORD OWNER:
CITY OF SANFORD
919 MAIN STREET
SANFORD, MAINE 04073

DESIGNED	-
DRAWN	JAH
CHECKED	BKW
DATE	08/01/2025
SCALE	1" = 150
PROJECT	250132

SHEET 1 OF 1

F:\Projects\250000\250132\DWG\Survey\250132BD1.dwg - 8/7/2026 8:47 AM - BRIAN WILLIAMS

250132BD1.dwg, TAB:BKW

AGREEMENT FOR PURCHASE AND SALE OF REAL ESTATE

This Agreement ("Agreement") is entered into by and between the **City of Sanford, Maine** a body corporate and politic with a mailing address of 919 Main Street, Sanford ME 04073, hereinafter called "Seller" and **Sanford and Springvale Fish and Game Protective Association, Inc.** a Maine non-profit corporation with a mailing address of 449 Country Club Road, Sanford ME 04073, hereinafter referred to as "Buyer."

1. Purchase and Sale. Seller agrees to sell and convey to Buyer, and Buyer agrees to buy upon the terms and conditions hereinafter set forth, the land and buildings and improvements located westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, consisting of approximately 15.40 acres, together with appurtenant easements, being more particularly bounded and described in Exhibit A attached hereto. The property will be conveyed together with and subject to an avigation easement in accordance with FAA guidelines and all easements shown on the plan captioned "Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA" last revised August 6, 2026 by Sebago Technics, Inc., job number 250132, attached hereto as Exhibit A-1.

    a. The property will be conveyed with an option to acquire ownership, for no additional consideration, of one-half of the 4.28 acre adjacent land of the City of Sanford lying northeasterly of the parcel herein conveyed, if said city-owned parcel ceases to be used as a shooting range for the City's police department, as shown on Exhibit A-1. The option shall be delivered in a recordable form at closing.

2. Purchase Price. Buyer agrees to pay to Seller for the property the sum of $74,250.00 subject to any adjustments and prorations described herein. The purchase price shall be payable as follows:

    a. Earnest Money Deposit. None

    b. Balance of Price. The full price of $74,250.00 shall be paid to Seller at the time of closing by certified funds.

3. Title. Seller shall convey the property by a duly executed municipal quitclaim deed free and clear of all encumbrances except for restrictions, covenants, easements, liens and encumbrances which do not adversely affect the current use of

the property, usual public utilities serving the property, and those encumbrances referenced in Section 1 above. The conveyance hereunder shall be subject to applicable land use availability and zoning laws and regulations. In the event that Seller is not able to convey clear title, Seller shall make a good faith effort to remedy the matter in a reasonable time, not to exceed sixty (60) days. In the event that the matter cannot be remedied within such time, Buyer may elect to purchase the property notwithstanding such defects as may exist, with no reduction in the purchase price, or at Buyer's option this Agreement shall terminate.

4. Possession. Seller shall deliver possession to Buyer at the time of the closing.

5. Closing. The closing of this transaction shall occur November 3, 2026 at a time and place mutually agreeable to Seller and Buyer or on such earlier date as is mutually agreeable to Buyer and Seller.

6. Prorations. The property is city-owned. Therefore, there shall be no prorations of real estate taxes or utilities or any other assessments against the property.

7. Risk of Loss. The risk of loss or damage to the property by fire or otherwise until delivery of deed, is assumed by Seller, and Seller shall maintain fire and extended insurance coverage on the property until the closing. If, prior to the closing, there shall occur any material damage or destruction of the property by fire or otherwise, such that the property cannot be delivered in as good order and condition as the same now is, reasonable use and wear thereof only excepted, Buyer, at his option, may:

    a. either terminate this Agreement by giving Seller written notice thereof within 15 days of the occurrence of such damage or destruction, in which event, both the Seller and Buyer shall be released from all liability to the other hereunder, or

    b. require the consummation of this Agreement without a herein reduction in the purchase price, in which event the property shall be conveyed as provided, and all proceeds from insurance of the property shall be paid over to Buyer at closing, or upon receipt thereafter.

8. Default; Remedies. In the event that Buyer or Seller defaults on its obligations under this Agreement, the non-breaching party shall have all available legal or equitable remedies, except that neither party shall be responsible for indirect, punitive or consequential damages.

9. Contingencies. The obligations of both Seller and Buyer under this contract are subject to the following contingencies:

    a. That a certain Agreement for Purchase and Sale of Real Estate entered into by the City of Sanford, as seller, and Rubb Property, LLC, as buyer, be consummated on the same date as the closing for this property.

    b. That the Seller obtain necessary releases or approvals from any state, local or federal authority, including without limitation the Federal Aviation Administration and Department of War.

    c. That Buyer may obtain a certification from a reputable environmental review company that the property is not in violation of any federal, state, or local law or regulation in regard to contamination of any kind such that liability for clean-up would fall upon Buyer as the owner of the property. If the results of any such environmental inspection is unsatisfactory to Buyer, Buyer may declare this Agreement null and void by notifying Seller on or before October 1, 2026.

    d. Buyer and its agents and representatives shall have the right of access to the property for inspection, surveying and/or engineering purposes prior to closing. Any such inspections or tests shall be a Buyer's cost. If the results of any inspection is unsatisfactory to Buyer, Buyer may declare this Agreement null and void by notifying Seller on or before October 1, 2026.

10. Seller's Warranties/Representations. The Seller makes the following warranties and representations which are being relied upon by Buyer all of which shall be true and correct in all material respects as of the closing:

    a. Seller is the owner of the property referred to and holds good and marketable title thereto.

    b. There are no judgments, liens, actions, claims or proceedings against Seller as owner of the property.

    c. To the best of Seller's knowledge without inquiry, there are no violations of any kind pending or threatened against the property.

    d. There are no contracts of any kind relating to the property or its operation which would be binding upon Buyer once Buyer takes possession which have not been disclosed in writing to Buyer and accepted by Buyer in

writing as being binding on Buyer.

e. The Seller expressly warrants and represents that to the best of Seller's knowledge without inquiry there are no uncontrolled hazardous substances affecting the property which might give rise to a lien under federal or Maine law for the abatement, cleanup, or mitigation thereof. In the event that this representation should prove false, the Seller's obligations under this agreement shall terminate.

11. Buyer's Acknowledgement. Buyer acknowledges that the property is being sold "as is" and that except as specifically set forth in this Agreement, and notwithstanding any materials previously provided by Seller, Seller makes and has made no covenant, representation or warranty as to the suitability of the property for any purpose whatsoever or as to the physical condition of the property. Buyer hereby acknowledges that in determining the condition and suitability of the property for any purpose, Buyer will be relying solely on investigations conducted by it, its employees, agents or subcontractors.

12. Acceptance of Deed. The acceptance of the deed of conveyance by Buyer at the closing shall be deemed to be the full performance and discharge of every agreement, obligation and representation made on the part of Seller, except as expressly set forth herein or in such deed. The parties agree that none of the statements contained herein are collateral agreements. No statements, provisions, covenants, agreements, obligations, or representations contained herein shall survive the closing except as specifically stated herein. The property is being sold and will be conveyed "as is" without any representation or warranties as to habitability, merchantability, fitness, condition or otherwise. Neither party is relying upon any statements or representations not embodied in this Agreement.

13. Brokerage. Seller and Buyer represent and warrant to each other that neither party has engaged the services of any real estate broker with respect to this transaction. Buyer agrees to defend, indemnify and hold Seller and its agents harmless from any claims made by any broker should Buyer's representation in this paragraph be false. Seller agrees to defend, indemnify and hold Buyer and its agents harmless from any claims made by any broker should Seller's representation in this paragraph be false. The foregoing indemnity shall include all legal fees and costs incurred in defense against any such claim.

14. Closing Costs. The Maine real estate transfer tax shall be paid by Seller and Buyer in accordance with 36 M.R.S.A. §4641-A. All inspections, survey costs, title exam and title insurance premium shall be paid by Buyer. The recording fee for the deed

of conveyance to Buyer will be paid by Buyer. The recording fee for the easement to Seller and for any title clearance items shall be paid by Seller. Buyer and Seller shall each pay their respective attorney's fees.

15. Binding Effect. This Agreement shall inure to and be binding upon the heirs, successors, executors and assigns of the respective parties who execute this Agreement.

16. Construction. This Agreement sets forth the entire agreement between the parties, and there are no other agreements or understandings between them related to the subject matter hereof. As used in this Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. This Agreement shall be governed by and construed in accordance with the laws of Maine. If any provision of this Agreement is determined to be invalid or unenforceable, it shall not affect the validity or enforcement of the remaining provisions hereof.

17. Duplicate Originals. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original. Electronic or PDF signatures, including via DocuSign shall have the same effect as an original.

18. Effective Date. The effective date of this Agreement shall be the date it is signed by the last party to sign it.

[Remainder of Page Intentionally Left Blank]

Buyer: SANFORD AND SPRINGVALE FISH AND GAME PROTECTIVE ASSOCIATION, INC.

By: _____ Date: _____, 2026
Mark Adler
Its: President

Seller: CITY OF SANFORD.

By: _____ Date: _____, 2026
Steven Buck
Its: City Manager

Exhibit A

A certain lot or parcel of land, together with the improvements thereon, situated westerly of Gatehouse Road, but not adjacent thereto, in the City of Sanford, County of York, State of Maine, being more particularly bounded and described as follows:

Beginning at the northwesterly corner of the parcel herein conveyed on the southeasterly sideline of land now or formerly of Novel ME Land Holdings, LLC as described in a deed recorded at the York County Registry of Deed (YCRD) in Book 19081, Page 480 bearing S 34°54'46" W along said land of Novel ME Land Holdings, LLC a distance of 1,180.00 feet from the northwesterly corner of land now or formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 16009, page 717;

1. Thence S 55°05'14" E along remaining land of the City of Sanford, a distance of 308.00 feet;

2. Thence N 87°49'32" E along remaining land of the City of Sanford, a distance of 260.01 feet to a proposed conveyance to Rubb Property, LLC;

3. Thence S 01°52'35" E along said proposed conveyance to Rubb Property, LLC, a distance of 261.68 feet;

4. Thence S 34°44'12" W along said proposed conveyance to Rubb Property, LLC, a distance of 840.07 feet;

5. Thence N 56°38'20" W along remaining land of City of Sanford, a distance of 242.91 feet;

6. Thence N 60°49'58" W along remaining land of City of Sanford, a distance of 178.75 feet;

7. Thence S 77°13'48" W along remaining land of City of Sanford, a distance of 377.35 feet to said land of Novel ME Land Holdings, LLC;

8. Thence N 34°54'46" E along said land of Novel ME Land Holdings, LLC, a distance of 1,196.33 feet to the **Point of Beginning**.

The above-described lot or parcel contains approximately 15.40 acres and is depicted on that certain plan titled “Lot Division Plan of a Portion of Sanford Seacoast Regional Airport for Rubb USA” dated August 1, 2025, last revised August 8, 2026 by Sebago Technics, Inc., job number 250132 (the “Lot Division Plan”) recorded at the YCRD in

Plan Book _____, Page ____.

Basis of bearing herein is Grid North, Maine State Plane Coordinate System West Zone 1802-NAD83.

MEANING AND INTENDING to convey a portion of the property conveyed to Grantor by those two certain deeds from the United States of America dated December 30, 1947 and July 15, 1948 and recorded at the YCRD in Book 1113, Page 303 and Book 1116, Page 1 respectively.

THIS CONVEYANCE IS MADE **TOGETHER WITH** the benefit of the non-exclusive easement and right-of-way granted to Grantor by Rubb Property, LLC as described in that certain Easement Deed recorded at the YCRD in Book _____, Page ____, and depicted as "RUBB LANE" on the Lot Division Plan.
THIS CONVEYANCE IS ALSO MADE **TOGETHER WITH** the benefit of a non-exclusive easement and related rights over a portion of Grantor's retained land lying easterly and southeasterly of and adjacent to the above-described parcel which is contemplated to be conveyed to Rubb Property, LLC by Municipal Quitclaim Deed of substantially even date herewith to be recorded at YCRD, said easement and related rights being a right-of-way and pedestrian and vehicular access easement for ingress and egress to and from the above-described parcel and the land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467, as shown on the Lot Division Plan, including the right to use, clear, plow snow from, maintain, grade, pave, and repair the same, for the benefit of Grantee, its successors and assigns, in, on, over and under the easement area located within said portion of Grantor's retained land as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the northwesterly corner of land now or formerly of The Baker Company, Inc. as described in a deed recorded at the YCRD in Book 17916, Page 592 and the southwesterly corner of land now formerly of Rubb Property, LLC as described in a deed recorded at the YCRD in Book 18652, Page 467;

1. Thence S 88°07'25" W through a proposed conveyance to Rubb Property, LLC, a distance of 100.00 feet;

2. Thence through a proposed conveyance to Rubb Property, LLC following a curve to the left with a radius of 50.00, an arc length of 78.54 feet, and a chord which bears S 43°07'25" W, a distance of 70.71 feet;

3. Thence S 01°52'35" E through a proposed conveyance to Rubb Property, LLC, a

distance of 147.63 feet;

4. Thence S 34°44'12" W through a proposed conveyance to Rubb Property, LLC, a distance of 83.84 feet to the above-described parcel;

5. Thence N 01°52'35" W along the above-described parcel and remaining land of the City of Sanford, a distance of 314.93 feet;

6. Thence N 88°07'25" E though a proposed conveyance to Rubb Property, LLC, a distance of 200.00 feet to said land of Rubb Property, LLC;

7. Thence S 01°52'35" E along said land of Rubb Property, LLC, a distance of 50.00 feet to the **Point of Beginning**.

The above-described right of way contains approximately 22,100 square feet or 0.51 acres.

The above-described easement and rights shall also include the right to lay, install, maintain, repair, replace and relocate within the easement area, any utilities serving the above described parcel, including, without limitation, facilities for the transmission of electricity, gas, telephone communications, cable television, internet, sewerage (include septic lines), water, storm runoff, or similar services which are now or may in the future become available.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden said portion of Grantor's retained land and shall benefit and be appurtenant to the above-described parcel and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **TOGETHER WITH** the benefit of an easement and related rights over a portion of Grantor's retained land lying southeasterly of and adjacent to the above-described parcel which is contemplated to be conveyed to Rubb Property, LLC by Municipal Quitclaim Deed of substantially even date herewith to be recorded at YCRD, to permit the existing earthen berm and related infrastructure to remain as presently located within the below described easement area of said portion of Grantor's retained land and to allow Grantee and its successors and assigns the right to maintain, repair and replace said berm and related infrastructure, including the right to enter at all reasonable times, with personnel, material, machinery and equipment to conduct such activities, upon the easement area located within said portion of Grantor's

retained land as shown on the Lot Division Plan, and being more particularly bounded and described as follows:

Beginning at the southwesterly corner of the above-described right of way and the easterly corner of the above-described parcel;

1. Thence N 34°44'12" E along the above-described right of way and through a proposed conveyance to Rubb Property, LLC, a distance of 83.84 feet;

2. Thence S 01°52'35" E through a proposed conveyance to Rubb Property, LLC, a distance of
   41.92 feet;

3. Thence S 34°44'12" W through a proposed conveyance to Rubb Property, LLC, a distance of 470.22;

4. Thence N 55°15'48" W through a proposed conveyance to Rubb Property, LLC, a distance of
   25.00 feet to the above-described parcel;

5. Thence N 34°44'12" E along the above-described parcel, a distance of 420.03 feet to the **Point of Beginning**.

The above-described berm access and maintenance easement contains approximately 12,176 square feet or 0.28 acres.

The above-described easement and rights are perpetual and shall inure to the benefit of and be binding upon the heirs, successors and assigns of the parties hereto and shall burden said portion of Grantor's retained land and shall benefit and be appurtenant to the above-described parcel and shall be construed as real covenants running with the land enforceable by the parties at law and in equity.

THIS CONVEYANCE IS ALSO MADE **SUBJECT TO** the following easement and appurtenant rights and benefits reserved to the Grantor for the use and benefit of the public and appurtenant to the land comprising the Sanford Seacoast Regional Airport, as the same may be expanded, reduced or reconfigured from time to time. The appurtenant rights and benefits include the following uses, rights and restrictions:

The unobstructed use and passage of all types of aircraft in and through the airspace at any height or altitude above the surface of the above-described parcel.

The right of said aircraft to cause noise, vibrations, fumes, deposits of dust, fuel particles (incidental to the normal operation of aircraft), emissions, illumination, wake turbulence; fear, interference with sleep or communication, and any other effects associated with the normal operation of aircraft taking off, landing or operating in the vicinity of the Sanford Seacoast Regional Airport. The Grantee, for itself and its successors and assigns, acknowledges that such impacts may occur and shall not be deemed a nuisance.

As used herein, the term “aircraft” shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, to include jet, propeller-driven, civil, military or commercial aircraft, including helicopters, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whoever owned or operated.

The right to maintain the airspace above the above-described parcel free and clear of any structure, tree, vegetation, improvement, appurtenance, equipment, utility installation, or other object which penetrates any applicable federal, state or local imaginary surface, obstruction standard, or airspace protection surface associated with the Sanford Seacoast Regional Airport, including, without limitation, those established by the Federal Aviation Administration ("FAA") in 14 CFR Part 77 or otherwise.

The Grantee agrees that during the life of this easement, no building, structure, tower, antenna, crane, tree, vegetation, solar installation, wind energy facility, or other object shall be erected, placed, allowed to grow, or maintained on the above-described parcel to a height that constitutes an obstruction to navigable airspace or otherwise violates applicable FAA standards, airport zoning requirements, or height limitations established by the Sanford Seacoast Regional Airport. The Grantee may not permit any places of public assembly or gatherings on the above-described parcel. (Examples: churches, schools, day care facilities, hospitals, restaurants, stadiums, office buildings, etc.).

The Grantee agrees to keep the above-described parcel free of the following: structures (permanent or temporary) that might create glare or contain misleading lights; residences; fuel handling and storage facilities; smoke generating activities; and any other structures or activities that create an airport hazard or interfere with airport operations, including uses that: (a) create electrical interference with navigational signals or communications; (b) impair visibility in the vicinity of the Sanford Seacoast Regional Airport; (c) produce glare or lighting that could confuse pilots or air traffic control personnel; (d) attract birds or wildlife hazardous

to aircraft operations; or (e) otherwise endanger aircraft operations.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice except in emergencies, to enter the above-described parcel for inspection and enforcement of this easement and appurtenant rights.

The Grantor, its successors and assigns, shall have the right, upon reasonable notice to the Grantee, to enter upon the above-described parcel to trim, cut, remove, mark, light, or otherwise mitigate any tree, vegetation, structure, or other obstruction that violates this easement, if the Grantee fails to do so within a reasonable period after notice. The reasonable cost thereof may be recovered from the Grantee.

To the extent permitted by law, the Grantee, for itself and its successors and assigns, hereby waives, releases, and forever discharges the Grantor and the Sanford Seacoast Regional Airport from claims for damages or compensation arising from: (a) aircraft noise and other ordinary and lawful airport operational impacts occurring after the date of this deed, or (b) caused by the Grantee's violation of any aspect of this easement or appurtenant rights.

TO HAVE AND TO HOLD said easement and right of way, and all rights appertaining thereto unto the Grantor, its successors, and assigns, until the Sanford Seacoast Regional Airport shall be abandoned and shall cease to be used for public airport purposes. It is understood and agreed that all provisions herein shall run with the land and shall be binding upon the Grantee and all subsequent owners, tenants, and occupants of the above-described parcel and Grantee's successors and assigns until such time that the easement is extinguished.

Exhibit A-1
[Plan]

Memo

Number: 26-244-01
To: City Council
From: Allison Navia, Airport Manager
Date: 2026-08-18
Subject: Ordered to approve and authorize the City Manager to sign a contract for construction of the Vehicle Service Road and Seacoast Taxilane at the Sanford Seacoast Regional Airport with Shaw Brothers in the amount of $1,059,171.10.

RECOMMENDATION

Review and approve a contract for construction of the Vehicle Service Road and Seacoast Taxilane at the Sanford Seacoast Regional Airport with Shaw Brothers in the amount of $1,059,171.10.

Background Information:

The Contract Documents attached to this item include: Bidding Documents and Specifications entitled: Reconstruct Taxilane Seacoast 1 and New Runway 14 Vehicle Service Road dated March 2026.

Contract to include:
Schedule A Base Bid Reconstruct Taxilane Seacoast 1 and Schedule B Base Bid New Runway 14 Vehicle Service Road Addendum No. 1 to Addendum No. 3, inclusive.

The CONTRACTOR shall commence the work within ten (10) days of the date set by the OWNER in a written Notice to Proceed. The time of total completion will be 30 Calendar Days.

The Notice to Proceed shall be issued after the CONTRACTOR has provided all necessary and required Contract information, contract bonds, and insurance documentation.

The OWNER will pay to the CONTRACTOR for the said work the sum of $1,059,171.10 at the time and manner set forth in the Contract Documents.

Legal Review Status:

N/A

Administrative or Department Review:

The City Manager and Airport Manager have been administering this project in close coordination with the Finance Director. The Airport Manager will oversee construction of the project and coordination with tenants and users of the Airport.

Financial Impact or Review:

This project is funded through 95% federal (FAA) and 2.5% state (MDOT) grants and a local CIP match of 2.5%. The local match was approved in the FY26 budget under the Capital Plan for the Airport. Accounts have been created for tracking the three grants associated with this project.

ATTACHMENT(S):

_19459.01 - Bid Review Letter w Attch_2026-0424.pdf
19459.02 Shaw Brothers Contract_DRAFT 2026-0721.pdf
19459.01 Taxilane & VSR Design Bid Planset 2026-0325.pdf

McFARLAND JOHNSON
273 Corporate Drive, Suite 200 • Portsmouth, NH 03801
Phone / Fax Number will Auto Update
www.mjinc.com

April 24, 2026 MJ No. 19459.01

Allison Navia, Airport Manager
Sanford Seacoast Regional Airport
199 Airport Rd
Sanford, ME 04073

RE: Bid Review Letter
Reconstruct Taxilane Seacoast 1 & New Runway 14 Vehicle Service Road
Sanford Seacoast Regional Airport
A.I.G. No. 3-23-0044-041-2026
A.I.G. No. 3-23-0044-042-2026
A.I.P. No. 3-23-0044-XXX-2026

Dear Ms. Navia,

The Sanford Seacoast Regional Airport received four (4) bids at the April 22, 2026, Bid Opening for the above referenced project. McFarland Johnson (MJ) has reviewed the bids with their supporting documentation. This letter is to advise you of MJ's findings.

The four (4) bid totals received and Engineer's Estimate are as follows from lowest to highest:

Bidder	Schedule A Amount	Schedule B Amount	Total of Schedule A and B	% Difference from Engineer's Estimate
Engineer's Estimate	$613,105.00	$436,130.00	$1,049,235.00	
Shaw Brothers	$607,872.60	$451,298.50	$1,059,171.10	(0.95% Higher)
Sargent	$654,975.00	$509,310.00	$1,164,285.00	(10.97% higher)
RJ Grondin	$907,457.00	$645,900.00	$1,553,357.00	(48.05% higher)
Levesque	$959,258.00	$631,660.00	$1,590,918.00	(51.63% higher)

For a detailed comparison of the Engineer's opinion of probable construction costs, refer to attached Bid Summary.

All four (4) bidders submitted their bids in sealed envelopes on time and on the prescribed proposal forms. Each bidder acknowledged receipt of the three (3) addenda, and the acknowledgement was signed by an appropriate corporate officer with a company corporate seal.

The bid review included a comparison of each bidder's unit prices, line-item total costs and totals for the Base Bid of Schedule A and Schedule B. Only one (1) bid, the highest bid, contained a mathematical error. That error is corrected on the attached Bid Summary.

Shaw Brothers Construction, Inc. (Shaw) is the apparent low bidder. Shaw included a signed and sealed Bid Bond in the amount of five percent (5%) of their bid value using the provided bid surety form. The surety's bond affidavit was countersigned by the Attorney-in-Fact. The surety company was checked and is listed in the Department of Treasury's List of Certified Companies (Department Circular 570), updated August 1, 2025, for issuance of bonds in Maine. MJ reviewed the database held by the State of Maine, Secretary of State to confirm that Shaw was not listed for debarment or other delinquencies in both the federal and State databases.

Shaw committed to a 0% Disadvantage Business Enterprise (DBE) utilization which meets the Airport's overall DBE neutral goal of 0.0%.

Shaw stated in their bid that they can comply with the 100% Buy American Preferences (BAP) of 49 USC § 50101(a)). Therefore, no BAP waiver would be required if the project is awarded to Shaw.

The following forms have also been provided and executed satisfactory by Shaw:

- Proposal Forms
- Backup information for bidder's qualifications
- Proposal Surety as specified in the Instructions to Bidders
- Surety's Bond Affidavit/Attorney-in-Fact Certification
- List of Potential Subcontractors and Suppliers
- Certificate of Buy American Compliance for Manufactured Products (Form MJ-101)
- Certificate of Offeror/Bidder Regarding Debarment (Form MJ-102)
- Proposed Disadvantaged Business Enterprise (DBE) and Small Business Utilization (Form MJ-103A).
- Subcontractor/Supplier – DBE/Small Business Letter of Intent (Form MJ-104)
- Prime Contractor – DBE/Small Business Reporting Information Form (Form MJ-105)
- Subcontractor/Supplier – DBE/Small Business Reporting Information Form (Form MJ-106)
- Certification Regarding Lobbying (Form MJ-107)
- US Government and State of Maine Certification of Taxes Paid (Form MJ-109)
- Trade Restriction Certification (Form MJ-110)
- Non-Collusion Affidavit (Form MJ-111)

Shaw's Schedule A bid ($607,872.60) is 0.9% lower than the Engineer's Opinion of Probable Construction Costs for Schedule A ($613,105.00), and 7.2% lower than the next lowest bidder, Sargent ($654,975.00). Shaw's Schedule B bid ($451,298.50) is 3.5% higher than the Engineer's Opinion of Probable Construction Costs for Schedule B ($436,130.00), and 11.4% lower than the next lowest bidder, Sargent ($509,310.00). Shaw's total base bid ($1,059,171.10) is 1.0% higher than the Engineer's Opinion of Probable Construction Costs for the total base bid ($1,049,235.00), and 9.0% lower than the next lowest bidder, Sargent ($1,164,285.00). In MJ's

opinion, Shaw's bid represents a fair and reasonable value for the work proposed. See attached bid summary.

The project was advertised in the Sanford Springvale Maine News on March 27, 2026, and MJ reached out to the contractors listed on the MaineDOT's Prequalified Contractors List on March 25, 2026. The solicitation was also posted on the Construction Summary of Maine and New Hampshire website. In reference to MJ's bid portal, a total of forty-six (46) plan holders registered and reviewed plans for the Project. In MJ's opinion, sufficient awareness was made of the Project to potential bidders.

If you choose to award the project to the low bidder (Shaw Brothers Construction, Inc), MJ recommends the following:

1. Concur the validity of Shaw Brothers' bid with the City of Sanford procurement official.
2. Verify that sufficient funding is available for the award of the Schedule A Base Bid in the amount of $607,872.60 and Schedule B Base Bid in the amount of $451,298.50.
3. Obtain concurrence with FAA and MaineDOT for the award of the Contract to Shaw Brothers for the Schedule A Base Bid and Schedule B Base Bid.
4. Seek funding assistance from the FAA and MaineDOT.
5. Upon receipt of FAA and MaineDOT funding assistance, award the project to Shaw Brothers before October 14, 2026.
6. Execute a Contract between City of Sanford and Shaw Brothers contingent upon the delivery of acceptable Insurance Certificates and Performance and Payment Bonds.

If you have any questions on the above, or if we can be of further assistance, please do not hesitate to call or email.

Sincerely,
McFarland-Johnson, Inc.



Matthew O'Brien, PE
Project Manager

Attachments: Bid Summary

Cc: David Chamberlain, FAA
Alan Lambert, MaineDOT
File

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Sanford Seacoast Regional Airport
Reconstruct Taxilane Seacoast 1 & New Runway 14 Vehicle Service Road **BID SUMMARY** **McFARLAND-JOHNSON, INC.**
BID DATE: APRIL 22, 2026

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	ENGINEER'S ESTIMATE ESTIMATED UNIT COST	ENGINEER'S ESTIMATE TOTAL COST	Shaw Brothers Construction UNIT COST	Shaw Brothers Construction TOTAL COST	Sargent Corporation UNIT COST	Sargent Corporation TOTAL COST	RJ Grondin & Sons UNIT COST	RJ Grondin & Sons TOTAL COST	Levesque Excavation UNIT COST	Levesque Excavation TOTAL COST
Schedule A - Reconstruct Taxilane Seacoast 1													
M-150-1	PROJECT SURVEY AND STAKEOUT	LS	1	$ 10,000.00	$ 10,000.00	$ 12,000.00	$ 12,000.00	$ 15,000.00	$ 15,000.00	$ 50,000.00	$ 50,000.00	$ 30,000.00	$ 30,000.00
M-200-1	MAINTENANCE AND PROTECTION OF TRAFFIC	LS	1	$ 15,000.00	$ 15,000.00	$ 35,280.00	$ 35,280.00	$ 25,000.00	$ 25,000.00	$ 127,000.00	$ 127,000.00	$ 94,678.00	$ 94,678.00
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	LS	1	$ 12,500.00	$ 12,500.00	$ 10,000.00	$ 10,000.00	$ 22,000.00	$ 22,000.00	$ 20,000.00	$ 20,000.00	$ 5,000.00	$ 5,000.00
C-102-5.1b	INSTALLATION AND REMOVAL OF INLET PROTECTION	EA	7	$ 250.00	$ 1,750.00	$ 400.00	$ 2,800.00	$ 400.00	$ 2,800.00	$ 460.00	$ 3,220.00	$ 300.00	$ 2,100.00
C-102-5.1c	STABILIZED CONSTRUCTION ENTRANCE	EA	1	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 5,000.00	$ 5,000.00	$ 4,500.00	$ 4,500.00	$ 5,000.00	$ 5,000.00
C-105	MOBILIZATION (10%)	LS	1	$ 55,800.00	$ 55,800.00	$ 51,245.00	$ 51,245.00	$ 65,000.00	$ 65,000.00	$ 90,700.00	$ 90,700.00	$ 79,235.00	$ 79,235.00
P-101-5.1	PAVEMENT REMOVAL	SY	2,760	$ 12.00	$ 33,120.00	$ 2.50	$ 6,900.00	$ 5.00	$ 13,800.00	$ 2.00	$ 5,520.00	$ 12.00	$ 33,120.00
P-101-5.2	REMOVE EXISTING CATCH BASIN	EA	4	$ 5,000.00	$ 20,000.00	$ 1,195.00	$ 4,780.00	$ 2,000.00	$ 8,000.00	$ 800.00	$ 3,200.00	$ 750.00	$ 3,000.00
P-101-5.3	REMOVAL OF PIPE	LF	165	$ 35.00	$ 5,775.00	$ 70.00	$ 11,550.00	$ 30.00	$ 4,950.00	$ 24.00	$ 3,960.00	$ 25.00	$ 4,125.00
P-152-4.1a	UNCLASSIFIED EXCAVATION	CY	2,520	$ 25.00	$ 63,000.00	$ 23.00	$ 57,960.00	$ 22.00	$ 55,440.00	$ 24.00	$ 60,480.00	$ 70.00	$ 176,400.00
P-152-4.1b	UNSUITABLE EXCAVATION	CY	70	$ 45.00	$ 3,150.00	$ 23.00	$ 1,610.00	$ 22.00	$ 1,540.00	$ 64.00	$ 4,480.00	$ 105.00	$ 7,350.00
P-154-5.1	SUBBASE COURSE	CY	1,670	$ 50.00	$ 83,500.00	$ 51.00	$ 85,170.00	$ 60.00	$ 100,200.00	$ 66.00	$ 110,220.00	$ 75.00	$ 125,250.00
P-209-5.1	CRUSHED AGGREGATE BASE COURSE	CY	350	$ 80.00	$ 28,000.00	$ 77.00	$ 26,950.00	$ 102.00	$ 35,700.00	$ 130.00	$ 45,500.00	$ 85.00	*$ 29,750.00*
P-403-8.1	ASPHALT MIXTURE SURFACE COURSE	TON	490	$ 145.00	$ 71,050.00	$ 181.00	$ 88,690.00	$ 210.00	$ 102,900.00	$ 212.00	$ 103,880.00	$ 235.00	$ 115,150.00
P-603-5.1	EMULSIFIED ASPHALT TACK COAT	GAL	150	$ 30.00	$ 4,500.00	$ 18.00	$ 2,700.00	$ 10.00	$ 1,500.00	$ 10.00	$ 1,500.00	$ 8.00	$ 1,200.00
P-605-5.1	JOINT SEALING FILLER	LF	570	$ 25.00	$ 14,250.00	$ 9.00	$ 5,130.00	$ 10.00	$ 5,700.00	$ 5.00	$ 2,850.00	$ 45.00	$ 25,650.00
P-620-5.1a	SURFACE PREPARATION	SF	30	$ 10.00	$ 300.00	$ 5.00	$ 150.00	$ 50.00	$ 1,500.00	$ 64.00	$ 1,920.00	$ 35.00	$ 1,050.00
P-620-5.2b	MARKING	SF	1,950	$ 7.00	$ 13,650.00	$ 3.85	$ 7,507.50	$ 5.00	$ 9,750.00	$ 3.00	$ 5,850.00	$ 3.00	$ 5,850.00
P-620-5.3c	REFLECTIVE MEDIA	LB	60	$ 30.00	$ 1,800.00	$ 8.00	$ 480.00	$ 10.00	$ 600.00	$ 38.00	$ 2,280.00	$ 10.00	$ 600.00
T-901-5.1	SEEDING	1KSF	25	$ 65.00	$ 1,625.00	$ 45.00	$ 1,125.00	$ 95.00	$ 2,375.00	$ 57.00	$ 1,425.00	$ 450.00	$ 11,250.00
T-905-5.2	TOPSOIL (FURNISHED ON-SITE)	CY	130	$ 25.00	$ 3,250.00	$ 56.00	$ 7,280.00	$ 30.00	$ 3,900.00	$ 80.00	$ 10,400.00	$ 45.00	$ 5,850.00
T-908-5.1	MULCHING	SY	2,310	$ 0.50	$ 1,155.00	$ 0.41	$ 947.10	$ 1.00	$ 2,310.00	$ 0.50	$ 1,155.00	$ 1.00	$ 2,310.00
L-108-5.1	No. 8 AWG ,5 kV , L-824, Type C Cable, Installed in Trench, Duct Bank or Conduit	LF	470	$ 4.00	$ 1,880.00	$ 3.75	$ 1,762.50	$ 4.00	$ 1,880.00	$ 4.50	$ 2,115.00	$ 4.00	$ 1,880.00
L-108-5.2	NO. 6 AWG, SOLID, BARE COPPER COUNTERPOISE WIRE, INSTALLED IN TRENCH, ABOVE THE DUCT BANK OR CONDUIT, INCLUDING CONNECTIONS/TERMINATIONS	LF	410	$ 10.00	$ 4,100.00	$ 1.75	$ 717.50	$ 2.00	$ 820.00	$ 2.20	$ 902.00	$ 2.00	$ 820.00
L-110-5.1	NON-ENCASED ELECTRICAL CONDUIT, 1-WAY2 INCH SCH. 40 PVC	LF	380	$ 15.00	$ 5,700.00	$ 18.00	$ 6,840.00	$ 20.00	$ 7,600.00	$ 22.50	$ 8,550.00	$ 18.00	$ 6,840.00
L-110-5.3a	REMOVE ELECTRICAL CONDUIT AND CABLING	LF	340	$ 5.00	$ 1,700.00	$ 6.00	$ 2,040.00	$ 6.00	$ 2,040.00	$ 7.50	$ 2,550.00	$ 5.00	$ 1,700.00
L-110-5.3b	REMOVE AND RESET EXISTING DUCT MARKER	EA	2	$ 100.00	$ 200.00	$ 200.00	$ 400.00	$ 220.00	$ 440.00	$ 250.00	$ 500.00	$ 200.00	$ 400.00
L-125-5.1	L-861T BASE MOUNTED ELEVATED TAXIWAY EDGE LIGHT	EA	10	$ 2,000.00	$ 20,000.00	$ 1,540.00	$ 15,400.00	$ 2,000.00	$ 20,000.00	$ 2,000.00	$ 20,000.00	$ 1,540.00	$ 15,400.00
L-125-5.2	REMOVE EXISTING ELEVATED TAXIWAY EDGE LIGHT	EA	6	$ 250.00	$ 1,500.00	$ 500.00	$ 3,000.00	$ 650.00	$ 3,900.00	$ 775.00	$ 4,650.00	$ 500.00	$ 3,000.00
L-200-1	SPARE PARTS	ALL	1	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00	$ 2,000.00
D-701-5.1	INSTALL NEW 8" PVC PIPE	LF	45	$ 40.00	$ 1,800.00	$ 140.00	$ 6,300.00	$ 102.00	$ 4,590.00	$ 160.00	$ 7,200.00	$ 60.00	$ 2,700.00
D-701-5.2	INSTALL NEW 30" REINFORCED CONCRETE PIPE	LF	120	$ 250.00	$ 30,000.00	$ 285.00	$ 34,200.00	$ 240.00	$ 28,800.00	$ 340.00	$ 40,800.00	$ 450.00	$ 54,000.00
D-705-5.1	6" PERFORATED DOUBLE WALL HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INT./CORRUGATED EXT.)	LF	1,070	$ 45.00	$ 48,150.00	$ 45.50	$ 48,685.00	$ 52.00	$ 55,640.00	$ 95.00	$ 101,650.00	$ 60.00	$ 64,200.00
D-751-5.2a	4' DIAMETER CATCH BASINS	EA	2	$ 8,000.00	$ 16,000.00	$ 9,100.00	$ 18,200.00	$ 6,000.00	$ 12,000.00	$ 8,000.00	$ 16,000.00	$ 7,500.00	$ 15,000.00
D-751-5.2b	5' DIAMETER CATCH BASINS	EA	3	$ 8,800.00	$ 26,400.00	$ 11,611.00	$ 34,833.00	$ 8,000.00	$ 24,000.00	$ 10,000.00	$ 30,000.00	$ 8,000.00	$ 24,000.00
D-751-5.2c	REMOVE AND RESET EXISTING CATCH BASIN FRAME AND GRATE	EA	1	$ 2,000.00	$ 2,000.00	$ 1,800.00	$ 1,800.00	$ 1,500.00	$ 1,500.00	$ 2,500.00	$ 2,500.00	$ 1,000.00	$ 1,000.00
D-751-5.4	UNDERDRAIN CLEAN OUT	EA	4	$ 1,500.00	$ 6,000.00	$ 2,235.00	$ 8,940.00	$ 1,200.00	$ 4,800.00	$ 2,000.00	$ 8,000.00	$ 600.00	$ 2,400.00
	SCHEDULE A BASE BID AMOUNT				**$ 613,105.00**		**$ 607,872.60**		**$ 654,975.00**		**$ 907,457.00**		*Adjusted* ***$ 959,258.00***

Sanford Seacoast Regional Airport
Reconstruct Taxilane Seacoast 1 & New Runway 14 Vehicle Service Road **BID SUMMARY** **McFARLAND-JOHNSON, INC.**
BID DATE: APRIL 22, 2026

ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	ENGINEER'S ESTIMATE ESTIMATED UNIT COST	ENGINEER'S ESTIMATE TOTAL COST	Shaw Brothers Construction UNIT COST	Shaw Brothers Construction TOTAL COST	Sargent Corporation UNIT COST	Sargent Corporation TOTAL COST	RJ Grondin & Sons UNIT COST	RJ Grondin & Sons TOTAL COST	Levesque Excavation UNIT COST	Levesque Excavation TOTAL COST
Schedule B - New Runway 14 Vehicle Service Road													
M-150-1	PROJECT SURVEY AND STAKEOUT	LS	1	$10,000.00	$ 10,000.00	$ 18,000.00	$ 18,000.00	$ 12,000.00	$ 12,000.00	$ 50,000.00	$ 50,000.00	$ 20,000.00	$ 20,000.00
M-200-1	MAINTENANCE AND PROTECTION OF TRAFFIC	LS	1	$60,000.00	$ 60,000.00	$ 45,190.00	$ 45,190.00	$ 30,000.00	$ 30,000.00	$ 140,000.00	$ 140,000.00	$ 62,600.00	$ 62,600.00
M-500-1	TRAFFIC SIGNS	EA	2	$1,200.00	$ 2,400.00	$ 500.00	$ 1,000.00	$ 2,200.00	$ 4,400.00	$ 600.00	$ 1,200.00	$ 500.00	$ 1,000.00
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	LS	1	$12,500.00	$ 12,500.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 10,000.00	$ 20,000.00	$ 20,000.00	$ 5,000.00	$ 5,000.00
C-102-5.1a	EROSION CONTROL MATTING	SY	340	$5.00	$ 1,700.00	$ 4.00	$ 1,360.00	$ 4.00	$ 1,360.00	$ 3.50	$ 1,190.00	$ 5.00	$ 1,700.00
C-102-5.1b	INSTALLATION AND REMOVAL OF INLET PROTECTION	EA	3	$250.00	$ 750.00	$ 400.00	$ 1,200.00	$ 400.00	$ 1,200.00	$ 500.00	$ 1,500.00	$ 300.00	$ 900.00
C-102-5.1c	STABILIZED CONSTRUCTION ENTRANCE	EA	1	$2,500.00	$ 2,500.00	$ 2,500.00	$ 2,500.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00	$ 5,000.00
C-102-5.1d	INSTALLATION AND REMOVAL OF EROSION CONTROL BARRIER	LF	1,720	$7.00	$ 12,040.00	$ 3.50	$ 6,020.00	$ 4.00	$ 6,880.00	$ 4.50	$ 7,740.00	$ 25.00	$ 43,000.00
C-105	MOBILIZATION (10%)	LS	1	$39,700.00	$ 39,700.00	$ 37,120.00	$ 37,120.00	$ 46,000.00	$ 46,000.00	$ 64,400.00	$ 64,400.00	$ 49,000.00	$ 49,000.00
P-152-4.1a	UNCLASSIFIED EXCAVATION	CY	1,650	$25.00	$ 41,250.00	$ 23.00	$ 37,950.00	$ 22.00	$ 36,300.00	$ 26.00	$ 42,900.00	$ 70.00	$ 115,500.00
P-152-4.1b	UNSUITABLE EXCAVATION	CY	50	$45.00	$ 2,250.00	$ 23.00	$ 1,150.00	$ 22.00	$ 1,100.00	$ 64.00	$ 3,200.00	$ 105.00	$ 5,250.00
P-152-4.2	BORROW EXCAVATION (ON SITE)	CY	350	$12.00	$ 4,200.00	$ 10.00	$ 3,500.00	$ 14.00	$ 4,900.00	$ 20.00	$ 7,000.00	$ 40.00	$ 14,000.00
P-209-5.1	CRUSHED AGGREGATE BASE COURSE	CY	1,310	$80.00	$ 104,800.00	$ 77.00	$ 100,870.00	$ 102.00	$ 133,620.00	$ 96.00	$ 125,760.00	$ 85.00	$ 111,350.00
P-403-8.1	ASPHALT MIXTURE SURFACE COURSE	TON	650	$145.00	$ 94,250.00	$ 181.00	$ 117,650.00	$ 210.00	$ 136,500.00	$ 160.00	$ 104,000.00	$ 175.00	$ 113,750.00
P-605-5.1	JOINT SEALING FILLER	LF	60	$25.00	$ 1,500.00	$ 9.00	$ 540.00	$ 10.00	$ 600.00	$ 5.00	$ 300.00	$ 45.00	$ 2,700.00
P-620-5.2b	MARKING	SF	170	$7.00	$ 1,190.00	$ 3.85	$ 654.50	$ 5.00	$ 850.00	$ 3.00	$ 510.00	$ 3.00	$ 510.00
P-620-5.3c	REFLECTIVE MEDIA	LB	10	$30.00	$ 300.00	$ 8.00	$ 80.00	$ 10.00	$ 100.00	$ 38.00	$ 380.00	$ 10.00	$ 100.00
T-901-5.1	SEEDING	1KSF	60	$65.00	$ 3,900.00	$ 45.00	$ 2,700.00	$ 95.00	$ 5,700.00	$ 57.00	$ 3,420.00	$ 450.00	$ 27,000.00
T-905-5.2	TOPSOIL (FURNISHED ON-SITE)	CY	380	$25.00	$ 9,500.00	$ 56.00	$ 21,280.00	$ 30.00	$ 11,400.00	$ 80.00	$ 30,400.00	$ 45.00	$ 17,100.00
T-908-5.1	MULCHING	SY	6,800	$0.50	$ 3,400.00	$ 0.41	$ 2,788.00	$ 1.00	$ 6,800.00	$ 0.50	$ 3,400.00	$ 1.00	$ 6,800.00
F-162-5.1	INSTALL NEW 8' CHAINLINK FENCE WITH BARBED WIRE	LF	280	$80.00	$ 22,400.00	$ 101.95	$ 28,546.00	$ 180.00	$ 50,400.00	$ 105.00	$ 29,400.00	$ 100.00	$ 28,000.00
F-162-5.2	FENCE REMOVAL	LF	280	$20.00	$ 5,600.00	$ 40.00	$ 11,200.00	$ 15.00	$ 4,200.00	$ 15.00	$ 4,200.00	$ 5.00	$ 1,400.00
	SCHEDULE B BASE BID AMOUNT				**$ 436,130.00**		**$ 451,298.50**		**$ 509,310.00**		**$ 645,900.00**		**$ 631,660.00**

Summary				
Schedule A Base Bid	**$ 613,105.00**	**$ 607,872.60**	**$ 654,975.00**	**$ 907,457.00**	***$ 959,258.00***
Schedulel B Base Bid	**$ 436,130.00**	**$ 451,298.50**	**$ 509,310.00**	**$ 645,900.00**	**$ 631,660.00**
Total Bid Amount (Schedule A + Schedule B)	**$ 1,049,235.00**	**$ 1,059,171.10**	**$ 1,164,285.00**	**$ 1,553,357.00**	***$ 1,590,918.00***
Note: Adjusted Amounts Shown in *Italics*					*Adjusted*

CONTRACT

This Agreement, made and entered into this _____ day of _____, 2026, by and between **Shaw Brothers Construction,** hereinafter referred to as the **CONTRACTOR**, and the **City of Sanford, Sanford Seacoast Regional Airport**, hereinafter referred to as the **OWNER**.

WITNESSETH:
That the **CONTRACTOR**, for the consideration hereinafter fully set out hereby agrees with the **OWNER** as follows:

1.That the **CONTRACTOR** shall provide the materials and labor specified and perform, in a first-class manner, all work in connection with:

RECONSTRUCT TAXILANE SEACOAST 1 AND NEW RUNWAY 14 VEHICLE SERVICE ROAD
SANFORD SEACOAST REGIONAL AIRPORT
FAA IIJA A.I.G. No. 3-23-0044-040-2025; FAA IIJA A.I.G. No. 3-23-0044-041-2026;
FAA IIJA A.I.G. No. 3-23-0044-042-2026; FAA A.I.P. No. 3-23-0044-xxx-2026

in the manner and form as provided by the following Contract Documents, which are incorporated by reference and made part hereof, as if fully contained herein: Contract Documents, including Bidding Documents and Specifications entitled:

Reconstruct Taxilane Seacoast 1 and New Runway 14 Vehicle Service Road;
dated March 2026.

Contract to include:
Schedule A Base Bid Reconstruct Taxilane Seacoast 1 and Schedule B Base Bid New Runway 14 Vehicle Service Road

Addendum No. 1 to Addendum No. 3, inclusive.

2. That the **CONTRACTOR** shall commence the work within ten (10) days of the date set by the **OWNER** in a written Notice to Proceed. The time of total completion will be based on the following:

30 Calendar Days for award of the Base Bid

The Notice to Proceed shall be issued after the **CONTRACTOR** has provided all necessary and required Contract information, contract bonds, and insurance documentation.

3. The **OWNER** hereby agrees to pay to the **CONTRACTOR** for the said work the sum of
One Million Fifty-Nine Thousand One Hundred Seventy One Dollars and Ten Cents
($1,059,171.10) at the time and manner set forth in the Contract Documents.

4. As part of the Contract, the **CONTRACTOR** further understands and agrees to the following additional condition

a. This Contract shall be deemed executory only to the extent that monies are appropriated and available for the purpose of the Contract, and no liability on account thereof shall be incurred by the **OWNER** beyond the amount of such monies. It is understood that neither this Contract nor any

representation by any public employee or officer creates any legal or moral obligation to request, appropriate, or make available monies for the purpose of the contract.

5. Payment to the **CONTRACTOR** by the **OWNER** shall be made at the unit prices and lump sums specified for the various items in the Proposal Section submitted by the **CONTRACTOR**, as provided in the Specifications upon presentation of the proper certificates to the **OWNER**, and upon terms set forth in the Contract Documents. It is understood that the amount to be paid to the **CONTRACTOR** shall be totally based on the said unit prices and lump sums contained in said Proposal and made a part of this Contract for the work actually done rather than the estimated sum hereinabove specified which is based upon estimated quantities.

6. The **CONTRACTOR** agrees to comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or disability be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the **CONTRACTOR** and subcontractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required by Title VI of the Civil Rights Act of 1964.

Failure by the **CONTRACTOR** to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

7. Compliance with FAA Required Contract Provision Guidelines for Obligated Sponsors and Airport Improvement Program Projects

Refer to contract provisions outlined in Division 1, FAA Required Contract Provision Guidelines for Obligated Sponsors and Airport Improvement Program Projects of the Contract Documents which will be considered to be a part of this Contract. The CONTRACTOR shall adhere to all of the provisions outlined within these required FAA Contract Provisions.

8. The **CONTRACTOR** agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than thirty (30) calendar days from the receipt of each payment the prime contractor receives from the **OWNER**. The prime contractor agrees further to return retainage payments to each subcontractor within thirty (30) calendar days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the **OWNER**. This clause applies to both DBE and non-DBE subcontractors.

9. It is mutually agreed between the parties hereto that time is of the essence on this Contract, and in the event the construction is not completed within the time herein specified, it is agreed that from any Liquidated Damages money due or to become due the **CONTRACTOR** or their Surety, the **OWNER** may retain the sum of **Two Thousand Eight Hundred Dollars ($2,800.00), unless otherwise specified in the contract documents,** for each calendar day thereafter, Sundays and holidays included, that the work remains incomplete, not as a penalty, but as liquidation of a reasonable portion of damages that will be incurred by the **OWNER** by failure of the **CONTRACTOR** to complete the work within the time stipulated. In addition to these liquidated damages, other liquidated damages associated with each phase or sub-phase of work are identified within the Supplemental General Provisions.

10. It is mutually agreed between parties hereto that in addition to liquidated damages specified above, to pay the **OWNER** the actual costs to the **OWNER** for any inspector or inspectors necessarily employed by the **OWNER** on the Work and the actual costs to the **OWNER** for the Engineer's observation of construction and project representative services including all travel and subsistence expenses after the date specified for completion until the Work is completed and ready for final payment. Further, the **CONTRACTOR** agrees that the sums to be paid the **OWNER** may be deducted from the sum due the **CONTRACTOR** for work performed as provided in Section 90 of the FAA General Provisions.

11. It is further mutually agreed between the parties hereto that if, any time after the execution of this Agreement, (including the various guarantee periods thereunder) and the Surety Bonds hereto attached, the **OWNER** shall deem the Surety or Sureties upon such Bond or Bonds to be unsatisfactory, or if, for any reason, such Bond or Bonds cease to be adequate to cover the performance of the work or the prompt payment for said labor, materials, supplies, and services, the **CONTRACTOR** shall, at their own expense within five (5) calendar days from the date of written notice from the **OWNER** to do so, furnish additional Bond or Bonds in such form and amount, and with such Surety or Sureties, as shall be satisfactory to the **OWNER**. In such event, no further payment to the **CONTRACTOR** shall be deemed due under this Agreement until such new or additional Bond or Bonds are furnished in a manner and form satisfactory to the **OWNER**.

13. Notwithstanding any other provision contained in this Agreement, the **CONTRACTOR** agrees to make no monetary claim for delays, interferences, or hindrances of any kind in the performance of this Contract occasioned by any act or omission to act of the **OWNER** or any of its Representatives or Agents and agrees that any such claim shall be fully compensated for by an extension of time to complete performance of the work.

IN WITNESS WHEREOF, the parties to the Agreement have hereunto set their hands and seals and have executed this Agreement the day and year first above written in two counterparts, each of which shall without proof of accounting for the other counterpart, be deemed in original Contract.

SIGNED, SEALED, AND DELIVERED TO **City of Sanford, Sanford Seacoast Regional Airport**

IN THE PRESENCE OF

City of Sanford, Sanford Seacoast Regional Airport

(SEAL) **By:**_____

_____

CONTRACTOR:

_____

(SEAL) **By:**_____

_____

(ACKNOWLEDGEMENT OF OFFICER OR OWNER ATTESTING CONTRACT)

STATE OF _____)

SS

COUNTY OF _____)

On this _____ day of _____, 20__, before me personally came and appeared _____ _____ to me known, who, being by me duly sworn, did depose and say that they are the _____ _____ of the _____ described in and executed the foregoing instrument, that they know the seal of said owner; that one of the impressions appearing on said instrument is a true and correct impression of such seal; and that they affixed it thereto and attest the same over their signature by virtue of the authority in them vested.

_____

Notary Public

(ACKNOWLEDGEMENT OF CONTRACTOR, IF A CORPORATION)

STATE OF _____)

SS

COUNTY OF _____)

On this _____ day of _____, 20__, before me personally came and appeared _____ _____ to me known, who, being by me duly sworn, did depose and say that they resides at _____ _____; that they are the _____ of _____, the corporation described in which executed the foregoing instrument; that he knows the seal of said Corporation; that one of the seals affixed to said instrument is such seal; that it was so affixed by order of the Directors of said corporation, and that they signed their name thereto by like order.

_____

Notary Public

(ACKNOWLEDGEMENT OF CONTRACTOR, IF A PARTNERSHIP)

STATE OF _____)

SS

COUNTY OF _____)

On this _____ day of _____, 20__, before me personally came and appeared _____ _____ to me known and known to me to be one of the members of the firm of _____ _____ described in and who executed the foregoing instrument, and he acknowledged to me that they executed the same as and for the act and deed of said firm.

_____

Notary Public

(ACKNOWLEDGEMENT OF CONTRACTOR, IF AN INDIVIDUAL)

STATE OF _____)

SS

COUNTY OF _____)

On this _____ day of _____, 20__, before me personally came and appeared _____ _____ to me known and known to me to be the person described in and who executed the foregoing instrument and they acknowledged that they executed the same.

_____

Notary Public

INSURANCE SPECIAL PROVISIONS

GENERAL. The _____ (hereinafter referred to as the **CONTRACTOR)** shall procure and maintain at their own expense, and without additional cost to the **City of Sanford, Sanford Seacoast Regional Airport** (hereinafter referred to as the **OWNER**), until final acceptance of the work covered by this Contract, insurance for liability for damages imposed by law, of the kinds and in the amounts as hereinafter provided. The **CONTRACTOR** shall provide signed, valid, and enforceable certificate(s) of insurance complying with this Section and approved by the **OWNER**. All insurance must be procured from insurance companies licensed or approved to do business in the State of Maine by the State of Maine, Department of Business Regulation, Bureau of Insurance. The Contractor shall pay all premiums and take all other actions necessary to keep required insurances in effect for the duration of the Contract obligations, excluding warranty obligations. Insurance shall cover all operations under the Contract whether performed by the **CONTRACTOR** or by its Subcontractors. Before commencement of work, the **CONTRACTOR** shall furnish to the Engineer, certificates (in six copies) of insurance in forms satisfactory to the **OWNER**, and indicating compliance with the requirements of this Section.

The CONTRACTOR SHALL FURNISH A COPY OF THIS SPECIAL PROVISION TO ITS INSURANCE BROKER in order to assure that the policies to be furnished conform exactly to the requirements, kinds and amounts of insurance, as required solely by the **OWNER** in accordance with the **OWNER**'s direction as stated below.

ENDORSEMENTS. Policies listed in this Contract must be endorsed, as specified for each policy, as follows, unless such coverage is provided for in the policy:

1. To remove explosion, collapse, and underground hazards exclusion.

2. It is understood and agreed that, if during the course of the work employees of the **OWNER** are loaned or assigned to the **CONTRACTOR** to perform work in connection with the Contract, such employees are to be considered as employees of the **CONTRACTOR** for the purpose of this insurance.

3. Whereby, the coverage provided under these policies must not be affected if **OWNER** performs work in connection with the project, of which the Contract may be only a part, by means of its own employees or if the **OWNER** directs or supervises the work to be performed by the **CONTRACTOR**, but any work which may be performed on the project by the **OWNER** by its own forces under its supervision shall not be covered under these policies.

4. To provide that the policies shall not be changed or cancelled until twenty (20) days written notice has been given to the **OWNER**.

INSURANCE COVERAGE TO BE PROVIDED.

1. WORKER'S COMPENSATION INSURANCE

A. For all operations performed by the CONTRACTOR and any Subcontractor, the CONTRACTOR and each Subcontractor shall carry Workers' Compensation Insurance or shall qualify as a self-

insurer with the State of Maine Workers' Compensation Board in accordance with the requirements of the laws of the State of Maine. If maritime exposures exist, coverage shall include United States Long Shore and Harbor Workers coverage.

B. This policy must be endorsed in accordance with Endorsement 4 as recited above.

2. COMMERCIAL GENERAL LIABILITY

A. With respect to all operations performed by the **CONTRACTOR** and any Subcontractors, the **CONTRACTOR** and any Subcontractors shall carry commercial general liability insurance in an amount not less than **$1,000,000.00** per occurrence and **$2,000,000.00** in the Aggregate. The coverage must include products, completed operations, and Contractual liability coverages. The Contractual liability insurance shall cover the Contractor's obligations to indemnify the **OWNER** as provided in this Contract.

B. The coverage shall also include protection against damage claims due to use of explosives, collapse, and underground coverage if the Work involves such exposures. When the work to be performed entails the use of barges, tugboats, work boats, supply boats, etc., Protection and Indemnity coverage shall be provided at the limits called for under Commercial General Liability insurance.

C. This policy must be endorsed in accordance with Endorsements 1, 2, 3, and 4 as recited above.

3. AUTOMOBILE LIABILITY

A. The **CONTRACTOR** shall carry Automobile Liability Insurance covering the operation of all motor vehicles including any that are rented, leased, borrowed, or otherwise used in connection with the Project. The minimum limit of liability under this Section shall be $**2,000,000.00** per occurrence.

B. This policy must be endorsed in accordance with Endorsement 4 as recited above.

4. BUILDERS RISK INSURANCE.

A. Not applicable for this Contract.

5. POLLUTION LIABILITY

A. Not applicable for this Contract.

6. EXCESS GENERAL AND AUTOMOBILE LIABILITY.

A. The **CONTRACTOR** shall carry Umbrella Liability Insurance shall be provided in a minimum amount of **$3,000,000.**

7. ADMINISTRATIVE & GENERAL PROVISIONS

A. Additional Insured. Each policy with the exception of Workers' Compensation insurance shall list the **City of Sanford, Sanford Seacoast Regional Airport, Federal Aviation Administration, State of Maine, and McFarland Johnson, Inc.** as additional insured.

B. Defense of Claims. Each insurance policy shall include a provision requiring the carrier to investigate, defend, indemnify, and hold harmless all named insureds against any and all claims for death, bodily injury, or property damage, even if groundless.

C. Primary Insurance. The insurance coverage provided by the **CONTRACTOR** shall be primary insurance with respect to the **OWNER**, its officers, agents, and employees. Any insurance or self-insurance maintained by the **OWNER** for its officers, agents, and employees is in excess of the Agent's insurance and shall not contribute with it.

D. Reporting. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the **OWNER**, its officers, agents, and employees.

E. Separate Application. The insurance provided by the **CONTRACTOR** shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

8. INDEMNIFICATION

A. The **CONTRACTOR** agrees to indemnify, defend, and hold harmless the City of Sanford, Sanford Seacoast Regional Airport and **McFarland-Johnson, Inc.** and its officers, directors, employees, agents and consultants from and against all claims, actions, torts, costs, losses, and damages for bodily injury (including sickness, disease, or death), property damage, or other damages arising out of or relating to this Contract or the performance of Work by the **CONTRACTOR**, its Subcontractors, subconsultants, Engineers, suppliers, any individuals or entities directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, excepting only claims directly and solely caused by the negligence of the City of Sanford, Sanford Seacoast Regional, or **McFarland-Johnson, Inc.** Damages covered include, but are not limited to, all dispute resolution costs including court costs, attorney's fees, and the fees of engineers and consultants, arbitrators, and other professionals related to dispute defense and preparation.

B. This indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any Subcontractor, subconsultant, Engineer, supplier, or other individual or entity under Workers' Compensation acts, disability benefit acts, or other employee benefit acts.

Nothing in this document constitutes a waiver of any defense, immunity or limitation of liability that may be available to the **OWNER**, or its officers, agents or employees under the Maine Tort Claims Act (Title 14 M.R.S.A. 8101 st. seq.) and shall not constitute a waiver of other privileges or immunities that may be available to the **OWNER**.

All the aforesaid insurance policies the insurers named therein shall be subject to the approval of **OWNER**.

END OF INSURANCE SPECIAL PROVISIONS

SANFORD SEACOAST REGIONAL AIRPORT

RECONSTRUCT TAXILANE SEACOAST 1 &
NEW RW 14 VEHICLE SERVICE ROAD



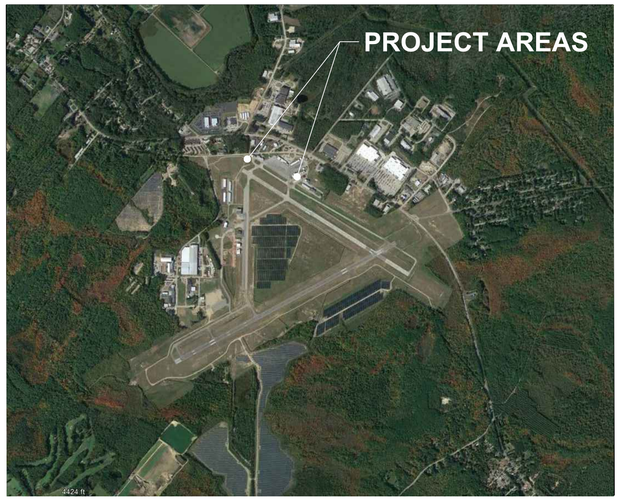
MAINE

LOCATION MAP

BID DOCUMENTS
MARCH 25, 2026

FAA A.I.G. 3-23-0044-040-2025
FAA A.I.G. 3-23-0044-041-2026
FAA A.I.G. 3-23-0044-042-2026
FAA A.I.P. 3-23-0044-XXX-2026

199 AIRPORT RD,
CITY OF SANFORD
SANFORD, MAINE



VICINITY MAP

PREPARED FOR:

Sanford Seacoast Regional Airport

CITY OF SANFORD
919 MAIN STREET
SANFORD, ME
(207) 324-9125
WWW.SANFORDMAINE.ORG

PREPARED BY:

McFarland Johnson

273 CORPORATE DRIVE SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

MJ PROJECT NO.: 19459.01

SEALED	SYDNEY R. SENEY
PE_NO	17845
PE_DATE	MARCH 25, 2026

STATE OF MAINE · SYDNEY R. SENEY · NO. 17845 · LICENSED PROFESSIONAL ENGINEER

IT IS A VIOLATION OF THE LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

GENERAL NOTES:

1. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE. THE BIDDER IS EXPECTED TO CAREFULLY EXAMINE THE SITE OF THE PROPOSED WORK, THE PROPOSAL, PLANS, SPECIFICATIONS, AND CONTRACT FORMS. HE/SHE SHALL SATISFY HIMSELF/HERSELF AS TO THE CHARACTER, QUALITY, AND QUANTITIES OF WORK TO BE PERFORMED, MATERIALS TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THE PROPOSED CONTRACT. THE SUBMISSION OF A PROPOSAL SHALL BE PRIMA FACIE EVIDENCE THAT THE BIDDER HAS MADE SUCH EXAMINATION AND IS SATISFIED AS TO THE CONDITIONS TO BE ENCOUNTERED IN PERFORMING THE WORK AND AS TO THE REQUIREMENTS OF THE PROPOSED CONTRACT, PLANS, AND SPECIFICATIONS.

2. EXISTING CONDITIONS AND SOILS. COPIES OF THE BORING LOGS AND LABORATORY TEST RESULTS PERFORMED ON SOIL SAMPLES OBTAINED FROM THE SOIL BORINGS ARE BEING PROVIDED FOR YOUR USE AND REFERENCE (REFER TO SPECIAL PROVISION OF THE SPECIFICATION). IT IS UNDERSTOOD AND AGREED THAT SUCH SUBSURFACE INFORMATION HAS BEEN MADE AVAILABLE FOR THE CONVENIENCE OF ALL BIDDERS. IT IS FURTHER UNDERSTOOD AND AGREED THAT EACH BIDDER IS SOLELY RESPONSIBLE FOR ALL ASSUMPTIONS, DEDUCTIONS, OR CONCLUSIONS WHICH HE/SHE MAY MAKE OR OBTAIN FROM HIS/HER EXAMINATION OF THE BORING LOGS AND OTHER RECORDS OF SUBSURFACE INVESTIGATIONS AND TESTS THAT ARE FURNISHED BY THE OWNER. CONTRACTOR MAY DO ADDITIONAL BORINGS AT NO ADDITIONAL COST TO THE OWNER.

3. CONSTRUCTION SAFETY AND PHASING PLAN (CSPP). TO ENHANCE SAFETY AND TO MINIMIZE DISTURBANCE TO DAILY AIRPORT OPERATIONS DURING CONSTRUCTION, THE CSPP SHALL BE FOLLOWED EXPLICITLY BY THE CONTRACTOR. DEVIATIONS FROM THE CSPP WILL REQUIRE A REVISION TO THE CSPP SUBJECT TO THE AIRPORT AND FAA APPROVAL AND WILL BE AT NO ADDITIONAL COST TO THE OWNER.

4. SAFETY PLAN COMPLIANCE DOCUMENT (SPCD). THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD). THE SPCD WILL DETAIL HOW THE CSPP WILL BE COMPLIED WITH. WITHIN THE SPCD THE CONTRACTOR SHALL PROVIDE DETAILS INCLUDING BUT NOT LIMITED TO: CONTACT NAMES AND NUMBERS, BARRICADES PROPOSED, RUNWAY CLOSED MARKERS PROPOSED, HAUL ROUTES TO WORK AREAS, COMMUNICATION PLAN, FUELING OF EQUIPMENT, FOD AND DUST CONTROL, VERIFICATION OF HEIGHT RESTRICTION ON STOCK PILES AND EQUIPMENT, AND OTHER SAFETY PROCEDURES. THE CONTRACTOR PROVIDED SPCD CERTIFICATION AS CONTAINED WITHIN PROJECT SPECIFICATIONS. APPROVAL OF THE SPCD BY THE AIRPORT OPERATOR WILL BE REQUIRED PRIOR TO THE ISSUANCE OF THE NOTICE TO PROCEED (NTP).

5. COMPLIANCE WITH PERMITS, LAWS, RULES AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH ALL, PERMITS, LAWS, RULES, ORDERS AND REGULATIONS HAVING JURISDICTION OVER THE PROPOSED WORK, INCLUDING BUT NOT LIMITED TO:
   A. THE UNITED STATES, STATE OF MAINE, COUNTY OF YORK, CITY OF SANFORD AND THE SANFORD SEACOAST REGIONAL AIRPORT.
   B. THE FEDERAL AVIATION ADMINISTRATION (FAA), INCLUDING BUT LIMITED TO, FEDERAL AVIATION REGULATION (FAR) PART 77, ADVISORY CIRCULAR (AC) 150/5370-2 OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION (OR LATEST EDITION), AND OTHER REQUIREMENTS AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS.
   C. STATE OF MAINE, DEPARTMENT OF ENVIRONMENTAL PROTECTION STORMWATER LAW.
   D. SITE LOCATION DEVELOPMENT ACT, NATURAL RESOURCES PROTECTION ACT

6. UNDERGROUND UTILITIES AND CABLES. THE APPROXIMATE LOCATIONS OF KNOWN ABOVE GROUND AND UNDERGROUND UTILITIES AND CABLES ARE SHOWN ON THE PLANS. PRIOR TO COMMENCEMENT OF ANY EXCAVATION THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS OF UNDERGROUND UTILITIES AND CABLES.

   THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE FOLLOWING AGENCIES AS APPROPRIATE.
   A. DIG SAFE AND INDICATED UTILITIES
   B. THE FAA - AIRWAY FACILITIES BRANCH
   C. SANFORD SEACOAST REGIONAL AIRPORT
   D. CENTRAL MAINE POWER COMPANY
   E. CONSOLIDATED COMMUNICATIONS
   F. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) - NATIONAL WEATHER BEUREAU
   G. SPECTRUM / CHARTER COMMUNICATIONS
   H. PROPANE SUPPLIER
   I. DIG SMART

   THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS NECESSARY TO PROTECT EXISTING UNDERGROUND UTILITIES AND CABLES THAT ARE TO REMAIN. THE CONTRACTOR SHALL COMPLY WITH THE CURRENT VERSION OF THE DIG SAFE LAW, EFFECTIVE DEC 17, 1998 AS REVISED THROUGH 2025. THE CONTRACTOR IS REQUIRED TO PRE-MARK THE CONSTRUCTION-SITE AND GIVE NOTICE OF PLANNED DIGGING NEAR UTILITY, CABLE, AND FUEL LINES.

   THE CONTRACTOR SHALL LOCATE AND VERIFY ALL UNDERGROUND UTILITIES AND CABLES AT NO ADDITIONAL COST TO THE OWNER. THIS MAY REQUIRE PRIVIATE UTILITY LOCATION AT NO ADDITIONAL COST TO THE OWNER.

   THE CONTRACTOR SHALL REPAIR, AT THEIR OWN EXPENSE, UTILITIES DAMAGED BY THEIR OPERATIONS, INCLUDING ANY DAMAGE DONE BY DRIVING THEIR EQUIPMENT OVER EXISTING UNDERGROUND CABLES. THE REPAIR OF UTILITIES SHALL BE INSPECTED AND APPROVED BY THE APPROPRIATE UTILITY AND WITNESSED BY THE ENGINEER.

7. CONSTRUCTION LAYOUT. THE ENGINEER SHALL PROVIDE BOTH HORIZONTAL AND VERTICAL CONTROL POINTS FOR USE BY THE CONTRACTOR. PRIOR TO LAYOUT, THE CONTRACTOR SHALL INVERSE BETWEEN THESE POINTS AND SATISFY TO HIMSELF/HERSELF AS TO THE ACCURACY OF THE CONTROL POINTS PROVIDED. THE LAYOUT FOR CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SEE SURVEY CONTROL NOTES ON SHEET C-01.

   THE CONTRACTOR SHALL FURNISH ASSISTANCE TO THE ENGINEER AS REQUESTED TO CHECK THE LAYOUT OR OTHERWISE CONTROL THE WORK. SUCH ASSISTANCE SHALL BE UNDERSTOOD TO INCLUDE THE PROVISION OF SUITABLE MANPOWER TO ASSIST THE ENGINEER IN TAPING MEASUREMENTS, HOLDING A SURVEY ROD FOR CHECKING GRADES AND THE LIKE. THE CONTRACTOR'S OBLIGATIONS FOR LAYOUT, FINAL SURVEY AND FURNISHING ASSISTANCE TO THE ENGINEER SHALL BE DEEMED INCIDENTAL TO THE COMPLETION OF THE VARIOUS WORK ITEMS AND NO SEPARATE PAYMENT WILL BE MADE FOR SUCH LAYOUT, FINAL SURVEY AND ASSISTANCE.

8. CONTRACTOR QUALITY CONTROL PROGRAM. THE CONTRACTOR SHALL ESTABLISH A QUALITY CONTROL PROGRAM TO PERFORM INSPECTION AND TESTING OF ALL ITEMS OF WORK REQUIRED BY THE TECHNICAL SPECIFICATIONS, INCLUDING THOSE PERFORMED BY SUBCONTRACTORS. HIS/HER QUALITY CONTROL PROGRAM SHALL ENSURE CONFORMANCE TO APPLICABLE SPECIFICATIONS AND PLANS WITH RESPECT TO MATERIALS, WORKMANSHIP, CONSTRUCTION, FINISH, AND FUNCTIONAL PERFORMANCE. THE QUALITY CONTROL PROGRAM SHALL BE EFFECTIVE FOR CONTROL OF ALL CONSTRUCTION WORK PERFORMED UNDER THIS CONTRACT AND SHALL SPECIFICALLY INCLUDE SURVEILLANCE AND TESTS REQUIRED BY THE TECHNICAL SPECIFICATIONS, IN ADDITION TO OTHER REQUIREMENTS OF THIS SECTION AND ANY OTHER ACTIVITIES DEEMED NECESSARY BY THE CONTRACTOR TO ESTABLISH AN EFFECTIVE LEVEL OF QUALITY CONTROL. REFER TO FAA SPEC ITEM C-100 FOR ADDITIONAL REQUIREMENTS. SEE SURVEY CONTROL NOTES ON SHEET C-01.

   PRIOR TO THE ISSUANCE OF THE NOTICE TO PROCEED, THE CONTRACTOR SHALL PREPARE A WRITTEN QUALITY CONTROL PLAN THIS DOCUMENT WILL OUTLINE THE QUALITY CONTROL PROGRAM, INCLUDING TESTING TO BE PERFORMED, FREQUENCY OF TESTING AND SPECIFICATION REQUIREMENTS. REFERENCES TO THE APPROPRIATE TECHNICAL SPECIFICATION SECTION AND TESTING STANDARD SHALL BE INCLUDED. QUALIFICATIONS OF THE QUALITY CONTROL PROGRAM ADMINISTRATOR SHALL BE INCLUDED. SEE SPEC ITEM C-100.

9. DISPOSAL OF SURPLUS AND UNSUITABLE MATERIALS. ALL SURPLUS AND UNSUITABLE MATERIALS WHICH IS NOT INCORPORATED INTO THE NEW WORK OR IS BEING RETAINED BY THE OWNER IN DESIGNATED STOCKPILE AREAS SHALL BE REMOVED BY THE CONTRACTOR AND LEGALLY DISPOSED OF OFF AIRPORT PROPERTY. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE DISPOSAL OF MATERIALS OFF AIRPORT PROPERTY AT THE OWNERS OR ENGINEERS REQUEST. NO SEPARATE MEASUREMENT FOR PAYMENT WILL BE MADE FOR THE DISPOSAL OF SURPLUS AND UNSUITABLE MATERIALS, RATHER THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS PROJECT ITEMS.

10. DISTURB AREAS. ALL DISTURB AREAS INCLUDING HAUL ROUTES OUTSIDE THE LIMITS OF REGRADING SHALL BE RESTORED BY THE CONTRACTOR TO THEIR PRECONSTRUCTION CONDITION OR BETTER, UNLESS OTHERWISE INDICATED ON THE PLANS OR AS DIRECTED AT NO ADDITIONAL COST TO THE OWNER. THIS SHALL INCLUDE AREAS SHOWN FOR CONSTRUCTION ACCESS, HAUL ROUTES, STAGING, MATERIAL STORAGE AND STOCKPILE AREAS.

11. AIRPORT OPERATIONS COORDINATION. THE AIRPORT MANAGER SHALL HAVE THE AUTHORITY TO OPEN AND CLOSE FACILITIES, ISSUE AND CANCEL NOTAMS, AND TO COORDINATE WITH AIRPORT USERS.

12. AIRPORT SECURITY
    12.1. THE CONTRACTOR SHALL COMPLY WITH ALL AIRPORT SECURITY REQUIREMENTS. IN ADDITION, THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS AS SET FORTH IN THE FAA APPROVED CONSTRUCTION SAFETY AND PHASING PLAN.
    12.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING ACCESS TO THE WORK AREA AND ENSURING THAT AIRPORT SECURITY IS MAINTAINED AT ALL TIMES. THE AIRPORT CAN IMPOSE FINES FOR SECURITY VIOLATIONS AND INCURSIONS INTO ACTIVE AIRCRAFT OPERATION AREAS. THE CONTRACTOR SHALL PAY ALL FINES ASSESSED AGAINST THE AIRPORT DUE TO VIOLATIONS CAUSED BY THE CONTRACTOR AND HIS/HER PERSONNEL, SUBCONTRACTORS AND VENDORS.
    12.3. CONTRACTOR SHALL INSTRUCT SUPPLIERS AND SUBCONTRACTORS ON ACCESS PROCEDURES TO BE FOLLOWED.
    12.4. ALL SECURITY ARRANGEMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER AND THE FAA. SEE CONSTRUCTION SAFETY AND PHASING PLAN.
    12.5. NO SECURITY BADGING IS REQUIRED BY SANFORD SEACOAST REGIONAL AIRPORT.

13. OPEN TRENCHES OR EXCAVATIONS
    13.1. THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE ANY TRENCHES OR OTHER EXCAVATIONS OUTSIDE OF THE WORK AREA OPEN AT NIGHT, WEEKENDS, OR AT OTHER TIMES WHEN THE CONTRACTOR IS NOT ON THE WORK SITE.
    13.2. NO EXCAVATIONS EXCEEDING 3 INCHES IN DEPTH SHALL BE LEFT OPEN WITHIN AIRCRAFT OPERATION AREAS, AS DESCRIBED IN THE CONSTRUCTION SAFETY AND PHASING PLAN, WHEN THE RUNWAYS, TAXIWAYS, OR APRONS ARE IN USE.

14. CONTRACTOR'S STAGING AREA AND HAUL ROUTE
    14.1. THE CONTRACTOR SHALL USE THE AREA SHOWN ON THE PLANS (SEE SHEET GP-01) FOR THEIR STAGING AREA. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL IMPROVEMENTS AND RESTORATION AND PROCESSING OF THE DESIGNATED AREA, SUCH AS GRUBBING, GRADING, AND CONSTRUCTION OF GRAVEL ACCESS ROADS, THAT ARE NECESSARY FOR THE UTILIZATION OF THE STAGING AND PROCESSING AREA AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL THE TRASH PICK UP GENERATED BY THE PROJECT. RESTROOMS WILL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR WITHIN THE STAGING AREA. THE STAGING AREA WILL BE RESTORED TO A CONDITION APPROVED BY THE ENGINEER AND OWNER.
    14.2. STATE AND LOCAL ASSOCIATED HIGHWAY LOAD LIMITS APPLY ON ALL HAUL ROUTES. ALL HAUL ROUTES SHALL BE RESTORED TO THE ORIGINAL CONDITION AT THE CONTRACTORS EXPENSE.
    14.3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TEMPORARY ACCESS PERMITS AND ASSOCIATED FEES FOR ACCESS TO THE ADJACENT ROAD NETWORK. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK.
    14.4. AIRFIELD HAUL ROUTES SHOWN HAVE BEEN APPROVED BY THE FAA. ANY DEVIATION MUST BE APPROVED BY THE FAA PRIOR TO UTILIZATION. THIS IS A MINIMUM 45-DAY REVIEW PERIOD. DEVIATIONS MAY NOT BE APPROVED BY THE FAA.

15. AIRPORT OPERATIONS AND SAFETY REQUIREMENTS
    15.1. NORMAL AIRPORT OPERATIONS WILL BE CONDUCTED DURING CONSTRUCTION. THE CONTRACTORS WORK SHALL BE CARRIED ON IN SUCH A MANNER AS NOT TO INTERFERE WITH AIRPORT OPERATIONS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE THE SAFETY OF OPERATING AIRCRAFT AS WELL AS THEIR OWN EQUIPMENT AND PERSONNEL. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS SET FORTH IN THE FAA APPROVED CONSTRUCTION SAFETY AND PHASING PLAN.
    15.2. ALL CONTRACTOR VEHICLES SHALL HAVE A FLASHING BEACON OR ORANGE CHECKERED FLAG, AND THE COMPANY IDENTIFICATION PLAINLY VISIBLE ON BOTH SIDES OF THE VEHICLE IN ORDER TO IDENTIFY THE VEHICLE.
    15.3. CONTRACTOR SHALL PERFORM BEST MANAGEMENT PRACTICES AT ALL TIMES FOR DUST MANAGEMENT AND CONTROL OR AS DIRECTED BY THE ENGINEER. A WORKING WATER TRUCK SHALL BE ON SITE AT ALL TIMES.

16. THE PLANS SHOW SUBSURFACE STRUCTURES, ABOVE-GROUND STRUCTURES AND/OR UTILITIES FOR REFERENCE ONLY, FROM FIELD LOCATION AND RECORD MAPPING, EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE DIFFERENT FROM THAT SHOWN OR MAY NOT BE SHOWN, AND IT SHALL BE HIS/HER RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. 72 HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL 811 DIG SAFE.

17. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED WRITTEN APPROVAL OF THE ENGINEER.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMITS, INSPECTIONS, CERTIFICATES, ETC. AND SHALL COMPLY WITH ALL REQUIRED PERMITS.

19. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK. THE CONTRACTOR SHALL MAINTAIN EXISTING SITE DRAINAGE PATTERNS THROUGHOUT CONSTRUCTION.

20. ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE ENGINEER AND THE UTILITY OWNER. NOTIFY THE ENGINEER AND THE UTILITY OWNER WITHIN 72 HOURS BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.

21. ALL UTILITY CONNECTIONS TO THE STAGING AREA ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

22. CONTRACTOR SHALL DESIGNATE ONE PRINCIPAL PERSON AND ONE BACKUP PERSON 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 ONE HOUR.

23. THE CONTRACTOR'S ATTENTION IS DRAWN TO THE FACT THAT THE ANTICIPATED HAULING LOADS DURING CONSTRUCTION TYPICALLY EXCEED THE DESIGN LOADS OF EXISTING AIRPORT PAVEMENTS. THE CONTRACTOR SHALL BEAR THIS IN MIND WHEN SELECTING EQUIPMENT, DETERMINING LOADS, AND IDENTIFYING HAUL ROUTES. DAMAGE CAUSED TO EXISTING PAVEMENTS DUE TO CONSTRUCTION ACTIVITIES SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.

24. IN ADDITION TO NORMAL SAFETY PRECAUTIONS EXPECTED OF THE CONTRACTOR, IT IS NOTED THAT SPECIAL CONSIDERATIONS MUST BE GIVEN TO THE FACT THAT CONSTRUCTION ACTIVITY WILL BE TAKING PLACE WITHIN THE CONFINES OF AN ACTIVE AIRPORT. IN THIS REGARD, NO EQUIPMENT OR MATERIAL CAN BE LOCATED SO AS TO OBSTRUCT THE SAFE FLOW OF TRAFFIC ON THE EXISTING RUNWAY AND TAXIWAY SURFACES. PARTICULAR ATTENTION MUST BE GIVEN TO NOT IMPEDE BAGGAGE TRANSPORTATION, AIRPORT OPERATIONS AND PASSENGER MOVEMENT.

25. THE CONTRACTOR SHALL COMPLY WITH FAA ADVISORY CIRCULAR (AC) 150/5370-2G, THE PROJECT SPECIFICATIONS, AND THE PLANS FOR GUIDANCE ON OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION. ALL DEBRIS DEPOSITED ON ANY AIRPORT PAVEMENT SHALL BE REMOVED CONTINUOUSLY DURING THE COURSE OF WORK. IN ADDITION, THE CONTRACTOR MUST TAKE ALL NECESSARY PRECAUTIONS TO PREVENT MATERIALS FROM ESCAPING FROM THE WORK AND/OR STOCKPILE AREAS.

26. AT THE COMPLETION OF WORK IN ANY CONSTRUCTION PERIOD, AND PRIOR TO THE SCHEDULED OPENING OF THE DESIGNATED AIRFIELD FACILITY, AN INSPECTION TO DETERMINE WHETHER THE RESPECTIVE AIRPORT FACILITIES ARE IN THE APPROPRIATE CONDITION TO BE OPENED WILL BE PERFORMED BY THE ENGINEER AND A REPRESENTATIVE OF THE AIRPORT. THE CONTRACTOR'S CONSTRUCTION SUPERVISOR MUST BE PRESENT DURING THE INSPECTION.

27. THE ACCESS ROUTES ILLUSTRATED ON THE PLAN ARE TO BE USED FOR ACCESS TO THE WORK AREAS. ALL ACCESS ROADS TO STAGING AREAS AND/OR WORK AREAS ARE TO BE MAINTAINED BY THE CONTRACTOR. THESE ROADS ARE TO BE RETURNED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT.

28. THE ACCESS ROUTES ILLUSTRATED ON THE PLAN ARE TO BE USED FOR ACCESS TO THE WORK AREAS. ALL ACCESS ROADS TO STAGING AREAS AND/OR WORK AREAS ARE TO BE MAINTAINED BY THE CONTRACTOR. THESE ROADS ARE TO BE RETURNED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT.

EXISTING LEGEND

- WETLANDS
- BUILDING
- TREE
- UTILITY POLE
- PROPERTY LINE
- ROFA — RUNWAY OBJECT FREE AREA
- ROFZ — RUNWAY OBJECT FREE ZONE
- RSA — RUNWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- 450 — MAJOR CONTOUR
- 448 — MINOR CONTOUR

SUBMISSION TABLE	
DESCRIPTION	DATE
PERMITTING DOCUMENTS	DECEMBER 30, 2025
CONCEPTUAL PLANS	JANUARY 15, 2026
PRELIMINARY DOCUMENTS	FEBRUARY 4, 2026
FINAL DESIGN	MARCH 17, 2026
BID DOCUMENTS	MARCH 25, 2026

SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
CV-01	COVER SHEET
GN-01	GENERAL NOTES AND INDEX TO DRAWINGS
GP-01	GENERAL PLAN AND AIRFIELD SURVEY CONTROL
SV-01	SURVEY PLAN (SHEET 1 OF 2)
SV-02	SURVEY PLAN (SHEET 2 OF 2)
CS-01	CONSTRUCTION SAFETY AND PHASING PLAN - OVERVIEW
CS-02	CONSTRUCTION SAFETY AND PHASING PLAN - VSR
CS-03	CONSTRUCTION SAFETY AND PHASING PLAN - TAXILANE
CS-04	CONSTRUCTION SAFETY AND PHASING PLAN - DETAILS (SHEET 1 OF 2)
CS-05	CONSTRUCTION SAFETY AND PHASING PLAN - DETAILS (SHEET 2 OF 2)
EX-01	EXISTING CONDITIONS AND DEMOLITION PLAN (SHEET 1 OF 2)
EX-02	EXISTING CONDITIONS AND DEMOLITION PLAN (SHEET 2 OF 2)
GE-01	LAYOUT PLAN (SHEET 1 OF 2)
GE-02	LAYOUT PLAN (SHEET 2 OF 2)
TS-01	TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 1 of 3)
TS-02	TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 2 OF 3)
TS-03	TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 3 OF 3)
PR-01	VEHICLE SERVICE ROAD PROFILE (SHEET 1 OF 2)
PR-02	VEHICLE SERVICE ROAD PROFILE (SHEET 2 OF 2)
PR-03	TAXILANE SEACOAST 1 PROFILE
GR-01	GRADING, DRAINAGE, AND EROSION CONTROL PLAN (SHEET 1 OF 2)
GR-02	GRADING, DRAINAGE, AND EROSION CONTROL PLAN (SHEET 2 OF 2)
GR-03	DRAINAGE AND EROSION CONTROL NOTES AND DETAILS (SHEET 1 OF 3)
GR-04	DRAINAGE AND EROSION CONTROL NOTES AND DETAILS (SHEET 2 OF 3)
GR-05	DRAINAGE AND EROSION CONTROL NOTES AND DETAILS (SHEET 3 OF 3)
EP-01	ELECTRICAL PLAN
EP-02	ELECTRICAL DETAILS
BL-01	BORING LOGS (SHEET 1 OF 3)
BL-02	BORING LOGS (SHEET 2 OF 3)
BL-03	BORING LOGS (SHEET 3 OF 3)
XS-01	VEHICLE SERVICE ROAD CROSS SECTIONS
XS-02	TAXILANE SEACOAST 1 CROSS SECTIONS

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE — SYDNEY R. SENES — No. 17845 — LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

© IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWN	ABS
DESIGNED	SRG
CHECKED	DAN
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

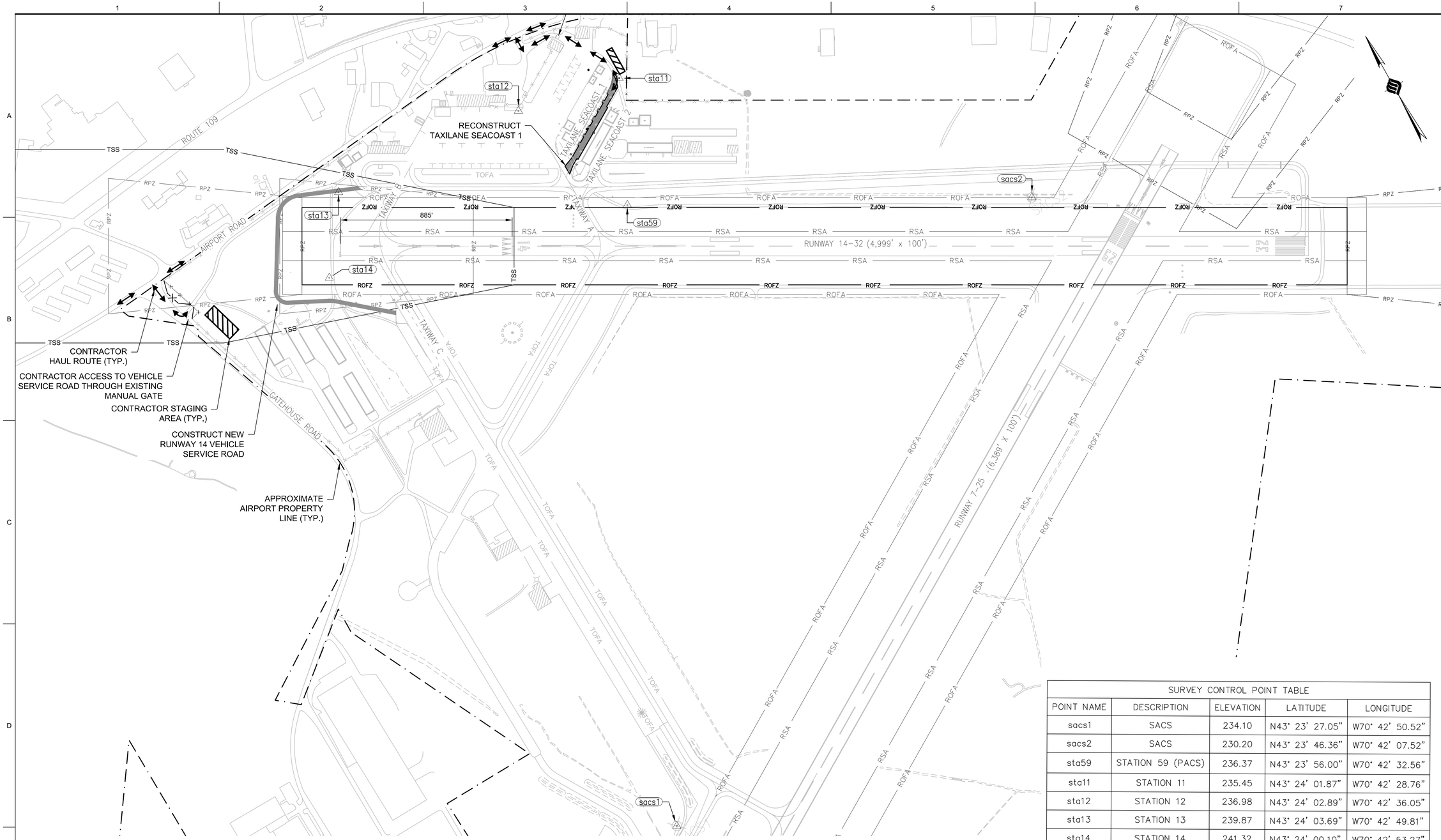
DRAWING TITLE

GENERAL NOTES AND INDEX TO DRAWINGS

DRAWING NUMBER

GN-01

K:\SANFORD SEACOAST\1-19459.01 SFM TAXILANE & VSR DESIGN\DRAWING\DRAWINGS\SHEET FILES\19459.01-GEN-NOTE.DWG



SURVEY NOTES:
1. SITE FEATURES SHOWN AROUND THE TAXILANE AND EXISTING VEHICLE SERVICE ROAD ARE PER FIELD SURVEY PERFORMED NOVEMBER 3, 2025 THROUGH NOVEMBER 6, 2025. SITE FEATURES AND TOPOGRAPHY IN THE PROPOSED PROJECT AREA WAS PERFORMED USING A ROBOTIC TOTAL STATION AND TRIMBLE R12 GNSS/GPS RECEIVERS. OTHER OUTLYING FEATURES SHOWN ARE PER RECORD INFORMATION FROM THE NATIONAL GEODETIC SURVEY FROM SEPTEMBER 2025 AS LiDAR DATA.
2. HORIZONTAL AND VERTICAL DATUM BASED ON SANFORD SEACOAST REGIONAL AIRPORT PACs and SACs.
3. HORIZONTAL DATUM IS NAD83 MAINE STATE PLANES, WEST ZONE, US FOOT.
4. VERTICAL DATUM IS NAVD88.

SURVEY CONTROL NOTES:
1. SURVEY CONTROL POINTS HAVE BEEN PROVIDED TO ASSIST THE CONTROL FOR THE LAYOUT OF THE PROJECT.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL SURVEY CONTROL POINTS DURING CONSTRUCTION OF THE PROJECT. ALL WORK ASSOCIATED WITH THIS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
3. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE, DETERMINE THE DISTANCES BETWEEN POINTS AND CONFIRM THE ELEVATIONS BY INVERSING BETWEEN THE CONTROL POINTS. ANY DISCREPANCIES FOUND BETWEEN THE COMPUTED DISTANCES AND THE NORTHING AND EASTING COORDINATES AND THE ELEVATIONS PROVIDED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

0 250 500 750 FT
SCALE

SUBCONSULTANT
SURVEY GM2 ASSOCIATES 197 LOUDON ROAD, SUITE 310 CONCORD, NH 03301 (603)-856-7855

LEGEND

TSS	THRESHOLD SITING SURFACE
	PROPERTY LINE
ROFA	RUNWAY OBJECT FREE AREA
ROFZ	RUNWAY OBJECT FREE ZONE
RSA	RUNWAY SAFETY AREA
TOFA	TAXIWAY OBJECT FREE AREA

SURVEY CONTROL POINT TABLE

POINT NAME	DESCRIPTION	ELEVATION	LATITUDE	LONGITUDE
sacs1	SACS	234.10	N43° 23' 27.05"	W70° 42' 50.52"
sacs2	SACS	230.20	N43° 23' 46.36"	W70° 42' 07.52"
sta59	STATION 59 (PACS)	236.37	N43° 23' 56.00"	W70° 42' 32.56"
sta11	STATION 11	235.45	N43° 24' 01.87"	W70° 42' 28.76"
sta12	STATION 12	236.98	N43° 24' 02.89"	W70° 42' 36.05"
sta13	STATION 13	239.87	N43° 24' 03.69"	W70° 42' 49.81"
sta14	STATION 14	241.32	N43° 24' 00.10"	W70° 42' 53.27"

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: **SANFORD SEACOAST REGIONAL AIRPORT**
CITY OF SANFORD

PROJECT: **RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD**

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE
SYDNEY R. SENES
No. 17845
LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE
BID DOCUMENTS

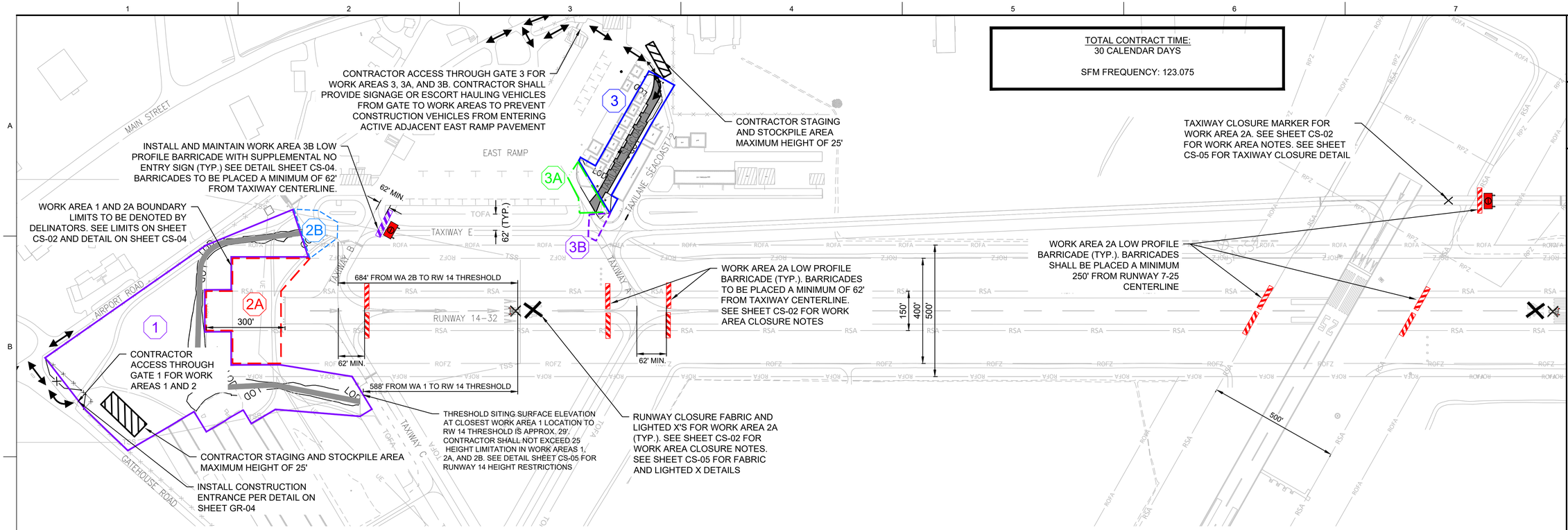
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DRAWN	ABS
DESIGNED	SRG
CHECKED	DAN
SCALE	1"=250'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
GENERAL PLAN AND AIRFIELD SURVEY CONTROL

DRAWING NUMBER
GP-01

K:\SANFORD SEACOAST\1-19459.01 SFM TAXILANE & VSR DESIGN\DRAWDRAWINGS\SHEET FILES\19459.01-GENPLAN.DWG



TOTAL CONTRACT TIME:
30 CALENDAR DAYS

SFM FREQUENCY: 123.075

0 200 400 600 FT
SCALE

LEGEND:

- WORK AREA 1
- WORK AREA 2A
- WORK AREA 2B
- WORK AREA 3
- WORK AREA 3A
- WORK AREA 3B
- WORK AREA 2A BARRICADE
- WORK AREA 3B BARRICADE
- RUNWAY FABRIC & LIT CLOSURE MARKERS
- CONTRACTOR STAGING AREA
- HAUL ROUTE
- 3A WORK AREA DESIGNATION
- ROFZ RUNWAY OBSTACLE FREE ZONE
- TOFA TAXIWAY OBJECT FREE AREA
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TAXIWAY CLOSURE MARKER
- SUPPLEMENTAL NO ENTRY SIGN

WORK AREAS THAT MAY BE PERFORMED CONCURRENTLY

	1	2A	2B	3	3A	3B	4
1		X	X	X	X	X	X
2A	X		X	X	X		X
2B	X	X		X	X	X	X
3	X	X	X		X	X	X
3A	X	X	X	X		X	X
3B	X		X	X	X		X
4	X	X	X	X	X	X	

NOTES:
1. "X" DENOTES PHASES THAT MAY BE COMPLETED CONCURRENTLY.
2. ALL WORK AREAS CAN BE DONE CONCURRENTLY.

WORK AREA TABLE

WORK AREA	DESCRIPTION OF WORK	CALENDAR DAYS	OPERATIONAL IMPACTS	CLOSURE NOTES
1	EROSION CONTROL BMPs, EXISTING VEHICLE SERVICE ROAD REMOVAL, UNCLASSIFIED EXCAVATION, INSTALLATION AND DEMOLITION OF FENCE, INSTALLATION OF BASE COURSE, INSTALLATION OF NEW PAVEMENT, TOPSOIL, SEEDING, AND MULCHING	30 DAYS	NONE	NO STAGING OF EQUIPMENT OR MATERIALS INSIDE ROFA
2A	EROSION CONTROL BMPs, EXISTING VEHICLE SERVICE ROAD REMOVAL, UNCLASSIFIED EXCAVATION, TOPSOIL, SEEDING, AND MULCHING	3 DAYS	RUNWAY 14-32 CLOSURE PARTIAL TAXIWAY E CLOSURE	---
2B	EROSION CONTROL BMPs, EXISTING VEHICLE SERVICE ROAD REMOVAL, UNCLASSIFIED EXCAVATION, INSTALLATION OF BASE COURSE, INSTALLATION OF NEW PAVEMENT, TOPSOIL, SEEDING, AND MULCHING	3 DAYS	PARTIAL TAXIWAY E CLOSURE	CONTRACTOR TO PLACE LOW PROFILE BARRICADES MINIMUM 62FT FROM TAXIWAY B CENTERLINE
3	EROSION CONTROL BMPs, PAVEMENT REMOVAL, UNCLASSIFIED EXCAVATION, INSTALLATION OF SUBBASE, INSTALLATION OF BASE COURSE, INSTALLATION OF NEW PAVEMENT, INSTALLATION OF CATCH BASINS, EXISTING CATCH BASIN ELEVATION ADJUSTMENT, MARKING, TOPSOIL, SEEDING, AND MULCHING	30 DAYS	TAXILANE SEACOAST 1 CLOSURE	CONTRACTOR TO PLACE LOW PROFILE BARRICADES MINIMUM 62 FT FROM TAXIWAY A CENTERLINE
3A	EROSION CONTROL BMPs, PAVEMENT REMOVAL, UNCLASSIFIED EXCAVATION, INSTALLATION OF SUBBASE COURSE, INSTALLATION OF BASE COURSE, INSTALLATION OF NEW PAVEMENT, MARKING, TOPSOIL, SEEDING, AND MULCHING	10 DAYS	TAXILANE SEACOAST 1 CLOSURE PARTIAL TAXIWAY A CLOSURE	CONTRACTOR TO PLACE LOW PROFILE BARRICADES MINIMUM 62FT FROM TAXIWAY E CENTERLINE
3B	EROSION CONTROL BMPs, PAVEMENT REMOVAL, UNCLASSIFIED EXCAVATION, TOPSOIL, SEEDING, AND MULCHING	1 DAY	PARTIAL TAXIWAY A CLOSURE PARTIAL TAXIWAY E CLOSURE	CONTRACTOR TO PLACE LOW PROFILE BARRICADES MINIMUM 62FT FROM TAXIWAY E CENTERLINE

NOTES:
1. CONTRACTOR TO PLACE ALL BARRICADES, TAXIWAY CLOSURE MARKERS, AND RUNWAY FABRIC AND LIGHTED MARKERS TO THE APPROVAL OF THE RESIDENT PROJECT REPRESENTATIVE (RPR) AND THE AIRPORT.
2. ALL CONSTRUCTION PERSONNEL AND EQUIPMENT MUST REMAIN IN CONFIRMED CLOSED WORK AREAS ONLY. IF THE CONTRACTOR REQUIRES ACCESS TO ANY ACTIVE AIRPORT AREAS, CONTRACTOR MUST BE ESCORTED BY EITHER THE RPR OR THE AIRPORT.
3. NO STAGING OF EQUIPMENT OR MATERIALS SHALL BE DONE INSIDE THE LIMITS OF THE RUNWAY OBJECT FREE AREA (ROFA). THE ROFA SHALL BE CLEARED AT THE END OF EACH WORKING DAY.
4. ALL WORK WILL BE PERFORMED IN THE DESIGNATED WORK AREA. ANY AIRFIELD CLOSURE TO BE COORDINATED WITH THE RPR AND THE AIRPORT A MINIMUM OF 72 HOURS NOTICE IN ADVANCE.
5. ALL VEHICLES FROM THE CONSTRUCTION WORK AREAS WILL BE CLEAR FROM FOREIGN OBJECT DEBRIS (FOD) PRIOR TO LEAVING THE AIRPORT WHEN CROSSING ACTIVE PAVEMENT. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A VACUUM SWEEPER (OR AN ALTERNATIVE METHOD APPROVED BY THE RPR) AT ALL TIMES AND WILL PROVIDE ADEQUATE SWEEPING AND MAINTENANCE OF THE HAUL ROUTES AND OPEN PAVEMENT AT ALL TIMES.
6. WHEN CROSSING EXISTING PAVEMENT THAT IS NOT IMPACTED BY THE PROJECT, CONTRACTOR SHALL PROTECT SAID PAVEMENT.
7. ACCESS TO THE AIRPORT SHALL BE THE HAUL ROUTES SHOWN ON THIS PLAN ONLY. CONTRACTOR SHALL LOCK ANY GATES WHEN NOT ACTIVELY HAULING AND AT THE END OF EACH WORKING DAY. WHEN CONTRACTOR IS ACTIVELY HAULING, THE GATE MAY REMAIN OPEN WITH A GATE GUARD IN PLACE TO RESTRICT AIRFIELD ACCESS.
8. ENGINEER TO APPROVE LOCATION OF STABILIZED CONSTRUCTION ENTRANCE PRIOR TO INSTALLATION.
9. AT THE END OF CONSTRUCTION, ALL HAUL ROUTES AND STAGING AREAS SHALL BE RESTORED TO THEIR EXISTING CONDITION.
10. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS, SIGNAGE, AND TRAFFIC CONTROL MEASURES FOR ACCESS TO THE SITE.
11. IF ACTIVE WORK IS NOT TAKING PLACE IN A WORK AREA, THE WORK AREA SHALL BE OPEN FOR AIRPORT USE.
12. ALL CONSTRUCTION SAFETY AND PHASING WORK IS INCIDENTAL TO ITEM M-200-1 MAINTENANCE AND PROTECTION OF TRAFFIC UNLESS OTHERWISE NOTED.

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP



PROJECT MILESTONE

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWN	GMP
DESIGNED	SRG
CHECKED	MTO
SCALE	1" = 200'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

CONSTRUCTION SAFETY AND PHASING PLAN - OVERVIEW

DRAWING NUMBER

CS-01

6 OF 32

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WORK AREA 1 SCHEDULE NOTES

WORK AREA 1: INCLUDES ALL WORK WITHIN LIMITS SHOWN

DURATION: 30 CALENDAR DAYS

CLOSURES: NONE

LIQUIDATED DAMAGES: $2,800 PER CALENDAR DAY

RESTRICTIONS:
- CONTRACTOR TO ACCESS SITE VIA GATE 1.
- NO STAGING OF EQUIPMENT OR MATERIALS INSIDE OF ROFA.
- EQUIPMENT LIMITED TO 25' HEIGHT.

PRIMARY WORK TO BE COMPLETED:
- EROSION CONTROL BMPS
- EXISTING VEHICLE SERVICE ROAD REMOVAL
- UNCLASSIFIED EXCAVATION
- INSTALLATION OF NEW FENCE
- DEMOLITION OF FENCE
- INSTALLATION OF BASE COURSE
- INSTALLATION OF NEW PAVEMENT
- TOPSOIL, SEEDING, AND MULCHING

ADDITIONAL WORK AREA 1 NOTES:
- CONTRACTOR SHALL COORDINATE THE REMOVAL OF THE EXISTING VEHICLE SERVICE ROAD WITH THE TIMING OF THE COMPLETION OF THE NEW VEHICLE SERVICE ROAD TO MAINTAIN ACCESS AROUND RUNWAY 14 FOR AIRPORT OPERATIONAL VEHICLES AT ALL TIMES.
- CONTRACTOR SHALL COORDINATE THE REMOVAL OF THE EXISTING AIRPORT FENCE AND THE INSTALLATION OF THE NEW FENCE TO MAINTAIN A SECURE AIRFIELD AT ALL TIMES.

WORK AREA 2A SCHEDULE NOTES:

WORK AREA 2A: INCLUDES ALL WORK WITHIN LIMITS SHOWN INCLUDING RUNWAY 14-32 RUNWAY SAFETY AREA (RSA) AND RUNWAY OBSTACLE FREE ZONE (ROFZ)

DURATION: 3 CALENDAR DAYS

CLOSURES: RUNWAY 14-32 CLOSURE

LIQUIDATED DAMAGES: $2,800 PER CALENDAR DAY

RESTRICTIONS:
- CONTRACTOR TO ACCESS SITE VIA GATE 1.
- CLOSURE CANNOT OCCUR THROUGH A WEEKEND ON WITHIN ONE (1) CALENDAR DAY OF A HOLIDAY

PRIMARY WORK TO BE COMPLETED:
- EROSION CONTROL BMPS
- EXISTING VEHICLE SERVICE ROAD REMOVAL
- UNCLASSIFIED EXCAVATION
- TOPSOIL, SEEDING, MULCHING

ADDITIONAL WORK AREA 2A NOTES:
- FOR RUNWAY 14-32 CLOSURE, CONTRACTOR SHALL BE ESCORTED BY THE RPR OR THE AIRPORT TO EACH RUNWAY END TO PLACE LIGHTED AND FABRIC X'S. CONTRACTOR SHALL GO BEYOND WORK AREA 2A LIMITS WITHOUT ESCORT.
- WHEN REOPENING THE RUNWAY ONCE WORK AREA 2A IS COMPLETE AND ACCEPTED BY THE RPR, CONTRACTOR SHALL BE ESCORTED BY THE RPR OR THE AIRPORT TO REMOVE THE LIGHTED AND FABRIC X'S.

WORK AREA 2B SCHEDULE NOTES:

WORK AREA 2B: INCLUDES ALL WORK WITHIN LIMITS SHOWN

DURATION: 3 CALENDAR DAYS

CLOSURES: PARTIAL TAXIWAY E CLOSURE

LIQUIDATED DAMAGES: $2,800 PER CALENDAR DAY

RESTRICTIONS:
- CONTRACTOR TO ACCESS SITE VIA GATE 1.
- CONTRACTOR TO PLACE LOW PROFILE BARRICADES MINIMUM 62FT FROM TAXIWAY B & E CENTERLINE.
- CLOSURE CANNOT OCCUR THROUGH A WEEKEND ON WITHIN ONE (1) CALENDAR DAY OF A HOLIDAY

PRIMARY WORK TO BE COMPLETED:
- EROSION CONTROL BMPS
- EXISTING VEHICLE SERVICE ROAD REMOVAL
- UNCLASSIFIED EXCAVATION
- INSTALLATION OF BASE COURSE
- INSTALLATION OF NEW PAVEMENT
- TOPSOIL, SEEDING, MULCHING

LEGEND:
- WORK AREA 1
- WORK AREA 2A
- WORK AREA 2B
- WORK AREA 1 LOW PROFILE BARRICADES
- WORK AREA 2A LOW PROFILE BARRICADES
- WORK AREA 2B LOW PROFILE BARRICADES
- HAUL ROUTE
- CONTRACTOR STAGING AREA
- 3A WORK AREA DESIGNATION

0 50 100 150 FT
SCALE

INSTALL AND MAINTAIN WORK AREA 2B BARRICADE WITH NO ENTRY SIGN (TYP.) LOW PROFILE BARRICADES TO BE PLACED MINIMUM 62' FROM TAXIWAY B CENTERLINE TO MAINTAIN OPERATIONAL DISTANCE

WORK AREA 1 BARRICADE (TYP.) LOW PROFILE BARRICADES TO BE PLACED MINIMUM 62' FROM TAXIWAY E CENTERLINE TO MAINTAIN OPERATIONAL DISTANCE

62' MIN.

62' MIN.

COVER TAXIWAY EDGE LIGHTS INSIDE WORK AREA 2B DURING CLOSURE (TYP.)

CONTRACTOR SHALL PHASE REMOVAL OF EXISTING VEHICLE SERVICE ROAD TO MAINTAIN ACCESS AROUND RUNWAY 14 BY AIRPORT OPERATION VEHICLES AT ALL TIMES

INSTALL AND MAINTAIN WORK AREA 2A LOW PROFILE BARRICADES (TYP.) SEE SHEET CS-01 FOR BARRICADE AND CLOSURE MARKERS LOCATIONS ON RUNWAY 14-32

RUNWAY 14–32

62' MIN.

CONTRACTOR SHALL REMAIN INSIDE WORK AREA LIMITS AS SHOWN. WHEN CONTRACTOR NEEDS ACCESS TO INSTALL AND MAINTAIN BARRICADES AND RW AND TW CLOSURE MARKERS, CONTRACTOR SHALL BE ESCORTED BY RPR OR AIRPORT

INSTALL DELINEATION MARKERS AT BOUNDARY OF WORK AREA 1 AND 2A (TYP.). SEE DETAIL SHEET CS-04 FOR DETAIL AND SPACING

INSTALL AND MAINTAIN WORK AREA 1 BARRICADE (TYP.) LOW PROFILE BARRICADES TO BE PLACED MINIMUM 62FT FROM TAXIWAY CENTERLINE

62' MIN.

INSTALL CONSTRUCTION ENTRANCE PER DETAIL ON SHEET GR-04 (ITEM C-102-5.1C)

CONTRACTOR CANNOT STAGE EQUIPMENT OR MATERIAL INSIDE RUNWAY OBJECT FREE AREA

CONTRACTOR STAGING AND STOCKPILE AREA MAXIMUM HEIGHT OF 25'. EQUIPMENT AND MATERIAL STOCKPILES MUST BE MINIMUM 10' AWAY FROM AIRPORT FENCE

CONTRACTOR ACCESS THROUGH GATE 1 FOR WORK AREAS 1 AND 2

CONTRACTOR SHALL REMAIN OUTSIDE OF AIRCRAFT PARKING AREA IN APRON

AIRPORT ROAD

GATEHOUSE ROAD

TAXIWAY B

TAXIWAY C

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE SYDNEY R. SENEY No. 17845 LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

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DESIGNED	SRG
CHECKED	MTO
SCALE	1" = 50'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

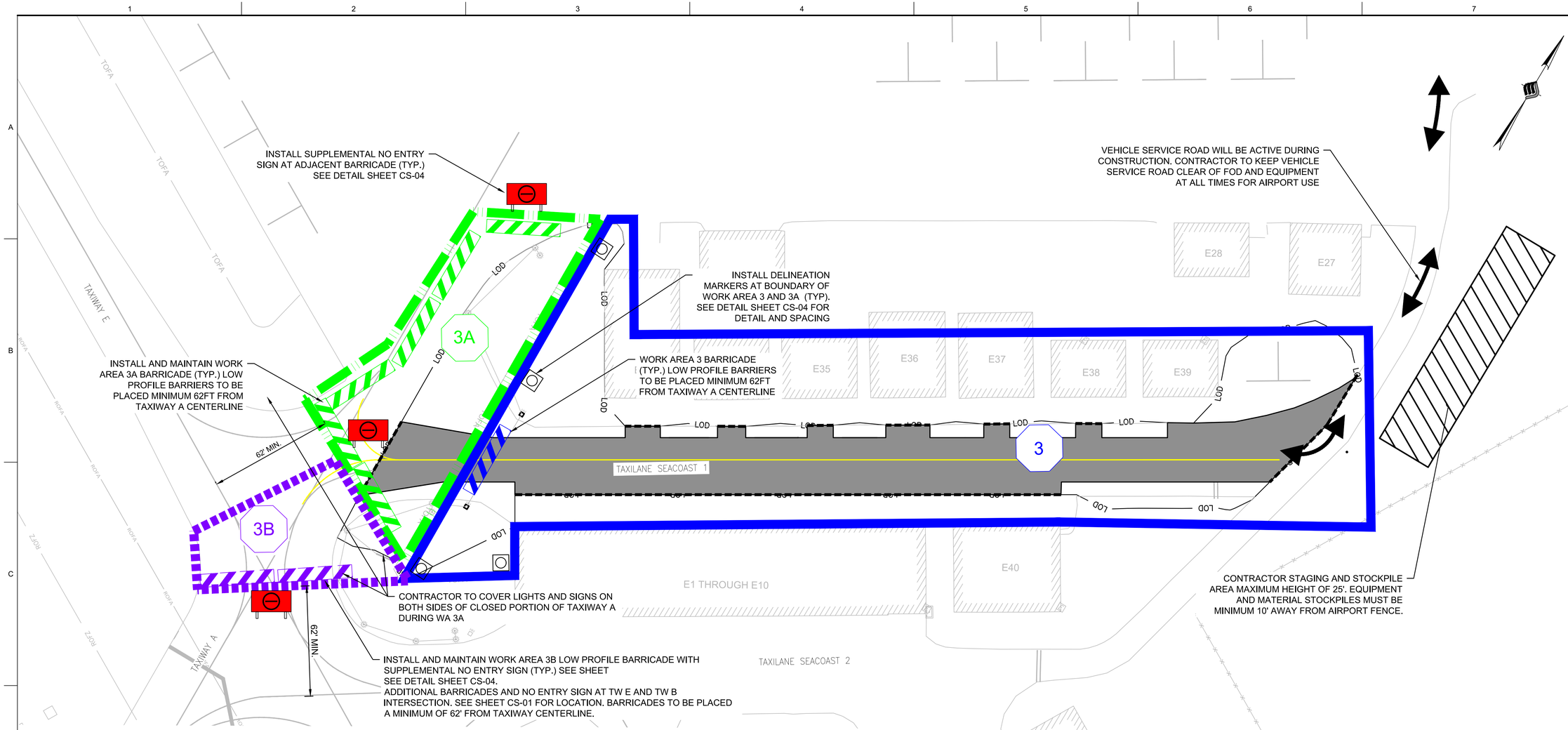
CONSTRUCTION SAFETY AND PHASING PLAN - VSR

DRAWING NUMBER

CS-02

7 OF 32

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WORK AREA 3 SCHEDULE NOTES:

WORK AREA 3: INCLUDES ALL WORK WITHIN LIMITS SHOWN

DURATION: 30 CALENDAR DAYS

CLOSURES: TAXILANE SEACOAST 1 CLOSURE
CLOSURE OF HANGARS E1 THROUGH E10, E33 THROUGH E40

LIQUIDATED DAMAGES: $2,800 PER CALENDAR DAY

RESTRICTIONS:
- CONTRACTOR TO ACCESS SITE VIA GATE 3
- CONTRACTOR TO PLACE LOW PROFILE BARRICADES MINIMUM 62 FT FROM TAXIWAY A

PRIMARY WORK TO BE COMPLETED:
- EROSION CONTROL BMPS
- PAVEMENT REMOVAL
- UNCLASSIFIED EXCAVATION
- INSTALLATION OF SUBBASE MATERIAL
- INSTALLATION OF BASE COURSE
- INSTALLATION OF NEW PAVEMENT
- INSTALLATION OF NEW CATCH BASINS AND PIPE
- INSTALLATION OF UNDERDRAIN AND CLEANOUTS
- ADJUSTMENT OF EXISTING CATCH BASIN RIM ELEVATION
- INSTALLATION OF ELECTRICAL SYSTEM
- TOPSOIL, SEEDING, AND MULCHING
- PAVEMENT MARKING

WORK AREA 3A SCHEDULE NOTES:

WORK AREA 3A: INCLUDES ALL WORK WITHIN LIMITS SHOWN

DURATION: 10 CALENDAR DAYS

CLOSURES: TAXILANE SEACOAST 1 CLOSURE AND PARTIAL CLOSURE OF TAXIWAY A

LIQUIDATED DAMAGES: $2,800 PER CALENDAR DAY

RESTRICTIONS:
- CONTRACTOR TO ACCESS SITE VIA GATE 3
- CONTRACTOR TO PLACE LOW PROFILE BARRICADES MINIMUM 62FT FROM TAXIWAY E AND FOLLOWING DIAGRAM
- CONTRACTOR SHALL NOT CLOSE WORK AREA OVER THE WEEKEND OR WITHIN (1) CALENDAR DAY OF A HOLIDAY

PRIMARY WORK TO BE COMPLETED:
- EROSION CONTROL BMPS
- PAVEMENT REMOVAL
- UNCLASSIFIED EXCAVATION
- INSTALLATION OF SUBBASE MATERIAL
- INSTALLATION OF BASE COURSE
- INSTALLATION OF NEW PAVEMENT
- MARKINGS
- INSTALLATION OF UNDERDRAIN AND CLEANOUTS
- INSTALLATION OF ELECTRICAL SYSTEM
- TOPSOIL, SEEDING, AND MULCHING

WORK AREA 3B SCHEDULE NOTES:

WORK AREA 3B: INCLUDES ALL WORK WITHIN LIMITS SHOWN

DURATION: 1 CALENDAR DAY

CLOSURES: TAXILANE SEACOAST 1 CLOSURE , PARTIAL CLOSURE OF TAXIWAY A, AND PARTIAL TAXIWAY E CLOSURE

LIQUIDATED DAMAGES: $2,800 PER CALENDAR DAY

RESTRICTIONS:
- CONTRACTOR TO ACCESS SITE VIA GATE 3.
- CONTRACTOR SHALL NOT CLOSE WORK AREA OVER THE WEEKEND OR WITHIN (1) CALENDAR DAY OF A HOLIDAY.
- CONTRACTOR TO PLACE LOW PROFILE BARRICADES MINIMUM 62FT FROM TAXIWAY E AND FOLLOWING DIAGRAM.
- IF CONTRACTOR EXCEEDS ONE (1) CALENDAR DAY, CONTRACTOR WILL BE REQUIRED TO COVER LIGHTS AND SIGNS OF THE PARTIALLY CLOSE TAXIWAY E SECTION.

PRIMARY WORK TO BE COMPLETED:
- EROSION CONTROL BMPS
- PAVEMENT REMOVAL
- UNCLASSIFIED EXCAVATION
- INSTALLATION OF BASE COURSE
- INSTALLATION OF NEW PAVEMENT
- MARKINGS
- INSTALLATION OF ELECTRICAL SYSTEM
- TOPSOIL, SEEDING, AND MULCHING

0 30 60 90 FT
SCALE

LEGEND:

- WORK AREA 3
- WORK AREA 3A
- WORK AREA 3B
- WORK AREA 3 LOW PROFILE BARRICADES
- WORK AREA 3A LOW PROFILE BARRICADE
- WORK AREA 3B LOW PROFILE BARRICADES
- SUPPLEMENTAL NO ENTRY SIGN
- HAUL ROUTE
- CONTRACTOR STAGING AREA
- 3A — WORK AREA DESIGNATION

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

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STATE OF MAINE
SYDNEY R. SENEY
No. 17845
PROFESSIONAL ENGINEER
LICENSED

PROJECT MILESTONE

BID DOCUMENTS

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DESIGNED	SRG
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SCALE	1" = 30'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

CONSTRUCTION SAFETY AND PHASING PLAN - TAXILANE

DRAWING NUMBER

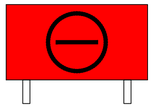
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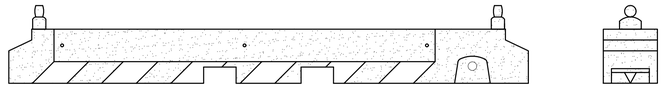
8 OF 32

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CONSTRUCTION SAFETY AND PHASING NOTES:

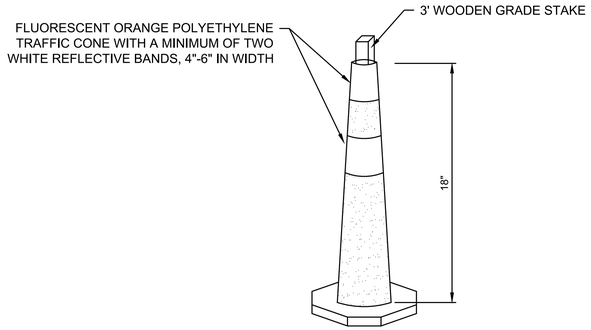
1. THE CONTRACTOR WILL SUBMIT A WRITTEN SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) TO THE RPR, SFM AND FAA FOR REVIEW AND APPROVAL PRIOR TO MOBILIZATION AND BEFORE ANY CONSTRUCTION IS ALLOWED TO BE PERFORMED. ANY DELAY IN THE ISSUANCE OF THE NOTICE TO PROCEED DUE TO THE FAILURE BY THE CONTRACTOR TO OBTAIN AN APPROVED SPCD WILL NOT BE GROUNDS FOR ANY CONTRACT TIME EXTENSION. THE CONTRACTOR WILL BECOME KNOWLEDGEABLE OF THE REQUIREMENTS AND PROCEDURES OF THE FAA ADVISORY CIRCULAR NO. 150/5370-2G OR (CURRENT EDITION) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION" AND THE APPROVED "CONSTRUCTION SAFETY AND PHASING PLAN" (CSPP), AND INCORPORATE RELEVANT ITEMS INTO THE SPCD WHICH IS REQUIRED TO MEET OR EXCEED THE PROJECT'S CSPP REQUIREMENTS. THE SPCD WILL BE MODIFIED AND UPDATED AS REQUIRED THROUGHOUT THE PROJECT TO ADDRESS EACH PHASE AND/OR SUB PHASE AS WORK PROGRESSES. SOME, BUT NOT ALL OF THE ITEMS, TO BE ADDRESSED IN THE SPCD ARE AS FOLLOWS:
   - IDENTIFICATION AND QUALIFICATIONS OF DEDICATED SAFETY & SECURITY POINT OF CONTACT
   - WORK SCHEDULING, COORDINATION, AND NOTIFICATION PROCEDURES OF CONSTRUCTION ACTIVITIES.
   - AIRFIELD COMMUNICATIONS AND 24-HOUR EMERGENCY NOTIFICATION PROCEDURES.
   - CONSTRUCTION OPERATIONS ADJACENT TO OR WITHIN SAFETY AREAS, OBJECT FREE AREAS, NAVAID CRITICAL AREAS, AND APPROACH SURFACES. (I.E. GRADING, HAULING MATERIALS, ETC.)
   - METHODS AND REQUIREMENTS FOR SEPARATING CONSTRUCTION AREAS FROM AIRPORT OPERATIONS AREAS (AOA).
   - AIRPORT OPERATIONS AREAS.
   - PREVENTING INTERFERENCE WITH FAA NAVAID (ILS OR OTHER) CRITICAL AREAS.
   - CONTROL OF FOREIGN OBJECT DEBRIS (FOD) AND DUST.
   - CONSTRUCTION VEHICLE REQUIREMENTS, PROCEDURES AND DRIVER TRAINING FOR ESCORT DRIVERS.
   - OPERATIONS WITHIN MOVEMENT AND NON-MOVEMENT AREAS TO PREVENT RUNWAY INCURSIONS.
   - CONTRACTOR ACCESS POINTS, VEHICLE CROSSING LOCATIONS, SECURITY FENCING AND GATES, AND EMPLOYEE SECURITY TRAINING.
   - PROCEDURES, REQUIREMENTS, AND COORDINATION OF RUNWAY AND/OR TAXIWAY CLOSURES, INCLUDING NOTICE TO AIRMEN (NOTAM) COORDINATION
   - LIGHTED CHANNELIZER CONE PLACEMENT LOCATIONS, AND TEMPORARY CONSTRUCTION SIGN LOCATIONS.
   - PROCEDURES FOR MANAGING HAZARDOUS MATERIALS
   - PROCEDURES FOR LOCATING & PROTECTING EXISTING UNDERGROUND UTILITIES
2. THESE SAFETY AND PHASING PLANS HAVE BEEN APPROVED BY THE FAA AND SFM AIRPORT OPERATIONS. COMBINING, MODIFYING, OR ALTERNATING WORK AREAS WITHOUT APPROVAL OF THE FAA AND SFM AIRPORT OPERATIONS THROUGH THE RESIDENT PROJECT REPRESENTATIVE (RPR) WILL NOT BE ALLOWED. IT IS STRONGLY RECOMMENDED THAT THE CONTRACTOR PREPARE THEIR BID BASED ON THE CONSTRUCTION PHASING SHOWN IN THESE DOCUMENTS. APPROVED MODIFICATIONS WILL RESULT IN NO ADDITIONAL COST TO THE OWNER. ANY PROPOSED CHANGES FROM THE CONTRACTOR WILL BE SUBMITTED THROUGH THE CONSULTANT WHO WILL SUBMIT IT TO THE AIRPORT AND FAA. PROPOSED CHANGES MAY NOT BE ACCEPTED.
3. ALL OF THE CONTRACTOR'S AND SUBCONTRACTOR'S EMPLOYEES WILL HAVE A "TAILGATE" SAFETY MEETING EVERY SHIFT CHANGE OR START OF EACH DAY PRIOR TO ANY WORK WITH THE RPR AND SFM OPERATIONS PRESENT TO REVIEW THE DAY'S WORK AND SAFETY PROCEDURES. THIS DAILY COORDINATION OF THE CONSTRUCTION ACTIVITIES WILL BE HELD TO CLEARLY IDENTIFY THE LIMITS OF WORK FOR THE DAY. THE CONTRACTOR WILL NOT EXCEED THE LIMITS OF WORK WITHOUT APPROVAL FROM THE RPR. IN ADDITION, A SIGN-IN SHEET WILL BE KEPT FOR THE ATTENDANCE AT THIS MEETING.
4. THE CONTRACTOR WILL PROVIDE A COMPETENT SAFETY PERSON (WHO ALSO COULD BE THE SUPERINTENDENT OR OTHER SUPERVISORY PERSON) FAMILIAR WITH AIRPORT SAFETY TO MONITOR CONSTRUCTION ACTIVITIES. THIS INDIVIDUAL WILL BE RESPONSIBLE FOR MONITORING CONSTRUCTION ACTIVITIES AND PERSONNEL TO ENSURE THAT THEY ADHERE TO THE SAFETY REQUIREMENTS ESTABLISHED BY THE CONTRACT DOCUMENTS, THE SPCD, THE REGULATIONS AND REQUIREMENTS OF THE AIRPORT, FAA, AND OTHER APPLICABLE AGENCIES. THIS PERSON WILL BE EQUIPPED WITH A CONTRACTOR PROVIDED RADIOS FOR MONITORING FAA FREQUENCY, AND COMMUNICATING WITH SFM OPERATIONS.
5. THE CONTRACTOR WILL PROVIDE A POINT OF CONTACT TO THE OWNER AND RPR WHO CAN BE CONTACTED AT ANY TIME THROUGHOUT THE COURSE OF THE CONTRACT. THIS INDIVIDUAL WILL BE CAPABLE OF COORDINATING AN IMMEDIATE RESPONSE TO CORRECT ANY CONSTRUCTION RELATED ACTIVITY THAT MAY ADVERSELY AFFECT THE OPERATIONAL SAFETY OF THE AIRPORT.
6. UPON RECEIPT OF APPROVAL FOR A CLOSURE AND BEFORE EQUIPMENT ENTERS THE AIRFIELD AND CONSTRUCTION COMMENCES, THE WORK AREA WILL BE SECURED WITH ALL LIGHTING EQUIPMENT, CHANNELIZER CONES, AND SAFETY BARRICADES. THE WORK AREA WILL BE CLEARLY DELINEATED AND ALL SAFETY REQUIREMENTS WILL BE APPROVED BY THE RPR PRIOR TO BEGINNING ANY WORK.
7. CONSTRUCTION SIGNS (I.E. "CONSTRUCTION TRAFFIC" WITH ARROWS, "NO UNAUTHORIZED VEHICLES BEYOND THIS POINT" OR OTHER STANDARD MANUAL OF UNIFORM TRAFFIC CONTROL DEVICE (MUTCD) SIGNS) WILL BE LOCATED AT THE WORK AREA EGRESS/INGRESS POINTS. THERE WILL BE NO SEPARATE PAYMENT FOR PROVIDING THESE SIGNS.
8. THE CONTRACTOR WILL VERIFY THAT NO PAVEMENT LIPS OR PAVEMENT EDGES EXCEED 3 INCHES WITHIN ALL ACTIVE AIRCRAFT OPERATIONAL AREAS, AS DEFINED BY THE CSPP.
9. TEMPORARY TAXIWAY CLOSURES AND/OR RUNWAY CLOSURES IN ACCORDANCE WITH THE CSPP ARE SUBJECT TO WIND/WEATHER AVAILABILITY AND ARE SUBJECT TO A RECALL TIME TO BE DETERMINED BY SFM OPERATIONS, AND OUTLINED IN THE CSPP.
10. IF WORKING UNDER A TAXIWAY CAUTION ALLOWED BY AN APPROVED CSPP, ALL ADJACENT PAVEMENTS WILL BE AVAILABLE FOR AN UNLIMITED NUMBER OF AIRCRAFT OPERATIONS. THE CONTRACTOR WILL CONDUCT WORK IN SUCH A MANNER THAT NO INTERFERENCE WITH AIRCRAFT OPERATIONS WILL OCCUR. THE CONTRACTOR WILL HAVE A FULL-TIME RADIO ESCORT AT EACH WORK AREA WHICH IS BEING WORKED ON UNDER A CAUTION. THE CONTRACTOR WILL RELOCATE PERSONNEL AND EQUIPMENT MINIMUM DISTANCES AWAY FROM TAXIWAY CENTERLINES AS IDENTIFIED IN THE CSPP PLANS AND DOCUMENTS.
11. WHEN ACTIVELY HAULING AND LEAVING THE GATE OPEN, THE CONTRACTOR WILL PROVIDE A GATE GUARD WHO IS RESPONSIBLE FOR SECURING THE AIRFIELD FROM PEDESTRIAN OR UNAUTHORIZED VEHICLE TRAFFIC ENTERING THE AIRFIELD ERRANTLY OR MALICIOUSLY, AND WILL BE RESPONSIBLE FOR QUEUING AND HOLDING TRAFFIC WHILE WAITING FOR AN ESCORT VEHICLE TO HAND OVER TRAFFIC ENTERING THE AIRFIELD. THE GATE GUARD WILL EITHER LOCK AND SECURE THE GATE WHILE WAITING FOR VEHICLES TO ACCESS THE AIRFIELD OR IMPEED ACCESS IN OTHER WAYS SUCH AS BLOCKING THE ACCESS WITH THEIR VEHICLE. THE GATE GUARD WILL BE EQUIPPED WITH A CONTRACTOR PROVIDED RADIO TO COMMUNICATE WITH THE VEHICLE ESCORT.
12. WHEN NOT ACTIVELY HAULING, THE CONTRACTOR SHALL LOCK AND/OR CLOSE THE GATE. IF THE CONTRACTOR ADDS THEIR OWN LOCK TO ANY MANUAL GATES, A KEY WILL BE PROVIDED TO BOTH THE RPR AND SFM FOR ACCESS.
13. CONTRACTOR WILL PROVIDE FLAGGERS, AS SHOWN ON THE SAFETY AND PHASING PLAN, WHOSE OBJECTIVE IS TO KEEP CONSTRUCTION EQUIPMENT, LABORERS, AND MATERIAL FROM ERRANTLY ENTERING INTO AN OPEN RUNWAY SAFETY AREA OR INTO AN OPEN TAXIWAY OBJECT FREE AREA. FLAGGERS WILL BE PROVIDED WITH A CONTRACTOR PROVIDED RADIO (SET TO CONTRACTOR FREQUENCY) OR CELL PHONE TO ALLOW CONSTANT COMMUNICATION BETWEEN FLAGGERS, VEHICLES AND GATE GUARDS.
14. FLAGGERS OR ESCORTS WILL NOT BE USED FOR ANY OTHER DUTIES WHILE PERFORMING EACH RESPECTIVE FUNCTION.





AVIATION BARRICADE NOTES:

1. CONTRACTOR WILL PROVIDE AN ADEQUATE NUMBER OF BARRICADES TO PROPERLY CLOSE AIRFIELD PAVEMENTS AS SHOWN ON THE SAFETY AND PHASING PLANS.
2. BARRICADES WILL BE MULTI-BARRIER SAFETY BARRICADES WITH REFLECTIVE STRIPING.
3. BARRICADES WILL BE PLACED END TO END TO CREATE A CONTINUOUS BARRIER.
4. BARRICADES WILL BE ADEQUATELY WEIGHTED TO WITHSTAND HIGH WINDS AND / OR JET BLAST.
5. CONTRACTOR WILL MAINTAIN FLASHING LIGHTS TO ENSURE PROPER WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT.
6. CONTRACTOR WILL MOVE BARRICADES AT THE DIRECTION OF THE RPR OR AIRPORT OPERATIONS.
7. CONTRACTOR TO PROVIDE OWN WATER SOURCE FOR LOW PROFILE BARRICADES.



DELINEATION MARKER NOTES:

1. MARKER CONES WILL BE SPACED AT 20 FEET ON CENTER ALONG BOUNDARYS AS SHOWN ON THE PLANS.
2. CONTRACTOR WILL FREQUENTLY INSPECT MARKER CONES AND WILL RELOCATE ANY MISALIGNED CONES.
3. TRAFFIC CONES WILL BE ADEQUATELY SECURED TO WITHSTAND HIGH WINDS AND / OR JET BLAST BY USING GRADE STAKES AS SHOWN

WORK AREA DELINEATION MARKER

NOT TO SCALE
(INCIDENTAL TO ITEM M-200-1)

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE
SYDNEY R. SENES
NO. 17845
LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

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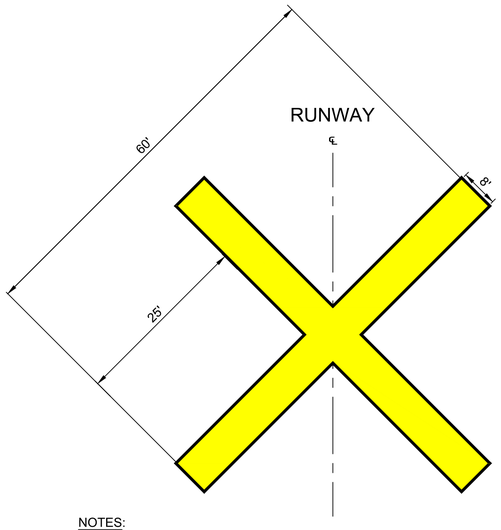
DRAWN	GMP
DESIGNED	SRG
CHECKED	MTO
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN - DETAILS (SHEET 1 OF 2)

DRAWING NUMBER
CS-04

9 OF 32

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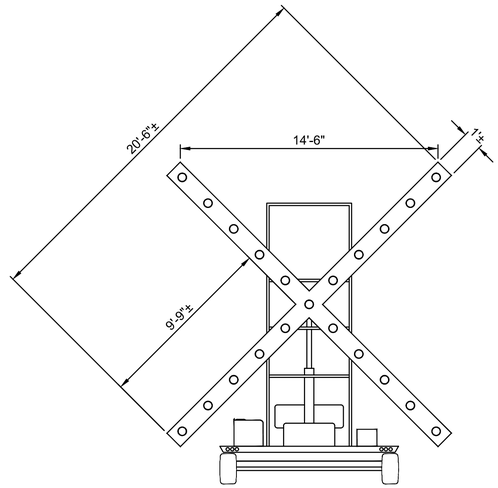


NOTES:

1. CONTRACTOR WILL PROVIDE TWO (2) FABRIC RUNWAY CLOSURE MARKERS.
2. CLOSURE MARKER WILL BE AVIATION YELLOW WITH A BLACK 6" BORDER.
3. CLOSURE MARKER WILL BE PLACED OVER THE RUNWAY DESIGNATION NUMERALS UNLESS OTHERWISE DIRECTED BY THE ENGINEER/OWNER, AND AS PER AC 150/5370-2G.
2. CONTRACTOR WILL SUPPLY ADDITIONAL CLOSURE MARKERS AS NECESSARY.
3. CONTRACTOR WILL BE RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF ALL CLOSURE MARKERS THROUGH THE PROJECT DURATION.
4. THE CLOSED RUNWAY MARKER WILL BE CONSTRUCTED OF FABRIC, PLYWOOD OR OTHER SIMILAR MATERIAL, AND SECURED AGAINST JET BLAST AND HIGH WINDS. WEIGHTED OBJECTS SHALL NOT EXCEED 3" HEIGHT

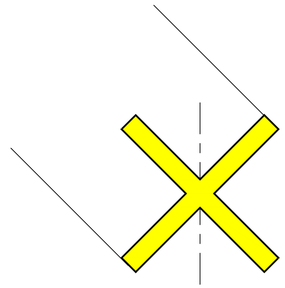
FABRIC RUNWAY CLOSURE MARKER DETAIL

NOT TO SCALE
(INCIDENTAL TO ITEM M-200-1)



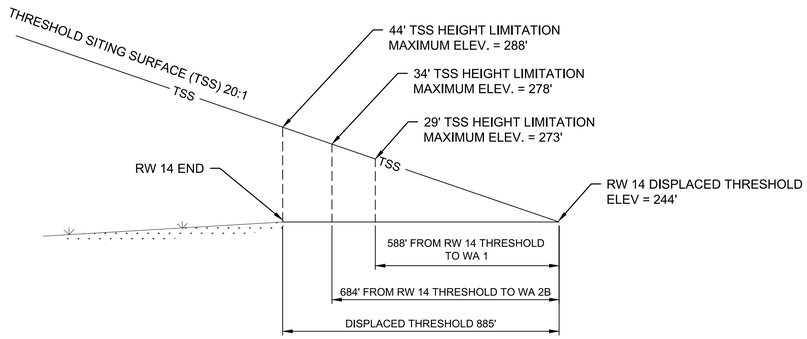
LIGHTED RUNWAY CLOSURE MARKER DETAIL

NOT TO SCALE
(INCIDENTAL TO ITEM M-200-1)



RUNWAY CLOSURE MARKER NOTES:

1. RUNWAY CLOSURE MARKER WILL BE A TOWABLE UNIT WHICH CAN BE QUICKLY AND EFFICIENTLY SET UP AND REMOVED FROM THE RUNWAY. THE RUNWAY CLOSURE MARKER WILL MEET THE REQUIREMENTS OF FAA AC 150/5345-55A (LATEST REVISION) AND PER AC 150/5370-2G.
2. RUNWAY CLOSURE MARKER IS REQUIRED TO BE ABLE TO WITHSTAND A MINIMUM WIND SPEED OF 40 M.P.H. WITHOUT ADVERSELY AFFECTING AIMING OR OPERATION.
3. RUNWAY CLOSURE MARKER WILL CONSIST OF 21 90-WATT PAR 38 CLEAR INCANDESCENT LAMPS OR LAMPS WHICH ARE CAPABLE OF TRANSMITTING AVIATION WHITE LIGHT PER SAE-AS25050, ARRANGED IN THE SHAPE OF THE LETTER "X" WITH ARMS CROSSED AT AN ANGLE APPROPRIATE TO MAKE THE "X" DISCERNIBLE TO APPROACHING AIRCRAFT. THE "X" FRAME CONTAINING THE LIGHTS IS TO BE PAINTED NO. 13538 AVIATION YELLOW, PER FED-STD-595, ON ALL SIDES TO ENSURE VISIBILITY.
4. LIGHT FIXTURES MOUNTED IN "X" FRAME ARE REQUIRED TO INDIVIDUALLY BE CAPABLE OF PROVIDING THE FOLLOWING MINIMUM INTENSITIES:
   - DAYTIME EFFECTIVE INTENSITY OF 70,000 CANDELA (cd) AT THE BEAM CENTER, 34,000 cd AT 10 DEGREES RADIUS, AND 13,000 cd AT 15 DEGREES RADIUS.
   - NIGHTTIME EFFECTIVE INTENSITY OF 2,000 (cd) AT THE BEAM CENTER, 970 cd AT 10 DEGREES RADIUS, AND 370 cd AT 15 DEGREES RADIUS.
5. LIGHT FIXTURES MOUNTED IN "X" FRAME ARE REQUIRED TO HAVE ALL LIGHT BULBS, SOCKETS, WIRING AND CONNECTIONS ENCLOSED IN WEATHER RESISTANT HOUSINGS.
6. LIGHT FIXTURES MOUNTED IN "X" FRAME ARE TO BE IN A FLASHING MODE CONTROLLED BY A SOLID STATE FLASHER. FLASHER IS TO BE EQUIPPED WITH A FAIL SAFE ALLOWING LIGHTS TO REMAIN ON CONTINUOUS SHOULD FLASHER UNIT FAIL. FLASH INTERVAL TIME WILL BE:
   DAYTIME OPERATION - 2.5 SECONDS ON, 2.5 SECONDS OFF
   NIGHTTIME OPERATION - 2.5 SECONDS ON, 2.5 SECONDS OFF
7. UNIT IS REQUIRED TO BE EQUIPPED WITH A PHOTO CELL WHICH WILL REDUCE THE OUTPUT VOLTAGE TO 65 VOLTS DURING NIGHTTIME OPERATION.
8. THE RUNWAY CLOSURE MARKER IS REQUIRED TO BE EQUIPPED FOR A CONNECTION TO 120V AC POWER SOURCE TO ALLOW FOR BACK-UP POWER SOURCE CAPABILITY OR ON-SITE POWER SUPPLY IF AVAILABLE. RUNWAY CLOSURE MARKER IS TO BE ENERGIZED BY A PORTABLE DIESEL ENGINE POWER SUPPLY WITH AN ADEQUATE FUEL CAPACITY TO SUPPLY POWER TO THE UNIT AT FULL LOAD FOR A MINIMUM OF 120 HOURS OF CONTINUOUS OPERATION.
9. RUNWAY CLOSURE MARKER IS TO BE EQUIPPED WITH 2 LIGHTS MOUNTED ON THE BACK SIDE OF THE TOP LEGS OF THE "X" FRAME. LIGHTS ARE TO BE WIRED SUCH THAT THEY REMAIN CONTINUOUSLY ON DURING CLOSURE MARKER OPERATION AS AN INDICATION OF POWER BEING SUPPLIED TO THE UNIT.
10. UNIT IS TO BE EQUIPPED WITH SOLAR POWERED SAFETY BEACON MOUNTED IN A LOCATION VISIBLE TO ATCT OR AIRPORT PERSONNEL. BEACON IS TO BE WIRED SUCH THAT IT WILL BE ACTIVATED IN THE EVENT OF TOTAL POWER LOSS AND HAVE SUFFICIENT POWER TO OPERATE FOR A MINIMUM OF 140 HOURS DAY OR NIGHT.
11. CONTRACTOR RESPONSIBLE FOR PROVIDING RUNWAY CLOSURE MARKERS.
12. CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE, MOVING AND FUELING. INCLUDING FUELING ON THE WEEKENDS AND MAINTENANCE ON THE WEEKEND.



McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
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CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

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PROJECT MILESTONE

BID DOCUMENTS

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DRAWN	GMP
DESIGNED	SRG
CHECKED	MTO
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
CONSTRUCTION SAFETY AND PHASING PLAN - DETAILS (SHEET 2 OF 2)

DRAWING NUMBER
CS-05

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LEGEND

FENCE REMOVAL

EXISTING VEHICLE SERVICE ROAD REMOVAL

NOTES:

1. FOR EROSION CONTROL MEASURES, SEE SHEETS GR-01 THROUGH GR-05. CONTRACTOR SHALL HAVE TEMPORARY EROSION CONTROL IN PLACE AND REVIEWED BY THE ENGINEER PRIOR TO START OF DEMOLITION WORK.

0 40 80 160 FT

SCALE

REMOVE AND DISPOSE OF EXISTING FENCE TO CORNER (ITEM F-162-5.2)

CHAINLINK FENCE

FENCE DEMOLITION LIMITS

EXISTING GENERATORS CONTRACTOR SHALL NOT DISTURB (INCIDENTAL TO ITEM M-200-1)

FOR EROSION CONTROL MEASURES, SEE SHEETS GR-03 THROUGH GR-05. CONTRACTOR SHALL HAVE TEMPORARY EROSION CONTROL IN PLACE AND REVIEWED BY THE ENGINEER PRIOR TO START OF DEMOLITION WORK

REMOVE AND DISPOSE OF EXISTING FENCE (TYP.) (ITEM F-162-5.2) FOR LIMITS OF DEMOLITION. SEE INSET ON THIS SHEET.

EXISTING GATE TO REMAIN

APPROXIMATE LIMITS OF DISTURBANCE FOR NEW VSR GRADING (TYP.)

EXISTING HIGH VOLTAGE POWERLINE FOR AIRPORT SOLAR PANELS (TYP.) CONTRACTOR SHALL LOCATE PRIOR TO EXCAVATION AND NOT DISTURB. (INCIDENTAL TO ITEM M-200-1) ANY CABLES DISTURBED BY THE CONTRACTOR OPERATIONS SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE COST OF THE CONTRACTOR

EXISTING VEHICLE SERVICE ROAD REMOVAL (TYP.) (ITEM P-152-4.1a) SEE DETAIL SHEET TS-02 FOR REMOVAL DETAILS

BORING LOCATIONS (TYP.) SEE BORING LOG SHEETS BL-01 THROUGH #####

PROTECT EXISTING UNDERGROUND POWER CABLE. ASSUME 0" TO 30" COVER (INCIDENTAL TO ITEM M-200-1)

300'

200'

100'

150'

400'

RUNWAY 14-32

TAXIWAY B

TAXIWAY C

AIRPORT ROAD

GATEHOUSE ROAD

LOD

B-3 B-4 B-6 B-7 B-8 B-9 B-10

ROFA ROFZ RSA UE TSS

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

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STATE OF MAINE SYDNEY R. SENES No. 17845 LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

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DRAWN	ABS
DESIGNED	SRG
CHECKED	DAN
SCALE	1"=40'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

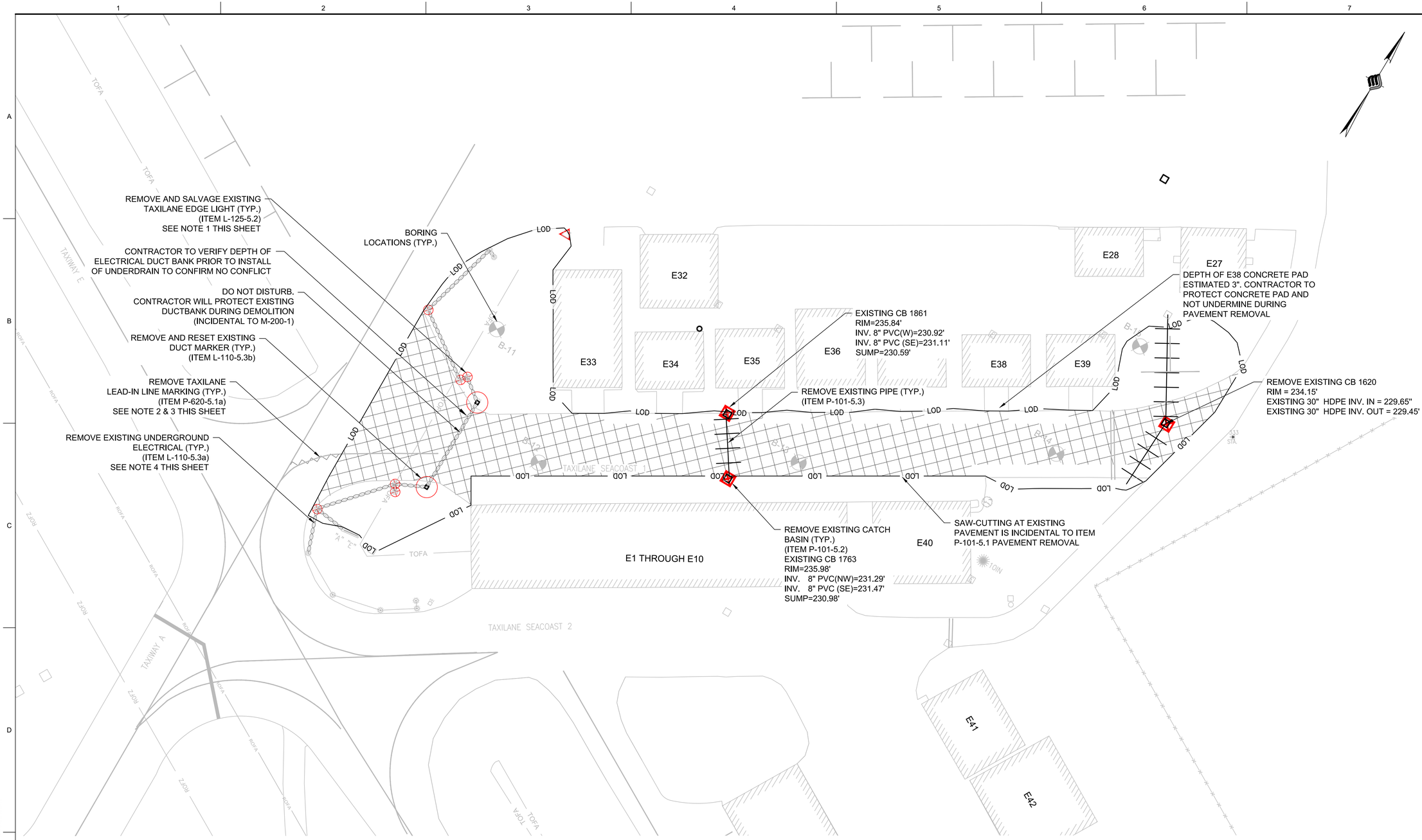
EXISTING CONDITIONS AND DEMOLITION PLAN (SHEET 1 OF 2)

DRAWING NUMBER

EX-01

11 OF 32

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LEGEND

- PAVEMENT REMOVAL
- REMOVE TAXIWAY EDGE LIGHT
- REMOVE AND REST DUCT MARKER
- MARKING REMOVAL
- REMOVE EXISTING CATCHBASIN
- REMOVE EXISTING UNDERGROUND ELECTRICAL
- REMOVE EXISTING PIPE

NOTES:

1. CONTRACTOR SHALL REMOVE AND SALVAGE THE EXISTING TAXIWAY EDGE LIGHTS AND TRANSFORMERS AND NOTIFY RPR WHEN LIGHT IS DISCONNECTED. THE OWNER WILL COLLECT THE SALVAGED ITEMS.
2. ITEM P-620-5.1a SURFACE PREPARATION IS FOR MARKING REMOVAL ONLY AS INDICATED ON THIS PLAN. ANY ADDITIONAL SURFACE PREPARATION MUST BE DIRECTED BY THE RPR.
3. ITEM P-620-5.1a MARKING REMOVAL SHALL BE BY GRINDING ONLY.
4. ITEM L-110-5.3a REMOVAL OF CONDUIT AND CABLE WILL BE QUANTIFIED AS A SINGLE LINEAR FOOT OF TRENCHING REQUIRED REGARDLESS OF THE NUMBER OF CABLE/COUNTERPOISE IN PLACE.
5. FOR EROSION CONTROL MEASURES, SEE SHEETS GR-01 THROUGH GR-05. CONTRACTOR SHALL HAVE TEMPORARY EROSION CONTROL IN PLACE AND REVIEWED BY THE ENGINEER PRIOR TO START OF DEMOLITION WORK.

0 30 60 90 FT
SCALE

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

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SCALE	1"=30'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

EXISTING CONDITIONS AND DEMOLITION PLAN (SHEET 2 OF 2)

DRAWING NUMBER

EX-02

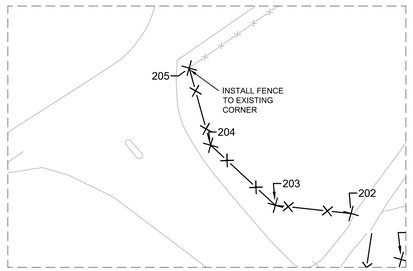
12 OF 32

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LEGEND:

- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- ROFZ — RUNWAY OBJECT FREE ZONE
- LOD — PROPOSED LIMIT OF DISTURBANCE
- NEW VEHICLE SERVICE ROAD (VSR)
- NEW FENCE

0 40 80 160 FT
SCALE



FENCE LAYOUT LIMITS

FENCE LAYOUT POINTS		
POINT #	NORTHING	EASTING
200	207184.86	2806350.24
201	207199.38	2806396.81
202	207253.98	2806378.82
203	207291.28	2806326.48
204	207362.23	2806303.64
205	207427.93	2806319.68

ALIGNMENT LAYOUT POINTS		
POINT #	NORTHING	EASTING
100	207363.54	2807431.97
101	207337.24	2807443.50
102	207462.80	2807136.76
103	207481.31	2807144.33
104	207417.52	2807000.72
105	207427.79	2806983.56
106	207094.40	2806807.19
107	207104.67	2806790.04
108	207024.00	2806827.69
109	207006.12	2806818.73
110	206928.91	2807017.46
111	206911.03	2807008.50
112	206907.87	2807049.30
113	206892.62	2807036.36
114	206704.87	2807288.79
115	206686.95	2807278.74

SIGN LAYOUT POINTS		
POINT #	NORTHING	EASTING
300	207413.18	2807006.40
301	207489.76	2807149.29

CONSTRUCT NEW 20' VEHICLE SERVICE ROAD (TYP.) SEE DETAIL SHEET TS-01 (ITEMS P-152-4.2, P-209-5.1, AND P-403-8.1)

CONSTRUCT PAVEMENT TRANSITION. SEE DETAIL SHEET TS-02

INSTALL NEW STOP SIGN AND STOP BAR MARKING (TYP.) (ITEMS M-500-1, P-620-5.2b & P-620-5.3c) SEE DETAILS SHEET TS-03

INSTALL NEW FENCE SEE DETAIL SHEET TS-02 (ITEM F-162-5.1) FOR LIMITS OF FENCE INSTALLATION, SEE INSET ON THIS SHEET

PROPOSED LIMIT OF DISTURBANCE (TYP.)

BORING LOCATION (TYP.) SEE BORING LOG SHEETS BL-01 THROUGH BL-03

DO NOT DISTURB EXISTING TAXIWAY SIGN

EXISTING HIGH VOLTAGE POWERLINE FOR AIRPORT SOLAR PANELS (TYP.) CONTRACTOR SHALL LOCATE PRIOR TO EXCAVATION AND NOT DISTURB. (INCIDENTAL TO ITEM M-200-1) ANY CABLES DISTURBED BY THE CONTRACTOR OPERATIONS SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE COST OF THE CONTRACTOR

CONSTRUCT PAVEMENT TRANSITION. SEE DETAIL SHEET TS-02

DO NOT DISTURB EXISTING STORMWATER TREATMENT AREA

EXISTING FENCELINE (TYP.)

20' (TYP.)

200' 300'

RUNWAY 14-32

AIRPORT ROAD

GATEHOUSE ROAD

TAXIWAY B

TAXIWAY C

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
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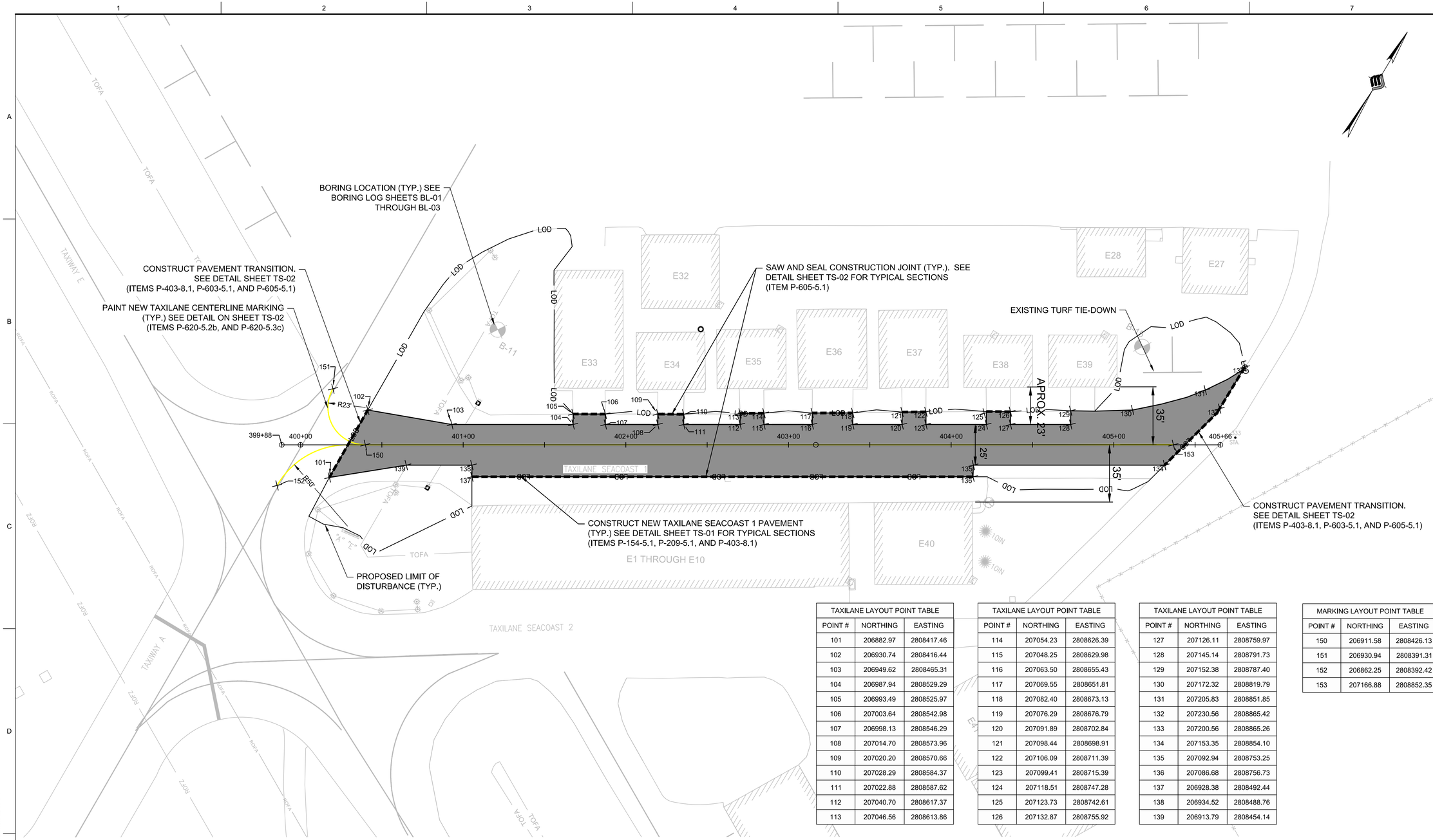
LAYOUT PLAN (SHEET 1 OF 2)

DRAWING NUMBER

GE-01

13 OF 32

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TAXILANE LAYOUT POINT TABLE		
POINT #	NORTHING	EASTING
101	206882.97	2808417.46
102	206930.74	2808416.44
103	206949.62	2808465.31
104	206987.94	2808529.29
105	206993.49	2808525.97
106	207003.64	2808542.98
107	206998.13	2808546.29
108	207014.70	2808573.96
109	207020.20	2808570.66
110	207028.29	2808584.37
111	207022.88	2808587.62
112	207040.70	2808617.37
113	207046.56	2808613.86

TAXILANE LAYOUT POINT TABLE		
POINT #	NORTHING	EASTING
114	207054.23	2808626.39
115	207048.25	2808629.98
116	207063.50	2808655.43
117	207069.55	2808651.81
118	207082.40	2808673.13
119	207076.29	2808676.79
120	207091.89	2808702.84
121	207098.44	2808698.91
122	207106.09	2808711.39
123	207099.41	2808715.39
124	207118.51	2808747.28
125	207123.73	2808742.61
126	207132.87	2808755.92

TAXILANE LAYOUT POINT TABLE		
POINT #	NORTHING	EASTING
127	207126.11	2808759.97
128	207145.14	2808791.73
129	207152.38	2808787.40
130	207172.32	2808819.79
131	207205.83	2808851.85
132	207230.56	2808865.42
133	207200.56	2808865.26
134	207153.35	2808854.10
135	207092.94	2808753.25
136	207086.68	2808756.73
137	206928.38	2808492.44
138	206934.52	2808488.76
139	206913.79	2808454.14

MARKING LAYOUT POINT TABLE		
POINT #	NORTHING	EASTING
150	206911.58	2808426.13
151	206930.94	2808391.31
152	206862.25	2808392.42
153	207166.88	2808852.35

LEGEND:

- ROFA — RUNWAY OBJECT FREE AREA
- ROFZ — RUNWAY OBSTACLE FREE ZONE
- LOD — PROPOSED LIMIT OF DISTURBANCE
- TOFA — TAXIWAY OBJECT FREE AREA
- EXISTING CENTERLINE MARKING
- SAW AND SEAL JOINT
- NEW PAVEMENT
- NEW TAXILANE CENTERLINE
- EXISTING BUILDING

NOTES:

1. PREPARATION OF NEW AND EXISTING PAVEMENT IMMEDIATELY BEFORE APPLICATION OF PAVEMENT MARKING SHALL BE INCIDENTAL TO THE APPLICATION OF PAINT ITEM P-620-5.2b MARKING.

0 30 60 90 FT
SCALE

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STATE OF MAINE SYDNEY A. SENES NO. 17845 PROFESSIONAL ENGINEER LICENSED

PROJECT MILESTONE

BID DOCUMENTS

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DESIGNED	SRG
CHECKED	DAN
SCALE	1"=30'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

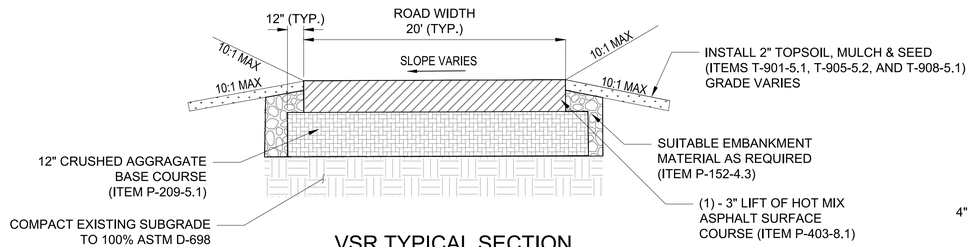
LAYOUT PLAN (SHEET 2 OF 2)

DRAWING NUMBER

GE-02

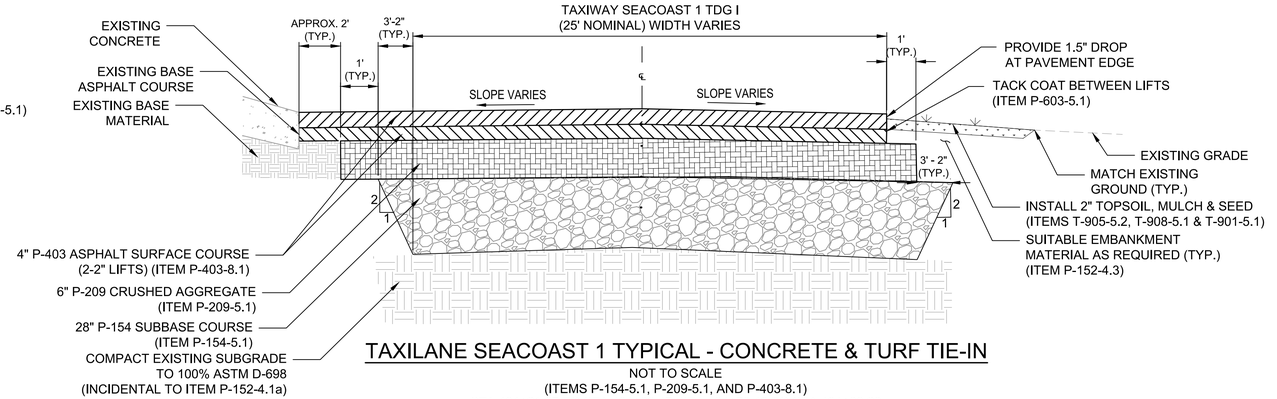
14 OF 32

K:\SANFORD SEACOAST\T-1\19459.01 SFM TAXILANE & VSR DESIGN\DRAWING\DRAWINGS\SHEET FILES\19459.01-LAYOUT-TAXI.DWG



VSR TYPICAL SECTION

NOT TO SCALE
(ITEMS P-152-4.3, P-209-5.1, AND P-403-8.1)

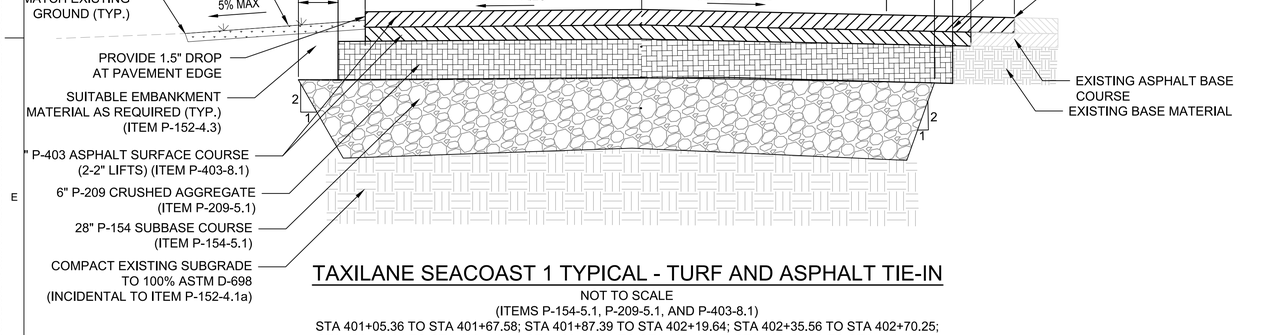


TAXILANE SEACOAST 1 TYPICAL - CONCRETE & TURF TIE-IN

NOT TO SCALE
(ITEMS P-154-5.1, P-209-5.1, AND P-403-8.1)
STA 404+21.67 TO STA 404+36.47; STA 404+73.49 TO STA 404+88.23

HANGAR CONCRETE PAD DEPTHS	
E33	8"
E34	5"
E35	7"
E36	4"
E37	4"
E38*	3"
E39	4"

NOTES:
1. FOR HANGAR E38, CONTRACTOR SHALL ADJUST DEPTH OF NEW ASPHALT TO NOT UNDERMINE THE EXISTING CONCRETE PAD AND TRANSITION TO A TYPICAL DETAIL.



TAXILANE SEACOAST 1 TYPICAL - TURF TIE-IN

NOT TO SCALE
(ITEMS P-154-5.1, P-209-5.1, AND P-403-8.1)
STA 400+28.87 TO STA 401+05.36; STA 404+13.66 TO STA 404+21.67;
STA 404+36.47 TO STA 404+73.49; STA 404+88.23 TO STA 405+43.75

TAXILANE SEACOAST 1 TYPICAL - CONCRETE & ASPHALT TIE-IN

NOT TO SCALE
(ITEMS P-154-5.1, P-209-5.1, AND P-403-8.1)
STA 401+67.58 TO 401+87.39; STA 402+19.64 TO STA 402+35.56; STA 402+70.25 TO STA 402+84.94;
STA 403+14.61 TO STA 403+39.51; STA 403+69.87 TO STA 403+84.50

TAXILANE SEACOAST 1 TYPICAL - TURF AND ASPHALT TIE-IN

NOT TO SCALE
(ITEMS P-154-5.1, P-209-5.1, AND P-403-8.1)
STA 401+05.36 TO STA 401+67.58; STA 401+87.39 TO STA 402+19.64; STA 402+35.56 TO STA 402+70.25;
STA 402+84.94 TO STA 403+14.61; STA 403+39.51 TO STA 403+69.87; STA 403+84.50 TO STA 404+13.66

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
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Sanford Seacoast Regional Airport

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CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

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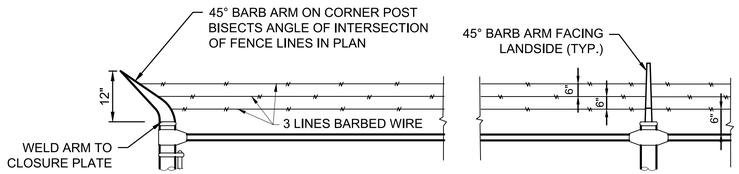
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PROJECT	19459.01

DRAWING TITLE
TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 1 of 3)

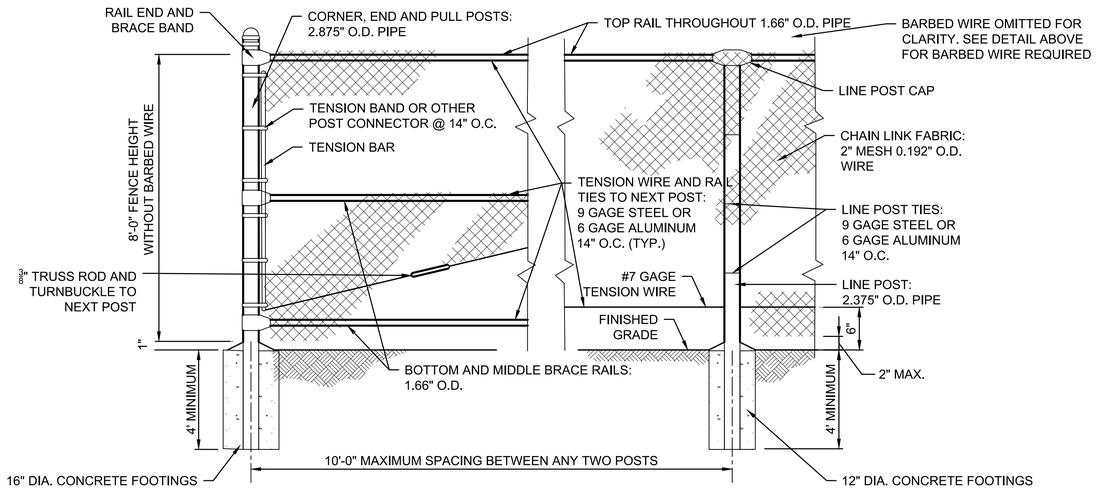
DRAWING NUMBER
TS-01

15 OF 32

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DETAIL WITH BARBWIRE TOP



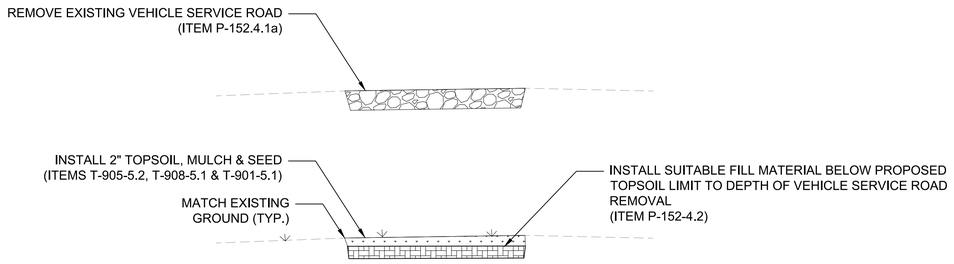
TERMINAL POST DETAIL

LINE POST DETAIL

NOTES:
1. CONTRACTOR SHALL PREPARE A FINISHED GRADE OF WHICH IS A FLAT, UNIFORM SLOPE BETWEEN FENCE POSTS.

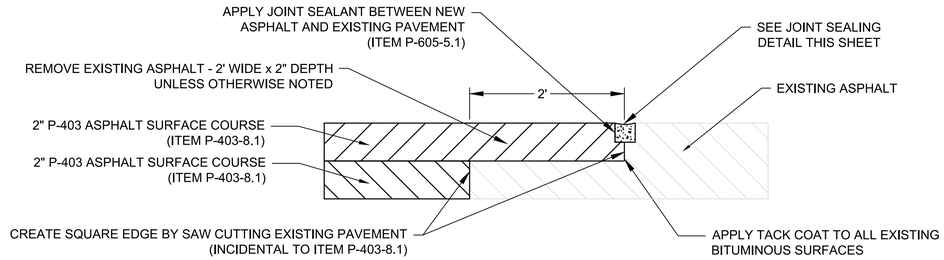
8-FT CHAIN LINK FENCE WITH BARBWIRE DETAIL

NOT TO SCALE
(ITEM F-162-5.1)



EXISTING VEHICLE SERVICE ROAD REMOVAL

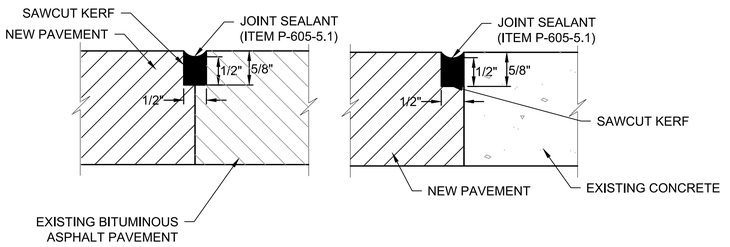
NOT TO SCALE
(ITEMS P-152-4.1a, P-152-4.2, T-901-5.1, T-905-5.2, & T-908-5.1)



NOTE:
1. FACE OF EXISTING PAVEMENT SHALL BE FREE OF DIRT AND DEBRIS PRIOR OF APPLICATION OF TACK COAT OR SEALANT AND MAY REQUIRE WASHING OR USE OF WIRE BRUSH.

PAVEMENT TRANSITION JOINT DETAIL

NOT TO SCALE
(ITEMS P-403-8.1, P-603-5.1, AND P-605-5.1)



JOINT SEALING DETAIL

NOT TO SCALE
(ITEM P-605-5.1)



TAXIWAY CENTERLINE MARKING DETAIL

NOT TO SCALE
(ITEMS P-620-5.1a, P-620-5.2b, AND P-620-5.3c)

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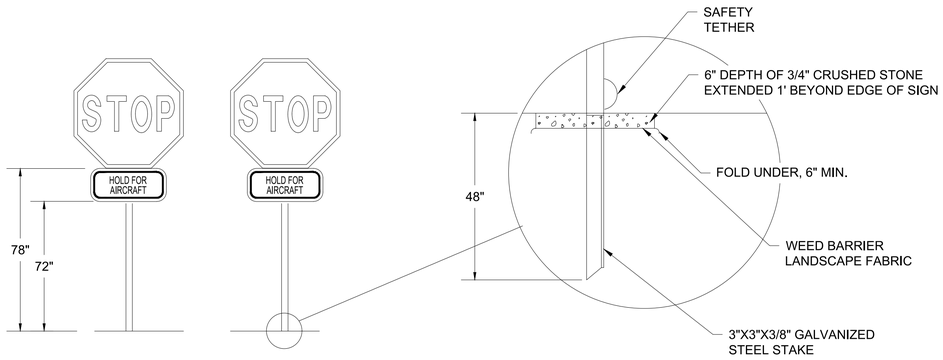
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DESIGNED	SRG
CHECKED	DAN
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 2 OF 3)

DRAWING NUMBER
TS-02

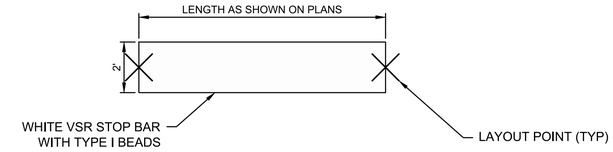
16 OF 32

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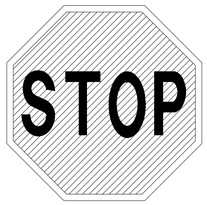


NOTES
1. SIGNS INCLUDE SINGLE POST.
2. M-500-1 SIGN CONTAINS "STOP" SIGN WITH NO LEFT TURN SIGN AS SHOWN.
3. THIS SIGN SHALL CONFORM TO M.U.T.C.D. R3-2 NO LEFT TURN SIGN WITH INSTRUCTIONAL SIGN FOR VEHICLES TYPE A
4. EDGE OF SIGN SHALL BE 8' FROM ROAD

NOTES
1. ABOVE DETAIL IS TYPICAL FOR ALL SIGN FOUDNATIONS CONNECTIONS.
2. ALL FOUNDATION AND POST MATERIALS ARE INCIDENTAL TO THE M-500 SIGN ITEM.



V.S.R. STOP MARKING DETAIL
NOT TO SCALE
(ITEMS P-620-5.2b & P-620-5.3c)



- SIGNS TO CONFORM TO LATEST VERSION OF MUTCD STANDARDS
- 30" ACROSS FLATS

COLOR LEGEND:
BACKGROUND - RED (REFLECTIVE)
LETTERS WHITE - (REFLECTIVE)

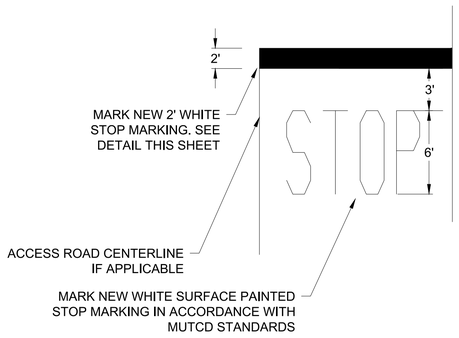


MUTCD HORIZONTAL RECTANGLE
12" X 6" BLANK STANDARD

COLORS:
LEGEND - BLACK AND RED
BACKGROUND - WHITE (RETROREFLECTIVE)

REF: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
(MUTCD) STANDARD HIGHWAY SIGNS 2009 WITH REVISIONS 1 AND 2 (ENGLISH) EDITION

STOP WITH HOLD PERMANENT VEHICLE TRAFFIC SIGN
NOT TO SCALE
(ITEM M-500-1)



VEHICLE SERVICE ROAD (VSR) STOP BAR DETAIL
NOT TO SCALE
(ITEMS P-620-5.2b & P-620-5.3c)

VSR MARKING NOTES:
1. ALL VSR MARKINGS SHALL BE LAID OUT AND APPROVED BY THE RPR AND AIRPORT REPRESENTATIVE PRIOR TO PERMANENT INSTALLATION
2. STOP BAR AND MARKING TO RECEIVE TYPE I BEADS.

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

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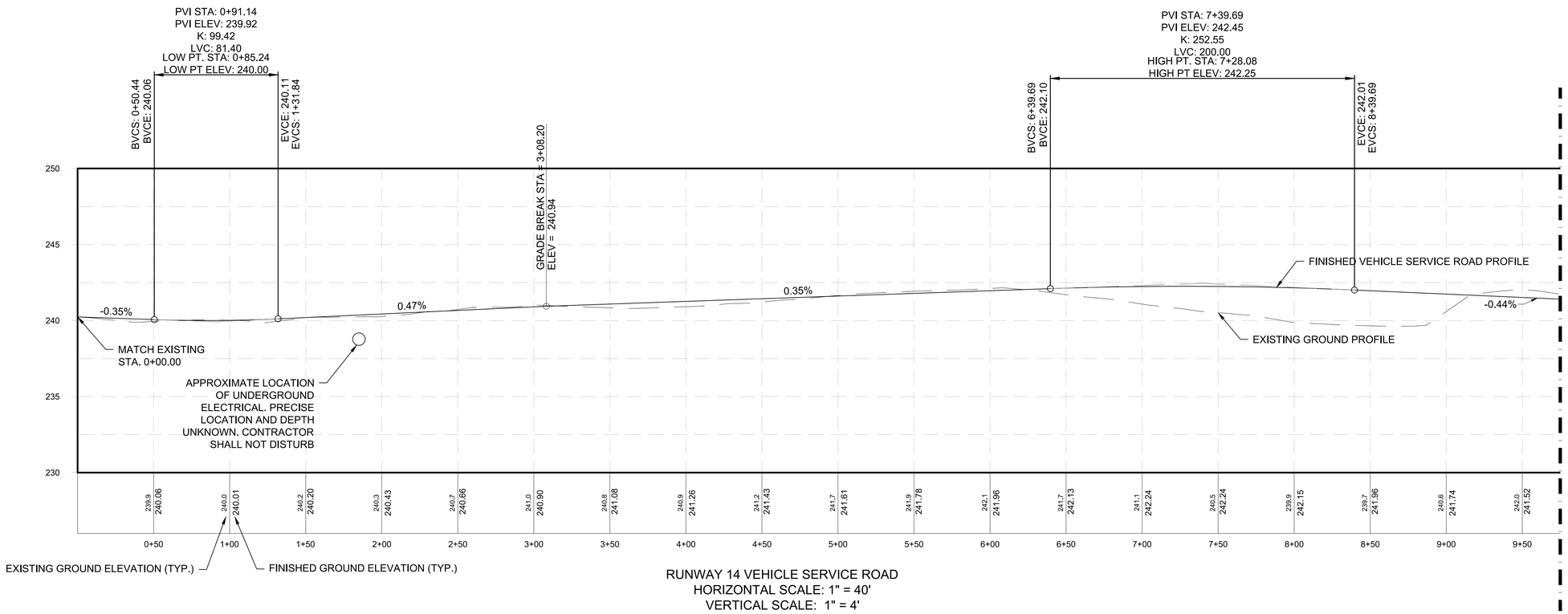
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CHECKED	MTO
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
TYPICAL SECTIONS AND PAVEMENT DETAILS (SHEET 3 OF 3)

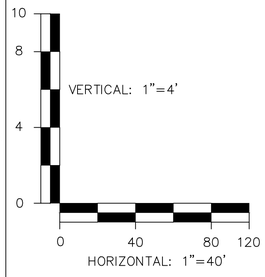
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TS-03

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RUNWAY 14 VEHICLE SERVICE ROAD
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



NOTES:

1. FOR GEOMETRY LAYOUT PLAN SEE SHEET GE-01.
2. FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.

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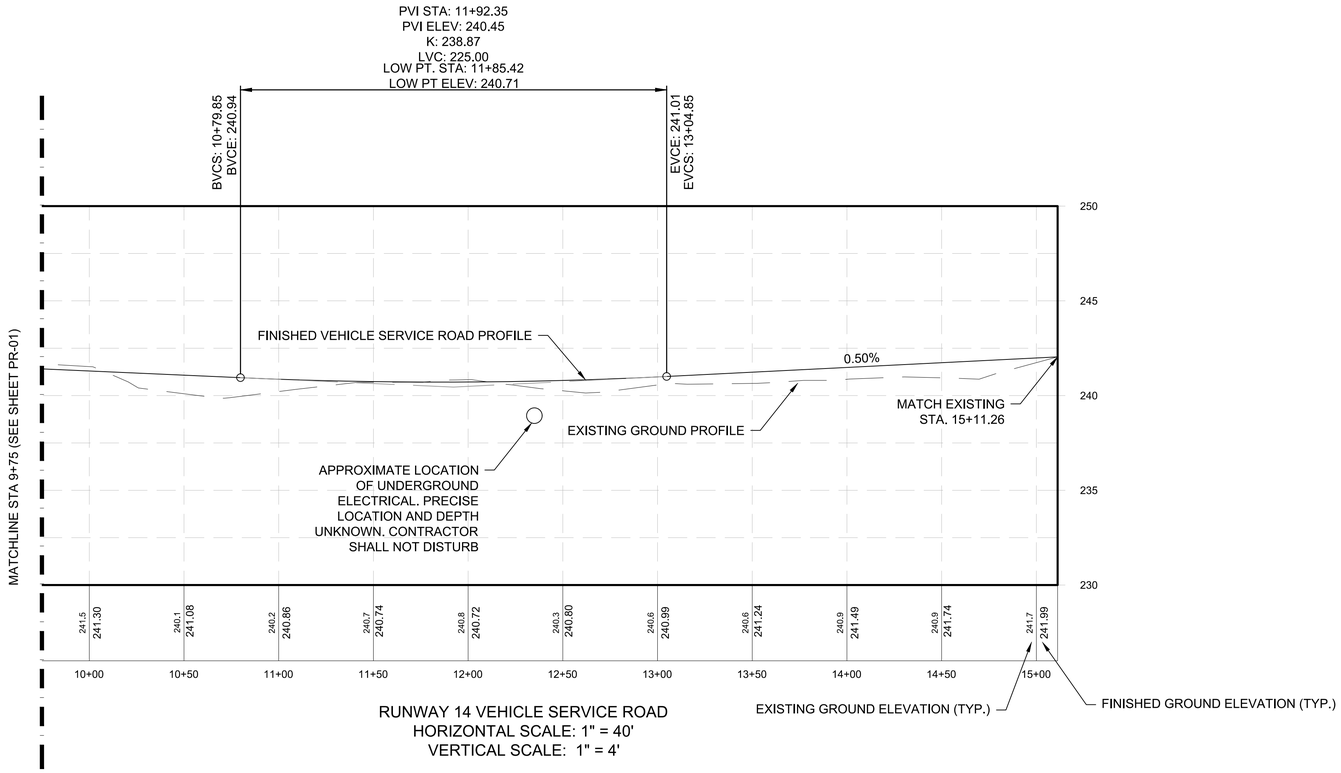
VEHICLE SERVICE ROAD PROFILE (SHEET 1 OF 2)

DRAWING NUMBER

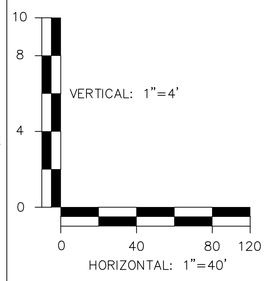
PR-01

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RUNWAY 14 VEHICLE SERVICE ROAD
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



NOTES:

1. FOR GEOMETRY LAYOUT PLAN SEE SHEET GE-01.
2. FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.

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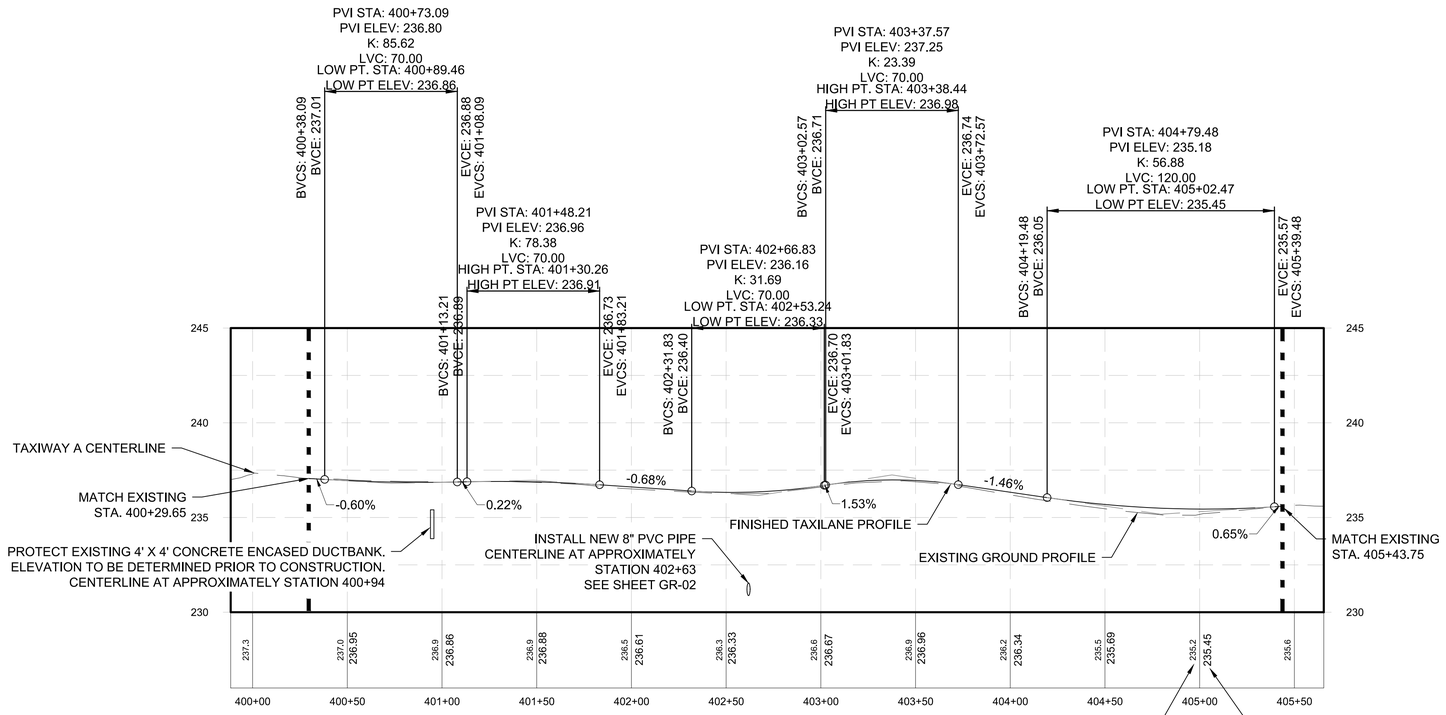
VEHICLE SERVICE ROAD PROFILE (SHEET 2 OF 2)

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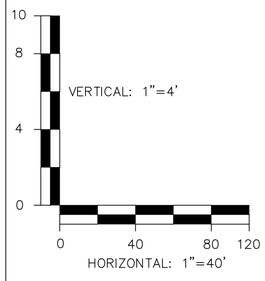
PR-02

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TAXILANE SEACOAST 1 CENTERLINE
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 4'



NOTES:

1. TAXILANE SEACOAST 1 WAS DESIGNED BASED ON A TDG 1A AND ADG A-I/B-I SMALL AIRCRAFT.
2. FOR GEOMETRY LAYOUT PLAN SEE SHEET GE-02.
3. FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.

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McFARLAND JOHNSON
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TAXILANE SEACOAST 1 PROFILE

DRAWING NUMBER

PR-03

LEGEND

- NEW VEHICLE SERVICE ROAD (VSR) PAVEMENT
- ECB — EROSION CONTROL BARRIER
- INLET PROTECTION
- EROSION CONTROL MATTING

0 40 80 160 FT

SCALE

INSTALL EROSION CONTROL BARRIER (TYP.) SEE DETAIL SHEET GR-03 (ITEM C-102-5.1b)

CONSTRUCT VEHICLE SERVICE ROAD (VSR) SEE TYPICAL SECTION ON SHEET TS-01 (ITEMS P-154-5.2, P-209-5.1, AND P-403-8.1)

INSTALL EROSION CONTROL MATTING SEE DETAIL SHEET GR-05 (ITEM C-102-5.1a)

INSTALL 2" TOPSOIL, SEED, AND MULCH WITHIN LIMIT OF DISTURBANCE (TYP.) (ITEMS T-901-5.1, T-905-5.2, AND T-908-5.1)

BORING LOCATION (TYP.) SEE BORING LOGS SHEET BL-01 THROUGH BL-03 FOR DETAILS

FOR FENCE LAYOUT, SEE SHEET GE-01

INSTALL CONSTRUCTION ENTRANCE. SEE DETAIL SHEET GR-04 (ITEM C-102-5.1c)

EXISTING SERVICE ROAD TO BE REMOVED. SEE SHEET TS-02 FOR REMOVAL DETAIL.SEE SHEET EX-01 FOR DEMOLITION LIMITS

INSTALL INLET PROTECTION (TYP.) SEE DETAIL SHEET GR-04 (ITEM C-102-5.1b)

RUNWAY 14-32

200+00 201+00 202+00

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 15+11

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
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CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE — SYDNEY R. SENES — NO. 17845 — LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWN	ABS
DESIGNED	SRG
CHECKED	DAN
SCALE	1"=40'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

GRADING, DRAINAGE, AND EROSION CONTROL PLAN (SHEET 1 OF 2)

DRAWING NUMBER

GR-01

21 OF 32

K:\SANFORD SEACOAST\T-19459.01 SFM TAXILANE & VSR DESIGN\DRAW\DRAWINGS\SHEET FILES\19459.01-GR40.DWG

INSTALL 2" TOPSOIL, SEED, AND MULCH WITHIN LIMIT OF DISTURBANCE (TYP.) (ITEMS T-901-5.1, T-905-5.2, AND T-908-5.1)

CONTRACTOR TO VERIFY DEPTH OF ELECTRICAL DUCT BANK PRIOR TO INSTALL OF UNDERDRAIN TO CONFIRM NO CONFLICT

INSTALL NEW 6" PERFORATED UNDERDRAIN (TYP.) SEE DETAIL ON SHEET GR-05 (ITEM D-705-5.1)

INSTALL NEW UNDERDRAIN CLEANOUT (TYP.) SEE DETAIL ON SHEET GR-05 (ITEM D-751-5.4) UNDERDRAIN CLEANOUT C100 LENGTH TO CB = 215.39' RIM = 236.63' INV. = 232.63'

INSTALL NEW CATCH BASIN. SEE DETAIL SHEET GR-04 FOR DETAIL (ITEM D-751-5.2a)

CB 1861 RIM = 235.97'
NEW 8" PVC INV. IN = 231.05'
EXISTING 8" PVC INV. OUT = 230.92'
NEW 6" UD C100 INV. IN = 231.55'
NEW 6" UD C103 INV. IN = 231.02'

INSTALL NEW 30" RCP PIPE. SEE SHEET GR-05 FOR DETAIL (ITEM D-701-5.2) L = 67' S = 0.5%

INSTALL NEW 30" RCP PIPE. SEE SHEET GR-05 FOR DETAIL (ITEM D-701-5.2) L = 45' S = 0.5%

EXISTING CB 1620
RIM = 234.15'
EXISTING 30" HDPE INV. IN = 229.65"
NEW 30" RCP INV. OUT = 229.45'

EXISTING TURF TIE DOWN

INSTALL NEW UNDERDRAIN CLEANOUT C103 LENGTH TO CB = 312.03' RIM = 235.11' INV. = 232.58"

NEW CB 1826
RIM = 235.37'
NEW 30" RCP INV. IN = 229.12'
NEW 30" RCP INV. OUT = 229.55'

INSTALL NEW UNDERDRAIN CLEANOUT C101 LENGTH TO CB = 242.44' RIM = 236.78' INV. = 232.78'

INSTALL NEW CATCH BASIN. SEE DETAIL SHEET GR-04 FOR DETAIL (ITEM D-751-5.2a)

CB 1763
RIM = 235.98
EXISTING 8" PVC INV. IN = 231.47'
NEW 8" PVC INV. OUT = 231.37'
NEW 6" UD C101 INV. IN = 231.57'
NEW 6" UD C102 INV. IN = 231.47'

BORING LOCATIONS (TYP.) SEE BORING LOGS SHEET BL-01 THROUGH BL-03 FOR DETAILS

INSTALL NEW 8" PVC PIPE. SEE SHEET GR-04 FOR DETAIL (ITEM D-701-5.1) L = 39.7' S = 0.8%

INSTALL NEW UNDERDRAIN CLEANOUT C102 LENGTH TO CB = 250.07' RIM = 235.21' INV. = 231.02'

NEW CB 1500
RIM = 234.66'
NEW 30" RCP INV. IN = 229.32'
EXISTING 30" HDPE INV. OUT = 229.37'

INSTALL INLET PROTECTION (TYP.) SEE DETAIL SHEET GR-04 (ITEM C-102-5.1b)

E1 THROUGH E10

TAXILANE SEACOAST 2

DRAINAGE LAYOUT POINT TABLE		
Point #	Northing	Easting
100	206939.32	2808422.00
101	206882.10	2808419.53
102	207141.12	2808837.58
103	207223.92	2808857.72
104	207008.27	2808628.91
105	207042.27	2808608.34
106	207234.12	2808809.59
107	207176.21	2808842.81
108	207131.67	2808841.26

LEGEND

- NEW TAXILANE SEACOAST 1 PAVEMENT
- INLET PROTECTION
- U.D. CLEANOUT
- NEW 8" PVC PIPE
- NEW 30" RCP PIPE
- NEW CATCH BASIN

0 30 60 90 FT
SCALE

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE SYDNEY R. SENES No. 17845 LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

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DRAWN	ABS
DESIGNED	SRG
CHECKED	DAN
SCALE	1"=30'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
GRADING, DRAINAGE, AND EROSION CONTROL PLAN (SHEET 2 OF 2)

DRAWING NUMBER
GR-02
22 OF 32

K:\SANFORD SEACOAST\T1-19459.01 SFM TAXILANE & VSR DESIGN\DRAWING\SHEET FILES\19459.01-GRAD.DWG

EROSION CONTROL SPECIFICATIONS FOR UPLAND AREAS:

1. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTOR, MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS), AND ANY FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.
2. RECOGNIZING THAT IMMEDIATE ATTENTION TO EROSION CONTROL PRACTICES DRAMATICALLY IMPROVES SOIL AND MOISTURE CONSERVATION AND REDUCES NEGATIVE IMPACTS ON WATER QUALITY, THE CONTRACTOR SHALL GIVE HIGH PRIORITY TO THE DAILY AND TIMELY INSTALLATION OF BOTH TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATE INSTALLATION OF PRACTICES USUALLY REDUCES LONG TERM COSTS TO THE CONTRACTOR.
3. EROSION CONTROL PRACTICES ARE SHOWN ON THE PLANS WITH RESPECT TO LOCATION AS DETERMINED FROM EXISTING TOPOGRAPHY. CHANGES MAY BE INDICATED IN THE FIELD TO IMPROVE EROSION AND SEDIMENT CONTROL.
4. ALL DISTURBED UPLAND AREAS SHALL HAVE TOPSOIL SPREAD (2" MINIMUM) WITHIN TWO WEEKS AND BE LIMED, FERTILIZED, TILLED, SEEDED AND MULCHED. ALL SLOPES 3:1 (1 RISE ON 3 RUN) AND STEEPER SHALL HAVE MULCH HELD IN PLACE WITH BIODEGRADABLE JUTE NETTING OR EROSION CONTROL BLANKET, STAPLED AND STAKED. EACH AREA SHALL BE LIMED, FERTILIZED, PREPARED, SEEDED AND MULCHED (WITH ANCHORED NETTING OR BLANKET IF REQUIRED) WITHIN 14 DAYS OF FINAL GRADING. WHEN PERMANENT SEEDING CANNOT BE INSTALLED BY SEPTEMBER 15, TEMPORARY SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE INSTALLED IMMEDIATELY AND MAINTAINED IN THAT CONDITION UNTIL PERMANENT PRACTICES CAN BE INSTALLED IN THE FOLLOWING PLANTING SEASON.
5. TEMPORARY STABILIZATION OF DISTURBED UPLAND AREAS (IF REQUIRED):
   SEED BED PREPARATION: TILL FOUR INCHES DEEP MIXING IN FERTILIZER AND GROUND LIMESTONE. APPLY LIMESTONE 2 TONS/ACRE (100#/1,000 SQ. FT.) OR ACCORDING TO SOIL TEST.
   FERTILIZE: UNIFORMLY APPLY NOT LESS THAN 400#/ACRE (14#/1,000 SQ. FT.) OF 10-10-10 OR EQUIVALENT OR AS INDICATED BY SOIL TEST. FORTY PERCENT OF NITROGEN SHOULD BE IN ORGANIC FORM.
   TEMPORARY SEEDING: SPREAD SEED UNIFORMLY. FIRM SOIL BY ROLLING OR PACKING; IF NOT FEASIBLE, THEN RAKE LIGHTLY TO COVER SEEDS.
   MULCHING: MULCH ALL DISTURBED AREAS WITH 2 TONS OF ORGANIC FIBROUS MATERIAL PER ACRE (90-100#/1,000 SQ. FT.). ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND FLATTER SLOPES SUBJECT TO WASH OR WIND BLOWN. USE JUTE (OR OTHER BIODEGRADABLE) NETTING OR BLANKET. STAKING AND STAPLING MAY BE REQUIRED.
6. OVERWINTER STABILIZATION OF DISTURBED UPLAND AREAS:
   - IF CONSTRUCTION OCCURS AFTER NOVEMBER 1ST, ALL DISTURBED AREAS SHOULD BE STABILIZED DAILY IF THE CONSTRUCTION IS ACTIVE. ANY EROSION OR DISCHARGES SHOULD BE REPAIRED IMMEDIATELY.
   - NO MORE THAN 1 ACRE SHOULD BE ACTIVELY WORKED ON AT ANY ONE TIME WITHOUT REGULAR INSPECTION; OR THE EXPOSED AREA SHOULD BE LIMITED TO WHICH CAN BE MULCHED IN ONE DAY. ANY MEASURES NECESSARY TO CONTROL EROSION/SEDIMENTATION SHOULD BE INSTALLED FOR THE CONDITIONS AT THE SITE (SOIL ERODIBILITY, SLOPE, GROUNDWATER, SIZE, WEATHER CONDITIONS, ETC.)
   - FOR OVER-WINTER PROTECTION, A DOUBLE ROW OF SEDIMENT BARRIERS (SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX, ETC.) SHOULD BE PLACED WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE.
   - ALL HAY MULCH SHOULD BE ANCHORED WITH NETTING, ASPHALT EMULSION CHEMICALS, TRACKING OR EROSION CONTROL MIX AFTER NOVEMBER 1ST. THE GROUND SURFACE SHOULD BE INVISIBLE UNDER THE MULCH.
   - LOAM OR SEED IS NOT EFFECTIVE AFTER OCTOBER15. FINISHED AREAS CAN BE MULCHED WITHOUT SEEDING OR WITH DORMANT SEEDING APPLIED AT A 3 TIMES THE SPECIFIED RATE FOR PERMANENT SEEDING. ALL AREAS SEEDED DURING THE WINTER SHOULD BE INSPECTED IN THE SPRING AND REVEGETATED IF THE CATCH IS LESS THAN 75%.
   - ALL VEGETATED AREAS WITH A SLOPE OF 15% OR LESS SHOULD HAVE 90% GRASS COVER BY NOVEMBER 1ST OR SHOULD BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SF, MULCHED WITH HAY AT 75 POUNDS PER 1000 SF, AND ANCHORED WITH NETTING. OR BY NOVEMBER 15 THE AREA SHOULD BE PROTECTED WITH AN EROSION CONTROL BLANKET, EROSION CONTROL MIX, OR HAY AT A RATE OF AT LEAST 150 POUND PER 1000 SF.
   - ALL VEGETATED SLOPES GREATER THAN 15%, SHOULD BE SEEDED AND MULCHED BY SEPTEMBER 1. IF A SLOPE IS NOT STABILIZED BY OCTOBER 15, THE SOIL MAY BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SF AND PROTECTED WITH EROSION CONTROL BLANKETS. IF THE RYE FAILS TO GROW THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE SLOPE BY NOVEMBER 15 THE SLOPE SHOULD BE PROTECTED WITH AN EROSION CONTROL BLANKET, EROSION CONTROL MIX, OR RIPRAP.
   - ALL GRASS LINED DITCHES AND CHANNELS SHOULD BE CONSTRUCTED AND STABILIZED BY SEPTEMBER 1. IF A DITCH OR CHANNEL IS NOT SUFFICIENTLY GRASSED OVER (75% COVER) BY NOVEMBER 15TH, THE DITCH SHOULD BE LINES WITH STONE RIPRAP. THE DITCH WILL NEED TO BE OVER-EXCAVATED TO ACCOMMODATE THE THICKNESS OF THE RIPRAP.
   - SOIL STOCKPILES SHOULD BE MULCHED FOR WINTER PROTECTION WITH HAY AT TWICE THE NORMAL RATE OR WITH A FOUR INCH LAYER OF "EROSION CONTROL MIX". STOCKPILES SHOULD NOT BE LEFT OVER WINTER (EVEN MULCHED) IF WITHIN 100 FEET FROM A PROTECTED RESOURCE.
   - NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR WINTER STABILIZER.
7. PERMANENT STABILIZATION OF DISTURBED UPLAND AREAS:

EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX SHOULD BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH SUCH AS FLY ASH OR YARD SCRAPING. LARGE PORTIONS OF SILTS, CLAYS, OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.

THE MIX COMPOSITION SHOULD HAVE THE FOLLOWING:
- ORGANIC CONTENT BETWEEN 80% AND 100%, DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHOULD BE 100% PASSING A 6" SCREEN AND 70%-85% PASSING A 0.75" SCREEN,
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- SOLUBLE SALTS CONTENT SHALL BE <4.0 MMHOS/CM
- AND THE pH SHOULD BE BETWEEN 5.0 AND 8.0

SEED BED PREPARATION: TOPSOIL (SANDY TOPSOIL, TOPSOIL, OR SILT TOPSOIL), FRIABLE, FREE OF TREE ROOTS, WEEDS, STONES MORE THAN 1-1/2 INCHES IN DIAMETER OR LENGTH SHALL BE PLACED OVER ALL DISTURBED AREAS IN A 4" MINIMUM (REFER TO PLANS) THICK LAYER.
TOPSOIL: TOPSOIL SHALL BE FREE OF HERBICIDES AND TOXIC MATERIALS. TILL THREE TO FIVE INCHES DEEP MIXING IN THE FERTILIZER AND LIME. APPLY LIME AND FERTILIZER ACCORDING TO SOIL TEST AND CURRENT EXTENSION SERVICE RECOMMENDATIONS. IN ABSENCE OF A SOIL TEST, APPLY LIME (A PH OF 5.5-6.0 IS DESIRED) AT A RATE OF 2.5 TONS PER ACRE AND 10-20-20 ANALYSIS FERTILIZER AT A RATE OF 500# PER ACRE (40% OF NITROGEN TO BE IN AN ORGANIC OR SLOW-RELEASE FORM).

SEEDING:

A. MEDOT SEED MIX METHOD #1 - PARK MIXTURE	SPECIFICATION
CREEPING RED FESCUE	45% +/- 4%
KENTUCKY BLUEGRASS	25% +/- 4%
CHEWINGS FESCUE	15% +/- 4%
PERENNIAL RYEGRASS	10% +/- 2%
ANNUAL RYEGRASS	5% +/- 2%

SEEDING METHODS: SEEDING SHOULD BE PERFORMED BY THE FOLLOWING METHOD:
HYDROSEEDING WITH SUBSEQUENT TRACKING.
TRACKING THE SEEDING WITH SMALL TRACK CONSTRUCTION EQUIPMENT SHOULD BE ORIENTED UP AND DOWN THE SLOPE.
MULCHING: MULCH ALL DISTURBED AREAS WITH 2 TONS OF CELLULOSE FIBER OR STRAW PER ACRE (90 - 100#/1,000 SQ. FT.).
ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND ON FLATTER SLOPES SUBJECT TO WASH (WATERWAYS AND/OR WINDBLOWN) USING JUTE (OR OTHER BIODEGRADABLE) NETTING OR EROSION CONTROL BLANKET, STAKING, AND STAPLING.
MAINTENANCE: INSPECT SEEDED AREAS FOR FAILURE AND MAKE NECESSARY REPAIRS AND RESEED IMMEDIATELY. CONDUCT A FOLLOW-UP SURVEY AND REPLACE FAILED PLANTS WHERE NECESSARY. IF VEGETATIVE COVER IS INADEQUATE TO PREVENT EROSION, OVERSEED AND FERTILIZE IN ACCORDANCE WITH SOIL TEST RESULTS. IF A STAND HAS LESS THAN 40% COVER, REEVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER. RE-ESTABLISH THE STAND FOLLOWING SEEDBED PREPARATION AND SEEDING RECOMMENDATIONS, OMITTING LIME AND FERTILIZER IN THE ABSENCE OF SOIL TEST RESULTS. IF THE SEASON PREVENTS RESOWING, MULCH OR JUTE NETTING IS AN EFFECTIVE TEMPORARY COVER. SEEDED AREAS SHOULD BE FERTILIZED DURING THE SECOND GROWING SEASON. LIME AND FERTILIZE THEREAFTER AT PERIODIC INTERVALS, AS NEEDED.

8. TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
9. MAINTENANCE: DURING THE CONSTRUCTION PERIOD AND UNTIL SUCH TIME AS THE LONG TERM VEGETATION IS ESTABLISHED TO A 70% VEGETATIVE STAND.
   A. DISTURBED AREAS WILL BE FERTILIZED AND RESEEDED.
   B. CATCH BASINS AND FILTER BAGS WILL BE CHECKED AND CLEANED AS NECESSARY.
   C. DRAINAGE AND GRASS TREATMENT SWALES SHALL BE CHECKED FREQUENTLY AND CLEANED AS REQUIRED.
   D. THE SILT FENCES WILL BE CHECKED ON A REGULAR BASIS AND REPAIRED AS NECESSARY TO CORRECT ANY DAMAGE, DETERIORATION, AND SHORT-CIRCUITING.
10. REFER TO "GRADING PLANS" FOR THIS PROJECT PRIOR TO ANY SITE DISTURBANCE.
11. INSPECTIONS: THE CONTRACTOR SHALL INSPECT ON A REGULAR BASIS ALL EROSION CONTROL PRACTICES AS WELL AS THE MAINTENANCE OF THE EROSION CONTROL COMPONENTS. REFER TO CONSTRUCTION SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. EROSION CONTROL PRACTICES SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
12. THE MAXIMUM AMOUNT OF AREA TO BE DISTURBED AND UNSTABILIZED SHALL BE 5 ACRES AT ANY ONE TIME.
13. THE MAXIMUM AMOUNT OF TIME ANY AREA MAY BE DISTURBED WITHOUT STABILIZATION SHALL BE 14 DAYS.
14. FERTILIZER SHALL NOT BE APPLIED TO THE SOIL FILTER OR AREAS THAT DISCHARGE TO THE SOIL FILTER.

TABLE 1 - TEMPORARY UPLAND STABLIZATION
PLANT SELECTION AND SEEDING RATES
(PER SPEC ITEM C-102-5.1a)

SPECIES	PER ACRE	PER 1000 SQ.FT.	REMARKS
WINTER RYE	120 LBS.	3 LBS.	BEST FOR FALL SEEDING. SEED AUGUST 15 TO OCTOBER 15 FOR BEST COVER. SEED TO DEPTH OF ONE TO 1 1/2 INCHES.
OATS	2 1/2 BU OR 80 LBS.	2 LBS.	BEST FOR SPRING SEEDINGS. SEED BETWEEN APRIL 1 TO JULY 1 OR AUGUST 15 TO SEPTEMBER 15. SEED TO DEPTH OF ONE INCH.
ANNUAL RYE	40 LBS.	1 LB.	GROWS QUICKLY. BUT IS OF SHORT GRASS DURATION USE WHERE APPEARANCES ARE IMPORTANT. COVER SEED WITH NO MORE THAN 1/4 INCH OF SOIL. WITH MULCH, SEEDING MAY BE DONE THROUGHOUT GROWING SEASON. SEED BETWEEN APRIL 1 AND JUNE 1 OR AUGUST 15 & SEPTEMBER 15.
FOXTAIL MILLET	30 LBS.	0.7 LB.	MAY 1 TO JUNE 30. SEED TO DEPTH OF 1/2 TO 3/4 INCH.

EROSION CONTROL INSPECTION AND MAINTENANCE NOTES:
1. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION.
2. CONSTRUCTION INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK AND BEFORE AND AFTER EACH SIGNIFICANT RAINFALL. A SIGNIFICANT RAINFALL EVENT IS MORE THAN $\frac{1}{2}$" OF RAINFALL IN A 24-HOUR PERIOD.
3. IF ANY CORRECTIVE ACTION IS REQUIRED, IS SHALL BEGIN BY THE END OF THE NEXT WORKDAY AND SHALL BE COMPLETED WITHIN SEVEN DAYS OR BEFORE THE NEXT STORM EVENT, WHICHEVER COMES FIRST.
4. THE CONTRACTOR SHALL DOCUMENT AND MAINTAIN RECORD OF FORMS DURING CONSTRUCTION. DOCUMENTATION OF CORRECTIVE ACTIONS DURING CONSTRUCTION SHALL BE MAINTAINED WITH THE PROPER INSPECTION FORMS AND FOR A MINIMUM OF THREE YEARS AFTER PERMANENT STABILIZATION HAS BEEN ACHIEVED.
5. ALL CONSTRUCTION INSPECTIONS SHALL BE CONDUCTED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING STANDARDS AND CONDITIONS IN THE PERMIT.
6. THE SCOPE OF CONSTRUCTION INSPECTIONS SHALL INCLUDE DISTURBED AND IMPERVIOUS AREAS, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS IN ADDITION TO ANY EROSION AND SEDIMENT CONTROL MEASURES.

SITE WORK CONSTRUCTION SEQUENCE
1. PLACE EROSION CONTROL SEDIMENT BARRIER AT ALL LOCATIONS INDICATED ON PLAN OR AT OTHER LOCATIONS AS DETERMINED BY ENGINEER AND PLACE STABILIZED CONSTRUCTION ENTRANCE. INSTALL OTHER TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES AS EARTHWORK PROCEEDS.
2. EXCAVATE NECESSARY AREAS AS SHOWN ON PLANS. CONTRACTOR SHALL LEGALLY DISPOSE OF ALL SURPLUS UNCLASSIFIED EXCAVATION AT AN APPROVED LOCATION NOTED IN THE SPECIFICATIONS.
3. REMOVE EXISTING PAVEMENT AND SUBBASE AS REQUIRED.
4. BASE AND SUBBASE AS INDICATED ON THE PLANS.
5. INSTALL UTILITIES / DRAINAGE AS INDICATED ON THE PLANS.
6. PAVE NEW AREAS.
7. GRADE AREA AS SHOWN ON PLANS AND LOAM, FERTILIZE AND SEED AREAS TO ESTABLISH VEGETATION.
8. INSPECT ALL DISTURBED AREAS ON A DAILY BASIS. FOLLOWING THIS DAILY INSPECTION, INSTALL AS REQUIRED ANY AND ALL TEMPORARY DRAINAGE, EROSION, AND SEDIMENT CONTROL PRACTICES AS INDICATED, I.E., DIVERSION CHANNELS, BERMS, DRAINS, DITCHES, STONE DIKES, SILT FENCES, SEED AND MULCH OR OTHER PRACTICES AS RECOMMENDED AND SPECIFIED IN THE "MAINE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES".
9. CLEAN AND RESTORE SILT DESTINATION SITES. REMOVE OTHER EROSION CONTROL PRACTICES ON A TIMELY BASIS AS PERMANENT MEASURES TAKE HOLD. SPOT FERTILIZE, SEED, AND MULCH AS REQUIRED.
10. INSPECT AND MAINTAIN GRADING, EROSION CONTROL AND SEDIMENT CONTROL PRACTICES WEEKLY AND IMMEDIATELY AFTER ALL SUBSTANTIAL STORMS.

EROSION CONTROL MIX:

EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE PROJECT SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL, SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR ACCEPTABLE MANUFACTURED PRODUCTS. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

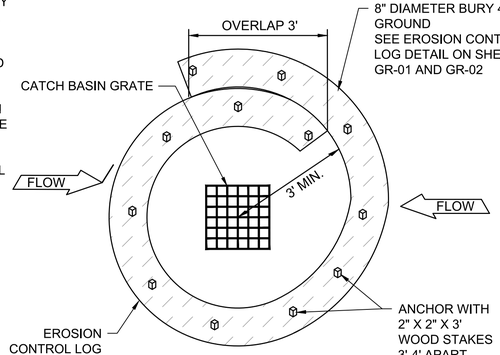
COMPOSITION
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100% DRY WEIGHT BASIS.
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% MAXIMUM OF 85% PASSING A 0.75" SCREEN.
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED.
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 MMHOS/CM.

THE PH SHOULD FALL BETWEEN 5.0 AND 8.0.

EROSION CONTROL MIX BERMS SEDIMENT BARRIER INSTALLATION:
THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL CONTOUR. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF STEEPER SLOPES (2:1) UP TO 20' LONG, THE BARRIER MUST BE A MINIMUM OF 12" HIGH, AS MEASURED ON THE UPHILL SIDE OF THE BARRIER, AND A MINIMUM OF TWO FEET WIDE. ON LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL RUNOFF.
FROZEN GROUND, OUTCROPS OF BEDROCK AND VERY ROOTED FORESTED AREAS ARE LOCATIONS WHERE BERMS OF EROSION CONTROL MIX ARE MOST PRACTICAL AND EFFECTIVE. OTHER BMPS SHOULD BE USED AT LOW POINTS OF CONCENTRATED RUNOFF, BELOW CULVERT OUTLET APRONS, AROUND CATCH BASINS AND CLOSED STORM SYSTEMS, AND AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT AREA MORE THAN 50' FROM TOP TO BOTTOM (I.E. A LARGE UP GRADIENT CONTRIBUTING WATERSHED).

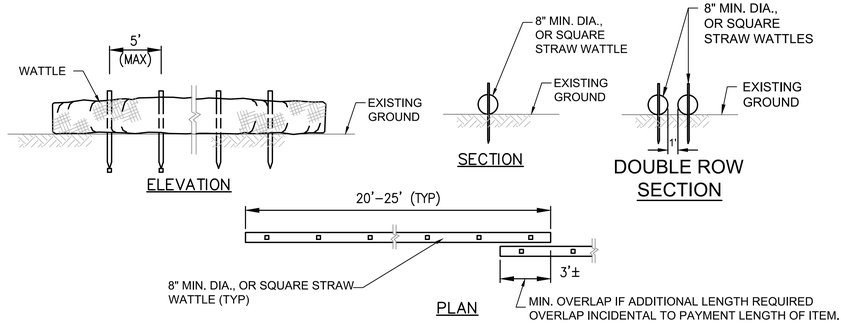
OVERWINTER EROSION CONTROL MIX INSTALLATION
- CAN BE INSTALLED ON FROZEN GROUND, FORESTED AREAS, AND ON CUT AND FILL SLOPES.
- A THICKNESS OF 2 INCHES ON 3:1 SLOPES OR LESS SHALL BE APPLIED. AN ADDITIONAL $\frac{1}{2}$ INCH PER 20 FEET OF SLOPE OR UP TO 4 INCHES FOR A 100 FOOT SLOPE.
- ON SLOPES GREATER THAN 3:1, 4 INCHES OR MORE OF MATERIAL IS RECOMMENDED; AND IF SLOPES ARE GRETATER THAN 60 FEET LONG, 5 INCHES ARE NEEDED.
- EROSION CONTROL MIX IS NOT RECOMMENDED ON SLOPES GREATER THAN 1:1.
- THE MIX MUST BE DISTRIBUTED EVENLY WITH A HYDRAULIC BUCKET, PNEUMATIC BLOWER, OR BY HAND.

OTHER REINFORCEMENT BMP'S (I.E. RIPRAP) SHOULD BE USED ON SLOPES WITH GROUNDWATER SEEPAGE, WITHIN DRAINAGE CHANNELS AND THEIR OUTLETS, OR IN GULLIES.



PLAN VIEW

INLET PROTECTION
NOT TO SCALE
(ITEM C-102-5.1b)



EROSION CONTROL BARRIER DETAIL
NOT TO SCALE
(ITEM C-102-5.1d)

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE
SYDNEY R. SENEY
No. 17845
LICENSED
PROFESSIONAL ENGINEER

PROJECT MILESTONE
BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

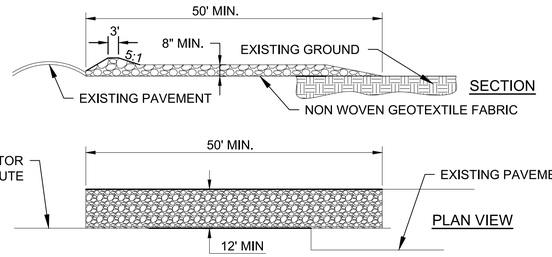
DRAWN	ABS
DESIGNED	SRG
CHECKED	DAN
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
DRAINAGE AND EROSION CONTROL NOTES AND DETAILS (SHEET 1 OF 3)

DRAWING NUMBER
GR-03

23 OF 32

K:\SANFORD SEACOAST\1-19459.01 SFM TAXILANE & VSR DESIGN\DRAWING\DRAWINGS\SHEET FILES\19459.01-GR-DCP-DET-S.DWG

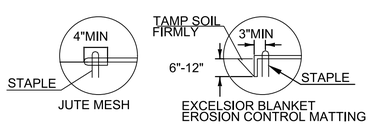


STABILIZED CONSTRUCTION ENTRANCE NOTES:

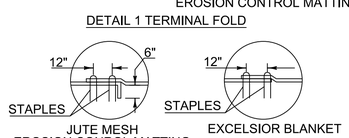
1. LENGTH - NOT LESS THAN 50 FEET.
2. THICKNESS - NOT LESS THAN 8".
3. WIDTH - 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
4. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
7. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

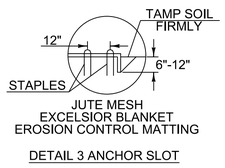
NOT TO SCALE
(ITEM C-102-5.1c)



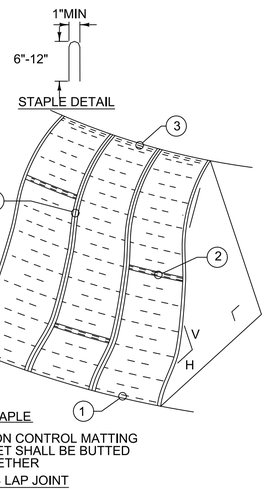
DETAIL 1 TERMINAL FOLD



DETAIL 2 JUNCTION SLOT



DETAIL 3 ANCHOR SLOT



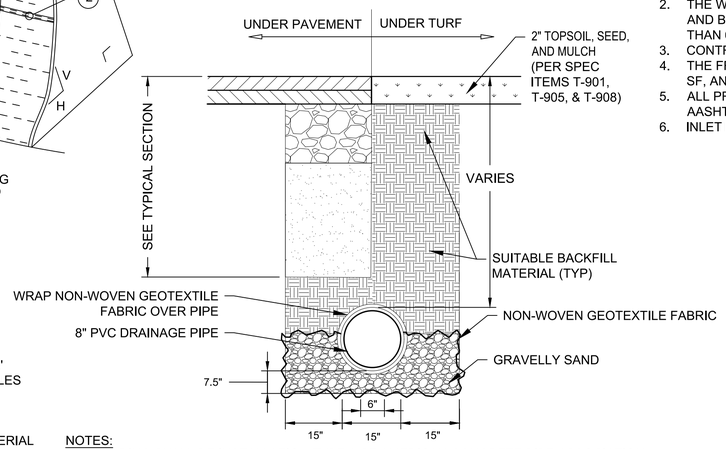
DETAIL 4 LAP JOINT

CONSTRUCTION SPECIFICATION

1. APPLY TO SLOPES GREATER THAN 4H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.
6. ONLY NATURAL FIBER MATTING SHALL BE USED.

EROSION CONTROL MATTING-SIDE SLOPE

NOT TO SCALE
(ITEM C-102-5.1a)

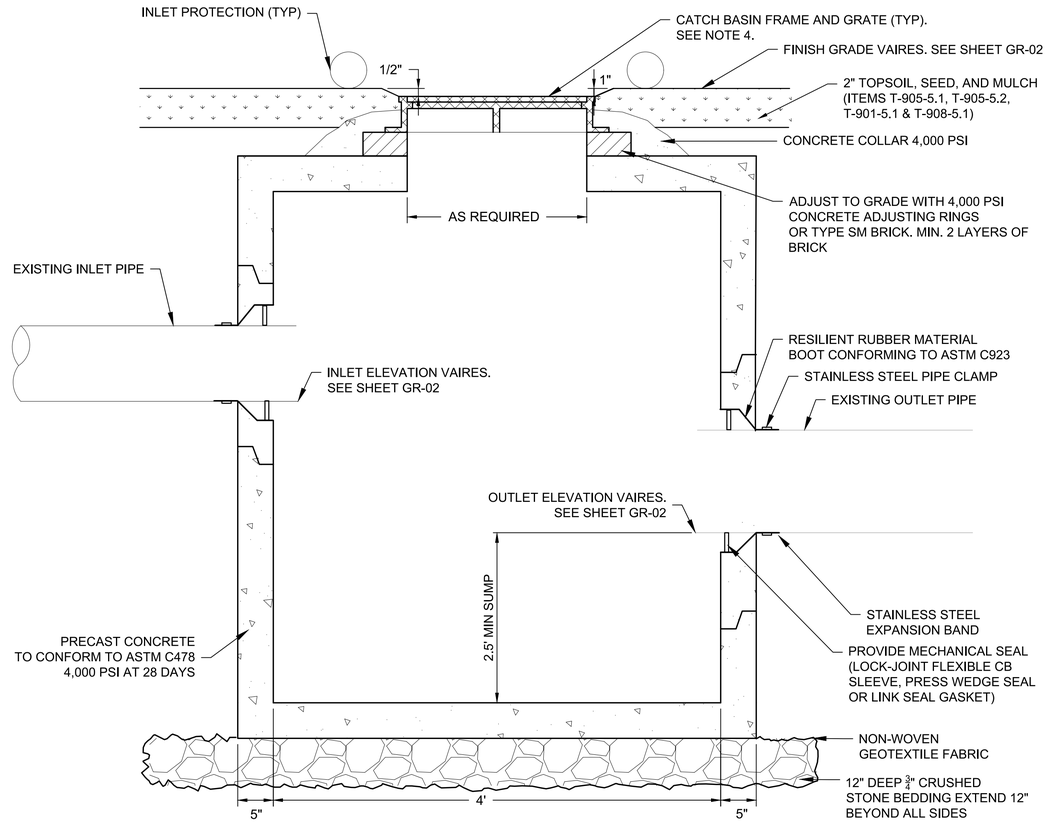


NOTES:

1. BEDDING SHALL BE INSTALLATION TYPE 3 OF AMERICAN CONCRETE PIPE ASSOCIATION.
2. CONTRACTOR SHALL SHORE TRENCH SIDES AS REQUIRED.
3. CONTRACTOR SHALL DEWATER TRENCH EXCAVATION AS REQUIRED USING MAINEDEP B.M.P.
4. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 95% OF ASTM D-1557 UNDER TURF AND 100% OF ASTM D-1557 UNDER PAVEMENT AND WITHIN 10' OF ALL EDGES OF PAVEMENT EVEN IN TURF.

8" PVC DRAINAGE PIPE TRENCH DETAIL

NOT TO SCALE
(ITEM D-701-5.1)



CATCH BASIN NOTES:

1. ALL PREFABRICATED REINFORCED CONCRETE STRUCTURES AND FRAME AND GRATES SHALL BE DESIGNED AND CONSTRUCTED TO SUPPORT A MINIMUM OF AIRPORT RATED - H20 LOADING. THE CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS AND MANUFACTURER CERTIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. SHOP DRAWINGS FOR LOADING SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MAINE.
2. THE WALL THICKNESS SHALL INCREASE IN SIZE TO CONFORM WITH THE REQUIREMENTS OF THE MANUFACTURER OF THE RESILIENT RUBBER BOOT AND BE SIZED ACCORDING TO THE DIAMETER OF THE STRUCTURE AND THE SIZE AND TYPE OF PIPE. THE WALL THICKNESS SHALL NOT BE LESS THAN 6" FOR STEEL COVER REQUIREMENTS AND SHALL BE DESIGNED TO MEET ALL REQUIREMENTS INCLUDING THE REQUIRED LOADING IN NOTE 1.
3. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 100% OF ASTM D-1557 WITHIN 10' OF ALL EDGES OF PAVEMENT EVEN IN TURF.
4. THE FRAME AND GRATE FOR ALL AIRFIELD CATCH BASINS SHALL BE AIRPORT RATED - H20 LOADING AND HAVE A MINIMUM OPENING AREA OF 2.7 SF, AND A WEIR PERIMETER OF 9.8 FT.
5. ALL PREFAB-CONCRETE STRUCTURES SHALL HAVE COURSE, FINE, AND CONCRETE MATERIALS TESTED FOR ALKALI-SILICA REACTION (ASR) USING AASHTO T 303 MODIFIED.
6. INLET PROTECTION TO BE PROVIDED UNTIL ESTABLISHED GROWTH IS PRESENT.

CATCH BASIN DETAIL

NOT TO SCALE
(ITEM D-751-5.2a)

GENERAL DRAINAGE NOTES:

1. ALL EXCAVATION IS INCIDENTAL TO EACH PAY ITEM.

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE
SYDNEY R. SENES
NO. 17845
PROFESSIONAL ENGINEER
LICENSED

PROJECT MILESTONE

BID DOCUMENTS

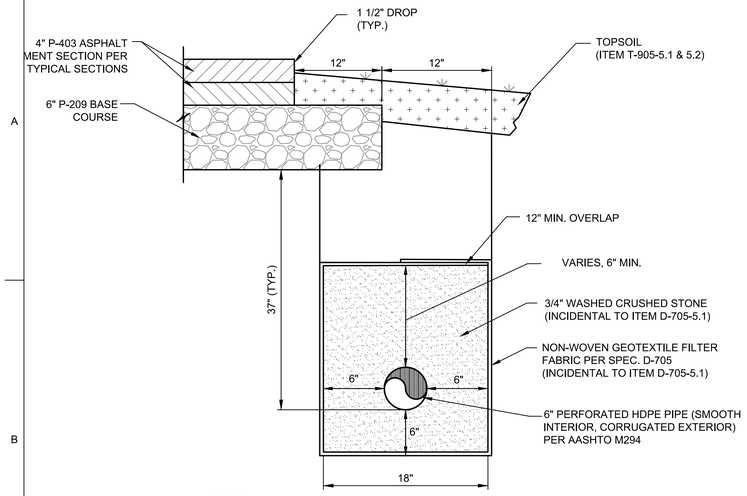
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DRAWN	ABS
DESIGNED	SRG
CHECKED	DAN
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
DRAINAGE AND EROSION CONTROL NOTES AND DETAILS (SHEET 2 OF 3)

DRAWING NUMBER
GR-04
24 OF 32

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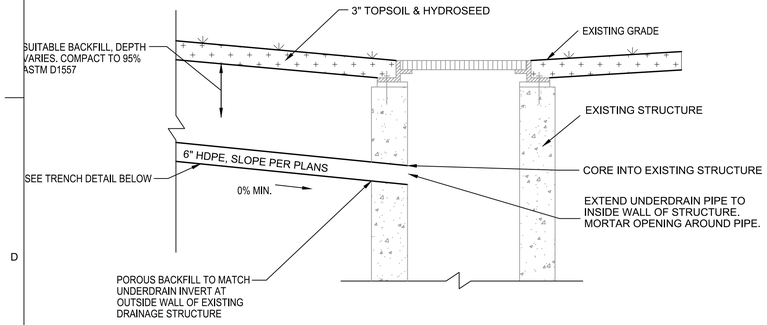


NOTES:

1. ALL COSTS ASSOCIATED WITH UNDERDRAIN INSTALLATION INCLUDING OUTLETS, CONNECTION TO STRUCTURE AND END SECTIONS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM D- 705-5.1.
2. ALL UNDERDRAIN PIPE TO BE SMOOTH INTERIOR AND CORRUGATED EXTERIOR HDPE, TUBING IS NOT ALLOWED.
3. UNDERDRAIN INVERT SHALL BE 2' OFFSET FROM EDGE OF PAVEMENT AND AT ELEVATIONS AS INDICATED ON SHEET GR-02.

UNDERDRAIN DETAIL

N.T.S.
(ITEM D-705-5.1)

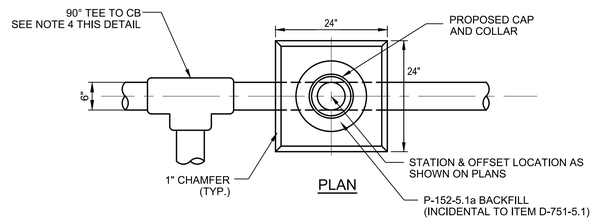


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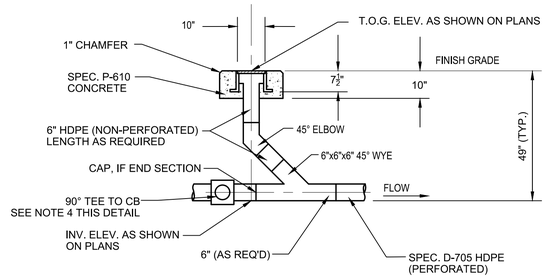
1. WHEN UNDERDRAIN TERMINATES AT STRUCTURE THE PIPE SHALL BE PLACED SO THAT IT PENETRATES THE FULL WALL OF THE STRUCTURE AND MORTAR PLACED AT ALL VOIDS.
2. ALL WORK ASSOCIATED WITH OUTLETTING UNDERDRAIN TO DRAINAGE STRUCTURE SHALL BE INCLUDED IN ITEM D-705-5.1.
2. UNDERDRAIN FROM CLEAN OUT TO CATCH BASIN SHALL BE SOLID HDPE WITH SMOOTH INTERIOR.

UNDERDRAIN TIE-IN DETAIL

N.T.S.
(INCIDENTAL TO ITEM D-705-5.1)



PLAN

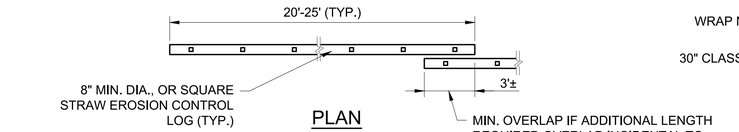


NOTES:

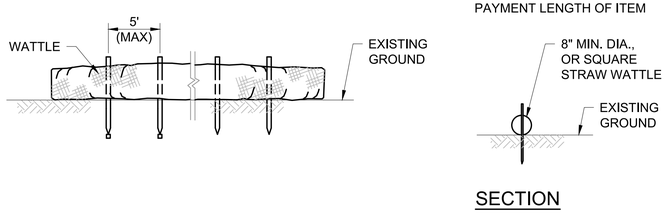
1. ALL PREFABRICATED REINFORCED CONCRETE STRUCTURES SHALL BE DESIGNED AND CONSTRUCTED TO SUPPORT A MINIMUM OF A 32,000 LB. WHEEL LOADING. THE CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS AND MANUFACTURER CERTIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. SHOP DRAWINGS FOR LOADING SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MAINE.
2. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 95% OF ASTM D-698.
3. THE FRAME AND GRATE SHALL BE, AT A MINIMUM, HEAVY DUTY (CAPABLE OF HANDLING PROOF LOADS GREATER THAN 16,000LBS).
4. CLEANOUT C109 REQUIRES AN ADDITIONAL 90° ANGLE FITTING DUE TO THE INVERT DEPTH.

UNDERDRAIN CLEAN OUT DETAIL (INSPECTION HOLE)

N.T.S.
(ITEM D-701-5.1)



PLAN

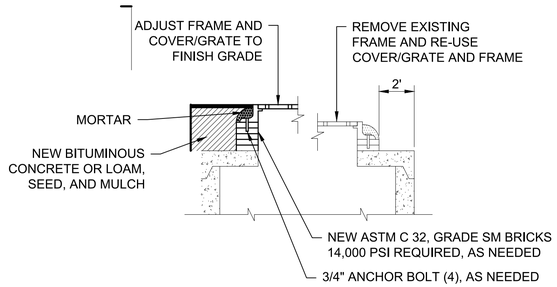


SECTION

ELEVATION

EROSION CONTROL LOG

NOT TO SCALE
(ITEM C-102-5.1d)

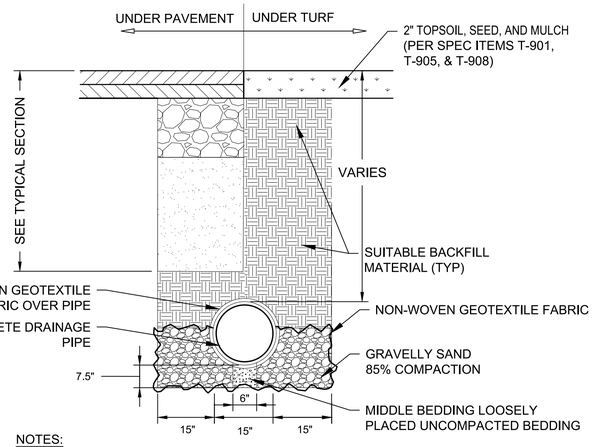


STRUCTURE ADJUSTMENT DETAIL

NOT TO SCALE
(ITEM D-751-5.2b)

DRAINAGE STRUCTURE NOTES:

1. ALL PREFABRICATED REINFORCED CONCRETE STRUCTURES AND FRAME & GRATES SHALL BE DESIGNED AND CONSTRUCTED TO MEET H20 RATING. THE CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS AND MANUFACTURER CERTIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
2. THE WALL THICKNESS SHALL INCREASE IN SIZE TO CONFORM WITH THE REQUIREMENTS OF THE MANUFACTURER OF THE RESILIENT RUBBER BOOT AND BE SIZED ACCORDING TO THE DIAMETER OF THE STRUCTURE AND THE SIZE AND TYPE OF PIPE. THE WALL THICKNESS SHALL NOT BE LESS THAN 6" FOR STEEL COVER REQUIREMENTS AND SHALL BE DESIGNED TO MEET ALL REQUIREMENTS INCLUDING THE REQUIRED LOADING IN NOTE 1.
3. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 95% OF ASTM D-698 WITHIN 10' OF ALL EDGES OF PAVEMENT EVEN IN TURF.
4. ALL PREFAB-CONCRETE STRUCTURES SHALL HAVE COURSE, FINE, AND CONCRETE MATERIALS TESTED FOR ALKALI-SILICA REACTION (ASR) USING AASHTO T303 MODIFIED.
5. FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.
6. CORE INTO EXISTING STRUCTURE FOR PROPOSED PIPE CONNECTIONS INTO EXISTING STRUCTURES AND MORTAR AROUND PIPE CONNECTION. CONNECTIONS INTO EXISTING STRUCTURES ARE INCIDENTAL TO THE PIPE INSTALLATION ITEM.



NOTES:

1. BEDDING SHALL BE INSTALLATION TYPE 3 OF AMERICAN CONCRETE PIPE ASSOCIATION.
2. CONTRACTOR SHALL SHORE TRENCH SIDES AS REQUIRED.
3. CONTRACTOR SHALL DEWATER TRENCH EXCAVATION AS REQUIRED USING MAINEDEP B.M.P.
4. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 95% OF ASTM D-1557 UNDER TURF AND 100% OF ASTM D-1557 UNDER PAVEMENT AND WITHIN 10' OF ALL EDGES OF PAVEMENT EVEN IN TURF.

30" CLASS V REINFORCED CONCRETE DRAINAGE PIPE TRENCH DETAIL

N.T.S.
(ITEM D-701-5.2)

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP



PROJECT MILESTONE

BID DOCUMENTS

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DRAWN	ABS
DESIGNED	SRG
CHECKED	DAN
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

DRAINAGE AND EROSION CONTROL NOTES AND DETAILS (SHEET 3 OF 3)

DRAWING NUMBER

GR-05

25 OF 32

INSTALL NEW L-861T BASE MOUNTED TAXIWAY EDGE LIGHT (TYP.) (ITEM L-125-5.3)

CONTRACTOR TO VERIFY DEPTH OF ELECTRICAL DUCT BANK PRIOR TO INSTALL OF UNDERDRAIN TO CONFIRM NO CONFLICT

INSTALL NO. 8 AWG, 5KV, L824 TYPE C CABLE IN CONDUIT AND DIRECT BURY #6 AWG SOLID BARE COPPER COUNTERPOISE WIRE ALONG NEW PAVEMENT (TYP.). SEE DETAIL ON SHEET EP-02 (ITEMS L-108-5.1, L-108-5.2, & L-110-5.1)

INSTALL NO. 8 AWG, 5KV, L824 TYPE C CABLE IN EXISTING DUCT BANK (ITEM L-108-5.1)

TAXILANE SEACOAST 1

TAXILANE SEACOAST 2

TAXIWAY E

TAXIWAY A

E1 THROUGH E10

E27 E28 E32 E33 E34 E35 E36 E37 E38 E39 E40 E41 E42

399+88 400+00 401+00 402+00 403+00 404+00 405+00 405+66

TOFA ROFA ZOFZ

TAXILAN EDGE LIGHTING POINT TABLE		
POINT #	NORTHING	EASTINIG
1	207000.4419	2808416.9766
2	206967.0392	2808417.6759
3	206933.6352	2808418.3753
4	206943.2590	2808443.2896
5	206951.4885	2808464.5942
6	206926.6349	2808479.4807
7	206912.1543	2808455.3046
8	206882.0864	2808419.5113
9	206859.8295	2808420.7539

LEGEND

UE — PROPOSED L-824 CABLE IN NEW CONDUIT

E — PROPOSED L-824 CABLE IN EXISTING DUCT BANK

PROPOSED BASE MOUNTED ELEVATED EDGE LIGHT

0 30 60 90 FT

SCALE

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE SYDNEY R. SENES No. 17845 LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

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DRAWN	ABS
DESIGNED	SRG
CHECKED	MTO
SCALE	1"=30'
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

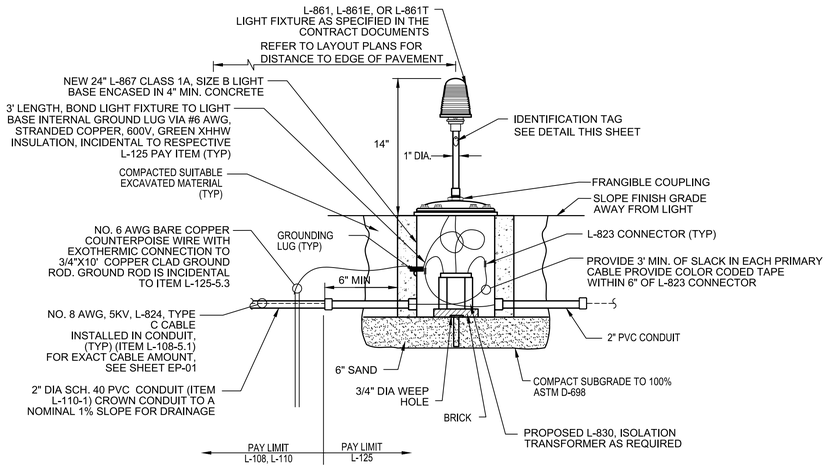
ELECTRICAL PLAN

DRAWING NUMBER

EP-01

26 OF 32

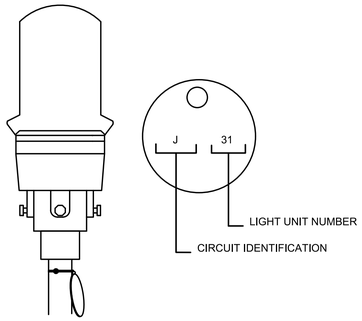
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BASE MOUNTED ELEVATED EDGE LIGHT IN TURF DETAIL

N.T.S.

(BASE BID ITEM L-125-5.3)



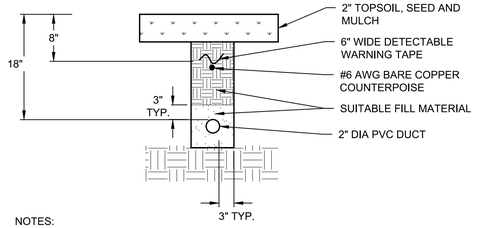
NOTE:

1. EACH LIGHT SHALL BE TAGGED WITH THE IDENTIFICATION NUMBER AS SHOWN ON DWG. NO. EP-01
2. THE TAG SHALL BE 2" DIA. DISK OF NON-CORROSIVE BASED METAL WITH NUMBERS PERMANENTLY STAMPED OR ETCHED.
3. TAGS SHALL BE SECURELY ATTACHED TO THE LIGHT/SIGN UNIT BY SET SCREW OR WIRE BAND.

IDENTIFICATION TAG DETAIL

N.T.S.

(INCIDENTAL TO L-125-5.3)



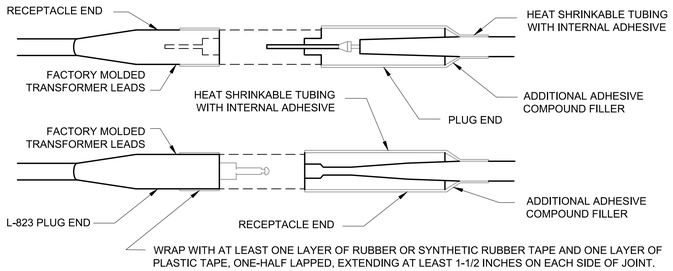
NOTES:

1. #6 BARE COUNTERPOISE WITH 3/4" X 10' GROUND ROD INSTALLED AT MAXIMUM 500' SPACING. INSTALL GROUND RODS TO TERMINATE THE COUNTERPOISE AT BOTH ENDS OF DUCT.
2. TOP OF GROUND ROD SHALL BE INSTALLED 8" BELOW GRADE AND ATTACHED TO THE COUNTERPOISE WITH AN EXOTHERMIC WELDED CONNECTION.
3. WIDTH OF TRENCH VARIES DEPENDING ON NUMBER OF CONDUITS. TRENCH WIDTH SHALL ACCOMDATE CONDUITS SPACED AT MIN. 6" O.C. WITH 3" CLEARANCE BETWEEN OUTSIDE CONDUITS AND TRENCH WALL.
4. COST OF TRENCHING, BACKFILL, AND RESTORATION TO BE INCLUDED IN CONDUIT BID ITEMS.

(2")1-WAY NON-ENCASED CONDUIT

N.T.S.

(ITEMS L-108-5.1, L-108-5.2, & L-110-5.1)



L-823 CONNECTIONS

N.T.S.

INCIDENTAL TO L-108-5.1 AND LIGHT ITEMS

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE
SYDNEY R. SENEY
NO. 17845
LICENSED
PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWN	ABS
DESIGNED	SRG
CHECKED	MTO
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

ELECTRICAL DETAILS

DRAWING NUMBER

EP-02

K:\SANFORD SEACOAST\1-19459.01 SFM TAXILANE & VSR DESIGN\DRAWING\DRAWINGS\SHEET FILES\19459.01-ELEC-DETS.DWG

Boring Log: B-1

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/07/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLES	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0			S-1	TOPSOIL AND ORGANIC MATERIAL (6 inches).	16	4 7 8 9	15	6.5	MC GS HYD
			S-2	SILTY SAND WITH GRAVEL (SM); Medium dense, dry, coarse to fine sand, little silt, few clay, some coarse to fine gravel, brown.	15	5 10 6 4	10	10.6	MC GS HYD
5			S-3	SILTY SAND (SM); Medium dense, dry, coarse to fine sand, some silt, few clay, few fine gravel, tan. SAND WITH SILT (SP-SM); Loose, dry, coarse to fine sand, few silt, tan. Becomes denser, possible strata break.	7	3 4 4 4 5	8		
10			S-4	SILTY SAND WITH GRAVEL (SM); Medium dense, wet, coarse to fine sand, little silt, little gravel, tan.	12	9 11 14 17	25		
				Bottom of exploration at 12.0'; Not refusal.					
15									
20									
25									

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

Boring Log: B-2

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLES	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0			S-1	TOPSOIL AND ORGANIC MATERIAL (4 inches).	18	9 20 15 12	35	2.9	MC GS HYD
			S-2	SAND WITH GRAVEL (SP); Dense, dry, coarse to fine sand, trace silt, some coarse to fine gravel, brown.	10	10 12 14	19	8.7	MC GS HYD
5			S-3	SAND WITH SILT AND GRAVEL (SP-SM); Medium dense, dry to wet, coarse to fine sand, few silt, trace clay, some coarse to fine gravel, tan.	15	7 9 10 9 8	17		
			S-4		0	8 8 9 10 10			
10			S-5	Becomes wet, trace gravel.	5	11 10 11 9	21		
				Bottom of exploration at 12.0'; Not refusal.					
15									
20									
25									

Notes: 1) SPT N-values are uncorrected for hammer energy transfer ratio.
2) S-1 and S-2 SPT samples taken with 3-inch split spoon.
3) Bulk sample was obtained from auger cuttings at depth of 1 to 5 feet below ground surface for lab CBR testing.

Boring Log: B-3

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/07/25
Date Completed: 10/07/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLES	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0			S-1	TOPSOIL AND ORGANIC MATERIAL (4 inches).	15	4 9 10 10	19	2.2	MC GS HYD
			S-2	SAND WITH GRAVEL (SP); Medium dense, dry, coarse to fine sand, trace silt, some coarse to fine gravel, trace clay, tan. Few gravel.	6	6 9 9 10	18		
5			S-3	SAND (SP); Medium dense, dry, fine sand, trace silt, tan.	6	6 8 9 16	17		
10			S-4	SAND WITH GRAVEL (SP); Medium dense, wet, coarse to fine sand, trace silt, some coarse to fine gravel, trace clay, tan.	12	5 7 9 9	16	10.9	MC GS HYD
				Bottom of exploration at 12.0'; Not refusal.					
15									
20									
25									

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

Boring Log: B-4

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLES	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0			S-1	TOPSOIL AND ORGANIC MATERIAL (4 inches).	17	3 5 6 5	11	4.7	MC GS HYD
			S-2	SAND WITH SILT AND GRAVEL (SP-SM); Medium dense, dry, coarse to fine sand, trace silt, trace clay, some coarse to fine gravel, orange.	12	5 6 6 7	12	4.1	MC GS HYD
5			S-3	SAND (SP); Medium dense, dry to wet, coarse to fine sand, trace silt, trace clay, trace fine gravel, tan.	12	4 7 6 5	13		
10			S-4	Becomes wet, coarser sand.	15	5 6 7 4	13		
				Bottom of exploration at 12.0'; Not refusal.					
15									
20									
25									

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

Boring Log: B-5

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 12'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLES	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0			S-1	FILL; Topsoil and Organic Material (6 inches).	17	6 6 7 7	13	4.5	MC GS HYD
			S-2	FILL; Sand with silt, dry, coarse to fine sand, few silt, trace clay, few fine gravel, brown.	12	7 6 15 14	29		
5			S-3	SAND WITH SILT (SP-SM); Medium dense, dry, coarse to fine sand, few silt, trace gravel, tan.	16	9 10 14 16	30		
			S-4	GRAVEL WITH SILT AND SAND (GP-GM); Dense to very dense, coarse to fine gravel, some coarse to fine sand, few silt, trace clay, gray and tan.	16	11 17 17 26	42		
10			S-5		15	27 21 28 20	48	2.6	MC GS HYD
			S-6		2	28 23 25 27 24	52		
				Bottom of exploration at 12.0'; Not refusal.					
15									
20									
25									

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

Boring Log: B-6

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLES	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0			S-1	TOPSOIL AND ORGANIC MATERIAL (4 inches).	16	4 7 7 12	14	7.9	MC GS HYD
			S-2	SILTY SAND WITH GRAVEL (SM); Medium dense, dry, coarse to fine sand, few silt, little fine gravel, few clay, tan to orange brown. Becomes orange, no gravel.	7	5 5 7 8	12		
5			S-3	SAND (SP); Medium dense, dry, coarse to fine sand, trace silt, trace fine gravel, trace clay, tan.	16	5 5 7 7	12	3.5	MC GS HYD
10			S-4	Becomes wet, little gravel.	10	10 11 16 13	27		
				Bottom of exploration at 12.0'; Not refusal.					
15									
20									
25									

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

NOTES:

1. GEOTECHNICAL FIELD INVESTIGATION WAS COMPLETED BETWEEN OCTOBER 7 2025 AND OCTOBER 8 2025 BY R.W.GILLESPIE AND ASSOCIATES.
2. HORIZONTAL AND VERTICAL DATUM BASED ON NAD83 MAINE STATE PLANES, WEST ZONE, US FOOT.
3. COPIES OF THE BORING LOGS AND LABORATORY TEST RESULTS PERFORMED ON SOIL SAMPLES OBTAINED FROM THE SOIL BORINGS ARE BEING PROVIDED FOR YOUR USE AND REFERENCE (REFER TO SPECIAL PROVISION OF THE SPECIFICATION). IT IS UNDERSTOOD AND AGREED THAT SUCH SUBSURFACE INFORMATION HAS BEEN MADE AVAILABLE FOR THE CONVENIENCE OF ALL BIDDERS. IT IS FURTHER UNDERSTOOD AND AGREED THAT EACH BIDDER IS SOLELY RESPONSIBLE FOR ALL ASSUMPTIONS, DEDUCTIONS, OR CONCLUSIONS WHICH HE/SHE MAY MAKE OR OBTAIN FROM HIS/HER EXAMINATION OF THE BORING LOGS AND OTHER RECORDS OF SUBSURFACE INVESTIGATIONS AND TESTS THAT ARE FURNISHED WITH THE APPROVAL OF THE OWNER. CONTRACTOR MAY DO ADDITIONAL BORINGS AT NO ADDITIONAL COST TO THE OWNER.

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE
SYDNEY R. BENES
No. 17845
LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWN	GMP
DESIGNED	SRG
CHECKED	MTO
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

BORING LOGS (SHEET 1 OF 3)

DRAWING NUMBER

BL-01

28 OF 32

K:\SANFORD SEACOAST\1-19459.01 SFM TAXILANE & VSR DESIGN\DRAWING\DRAWINGS\SHEET FILES\19459.01-BORE-LOGS.DWG

Boring Log: B-7

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		S-1	FILL; Topsoil and Organic Material (8 inches).	16	5 8 11	17	4.1	MC GS HYD
			FILL; Gravel with silt and sand, dry, coarse to fine gravel, some coarse to fine sand, few silt, trace clay, brown.					
		S-2		12	10 9 10	20		
		S-3	SAND (SP); Medium dense, dry, coarse to fine sand, trace silt, trace clay, brown to tan.	14	10 9 10	19		
5			Becomes tan.					
		S-4		12	10 10 10	21		
					9 8 7			
10		S-5	Becomes wet.	12	11 10 12	12	12.2	MC GS HYD
			Bottom of exploration at 12.0'; Not refusal.		4 5 7 9			
15								
20								
25								

Notes: 1) SPT N-values are uncorrected for hammer energy transfer ratio.
2) Bulk sample was obtained from auger cuttings at depth of 1 to 5 feet below ground surface for lab CBR testing.

Boring Log: B-8

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		S-1	TOPSOIL AND ORGANIC MATERIAL (4 inches).	7	6 10 12	22		
			SAND WITH SILT AND GRAVEL (SP-SM); Medium dense, dry, coarse to fine sand, few silt, little gravel, tan to orange.					
		S-2		0	11 9 10	19		
5		S-3	SILTY SAND (SM); Medium dense, coarse to fine sand, few silt, trace clay, trace fine gravel, stratified, tan.	12	9 8 5 5 6 7	11	5.8	MC GS HYD
10		S-4	SAND WITH SILT AND GRAVEL (SP-SM); Medium dense, wet, coarse to fine sand, few silt, trace clay, some coarse to fine gravel, tan.	11	12 13 9 9	22	9.5	MC GS HYD
			Bottom of exploration at 12.0'; Not refusal.					
15								
20								
25								

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

Boring Log: B-9

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		S-1	TOPSOIL AND ORGANIC MATERIAL (6 inches).	20	5 7 10	17	10	MC GS HYD
			SAND WITH SILT AND GRAVEL (SW-SM); Medium dense, dry, coarse to fine sand, few silt, little fine gravel, trace clay, orange.					
		S-2		8	11 10 14		7.9	MC GS HYD
		S-3	SAND WITH SILT AND GRAVEL (SP-SM); Medium dense, dry, coarse to fine sand, few silt, trace clay, little fine gravel, tan.	11		16		
5		S-4		13	6 7 9 7 4 5 6 6 5 6 9 10	11		
10		S-5	GRAVEL WITH SAND AND SILT (GP-GM); Medium dense, wet, coarse to fine gravel, some sand, few silt, gray and tan.	12		15		
			Bottom of exploration at 12.0'; Not refusal.					
15								
20								
25								

Notes: 1) SPT N-values are uncorrected for hammer energy transfer ratio.
2) Bulk sample was obtained from auger cuttings at depth of 1 to 5 feet below ground surface for lab CBR testing.

Boring Log: B-10

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		S-1	TOPSOIL AND ORGANIC MATERIAL (4 inches).	15	4 5 7	12	2.1	MC GS HYD
			SAND WITH SILT AND GRAVEL (SW-SM); Medium dense, dry, coarse to fine sand, few silt, trace clay, some coarse to fine gravel, brown.					
		S-2		12	9 8 8	16		
			SAND WITH SILT (SP-SM); Medium dense, dry, coarse to fine sand, few silt, few gravel, orange to tan.		8 8			
5		S-3	SAND (SP); Medium dense, dry, fine sand, stratified, tan.	10	8 9 10	19	2.7	MC GS HYD
			SAND WITH SILT AND GRAVEL (SP-SM); Medium dense, dry, coarse to fine sand, trace silt, trace clay, some coarse to fine gravel, tan to orange.		10			
10		S-4	SILTY SAND WITH GRAVEL (SM); Medium dense, wet, coarse to fine sand, little silt, little gravel, tan.	4	3 13 10 10	23		
			Bottom of exploration at 12.0'; Not refusal.					
15								
20								
25								

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

Boring Log: B-11

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 2

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: Not Obs.

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/07/25
Date Completed: 10/07/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		B-1	FILL; Topsoil and Organic Material (8 inches).	18	6 9 11	20		
			FILL; Silty sand with gravel, dry, coarse to fine sand, little silt, little gravel, brown.		11			
			Bottom of exploration at 2.0'; Not refusal.					
5								
10								
15								
20								
25								

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

Boring Log: B-12

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Total Depth (ft): 12

Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 9'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/07/25
Date Completed: 10/07/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		S-1A	ASPHALTIC PAVEMENT (2.5 inches).	19	8 12 9	21	8.4	MC GS HYD
		S-1B	FILL; Base (3.6 inches), sand with silt and gravel, dry, coarse to fine sand, few silt, trace clay, some coarse to fine gravel, dark brown.					
		S-2		8	14 9 8			
		S-3	SAND WITH SILT (SW-SM); Medium dense, dry to wet, coarse to fine sand, trace silt, trace clay, few fine gravel, tan.	14		11		
5		S-4	Becomes moist.	17	4 5 6 5 5 6 6 6	12		
10			Becomes wet.					
		S-5		12	5 4 5 6 6	11	17	MC GS HYD
			Bottom of exploration at 12.0'; Not refusal.					
15								
20								
25								

Notes: 1) SPT N-values are uncorrected for hammer energy transfer ratio.
2) Bulk sample was obtained from auger cuttings at depth of 1 to 5 feet below ground surface for lab CBR testing.

NOTES:

1. GEOTECHNICAL FIELD INVESTIGATION WAS COMPLETED BETWEEN OCTOBER 7 2025 AND OCTOBER 8 2025 BY R.W.GILLESPIE AND ASSOCIATES.
2. HORIZONTAL AND VERTICAL DATUM BASED ON NAD83 MAINE STATE PLANES, WEST ZONE, US FOOT.
3. COPIES OF THE BORING LOGS AND LABORATORY TEST RESULTS PERFORMED ON SOIL SAMPLES OBTAINED FROM THE SOIL BORINGS ARE BEING PROVIDED FOR YOUR USE AND REFERENCE (REFER TO SPECIAL PROVISION OF THE SPECIFICATION). IT IS UNDERSTOOD AND AGREED THAT SUCH SUBSURFACE INFORMATION HAS BEEN MADE AVAILABLE FOR THE CONVENIENCE OF ALL BIDDERS. IT IS FURTHER UNDERSTOOD AND AGREED THAT EACH BIDDER IS SOLELY RESPONSIBLE FOR ALL ASSUMPTIONS, DEDUCTIONS, OR CONCLUSIONS WHICH HE/SHE MAY MAKE OR OBTAIN FROM HIS/HER EXAMINATION OF THE BORING LOGS AND OTHER RECORDS OF SUBSURFACE INVESTIGATIONS AND TESTS THAT ARE FURNISHED WITH THE APPROVAL OF THE OWNER. CONTRACTOR MAY DO ADDITIONAL BORINGS AT NO ADDITIONAL COST TO THE OWNER.

McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE · SYDNEY R. SENES · NO. 17845 · LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

BID DOCUMENTS

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWN	GMP
DESIGNED	SRG
CHECKED	MTO
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

BORING LOGS (SHEET 2 OF 3)

DRAWING NUMBER

BL-02

29 OF 32

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R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Boring Log: B-13
Total Depth (ft): 12
Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 10'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/07/25
Date Completed: 10/07/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		S-1	ASPHALTIC PAVEMENT (2.5 inches).	18	8 10 12	22	5.3	MC GS HYD
		S-1A	FILL; Base (5 inches), sand with gravel, dry, coarse to fine sand, some coarse to fine gravel, trace silt, trace clay, dark brown.		12			
		S-2		8	12 13			
		S-3	SAND WITH GRAVEL (SP); Medium dense, dry, coarse to fine sand, trace silt, some coarse to fine gravel, trace clay, tan. Becomes trace gravel.	13		13	3.0	MC GS HYD
5		S-4		15	6 5 8	13		
					10 4 6			
					7 9			
10		S-5	Few to little silt becomes wet.	7	6 11	22		
					11 8			
			Bottom of exploration at 12.0'; Not refusal.					
15								
20								
25								

Notes: 1) SPT N-values are uncorrected for hammer energy transfer ratio.
2) S-1 and S-2 SPT samples taken with 3-inch O.D. split barrel sampler.
3) Bulk sample was obtained from auger cuttings at depth of 1 to 5 feet below ground surface for lab CBR testing.

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Boring Log: B-14
Total Depth (ft): 12
Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 8'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/07/25
Date Completed: 10/07/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		S-1	ASPHALTIC PAVEMENT (2.25 inches).	18	7 14	35	6.8	MC GS HYD
		S-1A	FILL; Base (4 inches), sand with silt and gravel, dry, coarse to fine sand, some coarse to fine gravel, few silt, trace clay, dark brown.		20 15			
		S-2		8	7 15			
		S-3	FILL; Sand with silt and gravel, dry, coarse to fine sand, few silt, little gravel, brown to tan.	14	7 12	22		
5		S-4	SAND WITH GRAVEL (SW); Medium dense, dry, coarse to fine sand, trace silt, little coarse to fine gravel, trace clay, brown/orange brown oxidation from 2'-5'. Becomes moist, few gravel, tan.	12	7 11 11	21	9.8	MC GS HYD
					12 7 10			
					11 10			
10		S-5	Becomes wet, few to little gravel.	16	9 10	22		
					12 11			
			Bottom of exploration at 12.0'; Not refusal.					
15								
20								
25								

Notes: 1) SPT N-values are uncorrected for hammer energy transfer ratio.
2) S-1 and S-2 SPT samples taken with 3-inch O.D. split barrel sampler.
3) Bulk sample was obtained from auger cuttings at depth of 1 to 5 feet below ground surface for lab CBR testing.

R.W. Gillespie & Associates • Geotechnical Engineering • Environmental Consulting • Materials Testing Services

Boring Log: B-15
Total Depth (ft): 12
Sheet 1 of 1

Project Name: Rehab Taxiway Seacoast 1 & Construct Runway 14
RWG&A Project No. 1569-023-25
Location: Sanford, Maine
Client: McFarland Johnson, Inc.
RWG&A Representative: Tom Snow
Boring Location: See Exploration Location Plan
Boring Abandonment Method: Backfill with cuttings, sand & gravel
Observed Water Depth: 6'

Drilling Co.: Northern Test Boring
Drill Rig: Diedrich D-50 Rubber Track
Driller Rep.: Mike Nadeau
Date Started: 10/08/25
Date Completed: 10/08/25
Surface Elevation:
Drilling Method: SSA, 2 1/4" HSA
Casing Type: NA

DEPTH, FT.	SYMBOL	SAMPLE NUMBER	DESCRIPTION OF MATERIAL	SAMPLE RECOVERY, IN.	BLOWS PER 6"	SPT-N VALUE	MOISTURE CONTENT %	LAB TESTS
0		S-1	TOPSOIL AND ORGANIC MATERIAL (4 inches).	13	6 8	18	2.6	MC GS HYD
			SAND WITH GRAVEL (SP); Medium dense, dry to wet, coarse to fine sand, trace silt, trace clay, some coarse to fine gravel, brown.		10 7			
		S-2		18	7 9	16		
		S-3		14	13 9	20		
5		S-4		6	10 10	18	12.3	MC GS HYD
		S-5	Becomes few to little gravel.	13	11 7	9		
10		S-6		15	2 4	9		
					5 4			
			Bottom of exploration at 12.0'; Not refusal.		5 5			
15								
20								
25								

Notes: SPT N-values are uncorrected for hammer energy transfer ratio.

NOTES:
1. GEOTECHNICAL FIELD INVESTIGATION WAS COMPLETED BETWEEN OCTOBER 7 2025 AND OCTOBER 8 2025 BY R.W.GILLESPIE AND ASSOCIATES.
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McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: **SANFORD SEACOAST REGIONAL AIRPORT**
CITY OF SANFORD

PROJECT: **RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD**

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE
SYDNEY R. SENES
No. 17845
LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE
BID DOCUMENTS

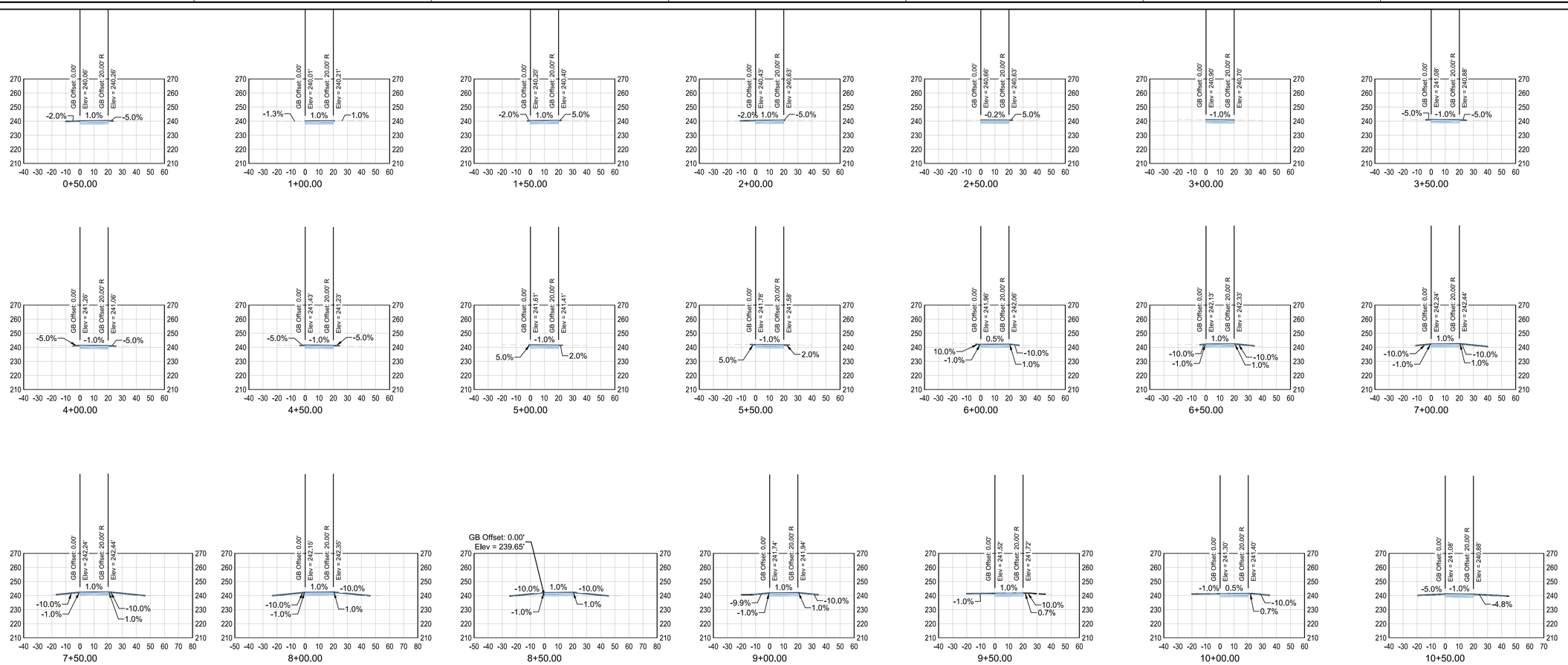
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DRAWN	GMP
DESIGNED	SRG
CHECKED	MTO
SCALE	NTS
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE
BORING LOGS (SHEET 3 OF 3)

DRAWING NUMBER
BL-03

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McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: SANFORD SEACOAST REGIONAL AIRPORT
CITY OF SANFORD

PROJECT: RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD

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STATE OF MAINE
SYDNEY R. SENEY
NO. 17845
LICENSED
PROFESSIONAL ENGINEER

PROJECT MILESTONE

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DESIGNED	SRG
CHECKED	MTO
SCALE	AS SHOWN
DATE	MARCH 2026
PROJECT	19459.01

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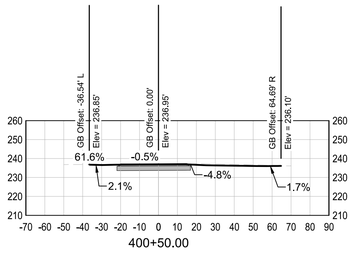
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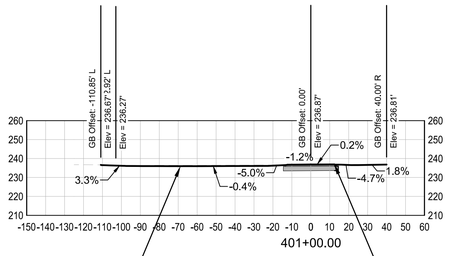
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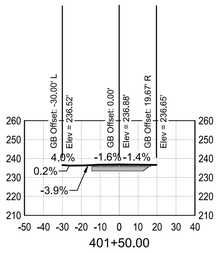
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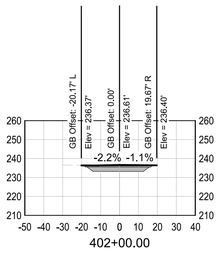
31 OF 32

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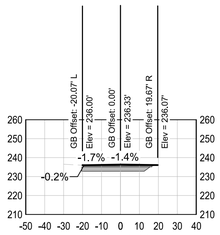


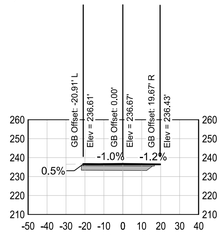


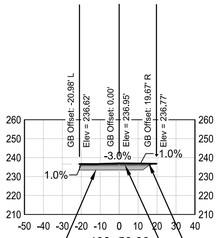


INSTALL 2" OF TOPSOIL, SEEDING, AND MULCH (TYP.)
(ITEMS T-901-5.1, T-905-8.1, & T-908-5.1)

INSTALL 1.5" DROP FROM EDGE OF PAVEMENT TO TURF (TYP.)
(INCIDENTAL TO ITEM P-403-8.1)



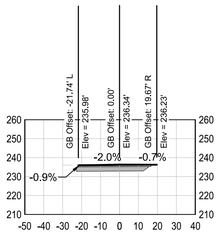


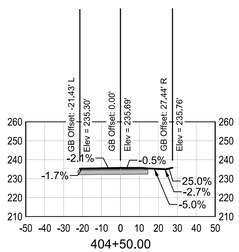


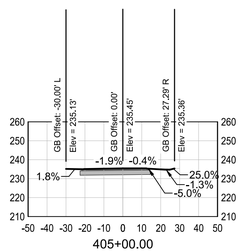
INSTALL 28" OF P-154 SUBBASE COURSE (TYP.)
(ITEM P-154-5.1)

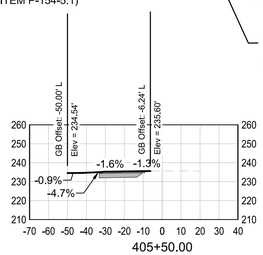
INSTALL 4" OF P-403 ASPHALT SURFACE COURSE (TYP.)
(ITEM P-403-8.1)

INSTALL 6" OF P-209 CRUSHED AGGREGATE BASE COURSE (TYP.)
(ITEM P-209-5.1)



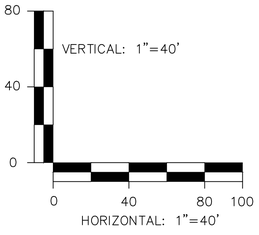






NOTES:

1. FOR PAVEMENT TRANSITION DETAILS FOR EACH TAXILANE SEACOAST 1 CROSS SECTION, SEE SHEET TS-01.



McFARLAND JOHNSON
273 CORPORATE DRIVE; SUITE 200
PORTSMOUTH, NEW HAMPSHIRE 03801

Sanford Seacoast Regional Airport

CLIENT: **SANFORD SEACOAST REGIONAL AIRPORT**
CITY OF SANFORD

PROJECT: **RECONSTRUCT TAXILANE SEACOAST 1 & NEW RW 14 VEHICLE SERVICE ROAD**

REVISIONS

NO.	DATE	DESCRIPTION

STAMP

STATE OF MAINE
SYDNEY R. SENES
No. 17845
LICENSED PROFESSIONAL ENGINEER

PROJECT MILESTONE

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DRAWN	GMP
DESIGNED	SRG
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SCALE	AS SHOWN
DATE	MARCH 2026
PROJECT	19459.01

DRAWING TITLE

TAXILANE SEACOAST 1 CROSS SECTIONS

DRAWING NUMBER

XS-02

32 OF 32

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Memo

Number: 26-243-01
To: City Council
From: Allison Navia, Airport Manager
Date: 2026-08-18
Subject: Ordered to approve and authorize the City Manager to sign a contract for resident engineering, grant administration, and project closeout for the construction phase of the Vehicle Service Road and Seacoast Taxilane project with McFarland Johnson in the amount of $252,600.00.

RECOMMENDATION
Review and approve a contract for resident engineering, grant administration, and project closeout for the construction phase of the Vehicle Service Road and Seacoast Taxilane project with McFarland Johnson.

Background Information:
This contract includes project administration, construction administration and resident engineering. Project administration is more burdensome than usual because there track and allocation of expenses and subsequent reimbursement requests span over three federal grants instead of one. FAA categorizes the project elements differently (one is maintenance and one is new construction). It was further complicated by the use of both BIL and AIP funds, which cannot be combined into one grant.

The federal process for negotiating the contract to perform this work was completed and is summarized in the attached Record of Negotiations.

Legal Review Status:
N/A

Administrative or Department Review:
The City Manager and Airport Manager have administered this project in close coordination with the Finance Director.

Financial Impact or Review:
Funded through federal (FAA 95%) and state (MDOT 2.5%) grants as well as local CIP in the approved FY 26 budget (2.5% of the total cost). Accounts have been created for tracking the three grants associated with this project.

ATTACHMENT(S):

RON SFM VSR & Taxilane 04.23.2026.pdf
_SFM-CA Services TL VSR-Airport Project Contract 2026-0730_DRAFT COMBINED.pdf

Sanford
SEACOAST REGIONAL AIRPORT

Sanford Seacoast Regional Airport
Airport Manager's Office
9 Presidential Lane
Sanford, ME 04073

April 23, 2026

David M. Chamberlain, P.E.
Federal Aviation Administration – Airports Division
1200 District Avenue, Burlington MA 01803

RE: Record of Negotiations
Construct Rehabilitate Taxilane Seacoast 1 & Runway 14 Vehicle Service Road (VSR)
Sanford Seacoast Regional Airport (SFM), Sanford, Maine

Dear Mr. Chamberlain,

1) The consulting firm of McFarland Johnson, Inc. was selected through a request for qualifications by Sanford Seacoast Regional for the Engineering and Planning Consultant Services Contract for the above-mentioned project. This was a project-specific selection.

2) McFarland Johnson was asked to assist in the development of a scope of work for the above-referenced project. The scope of work consists of Project Administration, Construction Administration, Resident Engineering and Grant Administration.

3) The Scoping Conference was held on April 2, 2026 with the FAA, Sponsor, consultant, and MaineDOT, to ensure the consultant had a thorough understanding of the scope of work.

4) The final scope of work was sent to Aviest Engineering on April 22, 2026, for the development of Independent Fee Estimates. The Airport Manager reviewed the scope and work efforts with Aviest Engineering to ensure that there was a common understanding of the level of effort required in the scope.

5) Independent Fee Estimates were received from Aviest Engineering on April 22, 2026, for $130,393.71 for the Taxilane and $117,772.21 for the VSR for a total of $248,166. A range of 10% would be between $223,349 and $272,983.

6) SFM requested the Fee from McFarland Johnson, Inc. on April 22, 2026 and it was provided. The cost was $142,000.00 for the Taxilane and $123,600 for the VSR, for a total of $265,600, 7% higher than the IFE.

7) An analysis comparing the independent estimate with the consultant's fee proposal was completed by the Airport Manager. This resulted in a determination that the fee proposed by McFarland Johnson is reasonable and acceptable.

9) Given that the independent estimate was within 10% of the fee proposal from McFarland Johnson, the Airport Manager finds the fee proposal from McFarland Johnson of $142,000.00 for the Taxilane and $123,600 for the VSR, for a total of $265,600to be fair and reasonable for the proposed scope of services. These negotiations were conducted in good faith to ensure the fees are fair and reasonable.

10) The scope of work, contract, consultant's fee estimate, Sponsor's independent estimate, and this record of negotiations are hereby submitted to FAA and MaineDOT for a reasonableness of cost determination.

If you should have any questions, please do not hesitate to contact me.

Sincerely,



Allison Navia, Airport Manager
Sanford Seacoast Regional Airport

Enclosures

PROJECT CONTRACT

PROJECT ADMINISTRATION AND CONSTRUCTION PHASE SERVICES FOR RECONSTRUCT TAXILANE SEACOAST 1 & NEW RUNWAY 14 VEHICLE SERVICE ROAD

Work Order #4

AIRPORT Contact Person: Allison Navia
Type of Services: Engineering

Project Location: Sanford (SFM)	Contract Negotiated Price: $252,600.00
	Contract Begin Date: 08/05/2026
Federal AIP #: 3-23-0044-043-2025	Contract Expiration Date: 12/31/2027
Federal Tax I.D. #: 01-6000035	GCA Agreement Number: 19459.02
	GCA Ordering Period Dates: 08/05/2025 – 2/05/2030

This Project Contract (hereinafter referred to as "Contract") is entered into by and between the ***City of Sanford, Sanford Seacoast Regional Airport*** (hereinafter referred to as "Sponsor"), 919 Main Street, Sanford, Maine 04073 and **McFarland-Johnson, Inc.**, a corporation or other legal entity (hereinafter referred to as "Consultant") organized under the laws of the State of New York, with its principal place of business located at 49 Court Street, Suite 240, Binghamton, New York 13901 (hereinafter referred to as the "Parties").

The following attachments are hereby incorporated into this agreement by reference:

Appendix A – Airport Consultant Contract Method of Payment
Appendix A-1 – Employee Names/Classifications/Rates
Appendix B – Consultant's Proposal / Detailed Scope of Work
Appendix C – DBE/WBE Utilization Plan

The Consultant agrees to be bound by the Airport Consultant General Conditions, dated **May 3, 2012** and by the Airport General Consultant Agreement dated August 5, 2025, Agreement Number 19459.OE, which are hereby incorporated by reference.

This Contract is subject to compliance with the Disadvantaged Business Enterprise (DBE) Program requirements as set forth by the Sponsor.

The Parties, in consideration of the mutual promises set forth in this Contract, hereby agree as follows:

1. **The Scope of Work.** The Consultant agrees to complete all work as detailed in Appendix B which is made a part of this Contract and;

The Consultant shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent and temporary materials required to perform the work detailed in Appendix B and;

The Sponsor shall have the right to alter the nature and extent of the work as provided in this Contract, through a written modification signed by both Parties.

2. **Reimbursement.** Upon full execution of the FAA grant agreement and related individual project contract, the Sponsor will reimburse the Consultant for approved expenditures incurred on the project prior to the execution of the FAA grant agreement, and the receipt of the MaineDOT Assignment Letter.

3. **Funding.** The Parties agree that in the event that funds are not made available by the Federal Government, and/or State Government in support of this project, the *Sponsor* will assume full responsibility for costs incurred. The Sponsor will make every effort to notify the Consultant should such an event occur.

4. **Team Members**. Listed below are the names of the Consultant's Project Manager, Chief Designer, other key personnel, and primary Subconsultants for this Contract. No substitutions of the key Consultant Team Members are allowed without prior notification and approval by the Sponsor.

   Project Manager: Matthew O'Brien, P.E.

   Chief Designer: Sydney Graveson, P.E.

   Other Key Personnel: Robert Law

   Other Key Personnel: Gabrielle Petersen

   Subconsultants 1: S. W. Cole Engineering, Inc.

5. **Representations.** By signing below, the Consultant hereby represents that to the best of the Consultant's knowledge and belief:

   a. All of the statements, representations, covenants, and/or certifications required or set forth in the Contract documents are complete and accurate as of the date of this Contract.

   b. The Consultant knows of no legal, contractual, or financial impediment to entering into this Contract.

   c. The person signing below is legally authorized by the Consultant to sign this Contract on its behalf and to legally bind the Consultant to the terms of this Contract.

6. **Offer.** The Consultant, having carefully examined the site of work, scope of work, the Airport Consultant General Conditions (including insurance requirements), Airport General Consultant Agreement (when applicable) hereby propose and offer to enter into this Contract to supply all the labor and materials needed to complete the whole of the work in strict accordance with the terms and conditions of this Contract at the prices agreed upon in Appendix A & A-1.

The Consultant also agrees:

First: To do any extra work, not covered by the "Appendix B", which may be required by the Sponsor, and to accept as full compensation the rates noted in Appendix A-1 or approved revision to same and related contract modifications.

Second: The Consultant will deliver to the Sponsor a signed, valid certificate of insurance proving the coverage required by this Contract and/or the Airport Consultant General Conditions before any work commences under this Contract. If the level of insurance is specified in this Contract, that amount will supersede the requirements outlined in the Airport Consultant General Conditions. The Sponsor shall be included as an additional insured on Commercial General Liability insurance policy carried by the Consultant.

Third: To begin and complete the work within the dates specified herein.

The Parties acknowledges that the Airport Consultant General Conditions, dated May 3, 2012, may only be amended through a written modification approved in writing by the Maine Department of Transportation. If any provision in the Airport Consultant General Conditions is altered without approval from the Maine Department of Transportation, then funding from the State of Maine may be withdrawn.

IN WITNESS WHEREOF, the Consultant, for itself, its successors and assigns, hereby execute two (2) originals of this Contract and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONSULTANT

_____ _____

Date (Signature)

Thomas Kendrick, P.E., Chief Executive Officer/ Engineering
(Name and Title Printed)

SPONSOR

_____ _____

Date (Signature)

Steven R. Buck, City of Sanford, City Manager
(Name and Title Printed)

APPENDIX A
AIRPORT CONSULTANT CONTRACT
METHOD OF PAYMENT

COST PLUS FIXED PROFIT AND LUMP SUM

For all services rendered under the terms of this Contract/Modification, compensation shall be made based on a Cost Plus Fixed Profit and Lump Sum method of payment. Methods of payment include Direct Labor, Overhead, Fixed Profit, and Direct Expenses. The Direct Labor and Overhead must be supportable at the time of Contract/Modification execution pursuant to the Federal Acquisition Regulations (FAR). Sponsor shall pay the Consultant for acceptable services rendered. Direct Expenses shall be reimbursed at cost, and travel expenses shall be reimbursed in accordance with the current per diem/mileage rates that can be found under "Links for Mileage and Per Diem Rates" at http://www.maine.gov/mdot/cpo/.

COST PLUS FIXED FEE

In the event that this Contract is terminated without completion of the services to be performed under the Cost Plus Fixed Fee method of payment, the Sponsor will pay for the total cost of the work satisfactorily completed plus a percentage of the fixed fee proportional to the amount of work completed and that will constitute payment in full.

For a breakdown of the Burdened Hourly Rate(s) see the attached proposal

Breakdown of Maximum Amount:	Direct Labor:	$45,335.50
	Overhead: **179.00**% =	$76,786.53
	SUBTOTAL	**$**122,122.03
	Fixed Profit: **15.00**% =	$**18,318.30**
	Direct Expenses:	$31,909.67
	Total:	**$172,350.00**

Overhead Rate. The provisional overhead rate of **179.00** percent was used to establish the Maximum Amount of this Contract/Modification. If within the Contract/Modification period, the consultant can support a new Overhead Rate, they must submit an updated Audited Overhead Report for acceptance by the Sponsor before billing at the new rate. The actual overhead rate reimbursed under this Contract/Modification must be supportable by the Consultant and shall be determined, through an audit, by the Sponsor or an approved federal or state cognizant agency, after the Contract/Modification expires.

LUMP SUM PLUS DIRECT EXPENSE

For all services rendered under the terms of this Contract/Modification, compensation shall be made based on a Negotiated Lump Sum Amount that cannot be changed once the Contract is executed, unless there is a change in the scope of work whereby a modification to the Contract shall be executed. The Sponsor shall pay the Consultant for work satisfactorily completed/delivered under this Contract/Modification. Invoices must be broken down by task.

In the event that this Contract is terminated without completion of the services to be performed under the Lump Sum method of payment, the Sponsor will pay a percentage of the Lump Sum proportional to the amount of work satisfactorily completed and that will constitute payment in full.

Breakdown of Negotiated Amount:	Direct Labor:	$24,982.50
	Overhead: **179.00**% =	$44,718.68
	SUBTOTAL	**$**69,701.18
	Fixed Profit: **15.00**% =	$**10,455.18**
Negotiated Lump Sum Amount:	**SUBTOTAL:**	**$80,156.36**
	Estimated Direct Expenses:	$93.64
	TOTAL:	**$80,250.00**

Contract Maximum Amount: Cost Plus Fixed Fee + Lump Sum Plus Direct Expense = $252,600.00

The Maximum Amount indicated above does not constitute an obligation by Sponsor to pay the Consultant this amount in its entirety; however, it does constitute the maximum amount that can be paid to a consultant under this contract.

APPENDIX A-1
AIRPORT CONSULTANT CONTRACT

Consultant Name: McFarland-Johnson, Inc.
Date: 23-Jul-26
CA Services for Taxilane
Task: Seacoast 1 and RW 14/32

Employee Names/Classifications & Rates

Please indicate the Employee Names/Classifications and rates that will be used to fulfill the requirements of this contract

Employee Name & Classification			Actual Rate Paid*	Allowable Direct Labor Hourly Rate	Overhead % 179.00%	Profit/Fixed Fee % 15.00%	Burdened Hourly Rate
Gabrielle	Petersen	P01 Junior Engineer/Planner/Envrmntlst	$ 33.50	$ 33.50	$ 59.97	$ 14.02	$ 107.49
Ayela Bridgette	Sta Maria	P01 Junior Engineer/Planner/Envrmntlst	$ 34.00	$ 34.00	$ 60.86	$ 14.23	$ 109.09
Theresa	Quinto	P02 Junior Engineer/Planner/Envrmntlst	$ 38.00	$ 38.00	$ 68.02	$ 15.90	$ 121.92
Alan	Bonneau	P02 Junior Engineer/Planner/Envrmntlst	$ 38.76	$ 38.76	$ 69.38	$ 16.22	$ 124.36
Saif	Naimat	P02 Junior Engineer/Planner/Envrmntlst	$ 41.90	$ 41.90	$ 75.00	$ 17.54	$ 134.44
Ferdinand	Schoedinger	P03 Assistant Engineer/Planner/Envrmntlst	$ 39.00	$ 39.00	$ 69.81	$ 16.32	$ 125.13
Harrison	Tinder	P03 Assistant Engineer/Planner/Envrmntlst	$ 44.00	$ 44.00	$ 78.76	$ 18.41	$ 141.17
Jack	Reitz	P03 Assistant Engineer/Planner/Envrmntlst	$ 44.20	$ 44.20	$ 79.12	$ 18.50	$ 141.82
Robert	Law	P04 Senior Engineer/Planner/Envrmntlst	$ 46.00	$ 46.00	$ 82.34	$ 19.25	$ 147.59
Stephen	Bourque	P04 Senior Engineer/Planner/Envrmntlst	$ 48.00	$ 48.00	$ 85.92	$ 20.09	$ 154.01
Sydney	Graveson	P04 Senior Engineer/Planner/Envrmntlst	$ 48.50	$ 48.50	$ 86.82	$ 20.30	$ 155.62
Dhruv	Patel	P04 Senior Engineer/Planner/Envrmntlst	$ 50.00	$ 50.00	$ 89.50	$ 20.93	$ 160.43
Robert	Luchini	P05 Project Engineer/Planner/Envrmntlst	$ 56.50	$ 56.50	$ 101.14	$ 23.65	$ 181.29
David	Brouillet	P05 Project Engineer/Planner/Envrmntlst	$ 59.50	$ 59.50	$ 106.51	$ 24.90	$ 190.91
Nicholas	DeSalvo	P05 Project Engineer/Planner/Envrmntlst	$ 60.10	$ 60.10	$ 107.58	$ 25.15	$ 192.83
Scott	Shillieto	P05 Project Engineer/Planner/Envrmntlst	$ 65.50	$ 65.50	$ 117.25	$ 27.41	$ 210.16
David	Nelson	P06 Senior Project Engineer/Planner/Envrmntlst	$ 68.00	$ 68.00	$ 121.72	$ 28.46	$ 218.18
Laura	Canham	P06 Senior Project Engineer/Planner/Envrmntlst	$ 69.00	$ 69.00	$ 123.51	$ 28.88	$ 221.39
Matthew	O'Brien	P07 Senior Project Manager	$ 84.00	$ 84.00	$ 150.36	$ 35.15	$ 269.51
Richard	Lasdin	P07 Senior Project Manager	$ 89.00	$ 89.00	$ 159.31	$ 37.25	$ 285.56
David	Rich	P07 Senior Project Manager	$ 90.00	$ 90.00	$ 161.10	$ 37.67	$ 288.77
John	Gorham	P07 Senior Project Manager	$ 92.00	$ 92.00	$ 164.68	$ 38.50	$ 295.18
Paul	McDonough	P08 Division Director/Regional Div Director	$ 93.00	$ 93.00	$ 166.47	$ 38.92	$ 298.39
Brian	Smith	P08 Division Director/Regional Div Director	$ 95.00	$ 95.00	$ 170.05	$ 39.76	$ 304.81
Zachary	Munroe	T01 Junior Technician	$ 20.00	$ 20.00	$ 35.80	$ 8.37	$ 64.17
Heather	Szmyt	T01 Junior Technician	$ 23.80	$ 23.80	$ 42.60	$ 9.96	$ 76.36
Cynthia	Bourrie	T03 Technician	$ 38.50	$ 38.50	$ 68.92	$ 16.11	$ 123.53

By: _____ Date: 7/28/26

Emi Saito, Controller

I certify that the foregoing signature is true and accurate, and if electronic, I further certify that it (a) is intended to have the same force as a manual signature, (b) is unique to myself, (c) is capable of verification, and (d) is under the sole control of myself.

Attachment B: Consultant's Cost Proposal 7/30/2026

McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

Task and Description	Payment Terms	Taxilane Hours	Taxilane Fee	VSR Hours	VSR Fee
Task 1A - Taxilane Project Administration	Lump Sum	271	$ 48,000.00		
Task 1B - VSR Project Administration	Lump Sum			170	$ 32,250.00
Task 2A - Taxilane Construction Administration	Actual Cost + Fixed Fee	195	$ 41,400.00		
Task 2B - VSR Construction Administration	Actual Cost + Fixed Fee			195	$ 41,500.00
Task 3A - Taxilane Resident Engineering	Actual Cost + Fixed Fee	242	$ 46,050.00		
Task 3B - VSR Resident Engineering	Actual Cost + Fixed Fee			242	$ 43,400.00
Total Project Costs	**TOTAL**	**708**	**$ 135,450.00**	**607**	**$ 117,150.00**

	Breakdown	
	Taxilane	VSR
Material Testing Subconsultant - S.W. Cole Engineering, Inc.	$ 9,541.00	$ 6,803.00
MJ Expenses	$ 7,791.55	$ 7,867.76
MJ Professional Services	$ 118,117.45	$ 102,479.24
Total	$135,450.00	$ 117,150.00

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McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

All tasks split as 50% Taxilane and 50% VSR except as noted

Sub task	Task 1A - Taxilane Project Administration	Quality Control	Project Manager	Senior Engineer	Project Engineer	Senior Technician	Assistant Admin Technician	Hours
1.1.	Conduct Scoping Meeting		1		2			3
1.2.	Develop Scope of Work, assist IFE, negotiate		10	2	4			16
1.3.	Prepare Project Contract		2					2
1.4.	Prepare for and conduct project update meetings (18).		9					9
1.5.	Prepare project schedule and update monthly		9					9
1.6.	Prepare project budget and monitor monthly		9					9
1.7.	Develop FAA IIJA AIG Grant Application (AIG VSR)							
1.8.	Develop FAA IIJA AIG Grant Application (AIG Taxilane)		4		8		8	20
1.9.	Develop a FAA AIP Grant Application (AIP Taxilane)		4		8		8	20
1.10.	Develop IIJA AIG Requests for Reimbursement. FAA (2), MaineDOT (2) (AIG VSR)							
1.11.	Develop IIJA AIG Requests for Reimbursement. FAA (2), MaineDOT (2) (AIG Taxilane)		4				16	20
1.12.	Develop AIP Requests for Reimbusement. FAA (2), MaineDOT (2) (AIP Taxilane)		4				16	20
1.13.	Develop IIJA AIG progress reports (28) (AIG VSR)							
1.14.	Develop IIJA AIG progress reports (28) (AIG Taxilane)		6		28		12	46
1.15.	Develop AIP progress reports (28) (AIP Taxilane)		6		28		12	46
1.16.	Develop RFP for Material Testing Services		2		6		1	9
1.17.	Prepare IIJA AIG closeout report, coordinate printing, and retain project records. (AIG VSR)							0
1.18.	Prepare IIJA AIG closeout report, coordinate printing, and retain project records. (AIG Taxilane)		2		4		12	18
1.19.	Prepare AIP closeout report, coordinate printing, and retain project records. (AIP Taxilane)		2		4		12	18
1.20.	Coordinate submission of deliverables (6)		3		3			6
	TOTAL Hours	0	77	2	95	0	97	**271**
	Hourly Rate	$ 92.00	$ 84.00	$ 68.00	$ 48.50	$ 46.00	$ 38.50	
	Direct labor Cost	$ -	$ 6,468.00	$ 136.00	$ 4,607.50	$ -	$ 3,734.50	

Expenses

Meals	$	-
Hotel	$	-
Mileage	$	-
Transportation Cost (Tolls/Parking)	$	-
Postage/Copies	$	45.76
Total Expenses	**$**	**45.76**

Outside Services

None.	$	-
Total Outside Services:	**$**	**-**

TOTAL HOURS		271
TOTAL DIRECT LABOR COST	$	14,946.00
OVERHEAD @ 179.00%	$	26,753.34
TOTAL LABOR COST	$	41,699.34
FEE @ 15%	$	6,254.90
SUBTOTAL	$	47,954.24
TOTAL EXPENSES	$	45.76
TOTAL OUTSIDE SERVICES	$	-
TOTAL TASK	**$**	**48,000.00**
USE LUMP SUM	**$**	**48,000.00**

Attachment B: Consultant's Cost Proposal 7/30/2026

McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

All tasks split as 50% Taxilane and 50% VSR except as noted

Sub task	Task 1B - VSR Project Administration	Quality Control	Project Manager	Senior Engineer	Project Engineer	Senior Technician	Assistant Admin Technician	Hours
1.1.	Conduct Scoping Meeting		1		2			3
1.2.	Develop Scope of Work, assist IFE, negotiate	1	10	2	4			17
1.3.	Prepare Project Contract		2				1	3
1.4.	Prepare for and conduct project update meetings (18). (2) Consultant members		9					9
1.5.	Prepare project schedule and update monthly		9					9
1.6.	Prepare project budget and monitor monthly		9					9
1.7.	Develop FAA IIJA AIG Grant Application (AIG VSR)		4		8		8	20
1.8.	Develop FAA IIJA AIG Grant Application (AIG Taxilane)							
1.9.	Develop a FAA AIP Grant Application (AIP Taxilane)							
1.10.	Develop IIJA AIG Requests for Reimbursement. FAA (2), MaineDOT (2) (AIG VSR)		4				16	20
1.11.	Develop IIJA AIG Requests for Reimbursement. FAA (2), MaineDOT (2) (AIG Taxilane)							
1.12.	Develop AIP Requests for Reimbusement. FAA (2), MaineDOT (2) (AIP Taxilane)							
1.13.	Develop IIJA AIG progress reports (28) (AIG VSR)		6		28		12	46
1.14.	Develop IIJA AIG progress reports (28) (AIG Taxilane)							
1.15.	Develop AIP progress reports (28) (AIP Taxilane)							
1.16.	Develop RFP for Material Testing Services	1	2		6		1	10
1.17.	Prepare IIJA AIG closeout report, coordinate printing, and retain project records. (AIG VSR)		2		4		12	18
1.18.	Prepare IIJA AIG closeout report, coordinate printing, and retain project records. (AIG Taxilane)							
1.19.	Prepare AIP closeout report, coordinate printing, and retain project records. (AIP Taxilane)							
1.20.	Coordinate submission of deliverables (6)		3		3			6
	TOTAL Hours	2	61	2	55	0	50	**170**
	Hourly Rate	$ 92.00	$ 84.00	$ 68.00	$ 48.50	$ 46.00	$ 38.50	
	Direct labor Cost	$ 184.00	$ 5,124.00	$ 136.00	$ 2,667.50	$ -	$ 1,925.00	

Expenses

Meals	$	-
Hotel	$	-
Mileage	$	-
Transportation Cost (Tolls/Parking)	$	-
Postage/Copies	$	47.88
Total Expenses	**$**	**47.88**

Outside Services

None.	$	-
Total Outside Services:	**$**	**-**

TOTAL HOURS		170
TOTAL DIRECT LABOR COST	$	10,036.50
OVERHEAD @ 179.00%	$	17,965.34
TOTAL LABOR COST	$	28,001.84
FEE @ 15%	$	4,200.28
SUBTOTAL	$	32,202.12
TOTAL EXPENSES	$	47.88
TOTAL OUTSIDE SERVICES	$	-
TOTAL TASK	**$**	**32,250.00**
USE LUMP SUM	**$**	**32,250.00**

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McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

All tasks split as 50% Taxilane and 50% VSR except as noted

Sub task	Task 2A - Taxilane Construction Administration	Quality Control	Project Manager	Senior Engineer	Project Engineer	Senior Technician	Assistant Admin Technician	Hours
2.1	Assist with award of construction contract and review bonds, insurance certificates and other contract documents		2		4			6
2.2	Prepare subagreement with material testing firm	1	4		2		1	8
2.3	Provide assistance and support prior to Contractor's NTP		4		4			8
2.4	Develop conformed documents. Print and distribute (2) hard copies		2		4	8		14
2.5	Schedule, prepare for, and conduct pre-con meeting and QC workshop at SFM. (1) Consultant member extended day		5		2			7
2.6	Review, comment on, and distribute Contractor's SPCD		1		2			3
2.7	Process shop drawings, certificates of compliance, and other submittals (30)		2	15	15			32
2.8	Review material testing program and reports and compile		1	1	5			7
2.9	Prepare for and attend (3) on-site visits for construction job meetings. (1) consultant member		15					15
2.10	Coordinate and host (4) conference calls for construction job meetings weekly during construction		4		4			8
2.11	Prepare for and attend pre-paving conference at SFM. Construction Administrator in attendance		4		1			5
2.12	Prepare supplementary sketches and technical interpretations to resolve actual field or unknown conditions encountered (2)		1		2	4		7
2.13	Review, respond to, and distribute RFIs (2)		1	2	4			7
2.14	Review Periodic Cost Estimates (3)		1		3			4
2.15	Review contractor certified payrolls (20)		2		6			8
2.16	Assist in preparation and processing of construction change orders (2)		1	2	4			7
2.17	Provide assistance and support during construction. (4) weeks (6) hours/week		12					12
2.18	Attend Final Inspection at SFM. Consultant PM for (1) extended day		4					4
2.19	Prepare punch list and coordinate completion with contractor. (4) weeks (6) hours/week		12					12
2.20	Prepare and sign "as-built" plans		1		2	8		11
2.21	Prepare "pen-and-ink" change to ALP				1	2		3
2.22	Submit Coordination of Compliance for MaineDEP approval. Provide permit closeout information		1		2			3
2.23	Coordinate submission of deliverables (4)		2		2			4
	TOTAL Hours	1	82	20	69	22	1	**195**
	Hourly Rate	$ 92.00	$ 84.00	$ 68.00	$ 48.50	$ 46.00	$ 38.50	
	Direct labor Cost	$ 92.00	$ 6,888.00	$ 1,360.00	$ 3,346.50	$ 1,012.00	$ 38.50	

Expenses

Meals	$	258.00
Hotel	$	-
Mileage	$	239.25
Transportation Cost (Tolls/Parking)	$	-
Postage/Copies	$	36.09
Total Expenses	**$**	**533.34**

Outside Services

None	$	-
Total Outside Services:	**$**	**-**

TOTAL HOURS		195
TOTAL DIRECT LABOR COST	$	12,737.00
OVERHEAD @ 179.00%	$	22,799.23
TOTAL LABOR COST	$	35,536.23
FEE @ 15%	$	5,330.43
SUBTOTAL	$	40,866.66
TOTAL EXPENSES	$	533.34
TOTAL OUTSIDE SERVICES	$	-
TOTAL TASK	**$**	**41,400.00**
USE ACTUAL COST + FIXED FEE	**$**	**41,400.00**

Attachment B: Consultant's Cost Proposal 7/30/2026

McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

All tasks split as 50% Taxilane and 50% VSR except as noted

Travel Expenses

Subtask	Description	Status	Breakfast	Lunch	Dinner	Incidental	Hotel	Toll	Mileage	
2.5	PreCon Mtg	Extended Day	$ 22.00	$ 23.00	$ 36.00	$ 5.00	$ -	$ -	$ 79.75	Concord to SFM
2.9	Site Visits	Extended Day								Concord to SFM
2.9	Site Visits	Extended Day	$ 22.00	$ 23.00	$ 36.00	$ 5.00	$ -	$ -	$ 79.75	Concord to SFM
2.9	Site Visits	Extended Day								Concord to SFM
2.11	PrePaving Mtg	Extended Day	$ 22.00	$ 23.00	$ 36.00	$ 5.00	$ -	$ -	$ 79.75	Concord to SFM
2.18	Final Inspection	Extended Day								Concord to SFM
		Subtotal	$ 66.00	$ 69.00	$ 108.00	$ 15.00	$ -	$ -	$ 239.25	
					Meals Subtotal	**$ 258.00**			**TOTAL**	**$ 497.25**

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McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
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All tasks split as 50% Taxilane and 50% VSR except as noted

Sub task	Task 2B - VSR Construction Administration	Quality Control	Project Manager	Senior Engineer	Project Engineer	Senior Technician	Assistant Admin Technician	Hours
2.1	Assist with award of construction contract and review bonds, insurance certificates and other contract documents		2		4			6
2.2	Prepare subagreement with material testing firm	1	4		2		1	8
2.3	Provide assistance and support prior to Contractor's NTP		4		4			8
2.4	Develop conformed documents. Print and distribute (2) hard copies		2		4	8		14
2.5	Schedule, prepare for, and conduct pre-con meeting and QC workshop at SFM. (1) Consultant member extended day		5		2			7
2.6	Review, comment on, and distribute Contractor's SPCD		1		2			3
2.7	Process shop drawings, certificates of compliance, and other submittals (30)		2	15	15			32
2.8	Review material testing program and reports and compile for closeout report		1	1	5			7
2.9	Prepare for and attend (3) on-site visits for construction job meetings. (1) consultant member		15					15
2.10	Coordinate and host (4) conference calls for construction job meetings weekly during construction		4		4			8
2.11	Prepare for and attend pre-paving conference at SFM. Construction Administrator in attendance		4		1			5
2.12	Prepare supplementary sketches and technical interpretations to resolve actual field or unknown conditions encountered (2)		1		2	4		7
2.13	Review, respond to, and distribute RFIs (2)		1	2	4			7
2.14	Review Periodic Cost Estimates (3)		1		3			4
2.15	Review contractor certified payrolls (20)		2		6			8
2.16	Assist in preparation and processing of construction change orders (2)		1	2	4			7
2.17	Provide assistance and support during construction. (4) weeks (6) hours/week		12					12
2.18	Attend Final Inspection at SFM. Consultant PM for (1) extended day		4					4
2.19	Prepare punch list and coordinate completion with contractor. (4) weeks (6) hours/week		12					12
2.20	Prepare and sign "as-built" plans		1		2	8		11
2.21	Prepare "pen-and-ink" change to ALP		1			2		3
2.22	Submit Coordination of Compliance for MaineDEP approval. Provide permit closeout information		1		2			3
2.23	Coordinate submission of deliverables (4)		2		2			4
	TOTAL Hours	1	83	20	68	22	1	**195**
	Hourly Rate	$ 92.00	$ 84.00	$ 68.00	$ 48.50	$ 46.00	$ 38.50	
	Direct labor Cost	$ 92.00	$ 6,972.00	$ 1,360.00	$ 3,298.00	$ 1,012.00	$ 38.50	

Expenses

Meals	$	258.00
Hotel	$	-
Mileage	$	239.25
Transportation Cost (Tolls/Parking)	$	-
Postage/Copies	$	22.18
Total Expenses	**$**	**519.43**

Outside Services

None	$	-
Total Outside Services:	**$**	**-**

TOTAL HOURS		195
TOTAL DIRECT LABOR COST	$	12,772.50
OVERHEAD @ 179.00%	$	22,862.78
TOTAL LABOR COST	$	35,635.28
FEE @ 15%	$	5,345.29
SUBTOTAL	$	40,980.57
TOTAL EXPENSES	$	519.43
TOTAL OUTSIDE SERVICES	$	-
TOTAL TASK	**$**	**41,500.00**
USE ACTUAL COST + FIXED FEE	**$**	**41,500.00**

Attachment B: Consultant's Cost Proposal 7/30/2026

McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

All tasks split as 50% Taxilane and 50% VSR except as noted

Travel Expenses

Subtask	Description	Status	Breakfast	Lunch	Dinner	Incidental	Hotel	Toll	Mileage	
2.5	PreCon Mtg	Extended Day								Concord to SFM
2.9	Site Visits	Extended Day	$ 22.00	$ 23.00	$ 36.00	$ 5.00	$ -	$ -	$ 79.75	Concord to SFM
2.9	Site Visits	Extended Day								Concord to SFM
2.9	Site Visits	Extended Day	$ 22.00	$ 23.00	$ 36.00	$ 5.00	$ -	$ -	$ 79.75	Concord to SFM
2.11	PrePaving Mtg	Extended Day								Concord to SFM
2.18	Final Inspection	Extended Day	$ 22.00	$ 23.00	$ 36.00	$ 5.00	$ -	$ -	$ 79.75	Concord to SFM
		Subtotal	$ 66.00	$ 69.00	$ 108.00	$ 15.00	$ -	$ -	$ 239.25	
					Meals Subtotal	**$ 258.00**			**TOTAL**	**$ 497.25**

Attachment B: Consultant's Cost Proposal 7/30/2026

McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

All tasks split as 50% Taxilane and 50% VSR except as noted

Sub task	Task 3A - Taxilane Resident Engineering	Quality Control	Project Manager	Resident Regular	Resident Overtime	Senior Technician	Assistant Admin Technician	Hours
	Prepare for and attend pre-con meeting and QC workshop at SFM			4				4
	Start-up coordination (3 extended days)			15	3			18
	(4) weeks on-site observation (60 hours/week)			120	40			160
	Post construction coordination (10 extended days)			50	10			60
	TOTAL Hours	0	0	189	53	0	0	**242**
	Hourly Rate	$ -	$ -	$ 46.00	$ 23.00			
	Direct labor Cost	$ -	$ -	$ 8,694.00	$ 1,219.00	$ -	$ -	

Expenses

Meals	$	1,158.00
Hotel	$	3,286.35
Mileage	$	478.50
Transportation Costs (Rental Car + Gas)	$	1,895.00
Postage/Copies	$	394.60
Total Expenses	**$**	**7,212.45**

Outside Services

Material Testing - S.W. Cole Engineering, Inc.		$500.00	50% Pre Con Support
Material Testing - S.W. Cole Engineering, Inc.	$	9,041.00	
Total Outside Services:		**$9,541.00**	

TOTAL HOURS		242
TOTAL DIRECT LABOR COST	$	8,694.00
TOTAL OT PREMIUM COST	$	1,219.00
OVERHEAD @ 179.00%	$	15,562.26
TOTAL LABOR COST	$	25,475.26
FEE @ 15%	$	3,821.29
SUBTOTAL	$	29,296.55
TOTAL EXPENSES	$	7,212.45
TOTAL OUTSIDE SERVICES	$	9,541.00
TOTAL TASK	**$**	**46,050.00**

Attachment B: Consultant's Cost Proposal 7/30/2026

McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

TASK 3A EXPENSES BREAKDOWN (Taxilane)

a. Travel - Vehicle Mileage (Pre & Post Construction)

	Trips	Cost/Mile	Miles	
Concord NH to SFM Round Trip	6	$ 0.725	110.0	$ 478.50
Tolls (Rt 202)				$ -
			Subtotal	$ 478.50

b. Travel - Vehicle Rental - Estimate (Construction)

	Cost / Day	No. of Days	
Rental Car from Concord, NH	$ 95.00	15	$ 1,425.00
Tolls	$ -		$ -
		Subtotal	$ 1,425.00

	Miles R.T/on site	Est. MPG	Cost/Gal	RT	
Fuel for Rental Car	110	20	$ 4.00	2	$ 440.00
Site Miles	10	20	$ 4.00	15	$ 30.00
				Subtotal	$ 470.00

c. Subsistence, Food, Lodging, etc. (Federal Rates)

	Cost / Day	No. of Days	
Lodging	$ 219.09	15	$ 3,286.35
M&EI	$ 86.00	9	$ 774.00
First Last/Day	$ 64.50	4	$ 258.00
Meal day trip	$ 21.00	6	$ 126.00
		Subtotal	$ 4,444.35

d. Printing / Reprographios	Paper	Copies	cost/page	No. pages	
Working Prints	22x34	30	$ 2.50	1	$ 75.00
Spec Book	8.5x11	659	$ 0.20	2	$ 263.60
				Subtotal	$ 338.60

e. Postage / Shipping	$	56.00
	$	56.00
Total Expenses:	**$**	**7,212.45**

Attachment B: Consultant's Cost Proposal 7/30/2026

McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

All tasks split as 50% Taxilane and 50% VSR except as noted

Sub task	Task 3B - VSR Resident Engineering	Quality Control	Project Manager	Resident Regular	Resident Overtime	Senior Technician	Assistant Admin Technician	Hours
	Prepare for and attend pre-con meeting and QC workshop at SFM			4				4
	Start-up coordination (3 extended days)			15	3			18
	(4) weeks on-site observation (60 hours/week)			120	40			160
	Post construction coordination (10 extended days)			50	10			60
	TOTAL Hours	0	0	189	53	0	0	**242**
	Hourly Rate			$ 46.00	$ 23.00			
	Direct labor Cost	$ -	$ -	$ 8,694.00	$ 1,219.00	$ -	$ -	

Expenses

Meals	$	1,179.00
Hotel	$	3,286.35
Mileage	$	558.25
Transportation Costs (Rental Car + Gas)	$	1,895.00
Postage/Copies	$	381.85
Total Expenses	**$**	**7,300.45**

Outside Services

Material Testing - S.W. Cole Engineering, Inc.		$500.00	50% Pre Con Support
Material Testing - S.W. Cole Engineering, Inc.	$	6,303.00	
Total Outside Services:	**$**	**6,803.00**	

TOTAL HOURS		242
TOTAL DIRECT LABOR COST	$	8,694.00
TOTAL OT PREMIUM COST	$	1,219.00
OVERHEAD @ 179.00%	$	15,562.26
TOTAL LABOR COST	$	25,475.26
FEE @ 15%	$	3,821.29
SUBTOTAL	$	29,296.55
TOTAL EXPENSES	$	7,300.45
TOTAL OUTSIDE SERVICES	$	6,803.00
TOTAL TASK	**$**	**43,400.00**

Attachment B: Consultant's Cost Proposal 7/30/2026

McFarland Johnson, Inc.
City of Sanford
Sanford Seacoast Regional Airport
Project Number 01.19459.02
Construction Administration for
Taxilane Seacoast 1 & New Runway 14 Perimeter Road

TASK 3A EXPENSES BREAKDOWN (Taxilane)

a. Travel - Vehicle Mileage (Pre & Post Construction)

	Trips	Cost/Mile	Miles	
Concord NH to SFM Round Trip	7	$ 0.725	110.0	$ 558.25
Tolls (Rt 202)				$ -
			Subtotal	$ 558.25

b. Travel - Vehicle Rental - Estimate (Construction)

	Cost / Day	No. of Days	
Rental Car from Concord, NH	$ 95.00	15	$ 1,425.00
Tolls	$ -		$ -
		Subtotal	$ 1,425.00

	Miles R.T/on site	Est. MPG	Cost/Gal	RT	
Fuel for Rental Car	110	20	$ 4.00	2	$ 440.00
Site Miles	10	20	$ 4.00	15	$ 30.00
				Subtotal	$ 470.00

c. Subsistence, Food, Lodging, etc. (Federal Rates)

	Cost / Day	No. of Days	
Lodging	$ 219.09	15	$ 3,286.35
M&EI	$ 86.00	9	$ 774.00
First Last/Day	$ 64.50	4	$ 258.00
Meal day trip	$ 21.00	7	$ 147.00
		Subtotal	$ 4,465.35

d. Printing / Reprographios	Paper	Copies	cost/page	No. pages	
Working Prints	22x34	30	$ 2.50	1	$ 75.00
Spec Book	8.5x11	659	$ 0.20	2	$ 263.60
				Subtotal	$ 338.60

e. Postage / Shipping	$	43.25
	$	43.25
Total Expenses:	**$**	**7,300.45**

APPENDIX B – DETAILED SCOPE OF WORK

WORK ORDER NO. 4

CITY OF SANFORD

SANFORD SEACOST REGIONAL AIRPORT

SANFORD, MAINE

for

Project Administration and Construction Phase Services
for
Reconstruct Taxilane Seacoast 1 & New Runway 14 Vehicle Service Road

April 17, 2026

A. PROJECT DESCRIPTION

The City of Sanford, Maine (SPONSOR), operator of the Sanford Seacoast Regional Airport (SFM), has tasked McFarland-Johnson, Inc. (CONSULTANT) with the project administration and construction phase services for the Reconstruct Taxilane Seacoast 1 and New Runway 14 Vehicle Service Road (PROJECT) at SFM. The attached sketches Layout Plans GE-01 and GE-02, dated March 2026 show the approximate project limits for the Vehicle Service Road and Taxilane, respectively.

The PROJECT is anticipated to receive funding assistance from the Federal Aviation Administration (FAA) and Maine Department of Transportation (MaineDOT):

- (2) Infrastructure Investment and Jobs Act (IIJA) Airport Infrastructure Grant (AIG),
- (1) Airport Improvement Program (AIP)

Due to the funding breakdown and various grants, construction and CONSULTANT costs will be itemized per grant.

The estimated construction cost of the Reconstruct Taxilane Seacoast 1 is $600,000, and the New Runway 14 Vehicle Service Road is $450,000.

This Scope of Work will be limited to the following tasks:

TASK 1 – PROJECT ADMINISTRATION
TASK 2 – CONSTRUCTION ADMINISTRATION
TASK 3 – RESIDENT ENGINEERING

Each task applies to the Taxilane and Vehicle Service Road. The fee will breakout these tasks separately by sharing common subtasks costs at 50% and itemizing tasks that are only applicable to each project area.

B. SCOPE OF WORK

Below is a list of tasks to be completed by the CONSULTANT, limited to the estimated hours allocated in the attached Appendix B: Consultant's Cost Proposal.

TASK 1 - PROJECT ADMINISTRATION

SPONSOR will conduct the following:

- Coordinate City of Sanford approvals.
- Attend coordination meetings.

Subtasks of the CONSULTANT are limited to the following:

1.1 Prepare an agenda and conduct scoping meetings with the SPONSOR, FAA, MaineDOT, and CONSULTANT. Two (2) CONSULTANT staff members will participate. Prepare meeting notes.

1.2 Assist the SPONSOR in the development of a Scope of Work (SOW) for the PROJECT. The SOW will be in MS Word with sufficient detail for the SPONSOR to obtain an Independent Fee Estimate (IFE) for use in evaluating CONSULTANT fee proposal. Additionally, CONSULTANT will prepare a "zeroed-out" spreadsheet in MS Excel format for use by the IFE preparer. CONSULTANT will review the proposed fee with SPONSOR and negotiate a contract price.

1.3 Prepare one (1) project contract and coordinate signature with SPONSOR. This does not include work necessary for future contract modifications.

1.4 Prepare for and conduct up to 18 remote project update meetings on a monthly basis.

1.5 Prepare an initial project schedule and update on a monthly basis, for an estimated 16 months.

1.6 Prepare an initial project budget and monitor it on a monthly basis.

1.7 Develop a FAA IIJA AIG grant application in PDF, anticipating a New Runway 14 Vehicle Service Road construction grant application for Federal Fiscal Year (FFY) 2026. Coordinate grant application with MaineDOT. (AIG VSR).

1.8 Develop a FAA IIJA AIG grant application in PDF, anticipating a Reconstruct Taxilane Seacoast 1 construction grant application for Federal Fiscal Year (FFY) 2026. Coordinate grant application with MaineDOT. (AIG Taxilane).

1.9 Develop a FAA AIP grant application in PDF, anticipating a Reconstruct Taxilane Seacoast 1 construction grant application for Federal Fiscal Year (FFY) 2026. Coordinate grant application with MaineDOT. (AIP Taxilane).

1.10 Develop up to four (4) grant reimbursements requests for IIJA AIG (AIG VSR).
- FAA (2)
- MaineDOT (2).

1.11 Develop up to four (4) grant reimbursements requests for IIJA AIG (AIG Taxilane).
- FAA (2)
- MaineDOT (2).

1.12 Develop up to four (4) grant reimbursements requests for AIP (AIP Taxilane).
- FAA (2)
- MaineDOT (2).

1.13 Develop up to 28 IIJA AIG progress reports for the MaineDOT and FAA (AIG VSR):
a. FAA quarterly progress reports over the life of grant (6)
b. FAA monthly progress reports during construction (2)
c. FAA Fiscal Year End Reports (2)
d. MaineDOT monthly progress reports (18)

1.14 Develop up to 28 IIJA AIG progress reports for the MaineDOT and FAA (AIG Taxilane):
a. FAA quarterly progress reports over the life of grant (6)
b. FAA monthly progress reports during construction (2)
c. FAA Fiscal Year End Reports (2)
d. MaineDOT monthly progress reports (18)

1.15 Develop up to 28 AIP progress reports for the MaineDOT and FAA (AIP Taxilane):
a. FAA quarterly progress reports over the life of grant (6)
b. FAA monthly progress reports during construction (2)
c. FAA Fiscal Year End Reports (2)
d. MaineDOT monthly progress reports (18)

1.16 Developed a Request for Proposals (RFP) to solicit proposals for quality assurance material testing services. Reviewed the MATERIAL TESTING SUBCONSULTANT's proposal and address insurance issues, scope, fee, and basis of payment.

1.17 Assist the SPONSOR in the preparation of FAA IIJA AIG closeout report for IIJA AIG grant, coordinate printing, and retain project records. (AIG VSR).

1.18 Assist the SPONSOR in the preparation of FAA IIJA AIG closeout report for IIJA AIG grant, coordinate printing, and retain project records. (AIG Taxilane).

1.19 Assist the SPONSOR in the preparation of FAA AIP closeout report, coordinate printing, and retain project records. (AIP Taxilane).

1.20 Coordinate submission of deliverables:
- Scoping meeting notes (PDF)

- Scope of work (PDF)
- Blank fee estimate (EXCEL)
- Contract (PDF)
- Grant Reporting (PDF)
- FAA Closeout Reports (PDF)

TASK 2 - CONSTRUCTION ADMINISTRATION

Construction Administration services are limited to up to 30 calendar days from the date of the Notice of Award to the Notice to Proceed; up to 30 calendar days from Notice to Proceed to Substantial Completion; and up to 30 calendar days from substantial completion to Final Acceptance.

SPONSOR will conduct the following:

- Coordinate approval and signature of Notice of Award, Contract, and Notice to Proceed.
- Attend Pre-Construction Conference
- Coordinate CSPP requirements with users and NOTAMs
- Attend construction job meetings
- Coordinate payment of Contractor Pay applications.
- Coordinate approval of change orders.
- Attend Final inspection.

Subtasks of the CONSULTANT are limited to the following:

2.1 Assist the SPONSOR with the award of the construction contract and review contract bonds, insurance certificates and other contract documents.

2.2 Prepare a subconsultant agreement with the material testing firm for the proposed work.

2.3 Provide assistance and support prior to issuance of Contractor's Notice to Proceed and coordinate project startup date and schedule. CONSULTANT will draft correspondence for Notice to Proceed.

2.4 Develop a conformed drawing set incorporating the addendum items from the bidding process. CONSULTANT will produce up to two (2) full size construction contract books and plan sets and distribute the materials to the appropriate parties.

2.5 Schedule, prepare for, and conduct a pre-construction conference followed by a Quality Control (QC)/Quality Assurance (QA) workshop at the airport. CONSULTANT will develop meeting notes and distribute them to SPONSOR, contractor, and FAA. Limited to one (1) CONSULTANT member for an extended day travel.

2.6 Review, comment on, and distribute the contractor's Safety Plan Compliance Document (SPCD).

2.7 Process shop drawings, certificates of compliance, and other contractor submittals. This task is limited to up to 30 submittals. The submittal process includes the review of material for compliance to the Buy American requirements. All submittals will be received, returned, and transmitted to third parties electronically.

- Preparation of project submittal logs.
- Recording each submittal upon receipt from the contractor.
- Distribution of submittals to third parties.
- Review of each submittal for compliance to the applicable specifications.
- Providing written justification for submittal revisions and/or rejection.
- Review of third-party review comments.
- Recording the review status of each submittal on the submittal log.
- Distribution of reviewed submittals to the contractor and the SPONSOR.
- Multiple non-compliant shop drawing submissions is excluded.

2.8 Review the material testing program and material testing reports and compile them for inclusion in the closeout report.

2.9 Prepare for and attend up to three (3) on-site field visits at the Airport. Field visits are anticipated to take place at the start of construction, midway through the construction duration, and at the end of construction. Field visit will be performed by up to one (1) CONSULTANT member and will retain notes.

2.10 Coordinate and host up to four (4) virtual TEAMS® meeting for construction job meetings during construction on a weekly basis and retain notes.

2.11 Prepare for and attend a pre-paving conference at the Airport with the CONSULTANT's Construction Administrator attending.

2.12 Prepare supplementary sketches and technical interpretations to resolve actual field or unknown conditions encountered. This subtask is limited to two (2) supplemental sketches.

2.13 Review, respond, and distribute responses for up to two (2) Requests for Information (RFIs).

2.14 Review up to three (3) Periodic Cost Estimates (PCE) and include in the reimbursement requests. This subtask is limited to one (1) PCE during construction, one (1) to reduce retainage, and one (1) as final retainage release.

2.15 Review up to 20 certified payrolls and review them for compliance with federal wage rates contained in the contract documents. This task is limited to the contractor (1) and up to four (4) subcontractors per week.

2.16 Assist in the preparation and processing of up to two (2) construction change orders when requested by the SPONSOR. Change orders will require eligibility review by the FAA and MaineDOT. Change orders are limited to up to two (2) items each.

2.17 Provide up to four (4) weeks of assistance and support during construction to answer questions regarding plan interpretations and minor changes. This effort is limited to an average of six (6) hours per week.

2.18 Attend the final inspection at the Airport. This task assumes the CONSULTANT Project Manager will attend the final inspection for extended day.

2.19 Prepare the project punch list and coordinate the completion of the punch list with the contractor. This effort is limited to up to four (4) weeks with an average of six (6) hours per week.

2.20 Prepare and sign "as-built" plans prepared from information and survey data provided by the contractor.

2.21 Prepare a “pen-and-ink” change to the Airport Layout Plan (ALP) that denotes the final conditions of the design of this project. This task does not include changes to the ALP that are not constructed as a part of this project.

2.22 Submit Condition of compliance for the MaineDEP permit approval, if necessary. Provide permit closeout documentation.

2.23 Coordinate submission of deliverables:

- Conformed Plans and Specifications (PDF and hard copy)
- Reporting (PDF)
- “As-Built” Plans (PDF)
- Pen-and-ink change to ALP (PDF)

TASK 5 - RESIDENT ENGINEERING

CONSULTANT will provide one (1) full-time, on-site resident project representative (RPR) to monitor construction for reasonable conformity with the contract documents. The construction period is limited to 30 calendar days. The budget for the observation is limited to up to four (4) weeks of construction at 60 hours per week using premium overtime rates of 150% for work in addition to standard 40 hours per week. In addition, it is assumed that three (3) days prior to the start of construction for layout and project start-up will be required, as well as 10 days for follow-up to monitor punch list work, record keeping, and project close out.

Subtasks of the CONSULTANT are limited to the following:

- Act as the SPONSOR's representative on the construction site and assist with the coordination of the project with the SPONSOR.
- Assist the SPONSOR in the implementation of the CSPP for the project.
- Preparation of daily construction reports.
- Observe the work for general compliance with the specifications and plan requirements. Indicate revisions made or unforeseen conditions encountered.
- Track the Contractor's construction progress against the contractor's approved schedule.
- Maintain records of measurement of quantities for payment items.
- Review monthly periodic payment requests made by the Contractor and make recommendations to accept or not.
- Provide assistance to the Contractor in clarification of the design.
- Assist with the review of certified payrolls and conduct one (1) day of wage rate interviews with the Contractor's and subcontractor's workers.
- Field coordination with the material testing firm for the scheduling of field tests.
- Review of material testing reports for conformance to plans and specifications and maintain field records of tests performed, their results, and corrective actions taken (if required).

C. CLARIFICATIONS

1. The Runway 14-32 PAPI's are owned by SPONSOR. Strategic Event Coordination with FAA is not included.
2. Estimated construction cost of subbase, base course, and asphalt materials is under $500k. Development of a Construction Management Plan is not included.
3. All deliverables are in PDF format unless noted.
4. All meetings unless otherwise specified will be virtual TEAMS® meetings.
5. Schedule of permitting approval is subject to MaineDEP process.

D. SCHEDULE

CONSULTANT will perform the above tasks and deliver the related documents based on the approximate schedule:

Scoping Meeting ..... April 2, 2026
Anticipated Notice of Award ..... October 2026
Submit Condition of Compliance (if necessary) ..... October 2026
Project Notice to Proceed ..... TBD
Anticipated Construction Start ..... TBD
Anticipated Substantial Completion ..... 30 days after Construction Start
Final Acceptance ..... June 30, 2027
Grant Closeout ..... December 2027

Maine Department of Transportation Appendix C - DBE/WBE Utilization Plan ☐ **Original Contract**

BIDDER'S LIST FORM ☐ **Modification**

Section A. Consultant Information.
This section must be completed by the Consultant and as an attachment to Technical Proposals for new contracts and contract modifications

1. Consultant Firm Name:	McFarland-Johnson, Inc.	2. Federal Project WIN:	03-23-0044-043-2026	3. Contract Date:	7/23/2026
4. Project Location:	Sanford Seacoast Regional Airport	5. Email Address:	Sydney Graveson, sgraveson@mjinc.com		

Section B. Details - Consultant and all Proposed Subconsultant Information is Required in This Section

A. Firm's Name & Address, Including Zip Code Prime must be listed first	B. Annual Gross Receipt Bracket Select 1 to 7*	C. Status DBE or Non-DBE	D. NAICS Code(s) And Attach the Scope of Work	E. Race & Gender of each Firm's Majority Owner	F. Age of Each Firm	G. Proposed Amount
McFarland Johnson, Inc. 5 Depot Street Suite 25 Freeport, ME 04032	7	Non-DBE	541330	N/A (ESOP Trust)	80	$236,256.00
S.W. Cole Engineering, Inc. 37 Liberty Drive Bangor, ME 04401	6	Non-DBE	541330	White Male	47	$16,344.00

***1) Less Than $1M, 2) $1 - $3M, 3) $3 - $6M, 4) $6 - $10M, 5) $10 - $20M, 6) $20 - $50M, 7) Greater Than $50M - More than 3 Subs use a new form**

MaineDOT Use Only:
Form Received: ____/____/____ Verified by: _____

FHWA ☐ FTA ☐ FAA ☐

For a complete list of certified DBE firms please visit: http://www.maine.gov/mdot/civilrights/

Note: This information is required pursuant to 49 CFR §26.11 and is used to track data in all federally funded MaineDOT contracts.

Memo

Number: 26-240-01
To: City Council
From: Matthew Hill, Public Works Director
Date: 2026-08-18
Subject: Ordered, to formally adopt the proposed Drainage Capital Improvement Plan, recently completed in partnership between the Department of Public Works and the Planning Department, as a broad guidance document for the City regarding analysis of current and future stormwater development conditions.

RECOMMENDATION

Plan and prosecution of plan would likely be required under MS4 for which the City may be adjudged by MaineDEP in 2030.

Background Information:

Sanford's drainage infrastructure sits below 184 miles of streets and roads that have a dedicated Roadway Capital Improvement Plan that typically addresses pavement surface conditions exclusively. DPW has historically only addressed the reconstruction of drainage when either reconstructing a road or during a dramatic failure of portions of the drainage system.

The proposed Drainage Capital Improvement Plan will serve to guide the City of Sanford for future investments in this critical infrastructure. Better inventory, capacity analysis, planning, budgeting, and coordination with concurrent efforts will have the City seek to avoid emergency repairs which can be excessively costly and hastily performed. The Drainage CIP can also serve as a foundational document for the establishement of a Municipal Stormwater Utility which will consider the affects of development and encourage more responsible stewardship of community water resources through Municipal leadership.

The Drainage Capital Improvement Plan considers:

- Review of Existing Conditions
- Inventory of Documented Systems on the City's GIS Platform
    - Catch Basins
    - Drainage Pipes
    - Drainage Outlets
    - Large Culverts and Bridges
    - City-Owned Dams (proposal under seperate cover from Wright-Pierce)
- Gaps in the GIS System's Knowledgebase (270 missing information locations identified)
- Identification of Known Drainage Problems
    - Compiled in GIS and Directly from Highway Maintainers
    - Of 38 Urban Drainage Networks Identified, only 8 had Sufficient Outlet Capacity per

HydroCAD Modeling
    - The Remaining 30 Networks are Caluclated to be Currently Over-Capacity for the Peak Storm Event
- Proposed Improvements
    - Additional Studies (recommended first for areas of known/observable issues)
    - Development of Scope of Repairs/Reconstruction
    - Development of Corresponding Cost Estimates
- Budgeting
    - A conceptual 10-year Drainage Capital Improvement Plan Program was Estimated
    - Estiamted Investment Needs Began at $762,000 in 2027 and Escallated to $1,662,598 in 2036
    - As no Dedicated Drainage Capital Improvement Plan is Currently Funded by the City, Funding will Continue to Come from Roadway CIP
    - The Document Identified Potential Funding Partnership Opportunities
        - Stormwater Utility Fee Program (which would help the City realize MS4 requirements in the future)
        - Grants
        - Strong Towns Guidance
        - Developers and Contractors

The issues surrounding correcting substandard drainage infrastructure, bringing vibrancy to the downtown area, increasing climate readiness, and dissuading urban sprawl are all pieces of the same puzzle. Leveraging existing funds and opportunities, combined with partnerships with developers and stakeholder organizations, can provide a multi-pronged approach to fixing and improving existing drainage issues while preparing for future climate readiness and future development in Sanford's urban core.

Legal Review Status:
N/A

Administrative or Department Review:
Plan includes discussions and forseeable maintenance and study needs on existing infrastructure such as closed systems, large culverts, bridges, and dams.

Financial Impact or Review:
No current funding budgeted. Perhaps funding would work initially in tandem with the Roadway Capital Improvement Program.

ATTACHMENT(S):
MEMORANDUM Adoption of Drainage Capital Imrpovement Plan 8-18-2026.pdf
20260626_Sanford Drainage Capital Improvement Program - Final Report.pdf

MEMORANDUM

To: Sanford City Council
From: Steven R. Buck, City Manager
Re: Adoption of Drainage Capital Improvement Plan
Date: August 18, 2026

Executive Summary

The Administration recommends adoption of the **City of Sanford Drainage Capital Improvement Plan**, prepared by TEC, Inc. and dated June 19, 2026. The Plan provides the City with a comprehensive planning framework for evaluating, prioritizing, and ultimately addressing deficiencies within Sanford's stormwater drainage infrastructure, with particular emphasis on the downtown and urban core.

The study was undertaken to move the City from addressing drainage problems primarily as individual maintenance or project-specific issues toward a more systematic understanding of the condition, capacity, and future needs of the City's drainage infrastructure. TEC reviewed the City's existing drainage GIS information, interviewed Public Works Highway Division staff regarding known and historic drainage problems, evaluated the potential for future development to connect to existing downtown drainage systems, reviewed the City's four municipally owned bridges, and developed planning-level estimates of future drainage-related capital needs. The study also evaluates potential funding strategies, including traditional capital planning, grants, developer participation, and the potential future creation of a Stormwater Utility.

Principal Findings

The study demonstrates that Sanford has a substantial existing stormwater infrastructure system but does not yet have complete information regarding all portions of that system. TEC identified **270 instances of missing pipe or structure information**, **24 drainage encroachments involving private property or buildings**, and **13 locations where larger pipes discharge into smaller pipes**, creating potential capacity constraints. These data gaps limit the City's ability to fully evaluate system capacity, plan improvements, and determine whether additional development can safely connect to portions of the existing system.

TEC evaluated **38 drainage networks** within the study area using a generalized capacity analysis based upon a 10-year design storm. Only **eight of the 38 outlet locations were identified as having sufficient modeled capacity** under the study assumptions. The remaining **30 networks were estimated to have outlet capacity limitations** and warrant additional analysis before new development is allowed to add stormwater flows to those systems.

The Plan further distinguishes among the drainage systems according to the level of concern. Nine networks represent the most significant constraints to future downtown development because of their larger drainage areas, limited outlet capacity, and known deficiencies. TEC recommends comprehensive drainage studies for these systems, including field survey, detailed stormwater modeling, and identification of necessary infrastructure improvements. Another 21

networks have capacity limitations but generally serve smaller drainage areas or residential neighborhoods. For these systems, future development should demonstrate adequate downstream capacity or potentially contribute proportionately toward correcting identified deficiencies. The remaining eight networks have modeled outlet capacity, although actual downstream conditions should still be verified before additional connections are approved.

These findings are important not only from an infrastructure perspective but also from an **economic development perspective**. Sanford continues to encourage redevelopment and additional investment within its existing urban core. The ability to understand where drainage capacity exists—and where additional investment is required—will allow the City to better coordinate public infrastructure improvements with private development rather than discovering drainage constraints after development proposals have advanced.

Capital Improvement Framework

The Plan develops a broader drainage-related capital framework that includes approximately **$12.58 million in identified 2026-dollar needs**. This includes approximately $3.77 million in compiled drainage deficiencies, planning allowances associated with the City's nine dams, recommendations for four City-owned bridges, and approximately $2 million for other drainage and culvert improvements.

These figures are **planning-level estimates rather than approved project appropriations**. The report assumes that improvements would occur over approximately ten years and applies a 5% annual inflation assumption when projecting future annual expenditures. Individual projects will therefore require further engineering, refinement of cost estimates, identification of available funding, and future Council authorization through the City's normal Capital Improvement Program and budget processes.

An important recommendation of the study is that the City should first continue improving its understanding of the existing system before committing to major infrastructure improvements. TEC recommends additional field investigation and detailed watershed analysis, particularly in areas with documented roadway flooding, high traffic volumes, significant development potential, or known infrastructure deficiencies. This additional information will allow the City to prioritize investments based upon actual capacity, condition, public-safety concerns, development needs, and available funding rather than simply responding to individual drainage problems as they occur.

Funding and Long-Term Implementation

The magnitude of the identified needs makes it unlikely that drainage improvements can or should be funded exclusively through the City's annual Capital Improvement Program. The Plan therefore recommends a comprehensive funding approach combining municipal capital investment with available State and Federal grants, potential developer participation in improvements necessitated or accelerated by development, and consideration of a future **Stormwater Utility** as a dedicated and more sustainable source of funding for stormwater maintenance and capital improvements.

The study identifies several potential State and Federal funding opportunities for drainage planning, stormwater improvements, culvert replacement, flood resilience, and climate adaptation. These include the Maine Clean Water State Revolving Fund and other resilience and infrastructure programs. The Plan also recognizes that Sanford may become subject to Municipal Separate Storm Sewer System (MS4) requirements following the 2030 Census, making continued improvement of stormwater mapping, maintenance, water-quality practices, and funding capacity increasingly important.

The Administration does **not** recommend that adoption of this Plan constitute a decision to establish a Stormwater Utility at this time. Rather, the Plan identifies a Stormwater Utility as one potential long-term funding mechanism that warrants additional analysis and, if pursued, a separate public process and future Council consideration.

Use of the Plan Moving Forward

Following adoption, the Administration will use the Drainage Capital Improvement Plan as a **living capital-planning and development-management tool**. Public Works, Planning, Engineering, and Administration will use the study to prioritize additional investigation of the highest-risk drainage networks; improve and complete the City's GIS drainage inventory; coordinate drainage projects with roadway, bridge, dam, and other infrastructure work; evaluate proposed development connections; identify projects suitable for State and Federal grant funding; and incorporate priority improvements into future Capital Improvement Programs.

The Plan will also provide a technical basis for discussions with developers when proposed projects affect drainage networks identified as having limited capacity. Rather than treating drainage requirements on a project-by-project basis without a broader system context, the City will increasingly be able to identify where capacity exists, where further engineering is necessary, and where a development may appropriately participate in an improvement that benefits both the project and the larger public drainage system.

Most importantly, adoption establishes a **long-term framework rather than a commitment to complete every identified improvement on a predetermined schedule**. Priorities will evolve as the City completes additional field work, improves GIS information, experiences significant storm events, receives development proposals, identifies grant opportunities, and coordinates drainage improvements with other capital projects.

The study concludes that obtaining a more complete understanding of Sanford's existing drainage system is the necessary first step toward correcting known deficiencies and identifying currently unknown deficiencies. It further recognizes that drainage infrastructure, downtown redevelopment, climate readiness, and responsible patterns of future development are interconnected issues requiring a coordinated approach.

Recommendation

The Administration recommends that the City Council **adopt the June 19, 2026 Drainage Capital Improvement Plan prepared by TEC, Inc. as the City's long-range planning framework for evaluating, prioritizing, funding, and implementing future drainage and related stormwater infrastructure improvements.**

Adoption will provide the Administration with an established technical foundation for future capital planning, grant development, infrastructure coordination, and evaluation of development impacts while preserving the City Council's authority to consider and authorize individual projects and funding decisions through future Capital Improvement Programs and annual budgets.

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Appendix A – Stormwater Recommendation Summary

Appendix B – GIS Recommendation Memo

Appendix C – TEC Bridge Recommendation Memo

Appendix D – NOAA Atlas 14 for Sanford, Maine

Appendix E – Wright-Pierce Dam CIP Proposal

Appendix F – Stormwater Utility Reference

Appendix G – FEMA Flood Maps

Introduction and Purpose

The City of Sanford has retained TEC, Inc. to perform several tasks supporting a Drainage Capital Improvement Plan (CIP). Tasks include the review of existing City drainage infrastructure and the potential of proposed development tie-in within the general Sanford downtown area, a review of existing GIS layers, and interviews with the Public Works Highway Division to identify deficiencies. TEC was also retained to conduct a review of bridges owned by the City of Sanford to provide additional insight into the estimated costs associated with a Drainage CIP.

Additionally, TEC was retained to discuss the potential creation of a citywide Stormwater Utility (SU) program and what an SU program would entail for the City of Sanford. This report also identifies potential citywide policies to support targeted investments, support climate readiness, address barriers to development within the City's urban core, and dissuade urban sprawl into Sanford's more rural areas.

This report serves as a Drainage CIP for the City of Sanford. The following sections discuss:

- The results of the existing conditions review.
- High-level cost estimates for the correction of drainage deficiencies.
- Potential ways to address drainage deficiencies, including policies that lead to informed means of targeted investments and support climate readiness.

See Appendix A for the Stormwater Recommendation Summary for each drainage network.

Existing Conditions Review

Means and Methods

The City of Sanford uses an extensive Geographic Information System (GIS) database within its Public Works operations. One use of the GIS database is to locate and verify existing structures for maintenance and repairs, creating a continually updated network of drainage infrastructure.

TEC was provided with the existing drainage GIS layers and performed a desktop review. The desktop review included locating deficiencies within the available data, such as:

- Large pipes flowing into smaller pipes,
- poor condition ratings of existing structures,
- gaps in available data, and
- encroachments on or under private property.

TEC also conducted interviews with the Public Works' Highway Division to gather anecdotal information regarding current and historic drainage maintenance problems.

Recommendations for new GIS layers and a full summary of findings have been provided in a memorandum entitled Sanford GIS Recommendation Memo dated April 9, 2026, with an accompanying spreadsheet of locations with the same date. See Appendix B for the Sanford GIS Recommendation memo. Additionally, TEC has provided recommendations for the four (4) City-owned bridges based on the latest MaineDOT Bridge and Large Culvert Inspection Reports in a memorandum included in Appendix C.

Summarized Results

Through the desktop review, TEC was able to identify several areas within the general Sanford Downtown Area where additional data collection, coordination, and infrastructure evaluation are recommended.

The most significant issue with the existing GIS database was the extent of missing or incomplete infrastructure data. TEC identified 270 instances of missing pipe and structure information as well as standalone structures with no defined inlets and outlets. There were twenty-four (24) instances of drainage encroachments where drainage systems flow on or under private property or buildings. TEC was also able to identify thirteen (13) locations of drainage flowing from a larger pipe into a smaller pipe, causing potential upstream structure surcharges.

The gaps in existing data limit the City's ability to assess system capacity and identify where future development connections may be infeasible. The identified deficiencies increase the risk of roadway flooding and potential damage to infrastructure, nearby properties, and local businesses. The following pages identify and break out the analyzed drainage networks and discuss the individual results and proposed recommendations.

Downtown Drainage Networks

TEC evaluated the drainage networks within the limits of the study, totaling thirty-eight (38). Privately maintained drainage systems, "one-off" catch basins and relatively small watershed areas were excluded from this study. The naming convention is associated with the outlet structure number as named within the City's GIS. For example, drainage network OF-34 contains the entirety of structures and connecting pipes which ultimately flow to outlet OF-34.

Each drainage network below was reviewed for gaps in data or deficiencies and then evaluated for estimated sizing. Any incomplete data or deficiencies found are mentioned within the drainage network summary. Specific locations of gaps in data and deficiencies can be found in the spreadsheet of the attached Sanford GIS Recommendation Memo dated April 9, 2026 (see Appendix B).

Estimated sizing of the outlet was conducted for each drainage network. This generalized study allowed us to quickly determine the potential for drainage networks to be over capacity, requiring a more detailed study. Based on the Type III 10-year design storm (per Volume III, Chapter 2 of the Maine Stormwater Best Management Practices Manual), a rainfall amount of 5.32 inches was used based on NOAA Atlas 14 for Sanford, Maine (see Appendix D). TEC assumed a Curve Number (CN) value of 89 representing an Urban Area consisting of 85% impervious cover and a direct entry time of concentration of six (6) minutes. Any network determined to be undersized by this generalized estimate resulted in the recommendation of a detailed study to determine exact capacity requirements based on actual impervious cover and time of concentration.

Out of the thirty-eight (38) drainage networks, eight (8) networks had outlets that have sufficient capacity based on the modeling. TEC recommends that developments proposing to connect into the existing drainage networks with sufficient modeled capacity do not require a watershed drainage analysis, provided that:

- any missing data in the network does not result in deficiencies
- developments meet Maine peak flow and treatment stormwater standards
- the development does not exceed the 85% impervious cover assumption of TEC's study, and
- a pipe capacity analysis is conducted for the system downgradient of the development

The eight (8) outlets with sufficient modeled capacity are:

OF-14, OF-52, OF-56, OF-57, OF-98, OF-239, OF-251, and OF-330.

The remaining thirty (30) outlet locations studied were estimated to be overcapacity. TEC recommends that developments proposing to connect into the existing drainage networks without sufficient modeled capacity should be required to complete a drainage study that includes a detailed watershed of each outlet.

A summary of each drainage network can be found in table format in Appendix A entitled *"Stormwater Recommendation Summary."* This summary includes the name of the drainage network, a general description of the system and area, deficiencies, and recommendations on future tie-ins. Additionally, a high-level cost estimate for known deficiencies is provided within the summary for each drainage network and compiled into one approximated cost within the Capital Improvements costs table (see Page #5).

Proposed Improvements

TEC recommends completing investigation of existing infrastructure as a starting point for any proposed improvements to the drainage systems. Specifically, the investigation should occur in areas anecdotally known to have roadway flooding, and in high-volume or high-priority locations. This inspection and data analysis could be conducted by City of Sanford staff, or by developments proposing to connect into the existing system (or reuse an existing connection) and would provide an understanding of deficiencies. In general, a detailed watershed analysis of each drainage network would provide the City with baseline knowledge of the volume and times of concentration each system is subjected to. The City could use this information to prioritize and plan infrastructure updates or streamline applicant requirements for development within each watershed. As part of the existing conditions review, a high-level cost estimate of drainage studies was provided for each network in addition to the estimated cost to fix known deficiencies. While some drainage studies could be combined to reduce overall costs, TEC assumed standalone studies for each system as a conservative cost estimate approach.

Separately, TEC was also scoped to provide recommendations for the four (4) City-owned bridges. These recommendations ranged from routine maintenance, deck and rail repairs, and rehabilitation of the substructure. Recommendations were accompanied by high-level cost estimates, including slip-lining cost estimates from consultant DLVEWS. See Appendix C for the Bridge Recommendation Memo.

The City requested TEC to provide an overall Drainage Capital Improvements cost estimate to prepare for future financial planning. This overall cost estimate captures the cost estimates associated with this report; the cost estimate also includes a proposal from Wright-Pierce for a similar Capital Improvement Plan for the nine (9) dams owned by the City (see Appendix E), as well as other identified culverts slated for repair/replacement. The cost estimates for both the dams and culverts, which were outside the scope of this work, used assumptions for estimated placeholders.

While the overall estimated costs have a total in current, 2026 dollars, the reality is the improvements will occur over a span of several years stretching out costs. For the purposes of this cost analysis, a timeframe of ten (10) years was assumed. Additionally, an annual inflation rate of 5% was carried through the estimate to more accurately reflect the future costs per year. See the next page for a table that summarizes the estimated costs.

			Yearly Cost (Assuming 5% inflation each year)									
			2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Item	**2026 Cost**	**Timeframe (Years)**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Compiled Drainage Deficiencies	$3,767,000	10	$395,535	$415,312	$436,077	$457,881	$480,775	$504,814	$530,055	$556,557	$584,385	$613,605
Wright-Pierce Dams CIP Proposal	$166,500	1	$166,500									
Compiled Dam Deficiencies (Assumed $500k per dam)	$4,500,000	9		$500,000	$525,000	$551,250	$578,813	$607,753	$638,141	$670,048	$703,550	$738,728
Bridge Recommendations												
1302 – Jellison Bridge	$250,000	1						$335,024				
1212 – Morrison Brook Bridge	$150,000	1								$221,618		
6123 – Beef Bridge [2]	$500,000	1				$607,753						
1225 – Johnson Mill Bridge* [1, 2]	$1,250,000	1		$689,063								
Other Drainage Capital Improvements (Culverts)	$2,000,000	10	$200,000	$210,000	$220,500	$231,525	$243,101	$255,256	$268,019	$281,420	$295,491	$310,266
	$12,583,500	**Total Yearly Budget**	**$762,035**	**$1,814,374**	**$1,181,577**	**$1,848,409**	**$1,302,689**	**$1,702,847**	**$1,436,215**	**$1,729,644**	**$1,583,427**	**$1,662,598**

1 Costs Split with North Berwick
2 Costs Reflect Sliplining Estimates

Funding

There are two main avenues to fund and complete the necessary improvements to the existing drainage infrastructure: internal funding and external funding. Internal funding would include appropriating funds via capital planning or through the creation of a Stormwater Utility (SU) program. External funding would include applying for and securing grant opportunities or requiring proposed developments to include or fund public improvements. The following sections of this report discuss the potential creation of an SU Program, how future development could play a role in the restoration of Sanford's drainage infrastructure, and how City efforts through planning and targeted improvements can work together with external funding opportunities for a more comprehensive solution.

Internal Funding (Capital Planning & Operations & Maintenance Budgeting)

Capital planning is the first assumed method of funding municipal projects. It is the most direct and intuitive method of funding the large costs of the proposed improvements. Most of the time, this funding method is not enough to fund the required improvements alone. Many other external funding sources require a cost match which may pull from these existing funds, but trying to fund projects solely through capital planning is largely unsustainable. Stormwater infrastructure also requires Operations & Maintenance (O&M) activities to sustain proper operation of the stormwater system. These O&M activities include street sweeping, catch basin cleaning, culvert and ditch cleaning among others. Annual O&M costs are currently resourced by Sanford DPW.

Internal Funding (Stormwater Utility)

The creation of a Stormwater Utility (SU) fee program for the City of Sanford could be beneficial to the City to provide an equitable and stable funding source for maintenance and improvements to the existing stormwater system. Funding for an SU program can be collected in a few different ways: the most common way is funding collected from property owners on a flat fee basis. Another way funds are collected in an SU program is on a uniform fee basis, where property owners are charged based on the total impervious surface area and runoff generated from their respective property.

The SU program can help the City make improvements to infrastructure and discharge quality while planning for future development. The SU program makes property owners and developers aware of their property design and how that design can negatively affect the City stormwater system. Incentives built into the SU program encourage property owners and developers to construct development in a manner that reduces runoff to the system. Collective buy-in to the SU program can help make meaningful changes to the existing system through individual property owner efforts to reduce runoff.

The creation of an SU program does require investment to organize, implement, track and record fees for each property. City of Sanford staffing needs required to administer the SU program vary based on the type of fee that is selected: a flat fee is easier to administer, while uniform fees (based on the amount of impervious area on a property) likely requires additional staffing to calculate each fee per property and capture any impervious areas made to a property (e.g. conversion of impervious area to green space). This uniform method of fees based on impervious area are generally considered more equitable. As an example, the City of Bangor, Maine's stormwater utility fee is based on a property's total impervious area rounded to the nearest 1,000 square feet. The total area is multiplied by a dollar amount per 1,000 square feet to produce the property's stormwater fee. For all properties, the first 3,000 square feet is charged a fee of $22 per year. For properties with an impervious area greater than 3,000 feet, an additional fee of $11 per

year per 1,000 square feet is added to the total.

Public outreach is a necessary component of the fee implementation. A successful SU program needs to foster a good relationship with the public from the start to reduce opposition to the fee and reduce concerns from residents about the allocation of funds.

One method of implementation, as described by the Pennsylvania Environmental Council (PEC), involves the creation of a *"steering committee of selected citizens."* The committee should have a general interest in assisting with stormwater pollution within the municipality. This committee can work collaboratively with municipal staff to *"develop the fee system, create a public outreach and education program, and guide the adoption of an ordinance."* The steering committee can also explore different types of fee implementation by testing different types of fee structures upon a small portion of the municipality, which can help reduce errors and opposition from the public after implementation throughout the municipality. The SU fee overview prepared by the PEC is linked in the Stormwater Utility Reference document in Appendix F.

SU fees have been implemented in other Maine municipalities including Bangor, Lewiston, and Portland.

Municipalities (among other facilities) are subject to Maine Pollution Discharge Elimination System (MEPDES) regulation. This includes the Municipal Separate Storm Sewer System (MS4) permit. Regulated MS4 municipalities are determined by using the US Census Bureau population density and proximity to population density data gathered during the decennial census. As part of the 2030 Census, it is anticipated that the City of Sanford may be required to be regulated under the MS4 permit.

Municipalities regulated under the MS4 permit must fully comply with permit requirements, including six Minimum Control Measures (MCMs) outlined in the permit:

1. *Educate the public and smaller focus groups about polluted runoff and how to reduce pollution.*
2. *Provide the public opportunities to participate in the municipality's stormwater program through meetings, public comment periods, and events.*
3. *Identify and eliminate illegal sewer connections, dumping into storm drains, and other sources of pollution. Carry out long-term maintenance and mapping of all stormwater infrastructure.*
4. *Ensure that construction on both public and private property does not impact water resources.*
5. *Implement new development and redevelopment stormwater ordinances and encourage developers to utilize techniques to reduce the impact of development on water resources.*
6. *Prevent pollution from municipal operations and facilities. Educate municipal staff about practices to reduce polluted runoff.*

To comply with these requirements, each municipality is required to prepare a 5-year plan showing how they will implement the Maine MS4 General Permit. If the City of Sanford is regulated under the MS4 Permit in 2030, it could potentially join the Southern Maine Stormwater Working Group (SMSWG) that currently includes five (5) nearby towns: Berwick, Eliot, Kittery, South Berwick, and York. The Towns meet every other month within this group to cooperate on the MCMs from the permit requirements. Meeting agendas and notes are available on their website that help describe the impacts of MS4 designation upon each municipality. These meetings appear to be very informative, as MaineDEP, MaineDOT, third-party consultants, and representatives from other related organizations attend the meetings to provide regulatory updates and assist with coordination and compliance from the municipalities.

Implementation of a SU program would benefit the City of Sanford if MS4 Permit requirements are required because the SU program can help meet each of the MCMs in the MS4 Permit. Existing funding is likely not

adequate in meeting the requirements of MS4. The Town of Dedham, MA (population ~ 25,000) created an SU program in response to being regulated by MS4 in 2022. The Town of Dedham described their reasoning for the creation of an SU program on their website: *"To adhere to (MS4), the Town of Dedham has set up a Stormwater Utility Fee to designate funds that can only be used for this specific purpose."* The website describes how the SU fee was implemented, calculated, and how the Town will use the money collected from the SU fee:

"The funds generated through the Stormwater Utility Fee will be used for:

- *Public Education and Outreach*
- *Illicit Discharge Detection and Elimination (IDDE)*
- *Management of Construction Site Runoff*
- *Management of Post Construction Site Runoff*
- *Good Housekeeping and Municipal Operations*
- *Phosphorus Control Plan"*

See the link in Appendix F for the Stormwater Utility information from the Town of Dedham.

The SU fee can be a useful tool to assist the City in maintaining and correcting substandard infrastructure, as well as meeting potential future MS4 requirements. TEC has provided a reference document in Appendix F with links to information regarding Stormwater Utilities, as well as documents from municipalities who currently implement an SU.

External Funding (Grants)

Sanford can likely pursue a mix of state and federal funding for stormwater planning, drainage upgrades, green infrastructure, culvert and flood resilience work, and MS4-related compliance activities. These opportunities include Maine's Clean Water State Revolving Fund for stormwater and nonpoint source planning, EPA's Sewer Overflow and Stormwater Reuse Municipal Grants program, and broader resilience funding that can support flood-risk reduction when projects are associated with climate impacts and public infrastructure needs.

- **Maine Clean Water State Revolving Fund (CWSRF)**: Maine DEP's CWSRF can support stormwater and nonpoint source planning studies, and broader wastewater and water quality infrastructure work. For Sanford, this may be one of the most practical starting points for planning studies, drainage assessments, and projects that improve runoff management or water quality. This program utilizes a low interest loan program and has the opportunity for some principal forgiveness based on a combination of population factors (see the following link): Wastewater Infrastructure Affordability Principal Forgiveness Calculator. **Anticipated grant deadline in April 2027.**

The Department intends to offer loan PF in following categories:

Category	Description	Amount
Affordability	Assists communities that would have a significant hardship in raising the necessary revenues to fund their projects*	Varies Annually**
Climate Adaptation Plan (CAP)	Development of a CAP for a wastewater system (no match required)	Up to $30,000
Fiscal Sustainability Plan (FSP)	Implementation of a FSP (a.k.a. asset management plan) or to make improvements to an existing FSP (requires a 100% match)	Up to $50,000
Green Infrastructure (GI)	Available for assisting communities with Green Infrastructure	Varies Annually**
Stormwater and Non-Point Source Plans (SW/NPS)	Available for standalone SW/NPS Plans that are not associated with a construction loan project (requires a 100% match)	Up to $200,000

- **Maine Community Resilience Partnership**: This statewide program supports municipal climate resilience projects and can be relevant where stormwater issues overlap with increased precipitation, flood-prone roads, undersized culverts, or other climate-related infrastructure risks. There is opportunity to build upon Sanford's Climate Change Vulnerability Assessment award in 2025 and apply for action grants. **Anticipated grant deadline in June 2027.**
- **Maine Infrastructure Adaptation Fund**: The purpose of this funding program is to enable Municipalities, Tribal Governments, and Infrastructure Districts to adapt existing critical infrastructure to reduce vulnerability to climate change impacts, such as sea level rise, increased precipitation, and other related climate risks. All projects must demonstrate increased resilience to future storm events. Eligible projects include stormwater and water system upgrades, as well as other interventions that support the repair of existing public infrastructure to greatly reduce or eliminate climate impacts. **Anticipated grant deadline in May 2027.** Eligible projects may include, but are not limited to:
    - Transportation resilience projects such as: elevating roadways, replacing roads, upgrading drainage infrastructure;
    - Adapting stormwater infrastructure to accommodate the increase in extreme precipitation events;
    - Replacing existing stream crossings with structures that comply with MaineDOT's 100-year flood standards and ensure habitat connectivity;
    - Scoping and design, and/or construction of wastewater treatment plant upgrades for increased resilience to climate change stressors;
    - Stabilizing coastal or inland shoreland through the use of vegetation and biodegradable materials;
    - Upgrading, retrofitting, or relocating existing infrastructure to reduce risk from weather and climate impacts (construction of new facilities is not an eligible activity under this grant opportunity).
    - Funding levels include: Scoping and design, with a maximum grant limit of $75,000; Construction projects, with a maximum grant limit of $3,000,0000, or a combination of scoping, design, and construction not to exceed $3,000,000. MIAF requires a 5% local match share (cash or in-kind).
- **Maine DEP Section 319** / nonpoint source-type funding: These funds are generally best suited for projects that reduce polluted runoff to impaired or priority waters, especially where Sanford can connect stormwater improvements to measurable water quality outcomes. As you are aware, the Goodall Brook Restoration Project Phase II Work Plan was started in 2020 and there may be additional opportunity to continue to use this funding source. **Anticipated grant deadline in**

March 2027.

- **Municipal Stream Crossing Grant Program**: MaineDOT administers the Municipal Stream Crossing Program (previously administered by MaineDEP). The intent of the program is to replace municipal stream crossings (e.g. culverts, minor spans, bridges) under local government roads to improve fish and wildlife habitat and community safety. While FY26 did not have funding and future funding is in question, MaineDOT is hopeful to fund this program again in 2027 with grant deadlines in past years landing in November.

The grant opportunities listed above touch upon items considered under the umbrella of climate readiness. Initiatives to take into consideration include higher precipitation amounts and increased stormwater resilience through improved infrastructure. There are several administrative ways to steer development and proposed improvements toward increased climate readiness.

Municipalities can choose to restrict development in high-risk areas while encouraging higher density development in lower-risk areas to help protect infrastructure. This includes not only navigable waters, wetlands, and waterbodies as mapped by FEMA (see Appendix G for FEMA Flood Maps), but also known weak points in the City stormwater system. Within these areas, policies can be implemented to preserve floodplains more conservatively, including requiring additional compensatory flood storage for new development and requiring higher freeboard elevations at culverts and bridges.

Stormwater modeling policies for proposed developments can require larger design storms than the current standard to prepare for future intense rainfall events. Additionally, the policies could also require developers to retain stormwater volume by means of subsurface detention before discharging to the City network, which can help reduce peak flows toward public infrastructure.

Development policies can require a reduction in maximum lot coverage and an increase in required shade trees and vegetation to mitigate heat-vulnerable areas such as urban zones. These types of policies could be implemented and enhanced through zoning changes that increase allowable densities, increase maximum structure heights, and reduce setbacks.

External Funding (Developments, Zoning Reform, & Incentivized Downtown Building)

Municipalities can use zoning reform as an economic development tool. Reducing barriers within existing zoning regulations that make development expensive, slow, and less profitable can open opportunities to a larger pool of developers and investors. Through zoning reform, the municipality can entice developers toward specific land uses the municipality desires and can align projects with municipal goals such as increased housing, pedestrian accessibility, climate readiness, the redevelopment of underutilized land within the downtown area, and limiting urban sprawl.

The focus of this Drainage CIP is located in the downtown Sanford area, with the majority of the downtown area encompassed by the Urban Zone and the Sanford Downtown Design District Overlay Zone. Relaxing regulations associated with these zones, such as increasing maximum building height restrictions and increasing density allowances, can allow more development where lot size is the main constraint. Stacked parking and multi-level, multi-use buildings increase City vibrancy and dissuade urban sprawl by allowing a more efficient use of available area. For example, if shared and off-site parking is made allowable within the Urban Zone, the potential development of a centralized, publicly accessible parking garage could create opportunity for development in the Urban Zone by freeing up existing parking lots for additional development. Zoning reform can also create more opportunity for development in City owned parcels for

desired land uses such as parks, open space, or other City initiatives. Stacked developments and repurposing existing parking areas can also lower impervious area and overall stormwater burden upon public infrastructure.

Engaging with the Urban Land Institute (ULI) program's Technical Assistance Panel (TAP) is a great resource option for municipalities looking for advice regarding difficult land-use challenges. ULI is a nonprofit research and education organization that connects land use experts from private developers to public officials to share ideas that help solve local community challenges related to land-use. Independent organizations such as ULI can provide a unique perspective to community planning by studying potential development parcels and by-right uses to entice development specifically to the benefit of the Sanford community.

Resources like Strong Towns (strongtowns.org) provide guidance and information toward promoting urban development/redevelopment and about limiting urban sprawl to assist in *"building stronger and more prosperous places."* One Strong Towns article aggregates information that shows urban sprawl is expensive for a municipality and creates fragile communities. The promotion of urban sprawl creates long-term liabilities that *"far exceed the revenue they generate"* by adding new roads, water lines, sewer systems, schools, fire protection, and more, while limiting the chances for additional growth by constructing low-density, single-family housing. The long-term cost of maintenance of these liabilities leads to budget crises and, ultimately, leads to municipalities attempting to retrofit downtown areas to create a more livable community with additional affordable housing, reduced traffic, reuse of existing adequate infrastructure, and access to basic amenities. There are specific measures a municipality can implement to promote urban development/redevelopment and discourage urban sprawl, such as:

- Zoning reform (as discussed above), including:
  - Allowing incremental housing.
  - Ending parking mandates.
  - Make existing spaces adaptable by increasing allowable land uses.
- Transparency regarding the true cost of infrastructure. Suburban development can create a liability for the municipality because the tax revenue from suburban development may not cover the cost of maintenance of sprawling suburban infrastructure.
- Shift property tax burden so that land is taxed at a higher rate than improvements/buildings, which penalizes land speculation and encourages owners to develop empty lots.
- Streamline permitting and regulations to make urban development more affordable/profitable for developers.
- Allow temporary uses, such as pop-up shops, food truck courts, and temporary parks which allow municipalities to test ideas and build community.
- Re-design streets to shift the priority of downtown streets from cars toward people to encourage private investment and small business resilience.

Comprehensive Funding

The best solution to fund and complete the necessary improvements to the existing drainage infrastructure is a comprehensive solution that leverages each of the funding sources, including a Stormwater Utility, and reform opportunities described above. A working relationship between the municipality and prospective developers can provide some of the most immediate impacts toward correcting substandard infrastructure while providing a boost in vitality to urban centers.

TEC has collaborated with developers and municipalities in past projects to create a revitalized downtown. Preliminary meetings between the entities help to negotiate the overall desires of the parties and help to

create a master plan to move forward with sustainable development.

In one specific project, the municipality was able to relax zoning regulations within the footprint of a proposed development parcel to reduce costs for the developer, which helped enable the construction of required parking, public use spaces, and improved infrastructure required by the municipality. Additionally, the municipality was able to leverage public funds and budgeted allocations to improve sidewalks and roadways adjacent to and supportive of the development.

The finished project included the development of two existing public parking lots and two existing private single-story buildings into three multi-use buildings flanking a public park, a new adjacent public-use parking garage which supports parking for the development and existing downtown, and new utility infrastructure to support the entire development.

Conclusion

Obtaining a more complete understanding of the existing drainage system is the first step to correcting known deficiencies and identifying unknown deficiencies. Further survey and analysis are required to determine the feasibility of proposed development to connect into existing drainage networks in downtown Sanford. If the connection of proposed development into existing drainage infrastructure is determined not feasible, further survey and analysis are required to determine the extent of necessary improvements to the system.

The issues surrounding correcting substandard drainage infrastructure, bringing vibrancy to the downtown area, increasing climate readiness, and dissuading urban sprawl are all pieces of the same puzzle. Leveraging existing funds and opportunities, combined with partnerships with developers and organizations, can provide a multi-pronged approach to fixing and improving existing drainage issues while preparing for future climate readiness and future development in Sanford's urban core.

Appendices

Appendix A – Stormwater Recommendation Summary

Stormwater Recommendation Summary

TEC evaluated thirty-eight (38) drainage networks within the study area. Each drainage network is identified using the outlet structure number from the City's GIS database. For example, Drainage Network OF-34 includes all structures and connecting pipes that ultimately discharge to outlet OF-34. The following summaries describe each network's contributing drainage area, outlet size and type, and any data gaps or deficiencies identified during the Existing Conditions Review. Specific locations of gaps in data and deficiencies can be found in the spreadsheet of the memorandum '*Sanford GIS Recommendation Memo*' by TEC, Inc. dated April 9, 2026.

To assess system capacity, TEC performed an Estimated Sizing Evaluation for each drainage network. Analyses were completed using the Type III 10-year design storm in accordance with Volume 3, Chapter 2 of the Maine Stormwater Handbook for storm drain design. A rainfall depth of 5.32 inches was applied based on NOAA Atlas 14 precipitation data for Sanford, Maine, along with an assumed Curve Number (CN) of 89 to represent an urban watershed with approximately 85 percent impervious cover and a direct-entry time of concentration of six minutes.

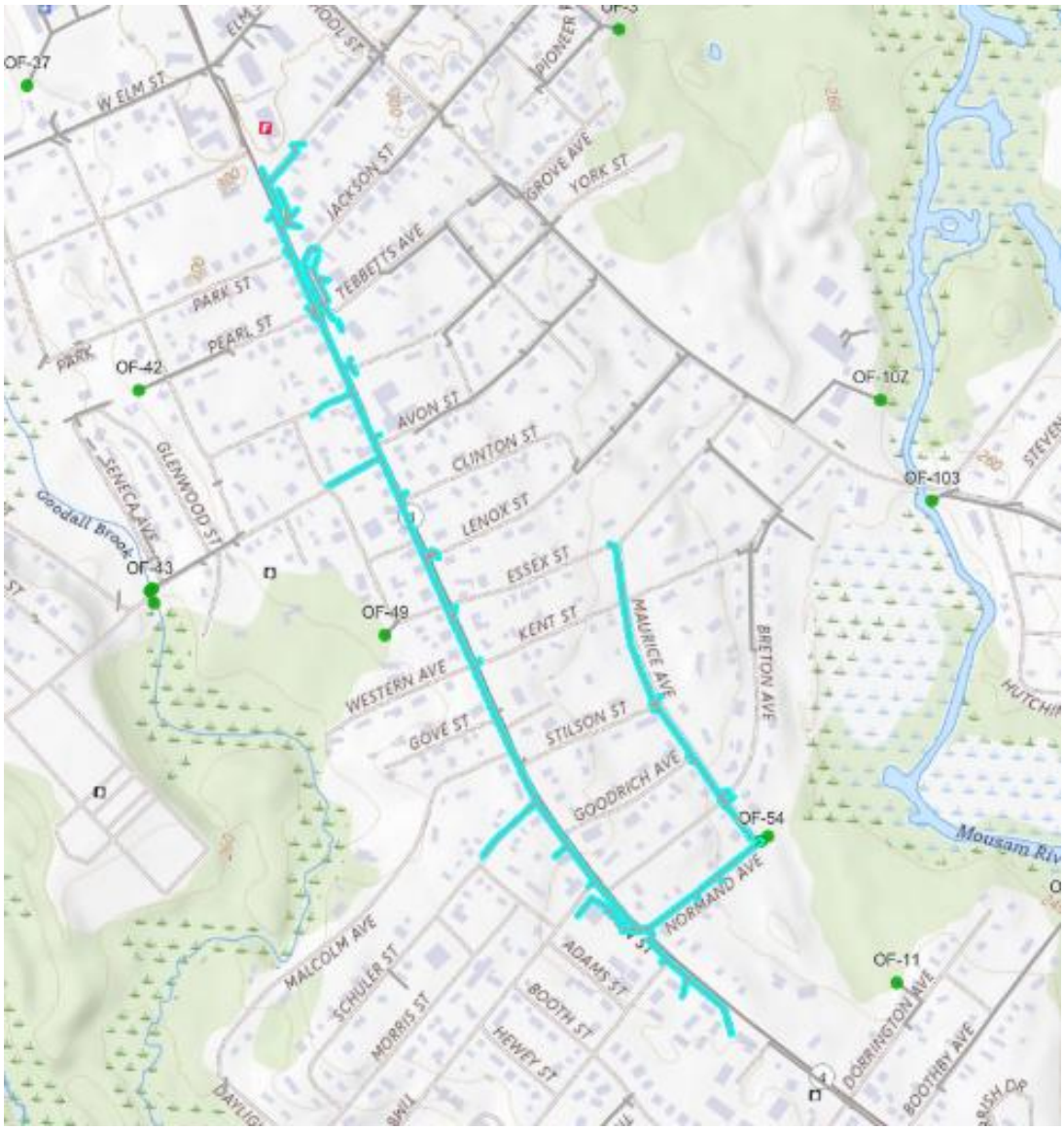
Based on the evaluation results, TEC developed recommendations for each drainage network while considering the potential for future development to connect to the existing stormwater system.

The first nine (9) drainage networks represent the most significant constraints to future development in downtown Sanford due to their large contributing drainage areas, limited outlet capacity, and known existing deficiencies. For these systems, TEC recommends a comprehensive drainage study be conducted to identify limiting factors and evaluate improvement alternatives. Such studies should include detailed field survey, stormwater modeling, and recommended infrastructure improvements to address deficiencies and increase system capacity.

The next twenty-one (21) drainage networks exhibit outlet capacity limitations but serve smaller contributing areas or are located primarily within residential neighborhoods. For these systems, TEC recommends that future developers demonstrate available downstream capacity or provide a proportional contribution toward mitigating identified deficiencies before connecting a new or redevelopment to the existing drainage system.

The final eight (8) drainage networks were determined to have available outlet capacity based on the estimated sizing evaluation. Nevertheless, TEC recommends that applicants verify available capacity within the existing downgradient drainage network prior to developing within these drainage network watersheds.

At the request of the client, TEC has also prepared high-level planning cost estimates for the recommended improvements. Unit costs for infrastructure repair and replacement were developed using average bid prices obtained from MaineDOT archived bid tabulations from the previous year. Costs represent the approximated amount of a comprehensive drainage study of the watershed, as well as the 2026 construction cost of the noted repair/replacement. The estimated costs do not include design or utility coordination costs.



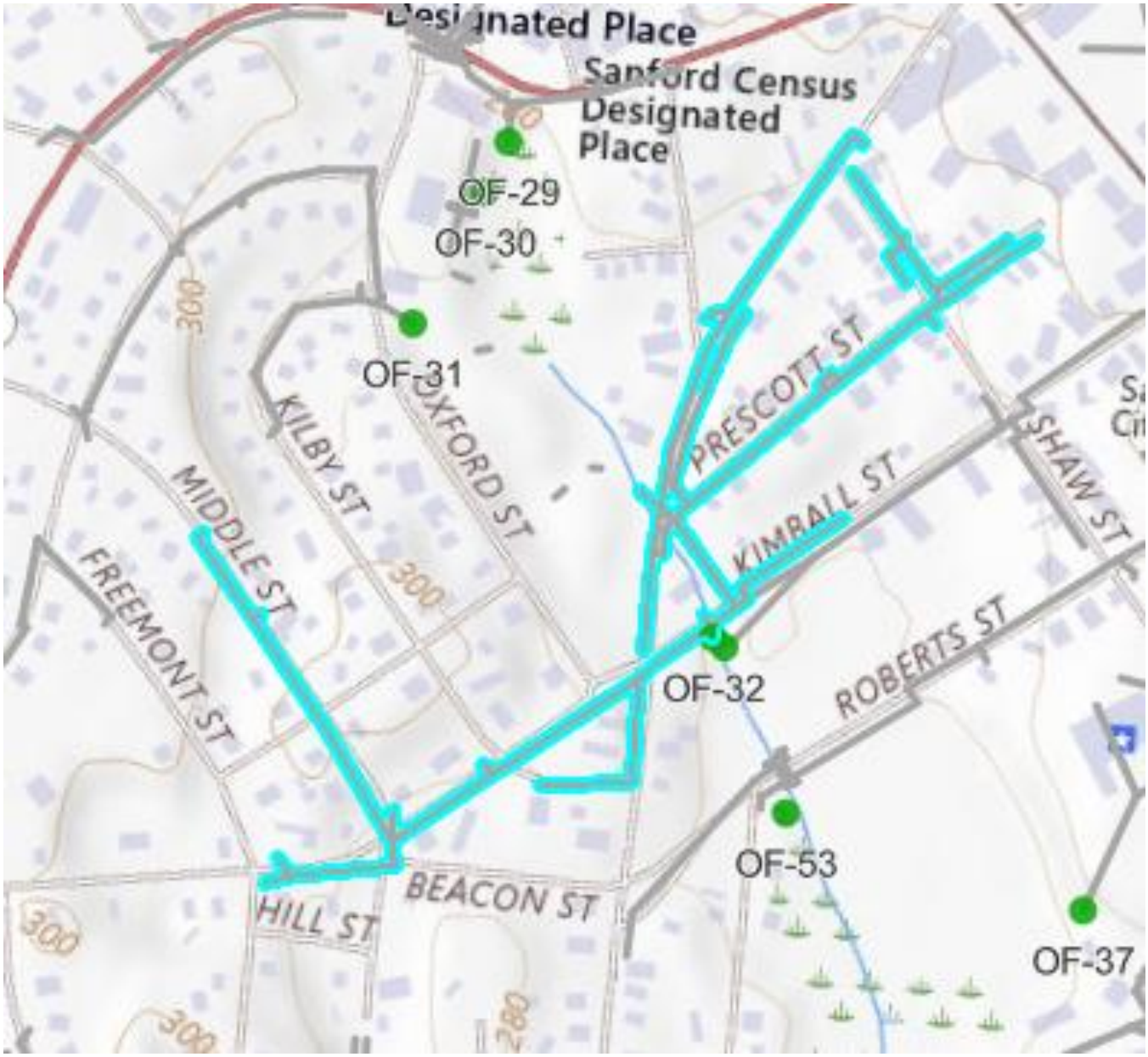
Drainage Network OF-54/55 (DR)

OF-54/55 conveys runoff from approximately 92 acres of urban area through a 32-inch and a 36-inch concrete pipe that discharge into an unnamed wetland. The contributing drainage area collects stormwater from Maurice Avenue and Main Street from Emery Street to Breary Avenue. There is capacity concerns with an undersized pipe near 1116 Main Street, and anecdotal evidence of drainage ponding along Clinton Street at Main Street. **TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies before allowing developments to connect to the drainage network. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $450,000.**



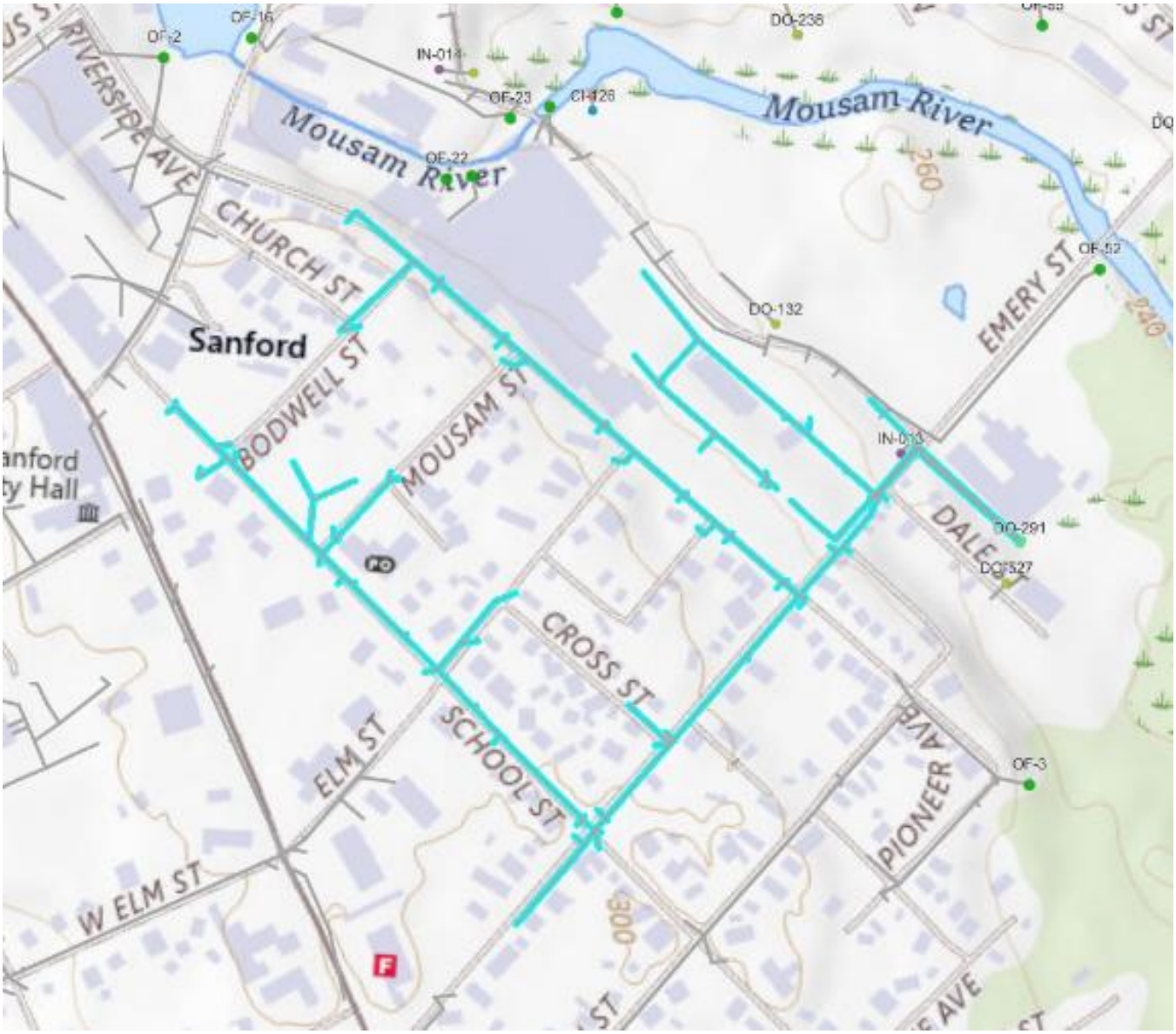
Drainage Network OF-29

OF-29 conveys runoff from approximately 55 acres of urban area through a 36-inch concrete pipe that discharges into an unnamed wetland associated with Goodall Brook. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. The City mentioned localized flooding along North Street, Pine Street, Douglass Street, and Hanson Ridge Road. Additional capacity concerns are suggested by locations where stormwater flows from larger to smaller pipes, including along Nason Street, Charles Street, and Grandview Avenue. **TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies before allowing developments to connect to the drainage network. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $1.3 million.**



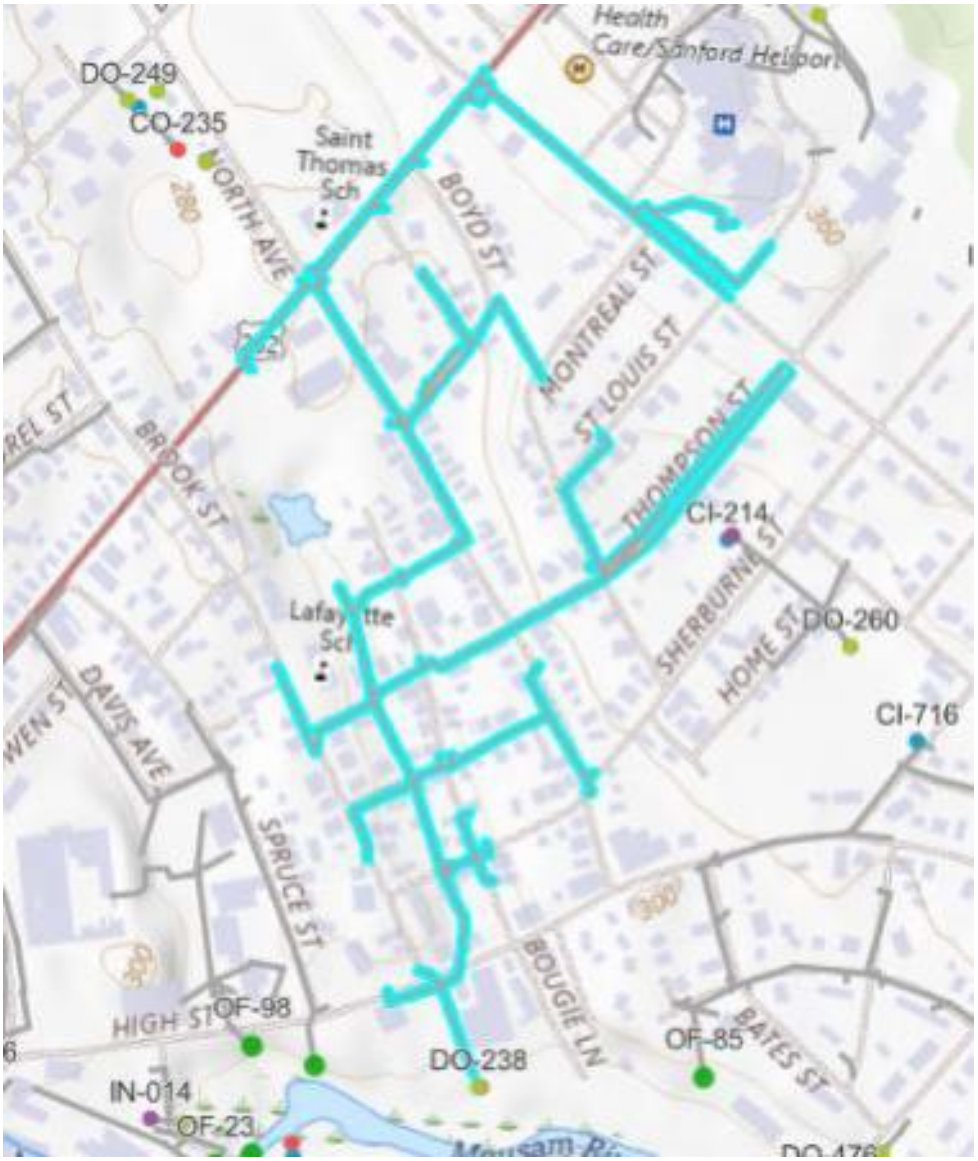
Drainage Network OF-32

OF-32 conveys runoff from approximately 50 acres of urban area through a 48-inch corrugated metal pipe that discharges to Goodall Brook. The contributing drainage area collects stormwater primarily from Twombley Road and Kimball Street. Portions of the existing drainage system contain missing or incomplete data, and there is anecdotal evidence of drainage issues along Forest Avenue. **Given the size of the contributing drainage area, TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies before allowing developments to connect to the drainage network. The estimated 2026 cost for the drainage study is $40,000.**



Drainage Network OF-291

OF-291 conveys runoff from about 50 acres of urban land through two 18-inch concrete pipes that discharge to an unnamed wetland. The drainage area includes Emery Street, Pioneer Avenue, and School Street between Washington Street and Jackson Street. Portions of the existing system have missing or incomplete data, and there is anecdotal evidence of drainage issues along Cross Street, Emery Street, and Pioneer Avenue. **Given the size of the contributing drainage area, TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies before allowing developments to connect to the drainage network. The estimated 2026 cost for the drainage study is $40,000.**



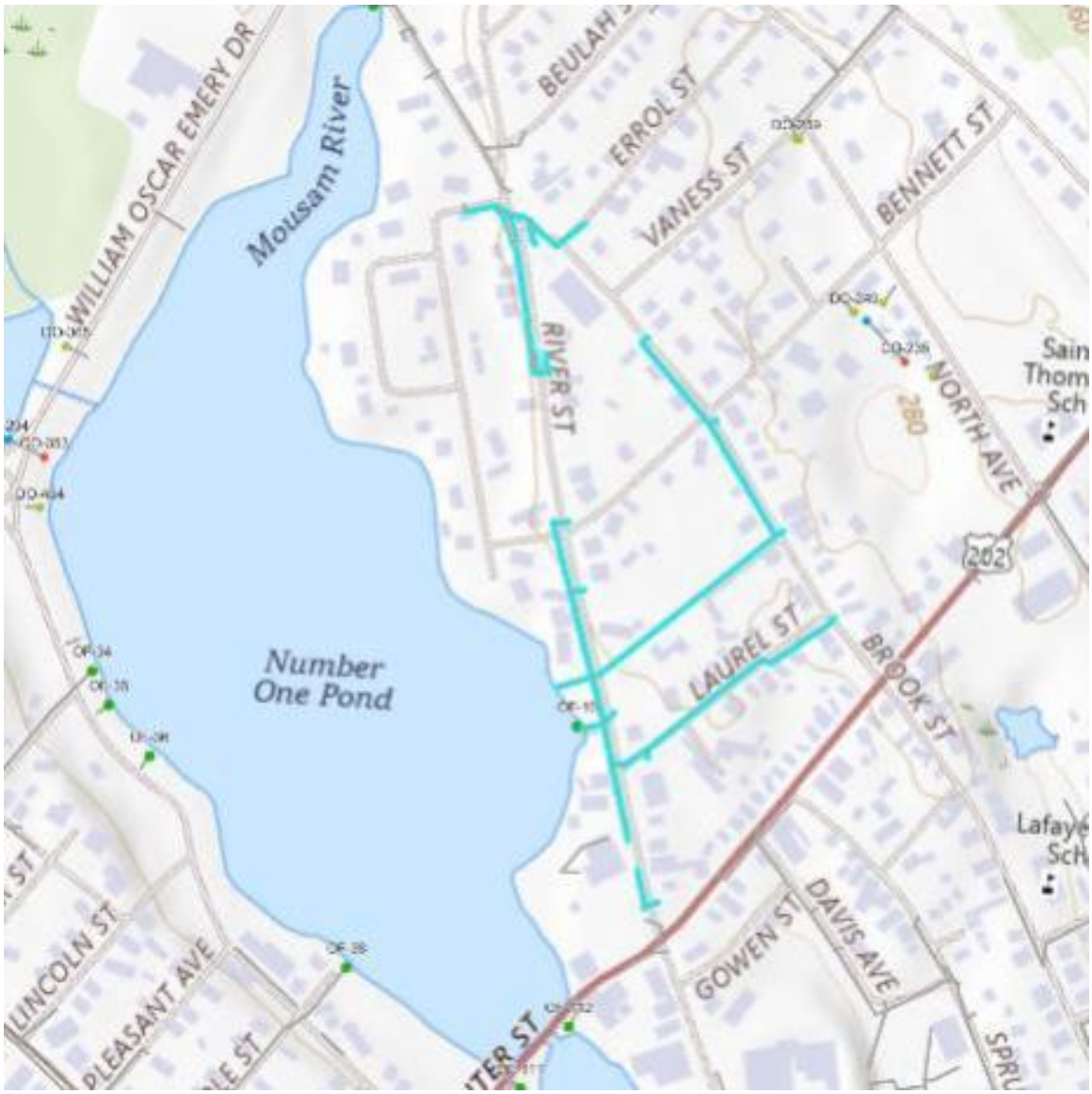
Drainage Network OF-238

OF-238 conveys runoff from approximately 50 acres of urban area through an 18-inch concrete pipes that discharge into the Mousam River. Portions of the existing drainage system contain missing or incomplete data, and evidence of stormwater flowing from a larger-diameter pipe into a smaller-diameter pipe near 165 Cottage Street. **Given the size of the contributing drainage area, TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies before allowing developments to connect to the drainage network. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $55,000.**



Drainage Network OF-107

OF-107 conveys runoff from approximately 46 acres of urban area through an 8-inch PVC pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from School Street from Tebbetts Avenue to Breton Avenue. Portions of the existing drainage system contain missing or incomplete data, and there is two known existing instances of undersized pipes along School Street, suggesting potential capacity constraints. There is also anecdotal evidence of ponding along Breton Avenue. **TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies before allowing developments to connect to the drainage network. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $83,000.**



Drainage Network OF-10

OF-10 conveys runoff from approximately 29 acres of urban area through an estimated 18-inch concrete pipe that discharges into Number One Pond. The contributing drainage area collects stormwater from River Street from Cottage Street to Field Street. Portions of the existing drainage system contain missing or incomplete data, and there is anecdotal evidence of capacity issues along River Street. **TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies before allowing developments to connect to the drainage network. The estimated 2026 cost for the drainage study is $30,000.**



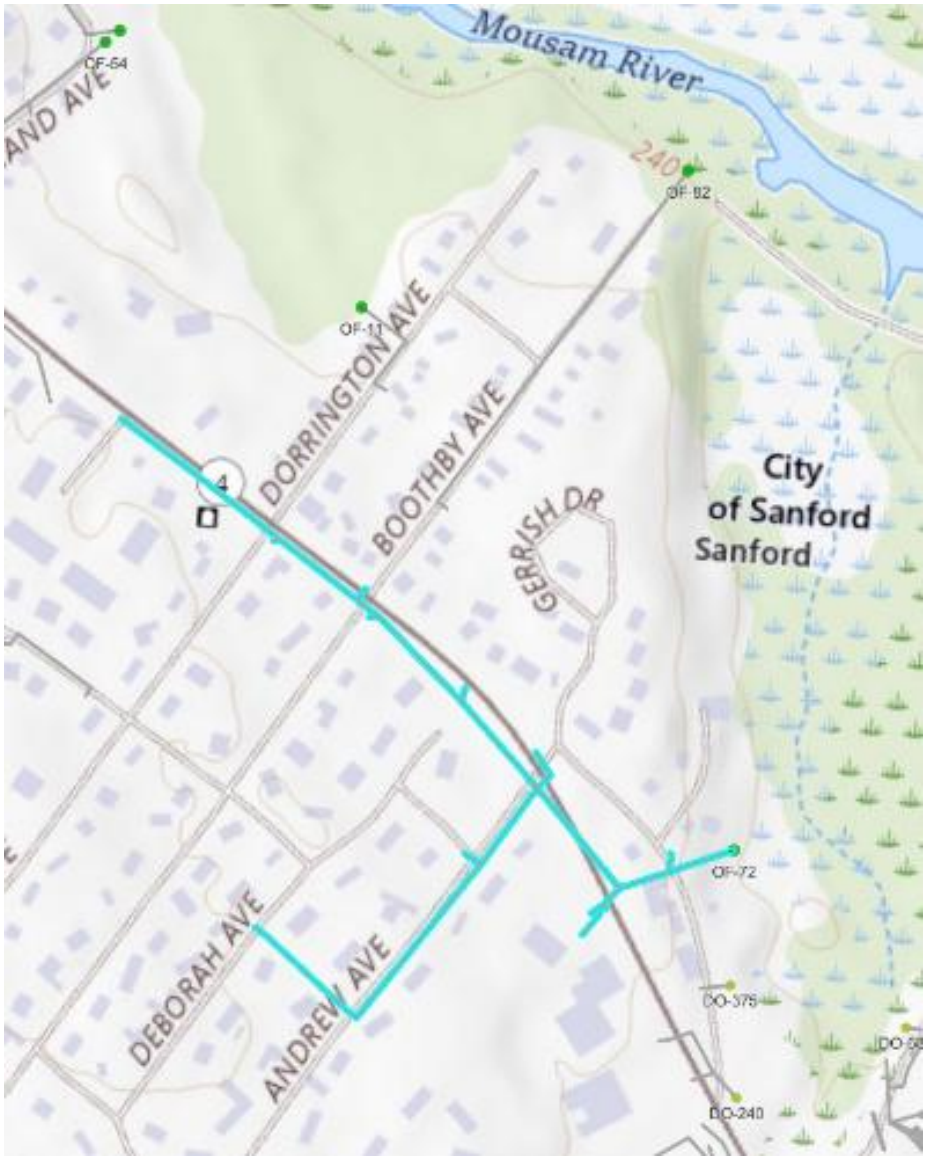
Drainage Network OF-34

OF-34 conveys runoff from approximately 25 acres of urban area through a 36-inch concrete pipe that discharges to Number One Pond. Parts of the existing drainage system have missing or incomplete data. In addition, stormwater appears to flow from a larger-diameter pipe into a smaller-diameter pipe near 808 Main Street, indicating potential capacity limitations. **TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies before allowing developments to connect to the drainage network. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $830,000.**



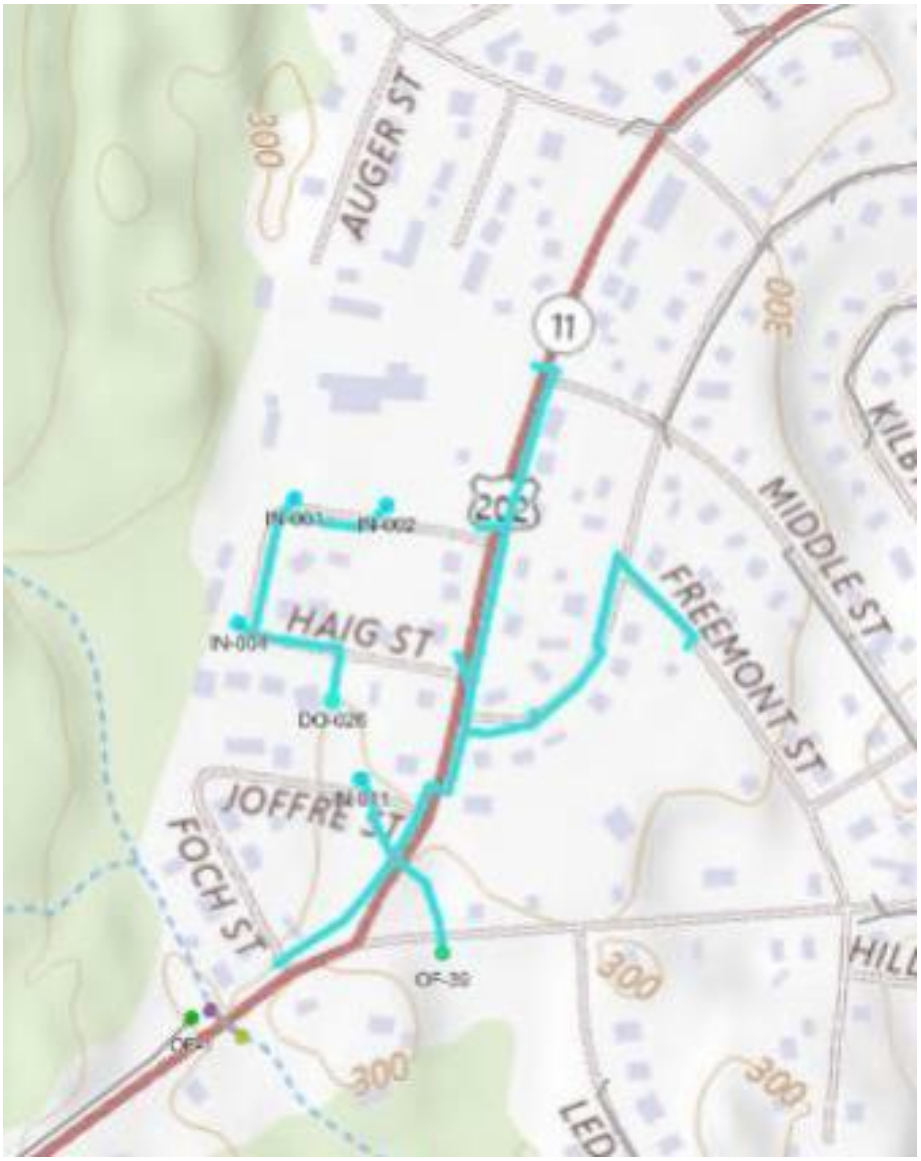
Drainage Network OF-85

OF-85 conveys runoff from approximately 20 acres of urban area through a 30-inch PVC pipe that discharges into an unnamed wetland. Portions of the existing drainage system contain missing or incomplete data, and there is evidence of an undersized pipe along Bates Street, suggesting potential capacity constraints. **TEC recommends a comprehensive drainage study be conducted to assess system capacity and address all deficiencies prior to developments connecting to the drainage network. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $110,000.**



Drainage Network OF-72

OF-72 conveys runoff from approximately 53 acres of urban area through a 36-inch concrete pipe that discharges into an unnamed tributary to the Mousam River. The contributing drainage area collects stormwater from Main Street from Breary Avenue to Gerrish Drive. Portions of the existing drainage system contain missing or incomplete data and the outlet appears to be over capacity. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $40,000.**



Drainage Network OF-39
OF-39 conveys runoff from approximately 42 acres of urban area through estimated 24" metal pipe that discharges into an unnamed wetland along Kimball Street. The contributing drainage area collects stormwater from Lebanon Street from Hanson Ridge Road to Foch Street Portions of the existing drainage system contain missing or incomplete data. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed. The estimated 2026 cost for the drainage study is $30,000**

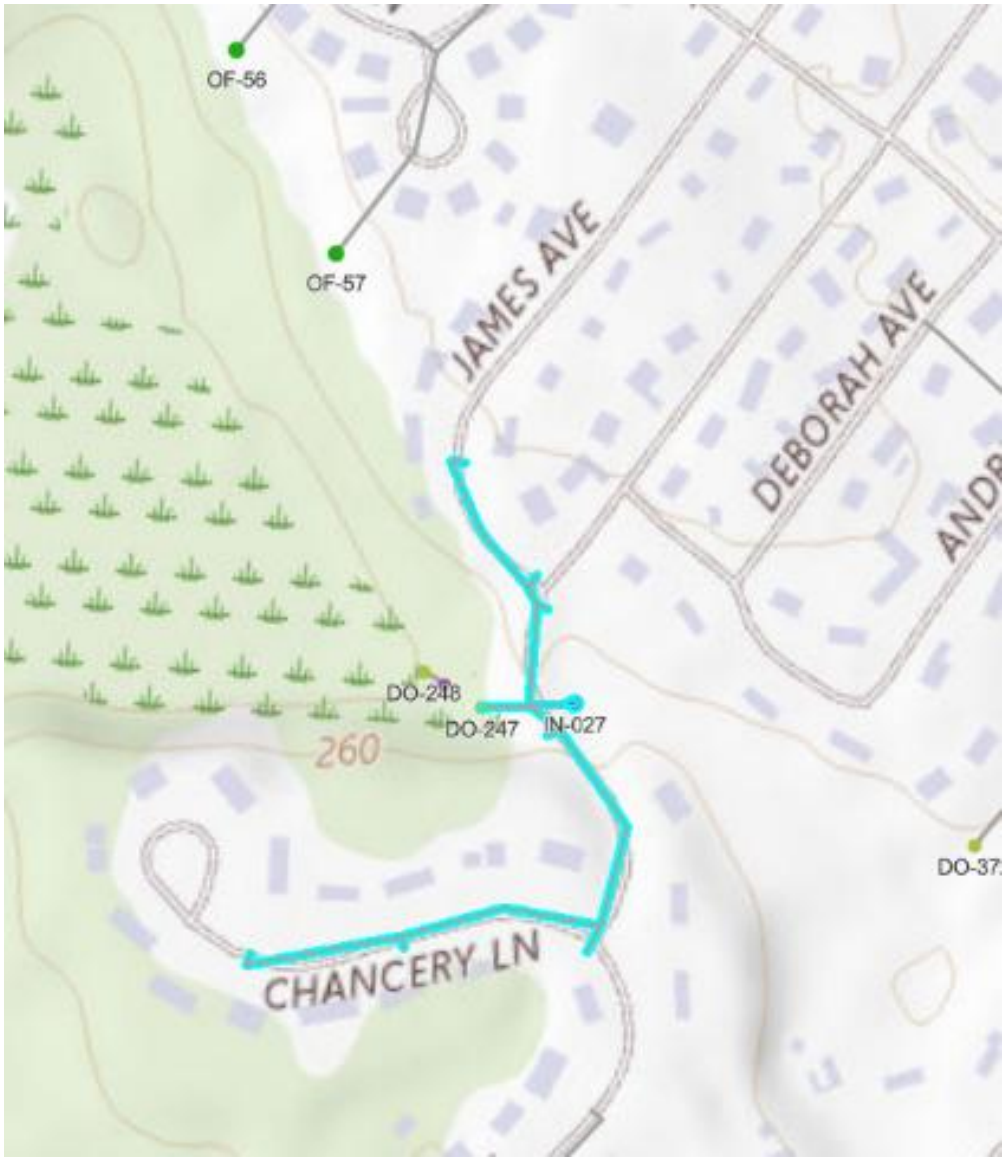


Drainage Network OF-40

OF-40 conveys runoff from approximately 23 acres of urban area through a 30-inch concrete pipe that discharges to an unnamed wetland associated with Goodall Brook. The contributing drainage area collects stormwater primarily from Main Street from Washington Street to Emerson Street. Portions of the existing drainage system contain missing or incomplete data. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $25,000.**



Drainage Network OF-492
OF-492 conveys runoff from approximately 23 acres of urban area through a 24-inch HDPE pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from Main Street from Old Mill Road to Burbank Lane. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $25,000.**



Drainage Network OF-247

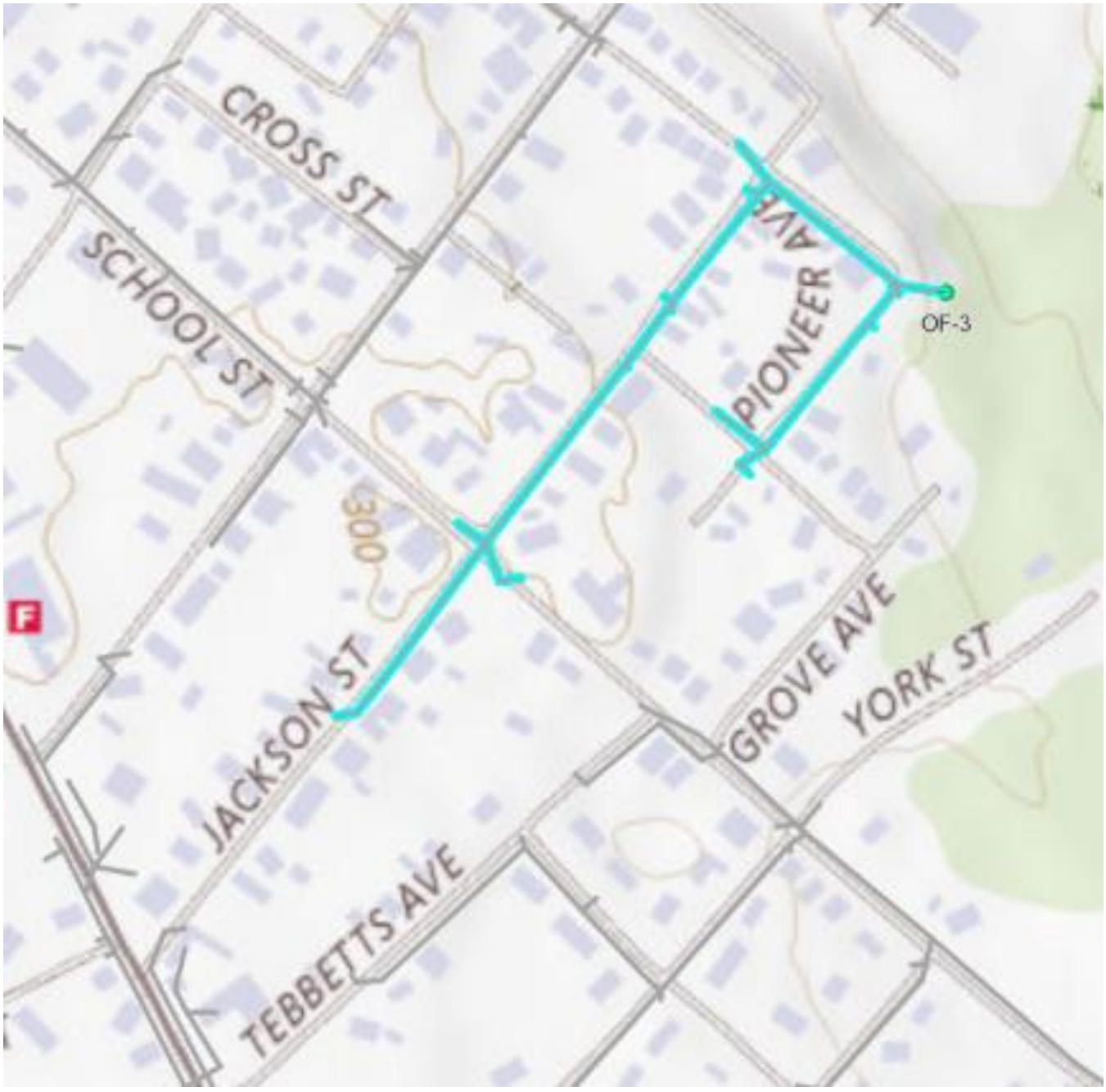
OF-247 conveys runoff from approximately 20 acres of urban area through a 18-inch concrete pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from Chancery Lane to Milton Avenue. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments avoid connecting to the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $25,000.**



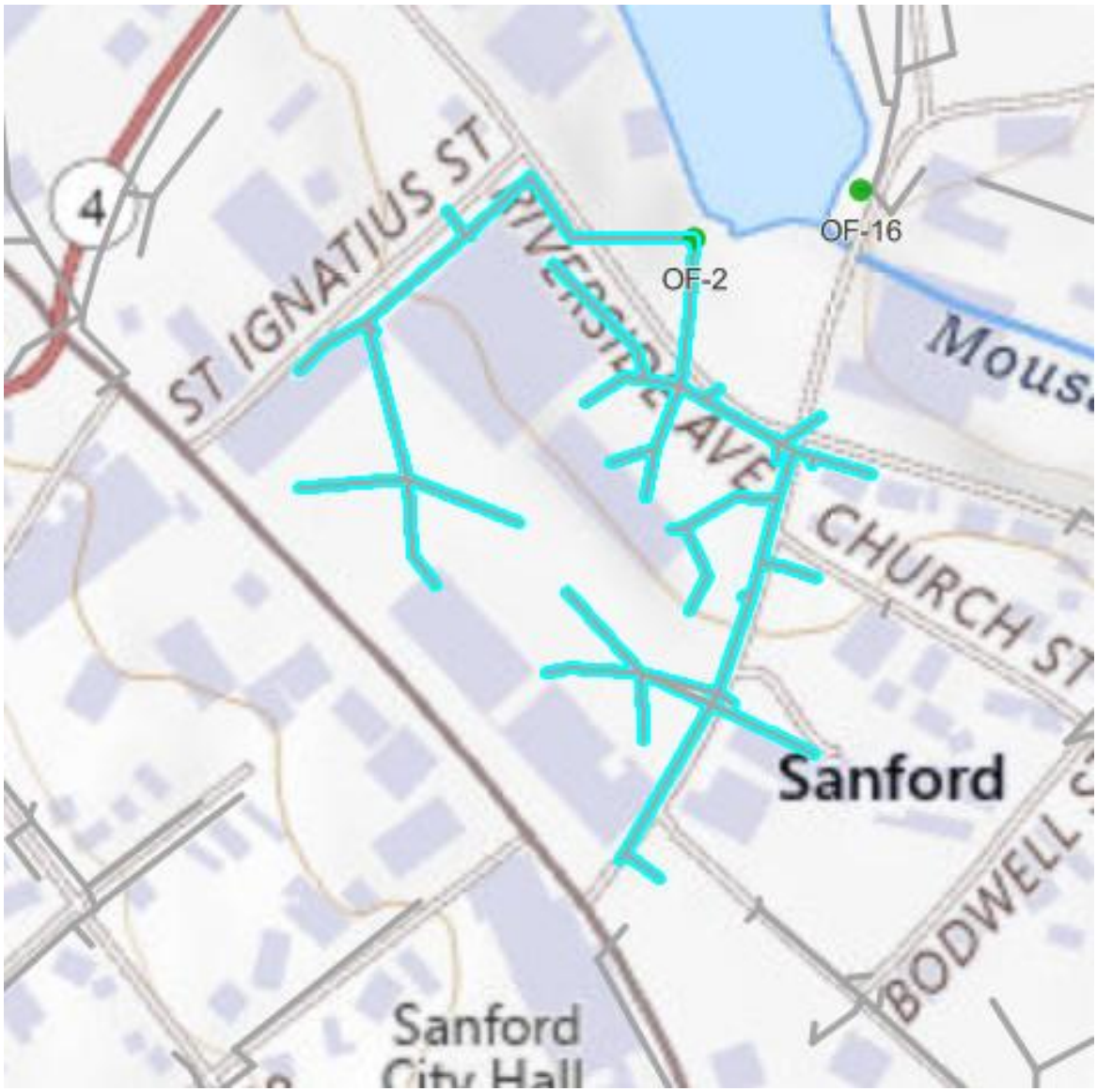
Drainage Network OF-252
OF-252 conveys runoff from approximately 20 acres of urban area through an estimated 30-inch PVC pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from George Avenue to Bateman Street. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $25,000.**



Drainage Network OF-12
OF-12 conveys runoff from approximately 19 acres of urban area through an estimated 24-inch concrete pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from Milton Avenue. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments avoid connecting to the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $25,000.**



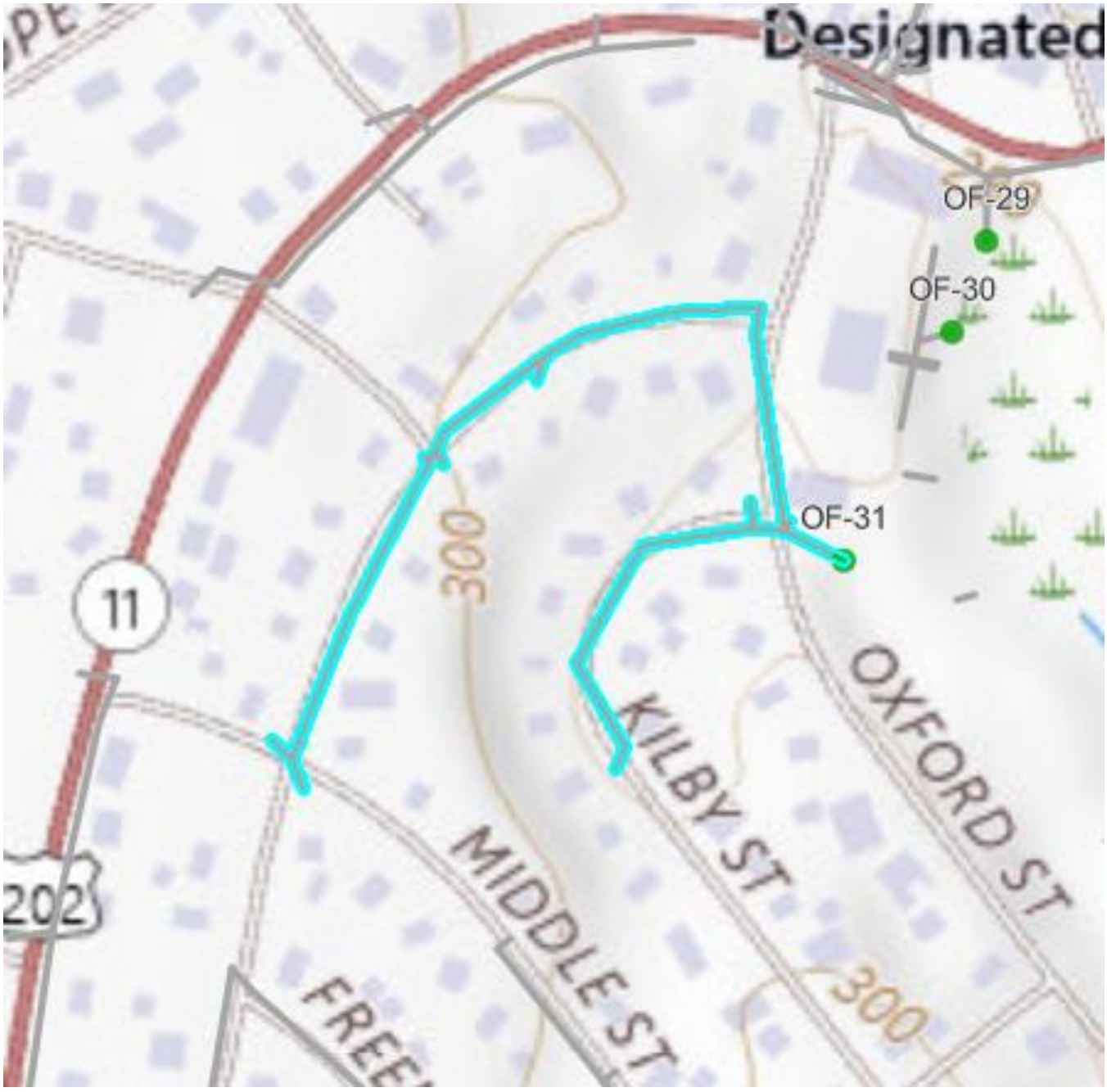
Drainage Network OF-03
OF-03 conveys runoff from approximately 17 acres of urban area through a 24-inch concrete pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from Jackson Street, Pioneer Avenue and Central Avenue. Portions of the existing drainage system contain missing or incomplete data. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000.**



Drainage Network OF-02
OF-02 conveys runoff from approximately 16 acres of urban area through a dual pipe outlet, with an 18-inch concrete pipe and a 15-inch vitrified clay pipe, that discharges into Number One Pond. The contributing drainage area collects stormwater from Riverside Avenue and Main Street from St. Ignatius Street and Washington Street. Portions of the existing drainage system contain missing or incomplete data, and there is evidence of stormwater flowing from a larger-diameter pipe into a smaller-diameter pipe, suggesting potential capacity constraints. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, and any deficiency downgradient of the development has been remediated. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $116,000**

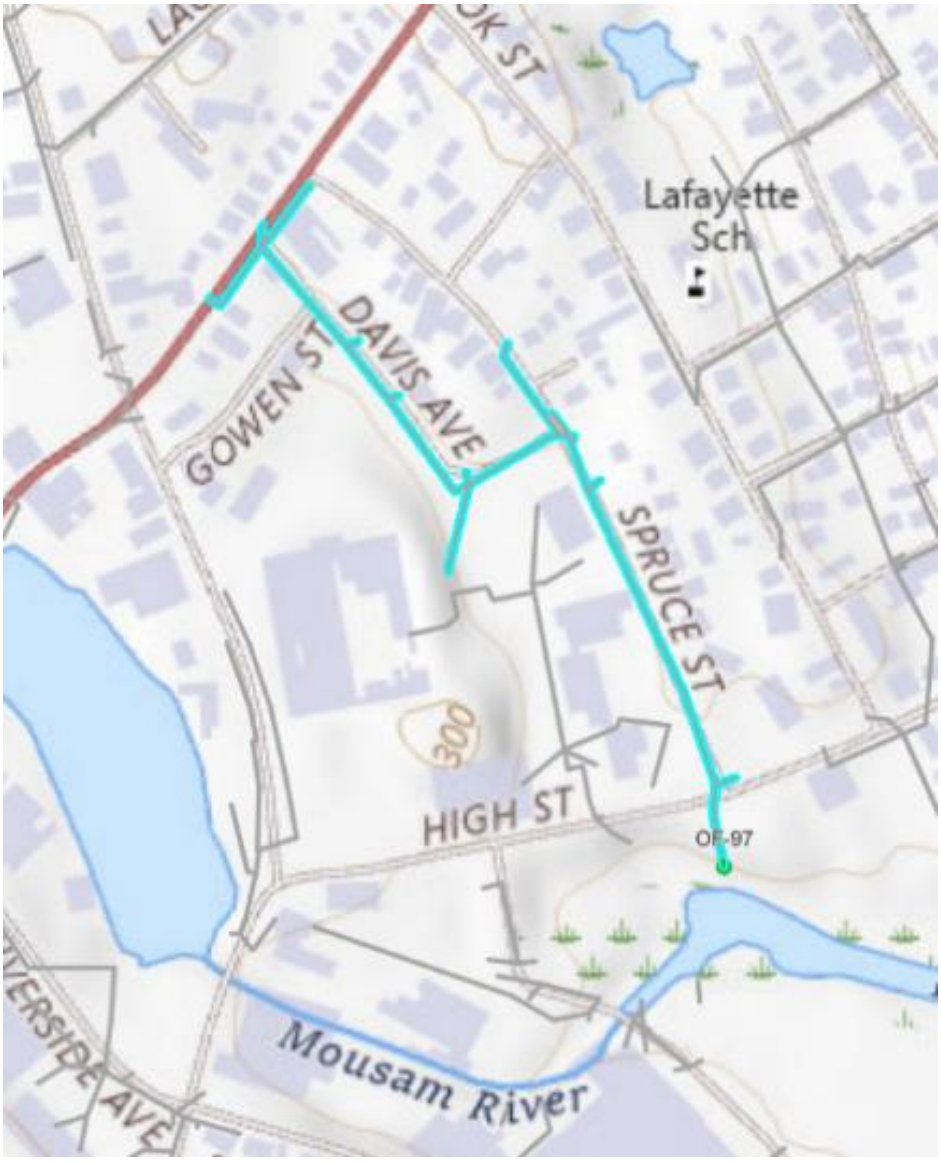


Drainage Network OF-38
OF-38 conveys runoff from approximately 14 acres of urban area through a 18-inch concrete pipe that discharges into Number One Pond. The contributing drainage area collects stormwater from Riverside Avenue and Main Street from Storer Street to Acorn Street. The Estimated Sizing Evaluation found that the outlet was significantly over capacity during the 10-year storm event. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed. The estimated 2026 cost for the drainage study is $20,000**



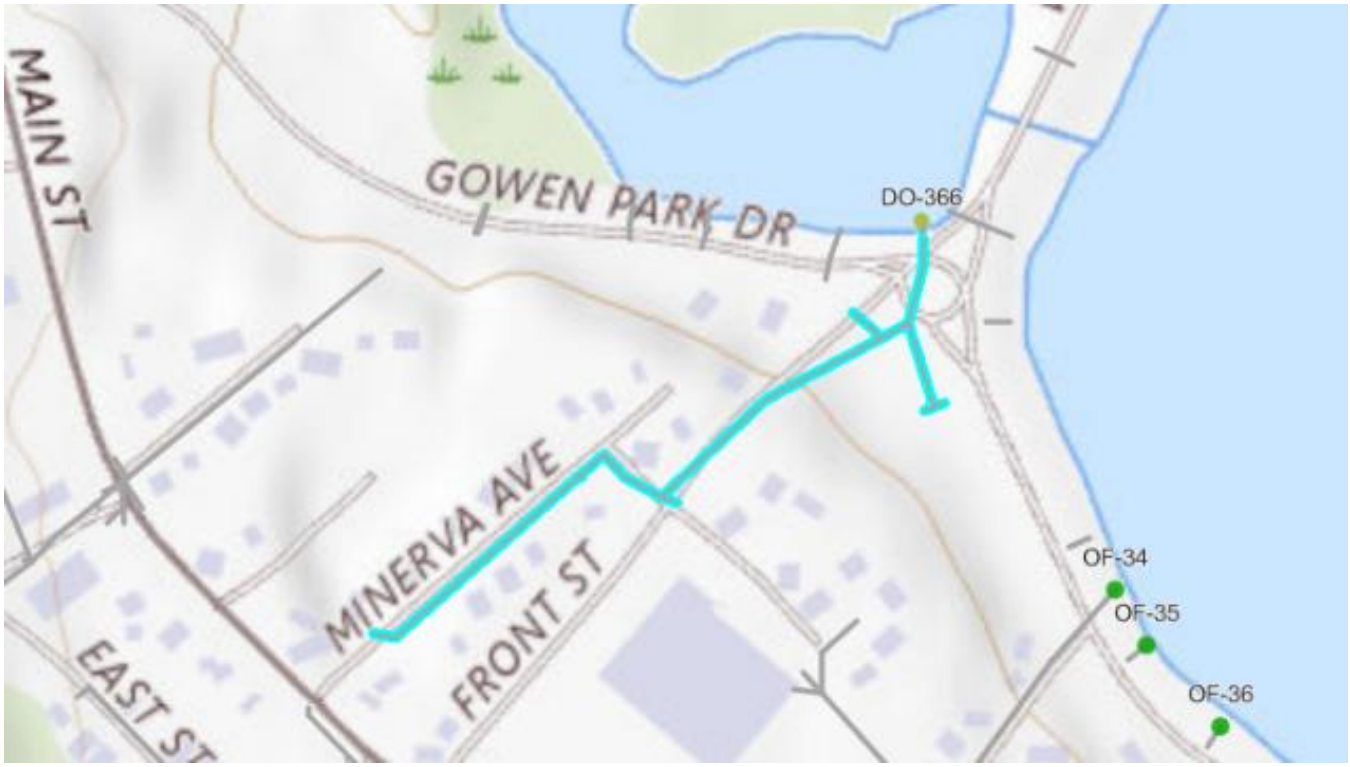
Drainage Network OF-31

OF-31 conveys runoff from approximately 14 acres of urban area through a 30-inch HDPE pipe that discharges an unnamed tributary to Goodall Brook. The contributing drainage area collects stormwater from Ridgeway Avenue, Kilby Street and Oxford Street. Portions of the existing drainage system contain missing or incomplete data, and there is evidence of potential encroachments onto private property. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000**



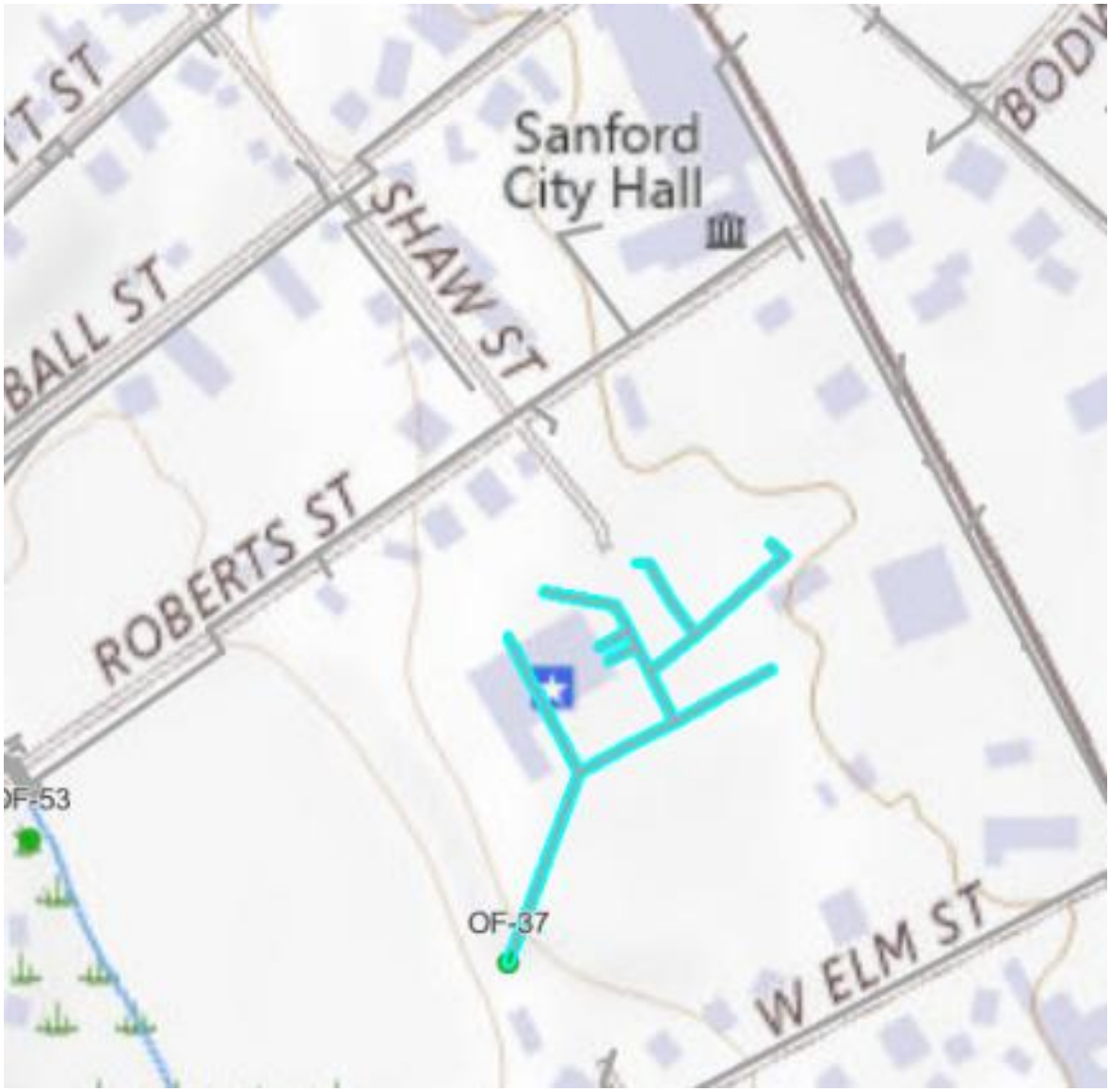
Drainage Network OF-97

OF-97 conveys runoff from approximately 13 acres of urban area through a 36-inch corrugated metal pipe that discharges into the Mousam River. The contributing drainage area collects stormwater from Spruce Street from Cottage Street to Hill Street. Portions of the existing drainage system contain missing or incomplete data, and there is evidence of stormwater flowing from a larger-diameter pipe into a smaller-diameter pipe, suggesting potential capacity constraints. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $80,000.**



Drainage Network OF-366

OF-366 conveys runoff from approximately 10 acres of urban area through a 10-inch concrete pipe that discharges into an unnamed tributary of Number One Pond. There is evidence of stormwater flowing from a larger diameter pipe into a smaller diameter pipe, suggesting potential capacity constraints. **TEC recommends that any future developments avoid connecting to the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow, and any deficiency downgradient of the development has been remediated. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $85,000.**

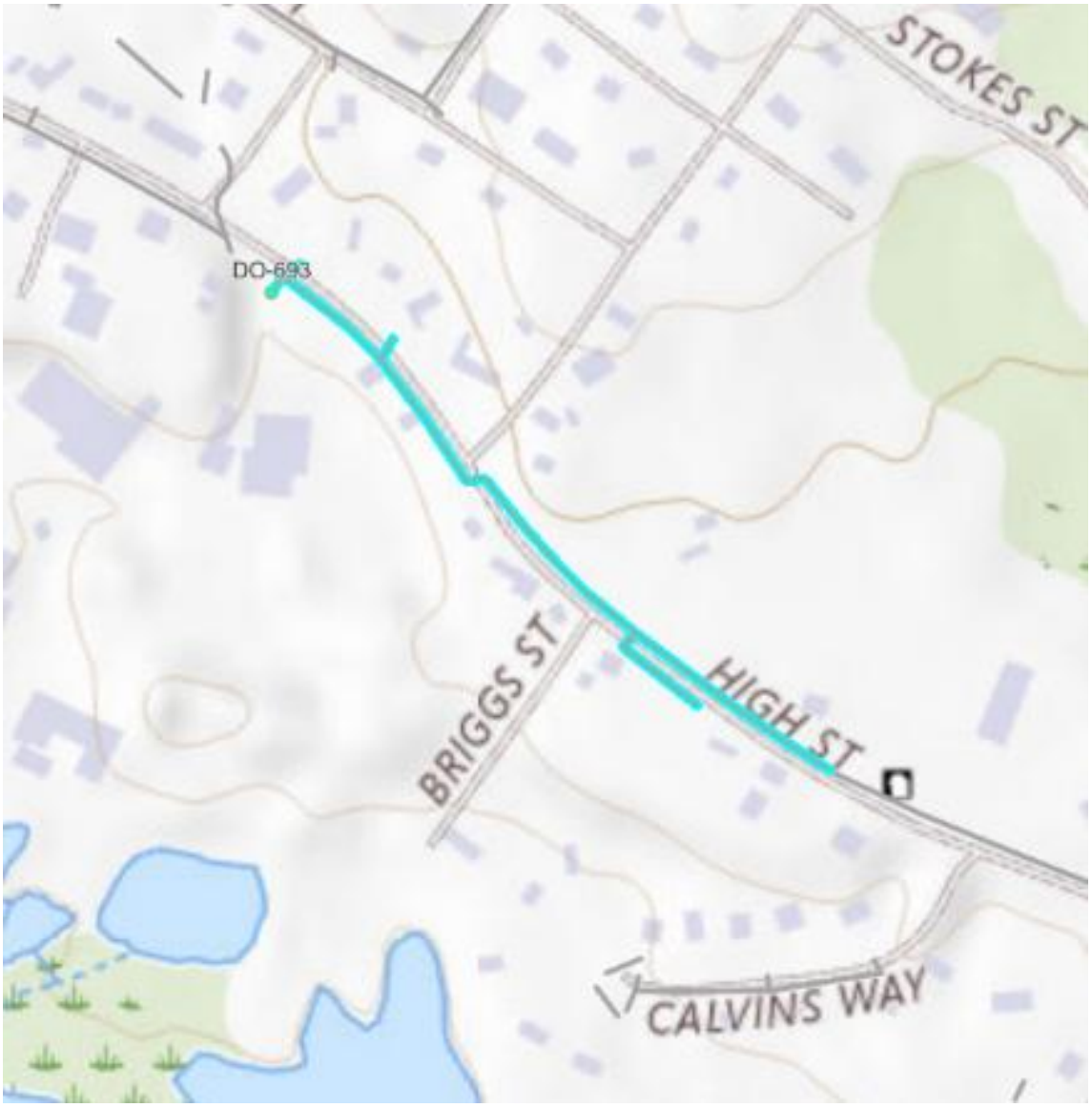


Drainage Network OF-37

OF-37 conveys runoff from approximately 10 acres of urban area through a 15-inch HDPE pipe that discharges into an unnamed wetland to Goodall Brook. The contributing drainage area is associated with the Sanford Police Department and the surrounding area. It appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000.**

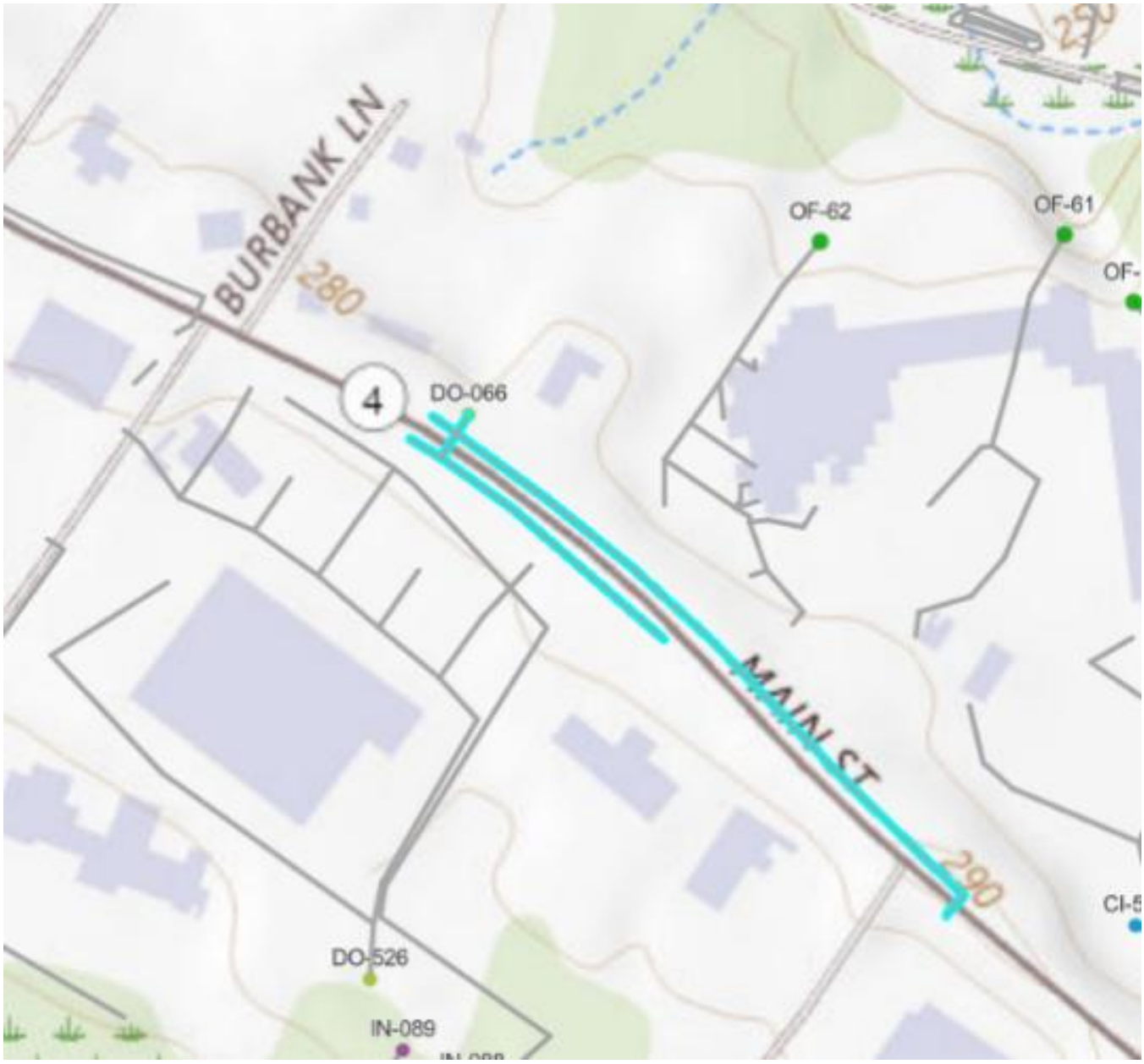


Drainage Network OF-44
OF-44 conveys runoff from approximately 9 acres of urban area through a 12-inch PVC pipe that discharges into Goodall Brook. The contributing drainage area collects stormwater from Berwick Road and Shawmut Avenue. Portions of the existing drainage system contain missing or incomplete data. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000.**



Drainage Network OF-693

OF-693 conveys runoff from approximately 9 acres of urban area through an estimated 18-inch concrete pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from High Street from Oak Forest Street to Calvins Way. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000.**



Drainage Network OF-66

OF-66 conveys runoff from approximately 8 acres of urban area through an 18-inch corrugated metal pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from Main Street from Burbank Lane to Renaissance Way. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000.**

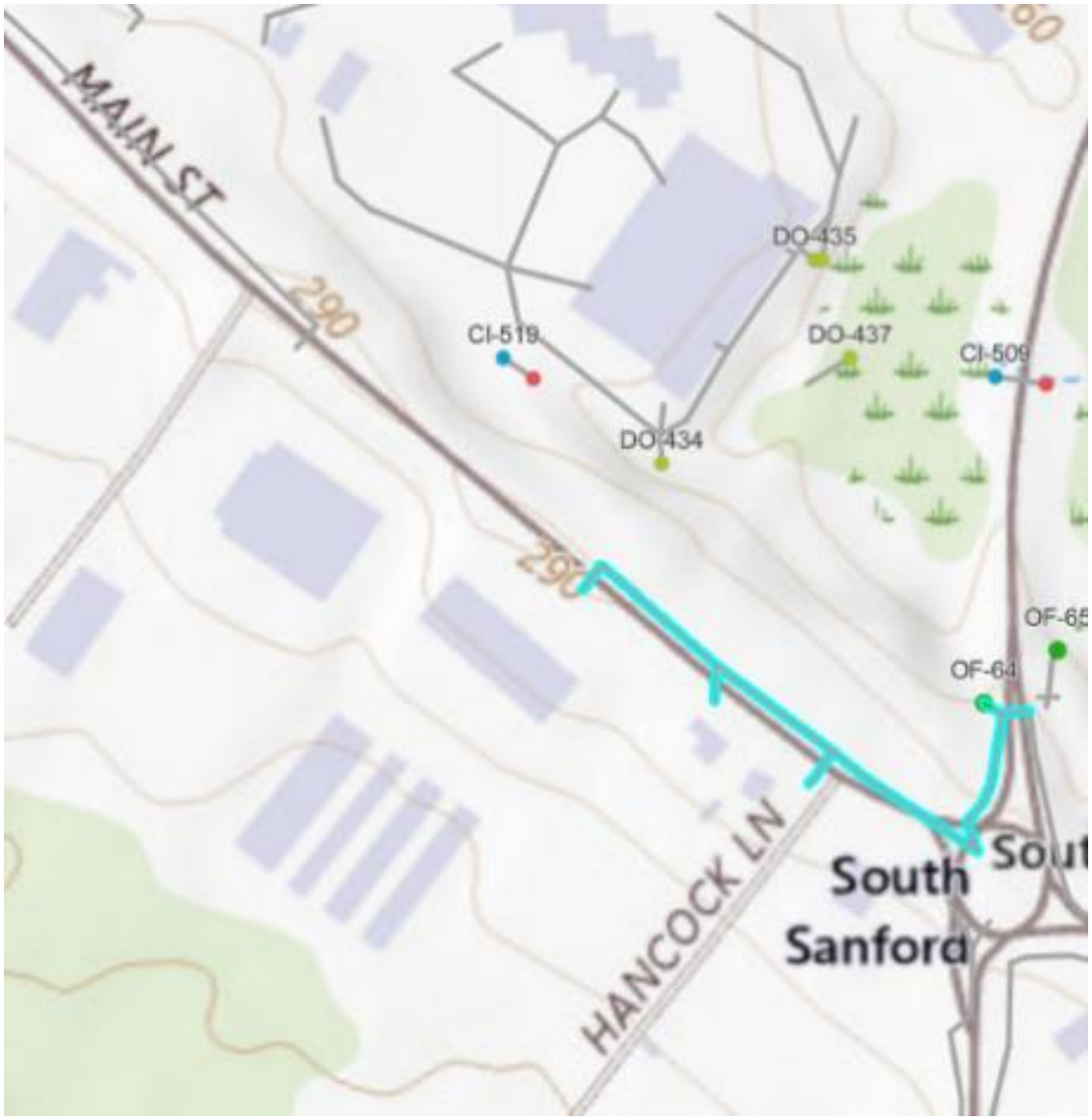


Drainage Network OF-07

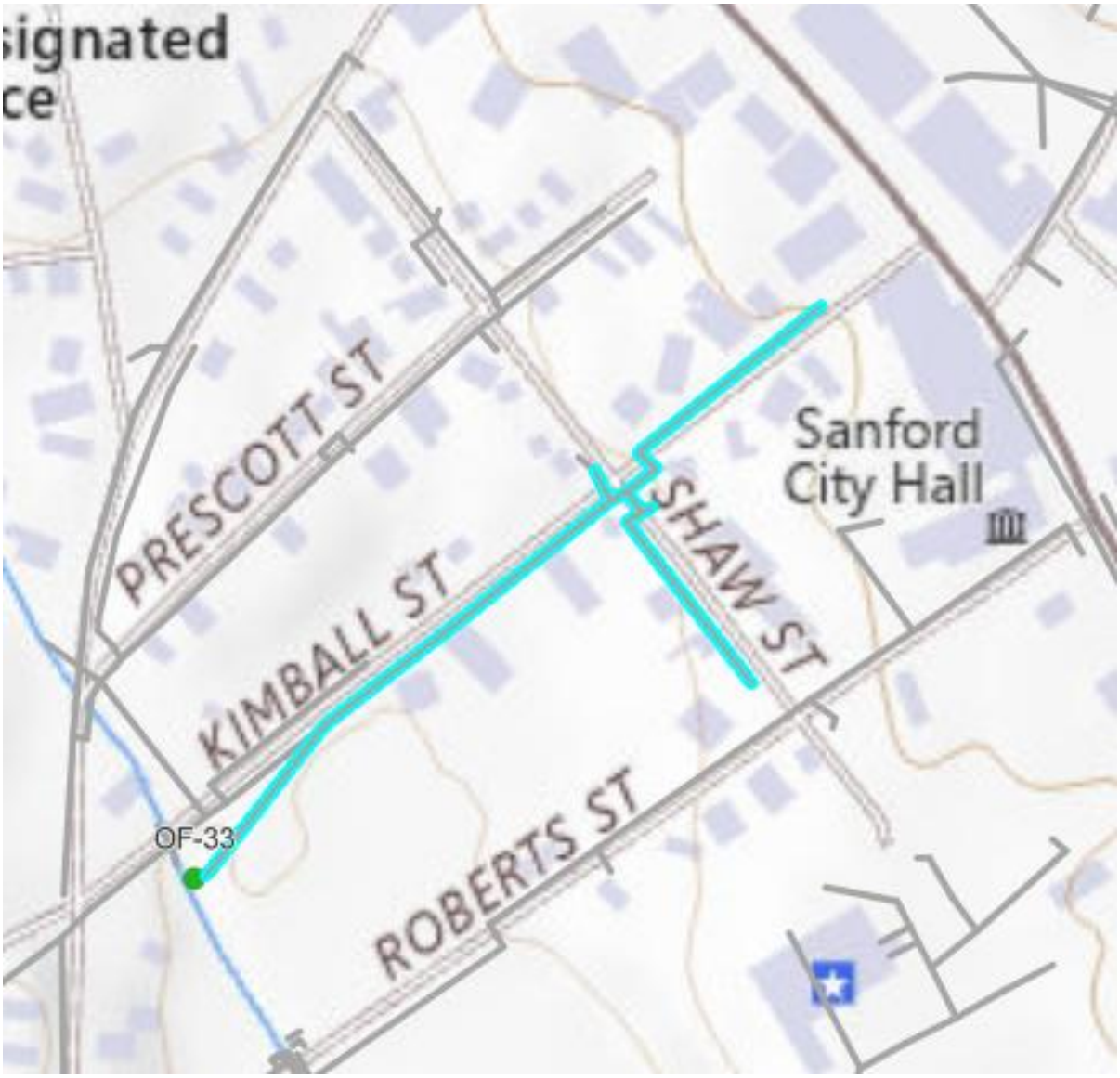
OF-07 conveys runoff from approximately 7 acres of urban area through a 24-inch concrete pipe that discharges into Number One Pond. The contributing drainage area collects stormwater from River Street from River Run Road to William Oscar Emery Drive. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000.**



Drainage Network OF-06
OF-06 conveys runoff from approximately 6 acres of urban area through an 18-inch concrete pipe that discharges into Number One Pond. The contributing drainage area collects stormwater from Shaw Road, Beulah Street and River Street. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000.**



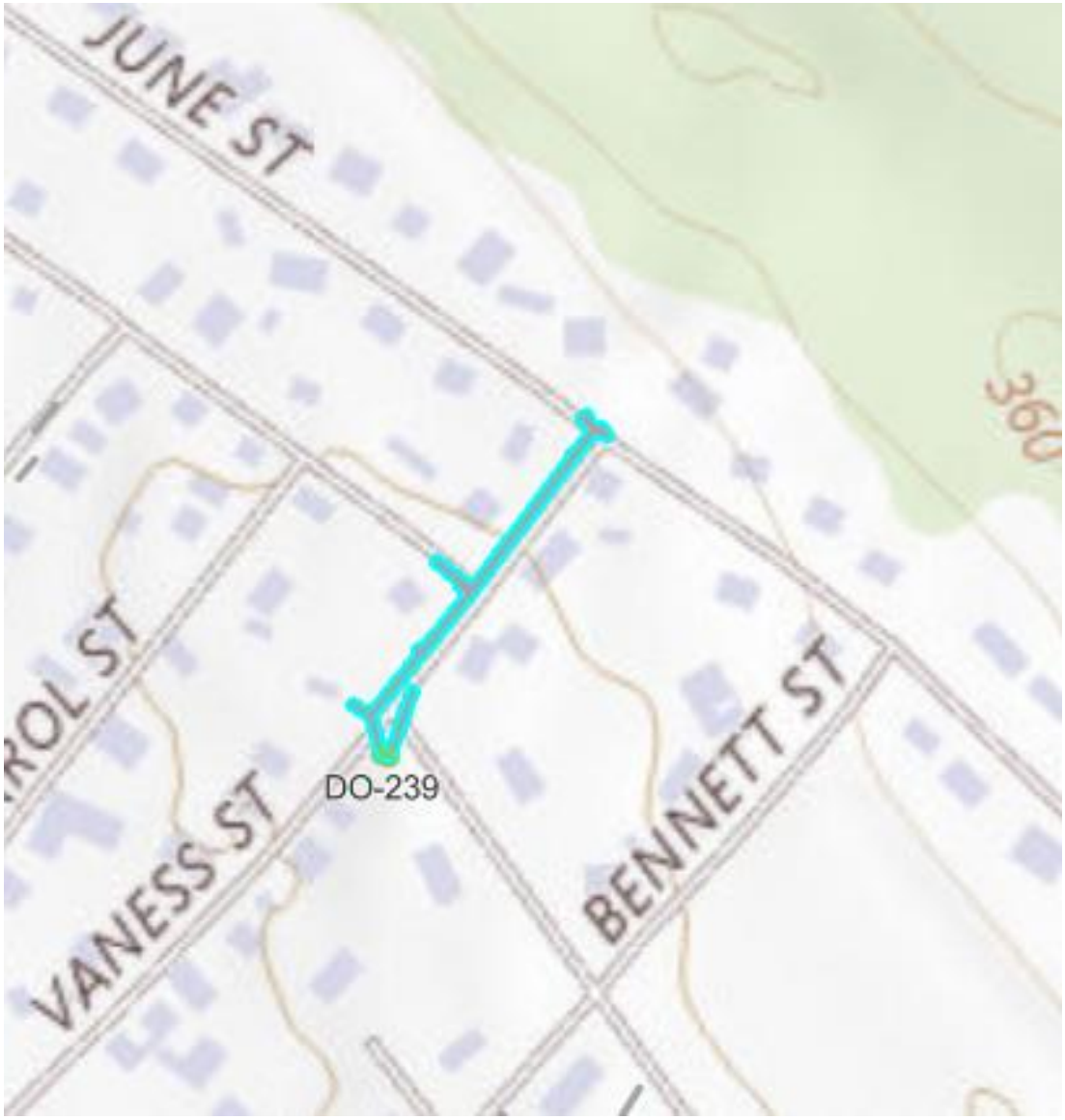
Drainage Network OF-64
OF-64 conveys runoff from approximately 6 acres of urban area through an 18-inch concrete pipe that discharges into an unnamed wetland. The contributing drainage area collects stormwater from Main Street from Renaissance Way to Alfred Road. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated 2026 cost for the drainage study is $20,000.**



Drainage Network OF-33
OF-33 conveys runoff from approximately 5 acres of urban area through an 18-inch PVC pipe that discharges into Goodall Brook. The contributing drainage area collects stormwater from Kimball Street from Main Street to Twombley Road. Portions of the existing drainage system contain missing or incomplete data, and it appears the outlet is undersized for the existing watershed. **TEC recommends that future developments within this drainage area avoid tying into the existing drainage system unless a comprehensive drainage study is completed, proving the existing system can adequately convey the proposed flow. The estimated cost of the recommended drainage study and 2026 construction cost of known deficiency repair is $195,000.**

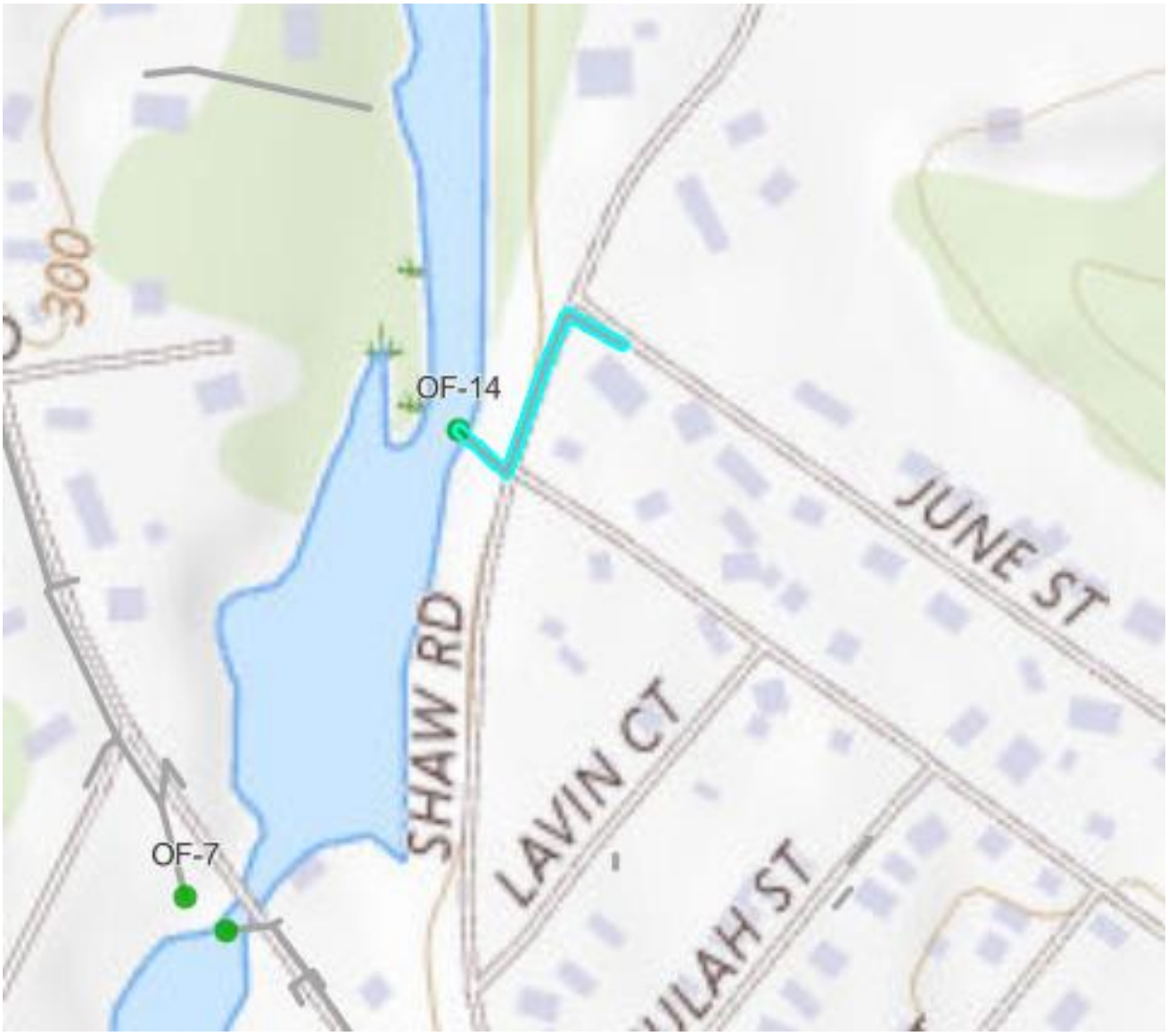


Drainage Network OF-251
OF-251 conveys runoff from approximately 20 acres of urban area through two 30-inch PVC pipes that discharge into an unnamed wetland. The contributing drainage area collects stormwater from Bateman Street from Harding Street to Oak Forest Street. Portions of the existing drainage system contain missing or incomplete data; however, it appears the outlet fully conveys stormwater during the 10-year storm event. **TEC recommends that future developments within this drainage area may connect to the existing drainage system, upon verification of existing conditions.**

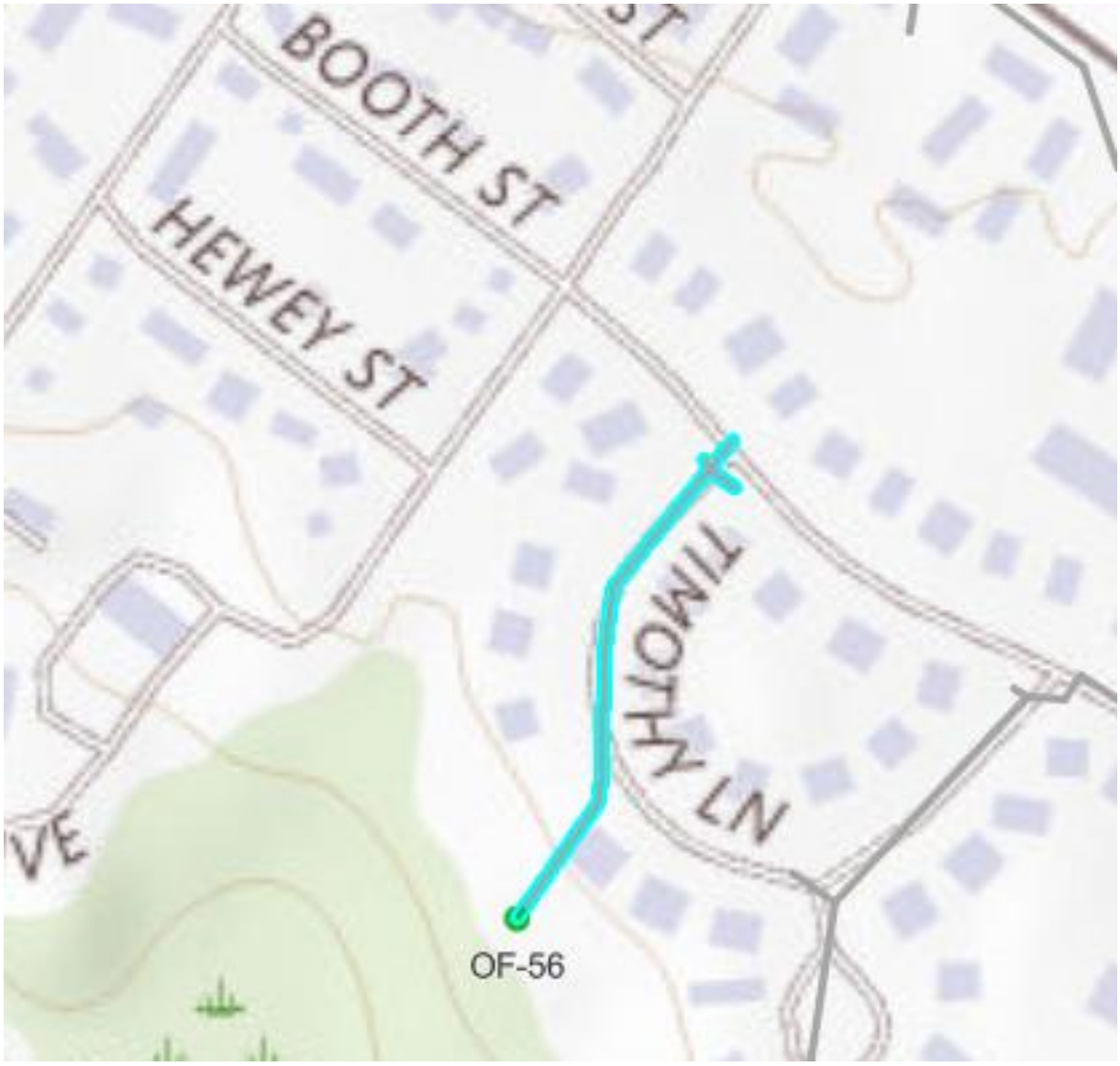


Drainage Network OF-239

OF-239 conveys runoff from approximately 16 acres of urban area through a 36-inch concrete pipe that discharges into an unnamed wetland. Portions of the existing drainage system contain missing or incomplete data and there is anecdotal evidence of surficial flooding along Vaness Street. However, it appears the outlet fully conveys stormwater during the 10-year storm event. **TEC recommends that future developments within this drainage area may connect to the existing drainage system upon verification of existing conditions and if they address localized flooding adjacent to their frontage.**

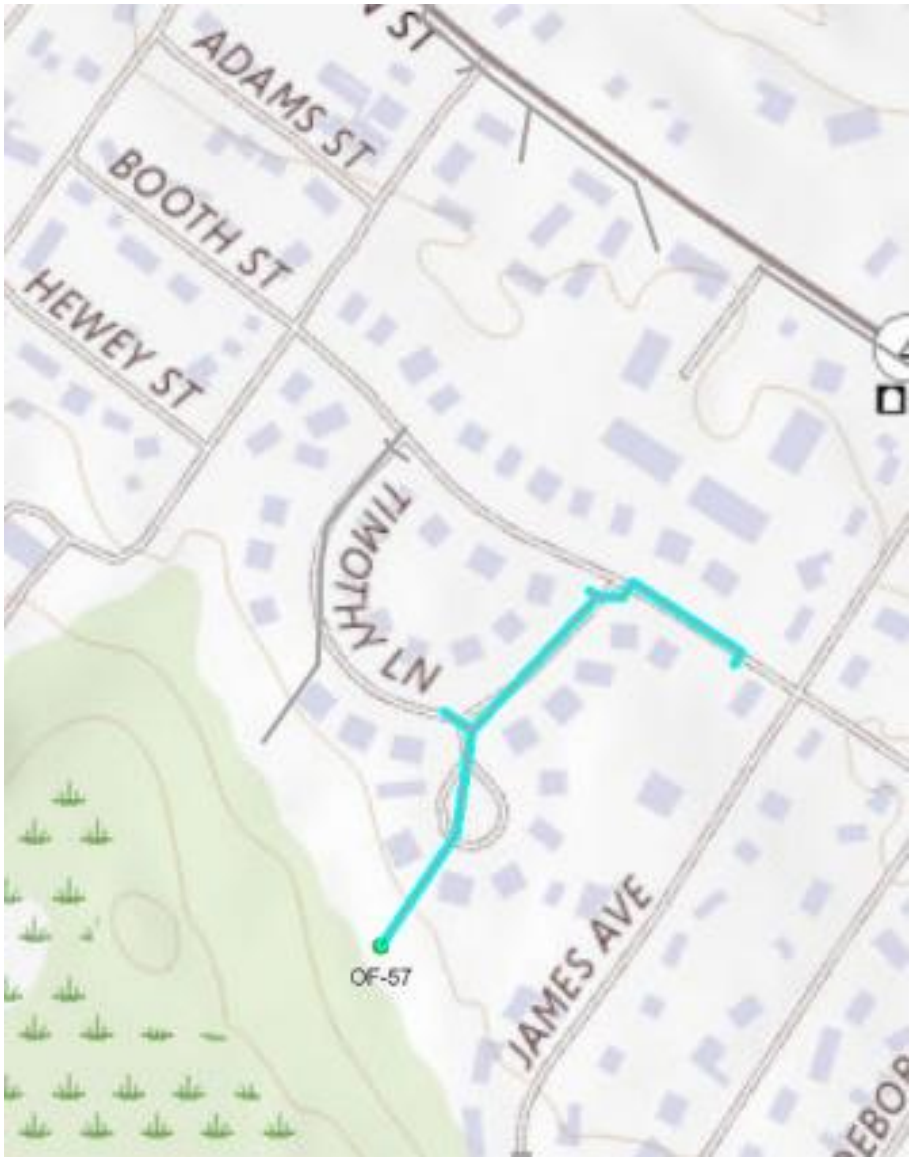


Drainage Network OF-14
OF-14 conveys runoff from approximately 8 acres of urban area through an estimate 36-inch corrugated metal pipe that discharges into the Mousam River. The contributing drainage area collects stormwater from Shaw Road from June Street, Witham Street, and Lavin Court. Portions of the existing drainage system contain missing or incomplete data and there is anecdotal evidence of uncaptured flows within the drainage area mentioned during interviews with the City's DPW. However, it appears the outlet fully conveys stormwater during the 10-year storm event. **TEC recommends that future developments within this drainage area may connect to the existing drainage system, upon verification of existing conditions.**
the drainage area.



Drainage Network OF-56

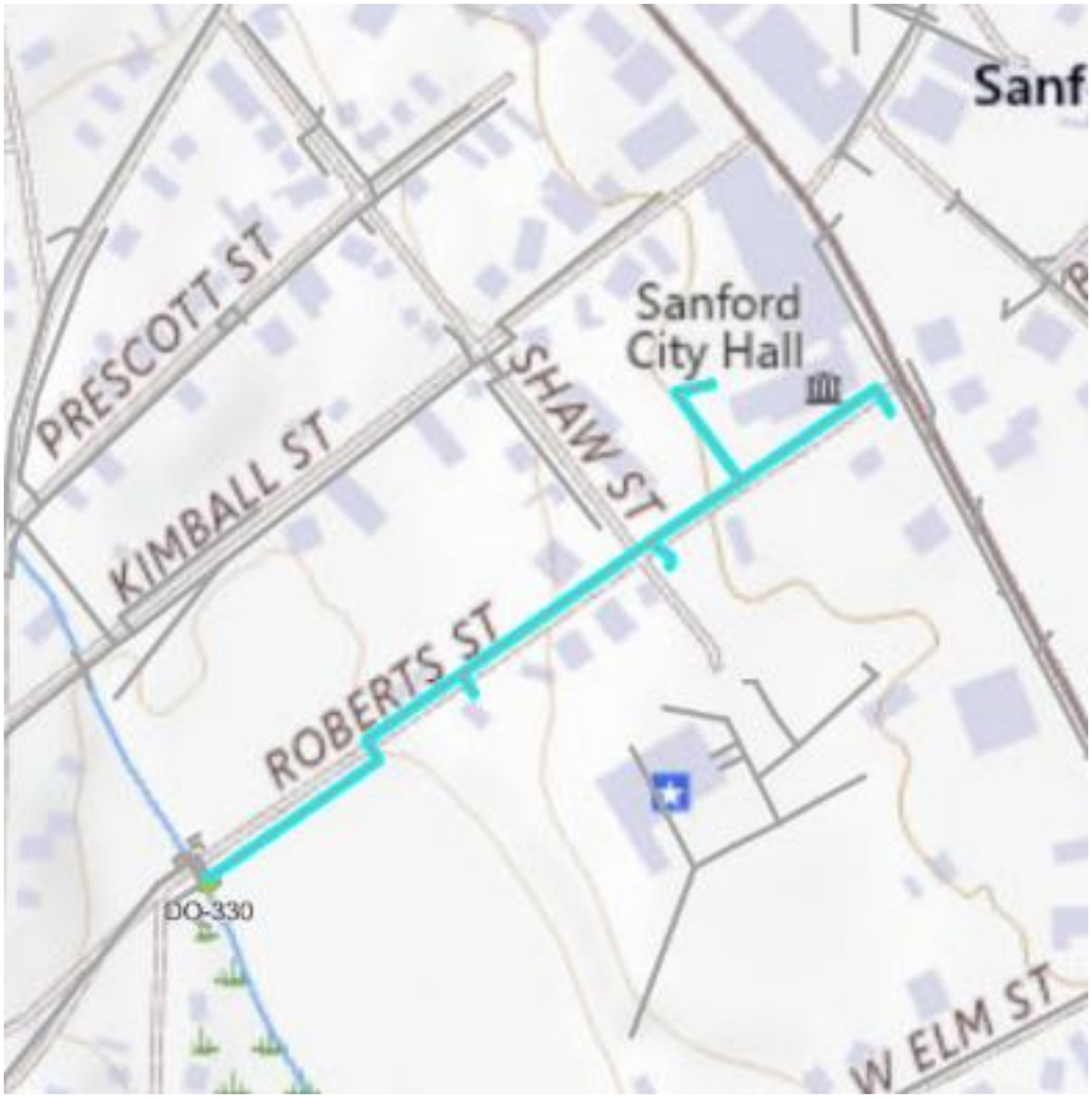
OF-56 conveys runoff from approximately 7 acres of urban area through an estimate 32-inch HDPE pipe that discharges into an unnamed wetland The contributing drainage area collects stormwater from Helens Way to Tomothy Lane. Portions of the existing drainage system contain missing or incomplete data; however, it appears the outlet fully conveys stormwater during the 10-year storm event. **TEC recommends that future developments within this drainage area may connect to the existing drainage system, upon verification of existing conditions.**



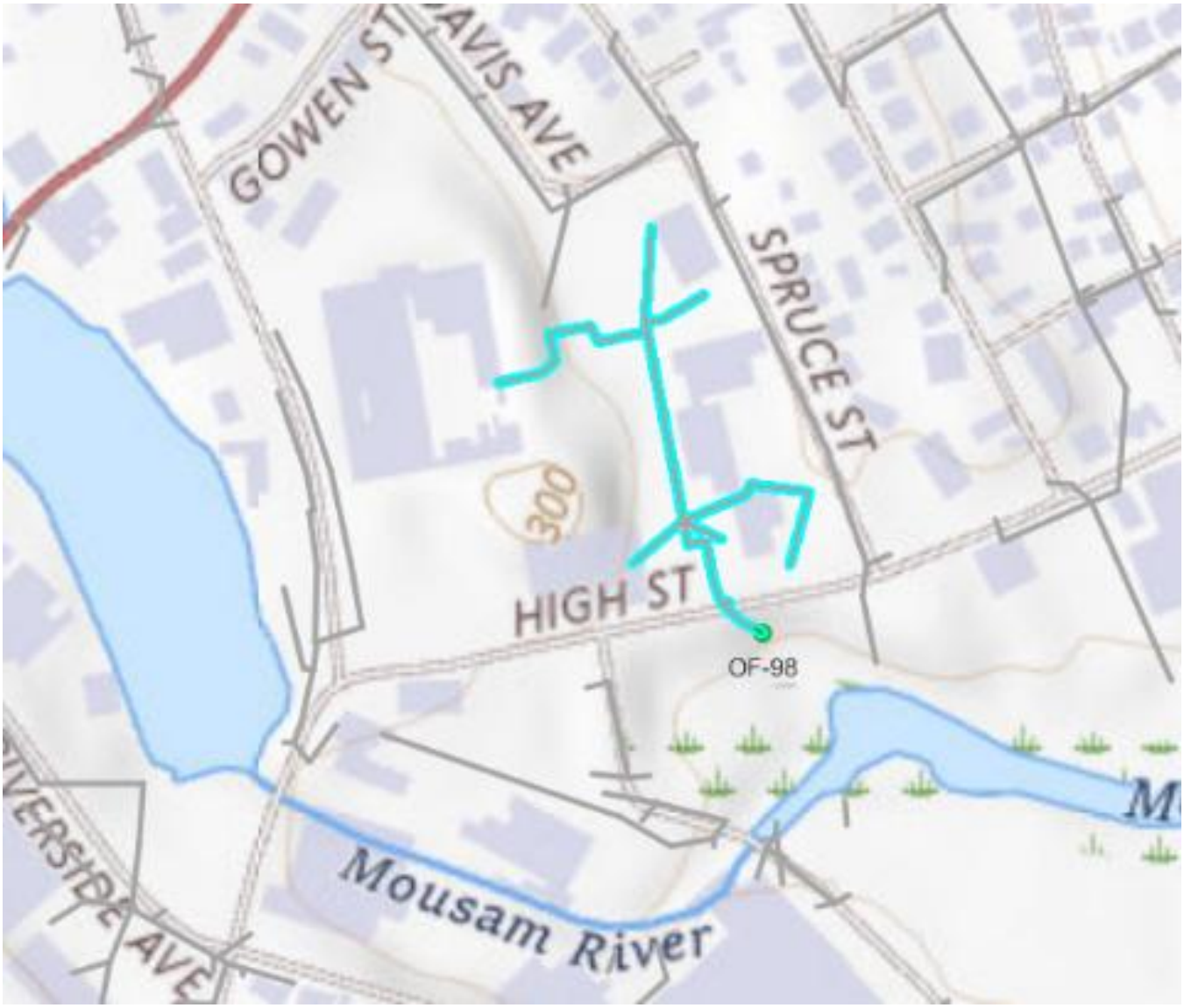
Drainage Network OF-57
OF-57 conveys runoff from approximately 7 acres of urban area through an estimate 36-inch concrete pipe that discharges into an unnamed wetland The contributing drainage area collects stormwater from Helens Way to Tomothy Lane and Tricia Court. Portions of the existing drainage system contain missing or incomplete data; however, it appears the outlet fully conveys stormwater during the 10-year storm event. **TEC recommends that future developments within this drainage area may connect to the existing drainage system, upon verification of existing conditions.**



Drainage Network OF-52
OF-52 conveys runoff from approximately 5 acres of urban area through an estimated 36-inch concrete pipe that discharges into the Mousam River. The contributing drainage area collects stormwater from Weaver Drive to Emery Street. Portions of the existing drainage system contain missing or incomplete data; however, it appears the outlet fully conveys stormwater during the 10-year storm event. **TEC recommends that future developments within this drainage area may connect to the existing drainage system, upon verification of existing conditions.**



Drainage Network OF-330
OF-330 conveys runoff from approximately 5 acres of urban area through an estimated 24-inch concrete pipe that discharges into Goodall Brook. The contributing drainage area collects stormwater from Roberts Street, from Main Street to Trafton Street. Portions of the existing drainage system contain missing or incomplete data; however, it appears the outlet fully conveys stormwater during the 10-year storm event. **TEC recommends that future developments within this drainage area may connect to the existing drainage system, upon verification of existing conditions.**



Drainage Network OF-98
OF-98 conveys runoff from approximately 4 acres of urban area through a 24-inch vitrified clay pipe that discharges into an unnamed wetland associated with the Mousam River. Portions of the existing drainage system contain missing or incomplete data; however, it appears the outlet fully conveys stormwater during the 10-year storm event. **TEC recommends that future developments within this drainage area may connect to the existing drainage system, upon verification of existing conditions.**

Appendix B – GIS Recommendation Memo

TEC, Inc.
2 Monument Square, Suite 301
Portland, ME 04101
207.370.5838

MEMORANDUM

TO: Matthew Hill, P.E.
Director of Public Works
City of Sanford, ME
156 School Street
Sanford, ME 04073

DATE: April 9, 2026

FROM: David Nader, P.E. (TEC, INC.)

PROJECT NO.: T1922.00

RE: Existing Stormwater GIS Recommendation Memorandum

Introduction and Background

The City of Sanford has retained TEC, Inc. to review existing GIS data and provide recommendations for layers, processes, and other suggestions pertaining to the GIS database.

The City of Sanford uses an extensive GIS database within its Public Works operations. One of the uses is to locate and verify existing structures for maintenance and repairs. It is TEC's understanding that as such, the database is continually updated with field observations and completed work.

The extent of this review was within the general Sanford downtown area and adjacent neighborhoods, including Main Street from Spartan Drive to Alfred Road (RT.4). TEC was provided with existing drainage and sewer GIS layers, and performed a 'desktop' review, identifying existing issues including large pipes flowing to smaller pipes, poor condition ratings of existing structures, as well as gaps in available data and encroachments on or under private property or buildings.

With this review TEC has provided in the subsequent sections, a Summary of Findings, as well as a GIS Recommendations section.

Summary of Findings

Areas of Missing Data

The most significant issue with the existing GIS database is the areas of missing data, TEC identified 270 instances where infrastructure data was incomplete, including missing structure and pipe information – such as type, size, material, flow path, etc. – as well as standalone structures with no defined inlets and outlets.

These gaps in the data limit the city's ability to effectively determine which systems are stressed or need repairs and where future tie-ins are not feasible. This is particularly evident along Main Street where there are up to thirty-seven (37) instances of missing data. Understanding the drainage along Main Street is important as Main Street serves as a major tie in for its surrounding neighborhoods. Having accurate and up-to-date information on the drainage systems along Main Street will aid the City in assessing capacity and understanding how future development impacts the system.

Encroachments

TEC located twenty-four (24) encroachments of drainage systems flowing on or under private property or buildings.

While limiting access to infrastructure, encroachments make it harder for the City, and future developments, to upgrade or expand the existing system. Drainage flowing under private property and buildings poses an increased risk to the public in the event of failure. Again, this is evident along Main Street where encroachments pose a higher risk to the neighboring residences, businesses, and schools.

Summary of Findings (Continued)

Undersized Pipes

TEC identified thirteen (13) locations of drainage flowing from a larger pipe into a smaller pipe. Undersized pipes within a closed drainage system can lead to upstream surcharges, potentially leading to flooding in the roadway and nearby residences. These areas also limit the capacity of the existing system, limiting the possibility of tie-ins from future developments in the City's general downtown area.

GIS Recommendations

Based on the findings, TEC recommends the following layers be updated or added to the GIS database:

- During conversations with the City, TEC was made aware of an internal Public Works request system, where residents can call the City Staff regarding roadway defects, maintenance, or repairs and the staff will enter the request. TEC recommends an internal GIS layer be created to identify the locations where work has been requested, problems verified, and issues resolved. This would allow staff to keep record of completed work, and identify reoccurring problem areas. If possible, this 'Maintenance Request' layer could be set up to self-populate with the opening of a ticket.

  Additionally, City staff could utilize the above mentioned 'Maintenance Request' layer to create and complete tickets or items that are identified during routine work or patrol of the City. However, this could also be separated into its own layer to combine with existing internal workflow/backlog tasks, depending on what would fit best for DPW operations.

- TEC recommends the addition of a 'Deficient Drainage System' public layer, which would be able to identify which closed drainage systems are undersized, over capacity, or otherwise unable to carry additional flow from developments. The layer would contain both structures and pipes, and would highlight the known or potential deficiency of the system. This would allow the City and developers to quickly check and make a determination of how to proceed in the area with proposed drainage.

- It is understood the GIS database will continue to be updated as routine maintenance and repairs are completed, however, areas of missing data along Main Street and other major roadways should be prioritized to allow the City to confirm conditions and assess existing capacity of the major drainage systems. To aid with understanding of the system's areas of missing data, encroachments, and undersized pipes, TEC recommends the addition of an internal layer which allows City staff to quickly pull up an area to be investigated further or flagged as areas which additional permissions need to be provided to access.

Please do not hesitate to contact me directly if you have any questions concerning our recommendations at 978-794-1792. Thank you for your consideration.

Sincerely,
TEC, Inc.
*"**T**he **E**ngineering **C**orporation"*



David Nader, PE
Project Manager

Appendix C – TEC Bridge Recommendation Memo

TEC, Inc.
282 Merrimack Street, 2nd Floor
Lawrence, MA 01843
978.794.1792

MEMORANDUM

TO: Matthew Hill, P.E.
Director of Public Works
City of Sanford, ME
156 School Street
Sanford, ME 04073

DATE: June 11, 2026

FROM: Michael Riccardi, P.E. (TEC, INC.)

PROJECT NO.: T1922.00

RE: Stormwater Capital Improvement Plan
Initial Bridge and Culvert Recommendation Memorandum

Introduction and Background

The City of Sanford has retained TEC, Inc. to review the latest MaineDOT bridge and large culvert inspection reports for municipally owned structures.

MaineDOT provides a list of all classified bridges in the City, and TEC identified four (4) structures that are City-owned. A locus map of the structures is provided below in Figure 1.

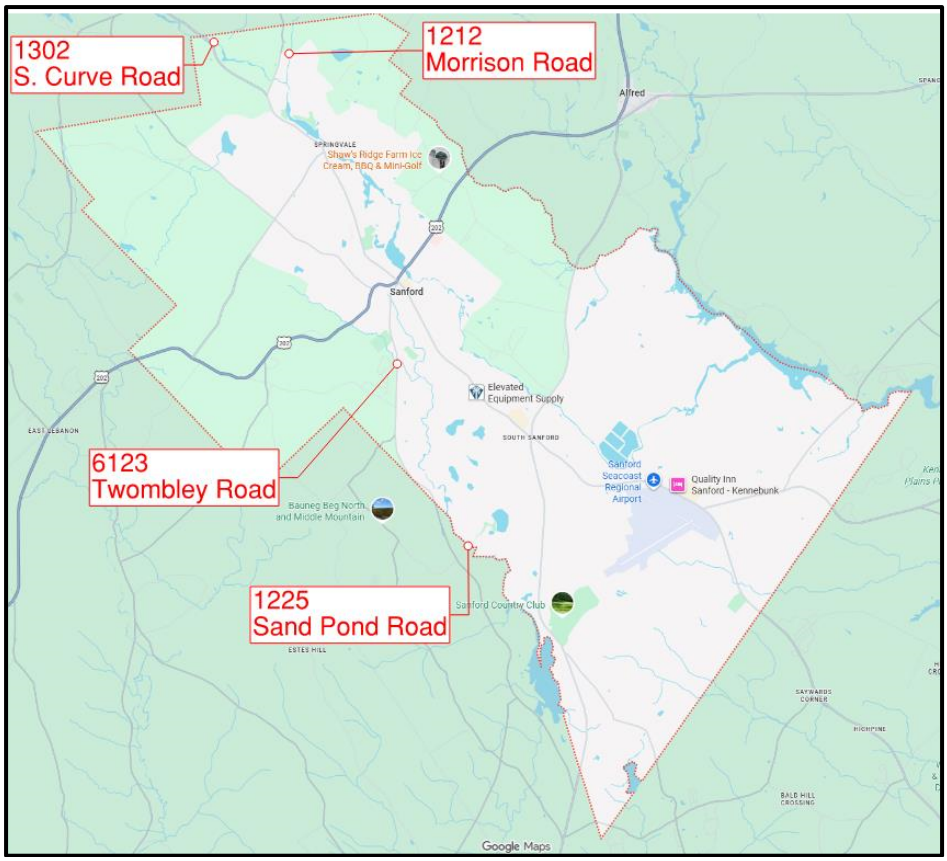


Figure 1: Bridge Locus Map

The extent of this review was to review the inspection reports for the City-owned structures and to provide initial recommendations for the structures based on the reviewed MaineDOT reports.

Inspection Coding

Structure #	Facility Carried	Structure Name	Inspection Date	NBI Item 58	NBI Item 59	NBI Item 60	NBI Item 62
1302	S. Curve Rd.	Jellison	2/18/2026	4	4	5	N
1212	Morrison Rd.	Morrison Brook	3/26/2025	N	N	N	4
6123	Twombley Rd.	Beef Bridge	4/30/2025	N	N	N	5
1225	Sand Pond Rd.	Johnson Mill	10/17/2025	N	N	N	3

Note:
NBI Item 58: Deck
NBI Item 59: Superstructure
NBI Item 60: Substructure
NBI Item 62: Culvert

For reference, the following table summarizes the condition rating codes:

Code	Condition	Description
N	NOT APPLICABLE	Component does not exist.
9	EXCELLENT	Isolated inherent defects.
8	VERY GOOD	Some inherent defects.
7	GOOD	Some minor defects.
6	SATISFACTORY	Widespread minor or isolated moderate defects.
5	FAIR	Some moderate defects; strength and performance of the component are not affected.
4	POOR	Widespread moderate or isolated major defects; strength and/or performance of the component is affected.
3	SERIOUS	Major defects; strength and/or performance of the component is seriously affected. Condition typically necessitates more frequent monitoring, load restrictions, and/or corrective actions.
2	CRITICAL	Major defects; component is severely compromised. Condition typically necessitates frequent monitoring, significant load restrictions, and/or corrective actions in order to keep the bridge open.
1	IMMINENT FAILURE	Bridge is closed to traffic due to component condition. Repair or rehabilitation may return the bridge to service.
0	FAILED	Bridge is closed due to component condition, and is beyond corrective action. Replacement is required to restore service.

Summary of Inspection Report Findings

TEC performed a site visit for each structure in March 2026 to observe each location from the upstream and downstream banks. TEC performed a visual inspection only and did not use any inspection equipment or access to the river(s) to observe documented findings. This summary of findings is based on a review of the most recent routine inspection reports for each structure and has summarized findings for each structure below. The MaineDOT inspection reports for each structure are provided in Appendix 1 – 4 at the end of this report.

South Curve Road - Jellison Bridge (Structure 1302)

The bridge is a 1920 single span structure consisting of steel rolled girders on concrete abutments. There are splayed concrete wingwalls upstream and downstream of the bridge. Photos of the bridge are provided below in Photos 1 & 2. The bridge is currently closed, and jersey barriers block the bridge from both approaches. Only the bottom flanges of the steel girders are visible, and all have 100% paint loss, moderate surface rusting, and three (3) girders have pack rust and minor section loss.

The deck condition is unknown due to steel stay-in-place forms, which are in poor condition with moderate surface rust and section loss throughout. The upstream fascia is spalled with exposed rebar for the entire span. The downstream bridge rail is completely disconnected from the bridge and hangs above the waterway.

The abutments are in fair condition, with minor concrete deficiencies such as cracks and efflorescence. The northeast wingwall is undermined and there is rust staining on the abutments from the superstructure.

The upstream channel appears to be constricted by the bridge opening. At the time of TEC's site visit in March 2026, the river upstream of the bridge was wider than the hydraulic opening provided by the bridge.

Morrison Road - Morrison Brook Bridge (Structure 1212)

The bridge is a 12-foot bolted aluminum pipe arch culvert, built in 1991. Photos of the bridge are provided below in Photos 3 & 4. The northeast corner (upstream side) is bent nearly 2 ft inward, slightly constricting water flow through the culvert. Water can get behind the culvert in this area due to the bend. There are several dents noted in the sides and top of the pipe arch, and a 1 square foot hole is noted in the top of the structure at the upstream end, likely due to guardrail post installation.

There is rust staining throughout the culvert at the waterline, and one hole in the west side near the center of the pipe measuring 4 in. x 6 in. The pipe is undermined approximately 5 ft at both the upstream end and the downstream end and the culvert overhangs the streambed at the downstream end by 1 ft. There appears to be a plunge pool at the outlet, with a tree fallen across the river that is obstructing water flow.

From a traffic safety feature perspective, the report notes multiple deficiencies. The guardrail is low, there is a hole in the south guardrail, the northwest terminal end is missing, and the southeast and southwest terminal ends have collision damage. The southwest terminal end is being used to support a mailbox, which is a hazard.

Twombley Road - Beef Bridge (Structure 6123)
The bridge is a 15-foot bolted steel pipe arch culvert, built in 1972. Photos of the bridge are provided below in Photo 5. There is heavy scaling and rust flaking about 2 foot above and below the water lane with deep pitting. At the upstream end, southwest corner, there is impact damage where a section of the culvert is bent and a rock is laying underneath.

There is damage to the pedestrian chain link fence along the sidewalk on the west side over the structure.

In general, this bridge is in the best condition of the four mentioned in this report.

Sand Pond Road - Johnson Mill Bridge (Structure 1225)
The bridge is an 18-foot bolted steel arch culvert, built in 1981. Photos of the bridge are provided below in Photos 6 – 9. The pipe has heavy rust throughout with rust flaking and heavy scaling. About 70-80% of the corrugations, at both the north and south sides, have holes with backfill actively leaking through. The holes are not continuous, and the walls are not yet distorted or crushing. The bridge is posted for 22 tons based on this section loss.

The report notes damage to the northwest guardrail. There is a posting sign in the south approach, but the sign in the north approach is missing. At the time of the inspection, there was an overweight truck observed driving over the bridge.

The banks both upstream and downstream are soft. There is a tree across both the upstream and downstream channels, causing some ponding downstream. The banks immediately adjacent to the banks are protected by granite blocks. There is erosion at both banks. Similarly to Bridge 1302, the upstream channel appears to be constricted by the bridge opening. At the time of TEC's site visit in March 2026, the river upstream of the bridge was wider than the hydraulic opening provided by the bridge.

There is a large, patched pothole area over the centerline of the culvert that appears to have continued to sink since it was patched.

It is noted that the bridge is at the Sanford/North Berwick town line.

Suggested Maintenance and Recommendations

South Curve Road - Jellison Bridge (Structure 1302)

The inspection report does not provide formal maintenance notes, however based on TECs review of the existing conditions, the City should pursue the following:

- Demolish the existing bridge rather than investigating rehabilitation methods
    - Removing the bridge will not affect traffic patterns, and the pavement in the south approach is deteriorated.
    - Demolition should include removal of the steel bridge railings, asphalt wearing surface, concrete deck, and steel stringers.
    - Remove the concrete abutments and wingwalls to a minimum of 12" below the existing streambed elevation. It is typically not necessary to remove the existing substructure units in their entirety at a stream crossing, avoiding unnecessary excavation within the waterway.
    - Regrade the existing banks and roadway to allow for a more natural stream opening.
- Remove the existing asphalt road on the approaches to the bridge
    - On the south approach to the bridge (from the limit of the existing bridge to Main Street): remove existing asphalt pavement and subbase; replace with suitable borrow material and 4" of loam and seed.
    - On the north approach to the bridge (from driveway of 21 South Curve Road to limit of existing bridge): remove existing asphalt pavement and subbase; replace with suitable borrow material and 4" of loam and seed. Maintain access to 21 South Curve Road driveway
        - Install "DEAD END" (W14-1) sign on South Curve Road at the intersection of South Curve Road and Vermette Lane

Morrison Road - Morrison Brook Bridge (Structure 1212)

The bridge inspection report provided maintenance work items for the structure. At Morrison Road, the inspection report notes the following items should be addressed:

- Maintenance: Remove Debris, fallen tree downstream
- Maintenance: Rehab Culvert, fix upstream bent edge of culvert
- Safety; Repair Approach Guardrail, relocate resident mailbox

Twombley Road - Beef Bridge (Structure 6123)

At Twombly Road, the inspection report notes the following items should be addressed:

- Maintenance: Cut Brush, overgrowth should be cut back
- Maintenance: Clean, clean drain
- Maintenance: Install Bridge Number Sign

In addition to the maintenance notes noted in the inspection reports for Structure 1212 and 6123, the City could investigate mitigation measures in the form of rust removal and cleaning of the existing structures and protecting the culverts at the waterline with an epoxy mastic aluminum paint. This would serve as a chemical and moisture barrier and would protect the culvert from further deterioration. This would be the cheapest and least invasive repair option.

Sand Pond Road - Johnson Mill Bridge (Structure 1225)

The inspection report does not provide formal maintenance notes, however based on TECs review of the existing conditions, the City should pursue the following:

- Perform corrective actions to the erosion on the upstream and downstream banks.
- Remove the fallen trees in both upstream and downstream channels.

Additionally the City should pursue formal investigation into the following alternatives for the culvert itself:

- 1.) Slip line the existing structure (with a corresponding hydraulic analysis to confirm hydraulic capacity is maintained) and grout the annular space between the existing and the proposed structures.
    - The slip lined structure should be designed to remove the weight posting and would provide a solution to stop further deterioration of the structure and stop backfill from continuing to leak through the structure. While this has been successfully completed by MaineDOT historically, this option has seen recent opposition due to environmental concerns by reducing the hydraulic opening.
- 2.) Application of a spray applied structural liner. There is a geopolymer product (by Vortex Companies) that is applied to the inside perimeter of the culvert that increases the structural capacity of the structure with minimal reduction to the hydraulic opening. This product has been utilized on multiple MaineDOT projects, however not for a span of this length. Typically it has been utilized for smaller culverts (spans < 6 feet). Further investigation into its performance would need to be performed. Discussion with MaineDOT on the product is ongoing.
- 3.) Construct a replacement structure with a longer span. Likely any longer span would require a structure consisting of concrete abutments and a steel/concrete superstructure. This would meet 1.2 bankfull width (to satisfy Maine Stream Crossing Standards) and would likely require a road closure to complete construction.
- **TEC could formally investigate the proper recommendation and provide construction cost estimates for this location as part of a future assignment.**

Construction Cost Estimates

As part of this report, TEC is providing approximate 2026 construction costs to perform the suggested maintenance and recommendations for each location.

- Jellison Bridge (1302) - $250,000
- Morrison Brook Bridge (1212) – $150,000
- Beef Bridge (6123) – $75,000
- Johnson Mill Bridge (1225) - $600,000 (slip lining)- $1,250,000 (full replacement)

Note: construction cost estimates are intended to be programmatic in nature only, and TEC could provide formal cost-estimates as part of a future assignment.

The city provided TEC with quotes they obtained from a separate consultant for slip lining of two structures: Twombley Road - Beef Bridge (Structure 6123) and Sand Pond Road - Johnson Mill Bridge (Structure 1225).

The estimated cost of the liner alone for Structure 6123 was $197,125. The estimated cost for the liner alone for Structure 1225 was $451,125. Along with these quotes, the consultant provided the City a guidance document for pricing rule of thumbs that the total cost of a slip lining project can be 2-3x the material cost for the liner. This gives an estimated cost of approximately $400,000 – $600,000 for Structure 6123 and $900,000 - $1,350,000 for Structure 1225.

The liner provided for each price proposal appears to be a Glass Reinforced Polymer (GRP) structural lining system. While this represents one possible option for slip ling the structure(s), TEC notes that there are other products available that can be investigated as part of a future assignment, and notes that slip lining Structure 6123 is not recommended or deemed necessary at this time.

Culvert Flood Risk Explorer

In addition to the inspection report desktop review performed as part of this assignment and this report, TEC has also investigated a mapping system provided by The Nature Conservancy (Nature Conservancy Culvert Flood Risk Explorer) that provides flood risks.

- South Curve Road – HIGH 30-year flood probability
- Morrison Road – LOW 30-year flooding probability
- Twombly Road - LOW 30-year flooding probability
- Sand Pond Road - LOW 30-year flooding probability

Miscellaneous Notes

- TEC obtained existing bridge plans for Bridge 1212, 1225, and 6123 from MaineDOT during this inspection report review. Plans and inspection reports can be forwarded to the City, as requested.
- The City owns other municipal drainage infrastructure in the form of other smaller culverts that are not classified as bridges in MaineDOT's database. These culverts were not reviewed as part of this report.

Please do not hesitate to contact me directly if you have any questions concerning our recommendations at 207-370-5838. Thank you for your consideration.

Sincerely,
TEC, Inc.
*"**T**he **E**ngineering **C**orporation"*



Michael Riccardi, P.E.
Project Manger

Structure 1302 (S. Curve Road) Photos



Photo 1 – Upstream Inlet (looking east)



Photo 2 – Downstream Outlet (looking west)

Structure 1212 (Morrison Road) Photos



Photo 3 – Upstream Inlet (looking southwest)



Photo 4 – Downstream Outlet (looking northeast)

Structure 6123 (Twombley Road) Photos



Photo 5 – Downstream Outlet (looking southwest)

Structure 1225 (Sand Pond Road) Photos



Photo 6 – Downstream Outlet (looking northwest)



Photo 7 – Upstream Inlet (looking southeast)



Photo 8 – Weight limit sign in western approach (coming from North Berwick)



Photo 9 – Surface rusting and holes to inside of culvert at water line. Right photo taken from inspection report.

APPENDIX

APPENDIX 1

Structure 1302 Inspection Report

Highway Bridge Inspection Report

JELLISON
S CURVE RD
over
MOUSAM RIVER



Inspection Date: 02/18/2026

Inspected By: Luke Peaslee

Inspection Type(s): Routine (SNBI)

Inspector:	Peaslee,Luke	**Structure Number:**	1302
Inspection Date:	02/18/2026	**Facility Carried:**	S CURVE RD

Highway Bridge Inspection Report



Latitude: 43.48558

Longitude: -70.82520

Inspector:	Peaslee,Luke	**Structure Number:**	1302
Inspection Date:	02/18/2026	**Facility Carried:**	S CURVE RD

Highway Bridge Inspection Report

Underwater Dive Inspection Report

Structure Number: 1302

Bridge Name: JELLISON BRIDGE

Town 1: 31230 - Sanford

Town 2:

Division: Scarborough

DiveID: 2006

☐ Tidal:

Location: .1 MI N JCT 11&109

Photos:

Tide Information:

Dive Entry Location:

Scour:

Comments/Hazards:

Streambed Description:

Channel Description:

Substructure Description:

Inspection Team:

Role:

Dive Conditions:

Time: Entry: AM/PM

Time: Exit: AM/PM

Water Temp:

Visibility (ft):

Max Depth (ft):

Current:

Weather:

Underwater Inspection Date:

Channel Condition:

Substr/Culvert Condition:

Inspection Cycle:

Ratings Comments:

Inspector:	Peaslee,Luke	**Structure Number:**	1302
Inspection Date:	02/18/2026	**Facility Carried:**	S CURVE RD

Highway Bridge Inspection Report

Inspection Notes

Structure Number: 1302 Town: Sanford

Structure Name: JELLISON

Structure Notes

1920 Single span steel rolled girders on concrete abutments.
2026 ~ Confirmed Bridge Closure 2/18/26

Wearing Surface

Snow covered at this time
Wearing surface has settlement on the upstream end where the most deterioration is seen to the deck as well as some alligator cracking and a large patch above the South abutment..

Deck **SNBI: Deck** 4

Bridge closed. Pervious notes:
Unable to see the deck due to steel forms, which are in poor condition with moderate surface rust and section loss throughout.
The upstream (West) fascia is spalled with exposed rebar for the entire span. With a long crack with active efflo on the bottom of the fascia.
DS Rail damaged (complete failure) - US Bridge rail consists of conc jersey barriers that are not connected.

Superstructure **SNBI: Superstructure** 4

Bridge closed. Pervious notes:
Only the bottom flange of the steel girders are visible. All seven girders have 100% paint loss and minor to moderate surface rust and pitting. Three of the girders have pack rust and minor section loss.

Substructure **SNBI Substructure:** 5

Bridge closed. Pervious notes:
Both abutments have minor voids above ledge.
The Northeast wing wall is undermined 2' deep x 27" high x 5' in length.
The Southeast wing wall has a large full height vertical crack.
Upstream wing walls have cracks and efflo.
Rust staining on the abutments from the superstructure.

Culvert **SNBI Culvert:** N

Inspector:	Peaslee,Luke	**Structure Number:**	1302
Inspection Date:	02/18/2026	**Facility Carried:**	S CURVE RD

Highway Bridge Inspection Report

Channel **SNBI Channel:** 6

Confirmed bridge closure 01/27/24 & 2/18/26
Bridge Closed sign at South end covered by snowbank

Other

Bridge is closed and jersey barriers block both approaches.

Special Inspection

Monitoring

Pontis Notes

Inspector: Luke Peaslee **Structure Number:** 1302

Inspection Date: 02/18/2026 **Facility Carried:** S CURVE RD

Highway Bridge Inspection Report

Pictures



PHOTO 1

Description Bridge Closed

Sketches

APPENDIX 2

Structure 1212 Inspection Report

Inspector:	Stantec,Stantec	**Structure Number:**	1212
Inspection Date:	03/26/2025	**Facility Carried:**	MORRISON RD

Highway Bridge Inspection Report

Inspection Type(s): Routine

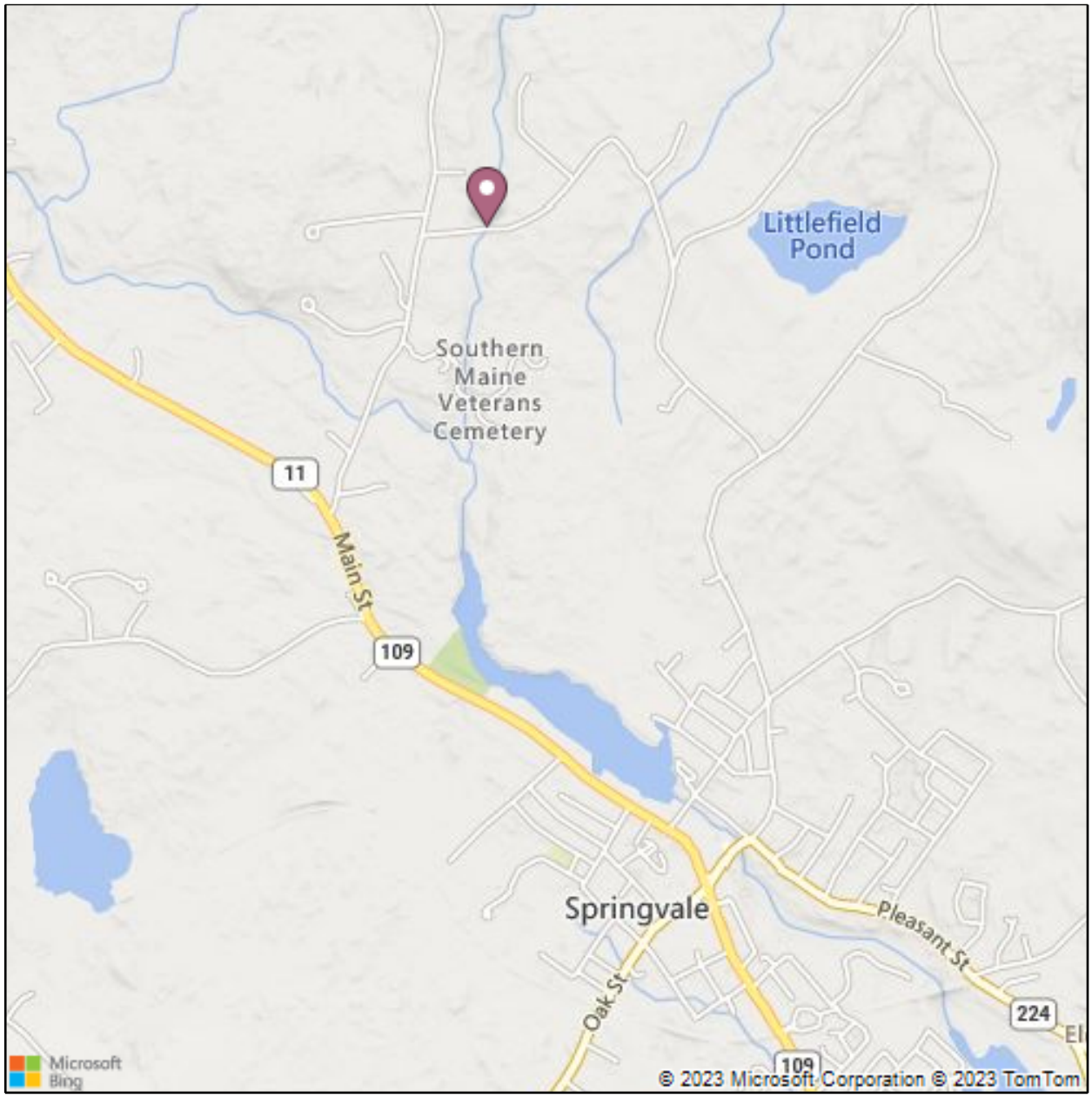
Bridge Name: MORRISON BROOK

Town: Sanford



Inspector:	Stantec,Stantec	**Structure Number:**	1212
Inspection Date:	03/26/2025	**Facility Carried:**	MORRISON RD

Highway Bridge Inspection Report



Latitude: 43.48417

Longitude: -70.80546

Inspection Notes

Structure Number: 1212 Town: Sanford

Structure Name: MORRISON BROOK

Structure Notes

1991 ~ 12 foot bolted aluminum pipe arch culvert. Top Plate Thickness = 0.138in, Bottom and Corner Plate Thickness = 0.188in

Wearing Surface

Deck **NBI Item 58:** N

Superstructure **NBI Item 59:** N

Substructure **NBI Item 60:** N

Culvert **NBI Item 62:** 4

The northeast corner of the culvert is bent roughly 2ft inwards, slowing water flow. There are several dents throughout the sides and top plates, as well as a 1 square foot hole near upstream end in the top plate that most likely occurred during guardrail installation. The hole is filled with rocks and spray foam.
There is discoloration of the aluminum under the water and scattered spots of corrosion freckling above. There is one 4in x 6in hole that has

rotted through on the west side near the center of the pipe. The pipe could not be fully penetrated through any other corrosion spots with the probe.
The upstream end is undermined approximately 5ft along the length of the culvert. The downstream end is undermined approximately 5ft along the length of the culvert and overhangs the streambed by about 1ft.

Channel **NBI Item 61:** 4

Alignment is sufficient into the pipe.
Banks are protected by riprap.
A tree has fallen across about 20ft downstream of the culvert and is obstructing the water flow.
There is slight ponding downstream.

Other

The guardrail is low (2ft-3ft tall). The northwest terminal end is missing. There is a hole in the south guardrail. The southeast and southwest guardrail ends have collision damage.
The southwest terminal end is being used to support a mailbox, which is a hazard.
The bituminous road has transverse cracking and settling in the areas of the cracks, but no settlement is apparent over the culvert.

Special Inspection

Monitoring

Pontis Notes

Pictures



PHOTO 1

Description Roadway looking west



PHOTO 2

Description Roadway looking east

Pictures



PHOTO 3

Description Looking upstream (north)



PHOTO 4

Description Looking downstream (south)

Pictures



PHOTO 5

Description Upstream (north) elevation



PHOTO 6

Description Downstream (south) elevation

Pictures

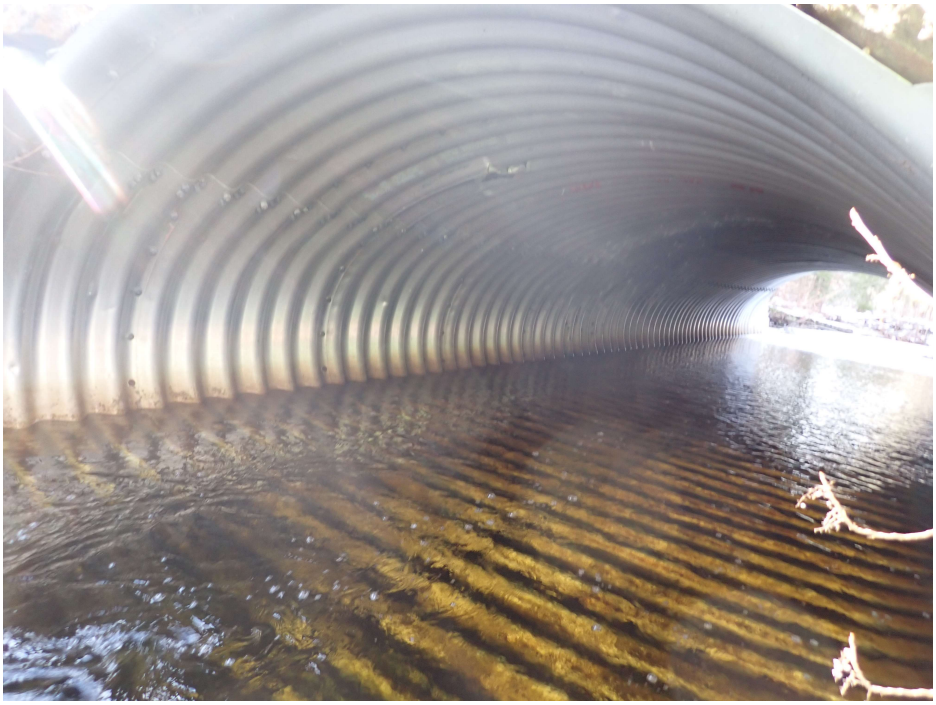


PHOTO 7

Description Culvert looking downstream (south)



PHOTO 8

Description Typical condition of culvert below water line

Pictures



PHOTO 9

Description One square foot hole in top plate near upstream (north) end



PHOTO 10

Description Bent in northeast corner

Pictures



PHOTO 11

Description Upstream (north) guardrail



PHOTO 12

Description Downstream (south) guardrail

Pictures



PHOTO 13

Description Damaged southeast guardrail end



PHOTO 14

Description Guardrail damage at southeast side

Pictures



PHOTO 15

Description Hole in south guardrail



PHOTO 16

Description Puncture hazard at eastbound leading end (southwest terminal end)

Maintenance Work Items

Structure Number: 1212 **Structure Name: MORRISON BROOK**

Town: 31230 **Owner: Stantec,Stantec**

Type	Work Item	Priority	Notes
Maintenance	Remove Debris		Fallen tree downstream
Maintenance	Rehab Culvert		Fix upstream bent edge of culvert
Safety	Repair Approach Guardrail		Relocate resident mailbox

APPENDIX 3

Structure 6123 Inspection Report

Inspector:	Maxim,John	**Structure Number:**	6123
Inspection Date:	04/30/2025	**Facility Carried:**	TWOMBLEY RD

Highway Bridge Inspection Report

Inspection Type(s): Routine

Bridge Name: BEEF BRIDGE

Town: Sanford



Inspector:	Maxim,John	**Structure Number:**	6123
Inspection Date:	04/30/2025	**Facility Carried:**	TWOMBLEY RD

Highway Bridge Inspection Report



Latitude: 43.42527

Longitude: -70.77747

Inspector:	Maxim,John	**Structure Number:**	6123
Inspection Date:	04/30/2025	**Facility Carried:**	TWOMBLEY RD

Highway Bridge Inspection Report

Inspection Notes

Structure Number: 6123 Town: Sanford

Structure Name: BEEF BRIDGE

Structure Notes

1972 ~ 15 foot steel bolted pipe arch culvert. Top Plate Thickness = 0.218", Bottom and Corner Plate Thickness = 0.249"

Wearing Surface

Deck **NBI Item 58:** N

Superstructure **NBI Item 59:** N

Substructure **NBI Item 60:** N

Culvert **NBI Item 62:** 5

There is heavy scaling with flaking about two feet above and below water line with large rust nodules and deep pitting through out.
The upstream end, SW corner has impact damage; where a section (~3sf) is bent up and over and a rock is now laying underneath. This section also has a tear.
Minor rusting around the drain.

Inspector:	Maxim,John	**Structure Number:**	6123
Inspection Date:	04/30/2025	**Facility Carried:**	TWOMBLEY RD

Highway Bridge Inspection Report

Channel **NBI Item 61:** 6

Fair alignment into the pipe.
Down stream banks protected with large rocks.

Other

Moderate damage to pedestrian chain link on west side.
No bridge number signs

Special Inspection

Monitoring

Pontis Notes

Inspector:	Maxim,John	**Structure Number:**	6123
Inspection Date:	04/30/2025	**Facility Carried:**	TWOMBLEY RD

Highway Bridge Inspection Report

Underwater Dive Inspection Report

Structure Number: 6123

Bridge Name: BEEF BRIDGE

Town 1: 31230 - Sanford

Town 2:

Division: Scarborough

DiveID: 4360

☐ Tidal:

Location: .9 MI S JCT 11

Photos:

Tide Information:

Dive Entry Location:

Scour:

Comments/Hazards:

Streambed Description:

Channel Description:

Substructure Description:

Inspection Team:

Role:

Dive Conditions:

Time: Entry: AM/PM

Time: Exit: AM/PM

Water Temp:

Visibility (ft):

Max Depth (ft):

Current:

Weather:

Underwater Inspection Date:

Channel Condition:

Substr/Culvert Condition:

Inspection Cycle:

Ratings Comments:

Pictures



PHOTO 1

Description Dip in roadway



PHOTO 2

Description Downstream

Pictures



PHOTO 3

Description East end



PHOTO 4

Description East rail

Pictures



PHOTO 5

Description Fence damage (2)



PHOTO 6

Description Fence damage

Pictures



PHOTO 7

Description Heavy flaking above the water



PHOTO 8

Description Inlet damaged bent up and a rock is now underneath

Pictures



PHOTO 9

Description Road facing South



PHOTO 10

Description Through the pipe

Pictures



PHOTO 11

Description Upstream



PHOTO 12

Description West end

Pictures



PHOTO 13

Description West rail

Inspector:	Maxim,John	**Structure Number:**	6123
Inspection Date:	04/30/2025	**Facility Carried:**	TWOMBLEY RD

Highway Bridge Inspection Report

Maintenance Work Items

Structure Number: 6123 **Structure Name: BEEF BRIDGE**

Town: 31230 **Owner: Maxim,John**

Type	Work Item	Priority	Notes
Maintenance	Cut Brush		Overgrowth should be cut back
Maintenance	Clean		Clean drain
Maintenance	Install Bridge Number Sign		

APPENDIX 4

Structure 1225 Inspection Report

Highway Bridge Inspection Report

JOHNSON MILL
SAND POND RD
over
GREAT WORKS RIVER



Inspection Date: 10/17/2025

Inspected By: Stantec Stantec

Inspection Type(s): Routine (SNBI)

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Inspector:	Stantec,Stantec	**Structure Number:**	1225
Inspection Date:	10/17/2025	**Facility Carried:**	SAND POND RD

Highway Bridge Inspection Report



Latitude: 43.39056

Longitude: -70.75925

5: LOADS, LOAD RATINGS, AND POSTING

5.1: Loads and Load Rating

B.LR.01: Design Load ..... HS20Plus - Greater than HS-20

B.LR.02: Design Method .....

B.LR.03: Load Rating Date 12/27/2023

B.LR.04: Load Rating Method ..... EJ - Field evaluation and documented engineering judgment

B.LR.05: Inventory Load Rating Factor 22

B.LR.06: Operating Load Rating Factor 22

B.LR.07: Controlling Legal Load Rating Factor 22

B.LR.08: Routine Permit Loads ..... C - Bridge does not carry routine permit loads. Routine permit loads are restricted from the bridge.

5.2: Load Posting Status

B.PS.01: Load Posting Status: PP - Weight

B.PS.02: Posting Status Change Date: 12/27/2023

Inspector:	Stantec,Stantec	**Structure Number:**	1225
Inspection Date:	10/17/2025	**Facility Carried:**	SAND POND RD

Highway Bridge Inspection Report

Inspection Notes

Structure Number: 1225 Town: North Berwick

Structure Name: JOHNSON MILL

Structure Notes

1981 ~ 18 foot steel bolted pipe arch culvert. Top Plate Thickness = 0.218", Bottom and Corner Plate Thickness = 0.218"

Wearing Surface

There is erosion that extends to the edge of the wearing surface throughout the roadway.
There is a 12ft x 2ft patched pothole over the centerline of the culvert in roadway that appears to have continued to sink since it was patched.
There is heavy nested cracking that has been partially sealed.

Deck **SNBI: Deck** N

Superstructure **SNBI: Superstructure** N

Substructure **SNBI Substructure:** N

Culvert **SNBI Culvert:** 3

There are large rust nodules below the waterline and heavy scaling and rust flaking at the waterline.
About 70 -80 percent of the corrugations, on both sides, have holes with backfill leaking through. The holes are not continuous and the walls are not yet distorted or crushing in these locations.

Inspector:	Stantec,Stantec	**Structure Number:**	1225
Inspection Date:	10/17/2025	**Facility Carried:**	SAND POND RD

Highway Bridge Inspection Report

Channel **SNBI Channel:** 6

Banks, upstream and downstream, are soft. There is a tree downstream causing some ponding and a tree across the upstream channel.
Immediate banks are protected by granite blocks.
There is 1ft high erosion on the upstream bank.
There is 5ft high erosion on the downstream north bank.

Other

The northwest guardrail is damaged.
The bridge is posted for 22 Tons with a sign in the south approach. The north approach sign is missing. An overweight truck was observed driving over the bridge at the time of inspection.

Special Inspection

Monitoring

Pontis Notes

Pictures



PHOTO 1

Description Roadway looking north



PHOTO 2

Description Roadway looking south

Pictures



PHOTO 3

Description Looking upstream (west)



PHOTO 4

Description Looking downstream (east)

Pictures



PHOTO 5

Description Downstream (east) elevation



PHOTO 6

Description Patched pothole over culvert and sealed nested cracking

Pictures



PHOTO 7

Description Culvert looking upstream (west)



PHOTO 8

Description Culvert looking downstream

Pictures



PHOTO 9

Description North wall - note corrosion below water line



PHOTO 10

Description South wall - note corrosion below water line

Pictures



PHOTO 11

Description Holes in north wall, typical



PHOTO 12

Description Holes in south wall, typical

Pictures



PHOTO 13

Description Flaking rust typical both walls



PHOTO 14

Description Collision damage to northwest guardrail

Pictures



PHOTO 15

Description Load posting sign

Sketches

Appendix D – Sliplining Quotes

Wiley Hollen

From: Matthew E. Hill <mehill@sanfordmaine.org>
Sent: Tuesday, April 14, 2026 12:10 PM
To: David Nader; Taylor Lynn
Subject: Slip Line of Johns Mill Bridge (Culvert) on Sand Pond Road
Attachments: Sand Pond Road @ Sanford, ME, US - CH 3387-Profile.pdf; MOP145_Calculator V2.89-Sand Pond Road @ Sanford, ME, US - CH 3387.pdf; WAG Price Rule of Thumb.docx

Importance: High

CAUTION: This is an external email.

Please find this preliminary estimate as well. We would split our costs between City of Sanford and Town of North Berwick on this one.

Thanks,

Matthew E. Hill, P.E.
Director of Public Works
City Engineer

(207) 324-9135
156 School Street, Sanford, ME 04073

Sanford
PUBLIC WORKS

www.sanfordmaine.org

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From: Don LeBlanc <don@dlvews.com>
Sent: Friday, April 10, 2026 12:13 PM
To: Matthew E. Hill <mehill@sanfordmaine.org>; Peter L. Smith <plsmith@sanfordmaine.org>; Scott Robitaille <srobitaille@sanfordmaine.org>; dmorin@townofnorthberwick.org; Christian R. Barrett <crbarrett@sanfordmaine.org>
Subject: Sand Pond Road, Sanford, ME
Importance: High

EXTERNAL
This e-mail originated from outside of the City of Sanford E-mail System. **Do Not** click links or open attachments unless you recognize the sender address and know the content is safe.

Gents -

See attached for Sand Pond Road and let's discuss as soon as possible.

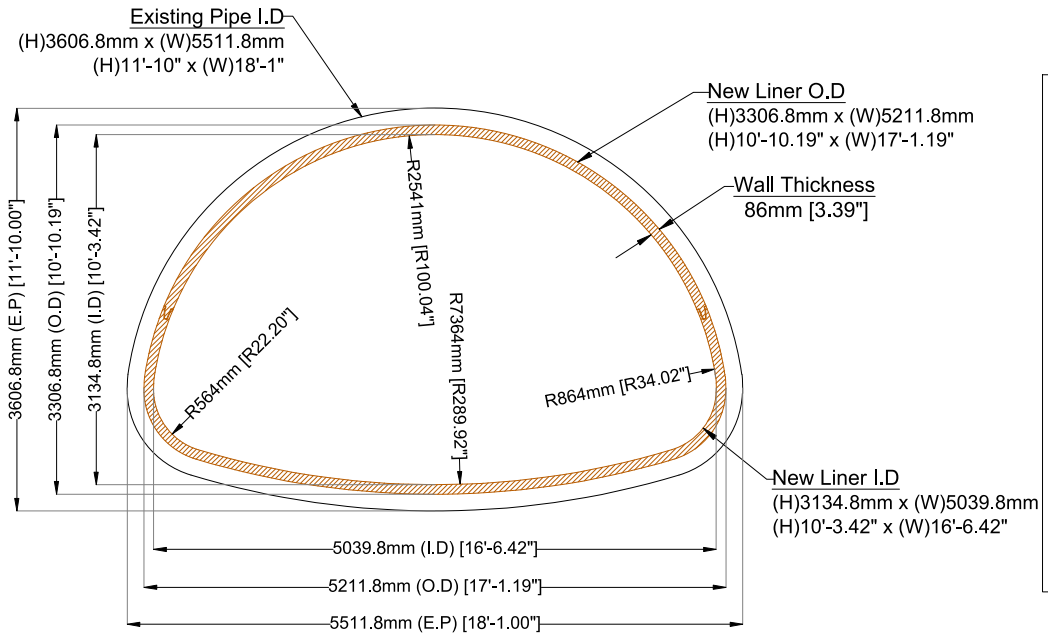
See attachments. Let me know if you have any questions and when you might be available for reviewing this information together. This is the 2nd email and is for **Sand Pond Road**. I'll send you a couple of other emails for the other roads so we can keep them separate.

The **estimated cost of this liner is $451,125** which includes freight as of today.

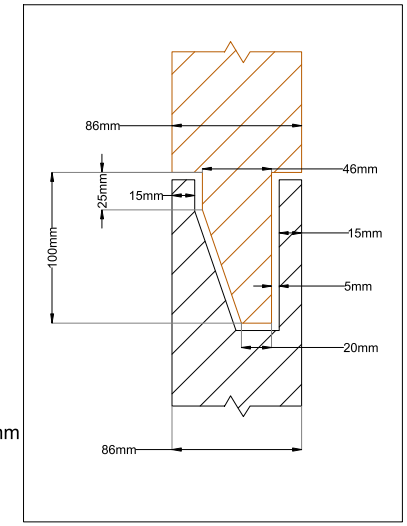
Thanks,

Don LeBlanc, P.E.*
State of Maine
President, DLVEWS, Inc.
C: 207-992-3080

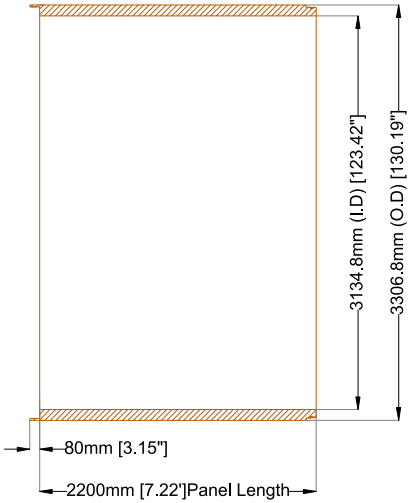
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Proposed New Liner
Profile (2 - Piece)

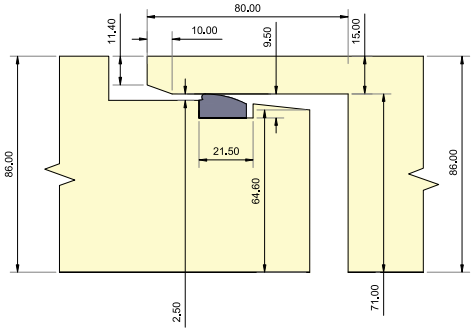


Tongue & Groove Joint Detail



Side View

Joint Detail



New Liner I.D	(H)10'-3.42" x (W)16'-6.42"
Wall Thickness	3.39"
Total Length	74 ft
Unit Length	7.22 ft
Weight	1538 lbs/ft

Existing Pipe I.D

P = 14.688m [48.189ft]

A = 15.616sq.m [168.089sq.ft]

New Liner I.D

P = 13.205m [43.323ft]

A = 12.325sq.m [132.665sq.ft]

CUSTOMER APPROVAL
Name of Company _____
Address _____
Date _____
Signature _____

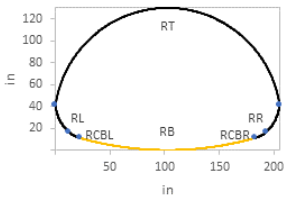
channeline
GRP STRUCTURAL LINING SYSTEMS

ISSUED BY: TIM WEBB	PROJ. TITLE: Sand Pond Road @ Sanford, ME, US		
REVIEWED BY: BB			
DRAWN BY: PT	CLIENT / CONTRACTOR :	DRAWING NO.	REV.
DATE: 01 APR 26	All dimension are in millimeter,u.n.o and with a tolerance of ±2mm.	CH/3387/ME/US/2PA/D01	0

Summary Report

Host Pipe

Shape: Arch
Pipe Material: Flexible
Height (in): 130.19
Width (in): 205.19
Initial Ovality (Ov_0): 0.00%
Design Side: Bottom
Pipe Thickness (in): 0



For the Slip lining method, the host pipe is the outside dimensions of the liner.

Liner Properties

Flex Modulus (E0) (psi): 1,450,377
Flex Modulus Retention(CL,100): 64%
Flex Strength (σ0) (psi): 17,405
Flex Strength Retention (FL,100): 64%
Stress Cracking: Yes
Corrosion Strain: 0.99%
Poisson's Ratio: 0.3
Material Shrinkage: 0.50%

Loads

Design State: State III, Fully deteriorated
Burial Depth to invert (ft): 14.83
Ground Water Depth (ft): 0.00

Load and Resistance Factors: AASHTO

γ_{GW}: 1.6 Φ_{LM}: 0.8
γ_{DL}: 1.3 Φ_{LF}: x
γ_{LL}: 1.75 $\Phi_{L\varepsilon}$: 1

Soil Properties

Ms (psi): 1,000.00
vs: 0.3
Soil Density (pcf): 120.00

Surface Loads

Live Load Standard: HL-93 Design Tandem
Live Load Pressure (psi): 5.053267216
Dead Surface Load (psi): 0

Imperfection

Gap: 0 in
Second Imperfection Type: No Imperfection
Imperfection on the blister? No

Dimension ratio (DR) = Equivalent diameter / thickness : 50.0

Results

Liner Thickness: **3.357 in** = (85.3 mm)

λ_L: 3%

Maximum Liner Deflection
CDR_0 = 2.939

Buckling Stability
CDR_1 = 1.522

Material Strength
CDR_2 = 3.428

Stress Corrosion Cracking
CDR_3 = 6.148

Maximum Hoop Force
CDR_4 = 8.301

CDR_5 = 51.576

Imposed Deferred Ovality
CDR_6 = 2.784

CDR_7 = 2.804

PS = **36.5** psi

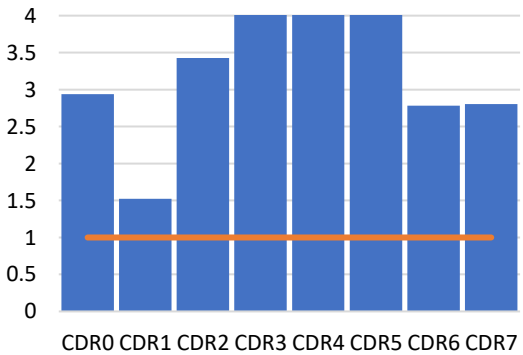
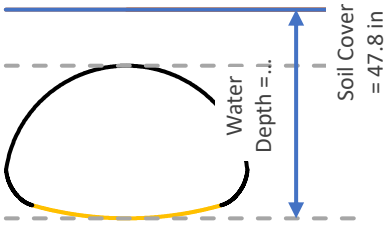


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Host pipe geometry (US Customary Report)



Pipe shape: Arch

tp:	0	**R_B**	**293.3**	**H_{bB}**	**0**	**$\alpha_{B,P}$**	**0.277**
R	293.3	R_T	103.4	H_{bT}	10.85	$\alpha_{T,P}$	1.428
Hb	0	R_R	37.4	H_{bR}	2.06	$\alpha_{R,P}$	0.374
H	70	R_L	37.4	H_{bL}	2.06	$\alpha_{L,P}$	0.372
W	90	R_{CTR}	37.4	**L_B**	**0**	$\alpha_{CTR,P}$	0.374
P	537.4	R_{CTL}	37.4	L_T	0	$\alpha_{CTL,P}$	0.372
D_{equ}	-	**R_{CBR}**	**25.59**	L_R	0	**$\alpha_{CBR,P}$**	**0.233**
Rarc	293.3	**R_{CBL}**	**25.59**	L_L	0	**$\alpha_{CBL,P}$**	**0.235**
P_{liner}	526.9	K =	1		P	537.4	
α_{arc}	14.42	Height	130.2	Width	205.2		
L	146.8						
R_{C1}	23.91						
R_{C2}	23.91	Please refer to notations for units					

Design Side: Bottom

Verify Geometry Condition

T5-32-E3 and T5-14-E1

$$\alpha_{cr} = 2.54 \times (1 + 0.15 \times \delta_g) \times \frac{1}{K^{0.2}} \times \left(\frac{I}{A} \times \frac{P}{R^3}\right)^{0.2}$$

$$\alpha_{cr} = 2.54 \times (1 + 0.15 \times 0) \times \frac{1}{1} \times \left(\frac{3.153}{3.357} \times \frac{526.9}{2E+07}\right)^{0.2} = 0.292 \text{ rad}$$

$$\frac{\alpha_{cr}}{\alpha} = \frac{0.292}{0.252} = 1.159$$ Change to subcritical limit is: 1.06

→ Subcritical Long ← αcr/α is more than1.06

Pipe Stiffness Calculation

(Castigliano Theorem)

PS is determined by applying a force at the midpoint of the top arc, assuming the pipe remains stable under this load. The vertical deflection resulting from this force will be calculated by integrating across the pipeusing below equation where M is the moment resulting from applied F force. where at each length along from 0 from midtop point to L at midbottom point M=F x (horizontal ditance).

$$\Delta y = \int_0^L \frac{M}{EI}\frac{M}{F} ds$$

And the pipe stiffness, based on ASTM D2412, will be determined as follows:

$$PS = \frac{F}{\Delta y} = 36.5 \text{ psi} > 36 \text{ psi}$$ Checked, 36 psi is based on practical experience

Moment Distribution Along the Perimeter for PS Calculation

Stars from top arc midpoint at 0 and end at bottom arc midpoint at length of half perimeter.



Soil Overburden Pressure (p_{soil})

T2-2

$$R_w = 1 - 0.33 \times \frac{H_{w,cr}}{H_{soil,Cr}} = 1 - 0.33 \times \frac{3.984}{3.984} = 0.67 \quad \text{Unitless}$$

$p_{soil} = H_{soil} \times \gamma_s \times R_W /144$

$p_{soil} = 3.984 \times 120 \times 0.67 /144 = 2.224355$ psi

Surface Live Load (p_{LL})

T5-42-E8

The maximum live load on top of liner based on distribution: HL-93 Design Tandem

Boussinesq equation has been used

p_{LL}= 5.053 psi

Hinge Rotation Angles, Deferred and Long-Term in Design for State II (Radians)

T5-63

$R_L = 1.1 \cdot R = 291.6286$ in

$dOv_{III,NC}$ = 0.02 For typical soils

Calculate Blister arc radii (to the neutral axis)

T5-33-E1

$r_1 = \min(R_{c1}, R_{c2}) - t/2$

$r_1 = \min(25.59, 25.59) - 1.679 = 23.91$ in

$r_2 = \max(R_{c1}, R_{c2}) - t/2$

$r_2 = \max(25.59, 25.59) - 1.679 = 23.91$ in

Calculate Length of the straight section

T5-33-E3

If the straight section is not flat

$L = L_{arc} \times (R / R_{arc})$

$L_{arc} = 2 \times R_{arc} \times (\alpha_{arc})$ in

$L_{arc} = 2 \times 293.3 \times (0.252) = 147.6$

→ $L = 147.6 \times (291.6 / 293.3)$

$L = 146.8$ in ##

Calculate Model Parameters

T5-34-E1

$$\beta = \frac{2}{k} \times \frac{I}{A} \times \frac{P}{L^3} = \frac{2}{1} \times \frac{3.153}{3.357} \times \frac{526.9}{3E+06} = 0.000313 \text{ unitless}$$

$$\lambda = \frac{d_L}{L} = \frac{4.403}{146.8} = 0.03$$

$$\theta_1 = \frac{r_1}{L} = \frac{23.91}{146.8} = 0.163 \qquad \theta_2 = \frac{r_2}{L} = \frac{23.91}{146.8} = 0.163$$

$$\alpha_r = \frac{\alpha}{\pi^2} = \frac{1}{2 \times \pi^2} \times \frac{L_{arc}}{R_{arc}} = \frac{1}{2 \times \pi^2} \times \frac{147.6}{293.3} = 0.025495$$

Calculate Model Parameters (continue)

T5-34-E6.1

$$\rho_2 = 1 - \frac{r_2}{R} = 1 - \frac{23.91}{291.6} = 0.918$$

$$g_{12} = 1 + \sqrt{\left(\frac{r_1}{r_2}\right)} \times \sqrt{\left(\frac{R - r_2}{R - r_1}\right)}$$

$$g_{12} = 1 + \sqrt{\left(\frac{23.91}{23.91}\right)} \times \sqrt{\left(\frac{291.6 - 23.91}{291.6 - 23.91}\right)} = 2$$

Calculate Model Parameters (continue)

T5-34-E8

$\eta = 1 + g_{12} \times \theta_2 \times \alpha_2$

$\eta = 1 + 2 \times 0.163 \times 0.327 = 1.106$

$\gamma = g_{12} \times \theta_2^2 \times \alpha_2^3$

$\gamma = 2 \times 0.027 \times 0.035 = 0.002$

$$G = \frac{2 \times g}{k \times \pi \times L}$$

$$G = \frac{2 \times 0}{1 \times \pi \times 146.8} = 0$$

Calculate Model Parameters (continue)

T5-34-E11

$$m = \frac{E100 \times I}{(1- \nu^2) \times L^3}$$

$$m = \frac{9.3E+05 \times 3.153}{(1- 0.09) \times 3E+06} = 1.017$$

$$m_d = \frac{E100,d \times I}{(1- \nu^2) \times L^3}$$

$$m_d = \frac{7.4E+05 \times 3.153}{(1- 0.09) \times 3E+06} = 0.814$$

Calculate Model Parameters (continue)

T5-34-E13

$$n = k \times \frac{E100 \times A}{(1- \nu^2) \times P}$$

$$n = 1 \times \frac{9.282E+05 \times 3.357}{(1- 0.09) \times 526.9} = 6500$$

$$n_d = k \times \frac{E100,d \times A}{(1- \nu^2) \times P}$$

$$n_d = 1 \times \frac{7.426E+05 \times 3.357}{(1- 0.09) \times 526.9} = 5200$$

Additional Model Parameter (ω) (State III)

T5-48

$$\omega = \frac{2 \cdot \theta_{II,L}}{\pi^2} = \frac{2 \cdot 0.000\%}{\pi^2} = 0.000\%$$

Blister angle, α_2 (in arc with greater radius) State II, III

T5-49

$$120\pi^2\theta_1\beta\lambda \cdot P_1 + [(3\lambda \cdot P_1 + 4\rho_2\theta_2\boldsymbol{\alpha_2}^2) + 4 \cdot P_1^2\omega] \cdot (3\lambda^2\pi^2\theta_1 \cdot P_1 + 12G\pi^2\theta_1 \cdot P_1^2 + 2\lambda \cdot P_2) = 0$$

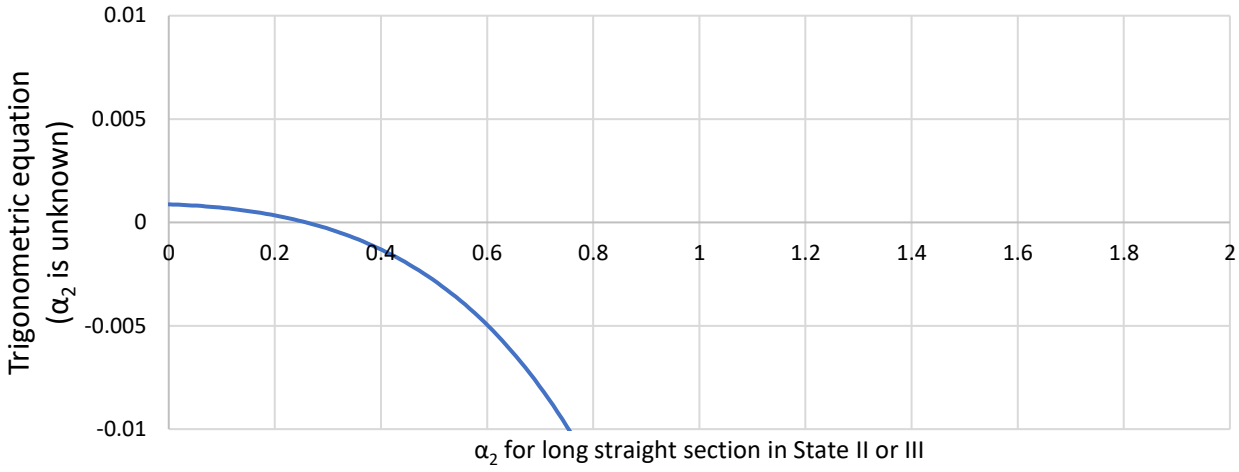
$$P_1 = 1 + g_{12}\theta_2\boldsymbol{\alpha_2}$$

$$P_2 = g_{12}\{-3g_{12}^2 + 2[3 + (-3 + g_{12})g_{12}]\pi^2\} \cdot (1-\rho_2) \cdot \theta_1\theta_2^2\boldsymbol{\alpha_2}^3 + 6\pi^2\theta_1(-\alpha_r + \omega) +$$

$$6\pi^2 g_{12}\theta_1\theta_2 \cdot \boldsymbol{\alpha_2}(-3\alpha_r + 2\omega) - 2\pi^2\theta_2^2\boldsymbol{\alpha_2}^2\{[\theta_1 - \theta_2 \cdot (1-g_{12})^3] \cdot \boldsymbol{\alpha_2} - 3g_{12}^2\theta_1(-3\alpha_r + \omega)\}$$

→ $\boldsymbol{\alpha_2}$ = 0.258842 rad = 14.83 °

Blister angle, α_2 Graph for Long Straight Sections (State II, III)



Blister angle, α_1 (in arc with smaller radius)

T5-35-E8

$$\alpha_1 = \sqrt{\left(\frac{r_2 \times (R - r_2)}{r_1 \times (R - r_1)}\right)} \times \alpha_2$$

$$\alpha_1 = \sqrt{\left(\frac{23.91 \times (291.6 - 23.91)}{23.91 \times (291.6 - 23.91)}\right)} \times 0.258842$$

$\alpha_1 = 0.258842024 = 14.83\ °$

Verify Blister Angle Condition

T5-37-E1

Box or Arch

$$\frac{\alpha_1}{\alpha_{1,pipe}} \leq 2 \rightarrow \frac{0.259}{0.233} = 1.11 \leq 2 \quad \text{Checked}$$

External Pressure at Deflection Limit

T5-38-E2

for long straight section

$p_{\lambda L} = 18.92307$ psi

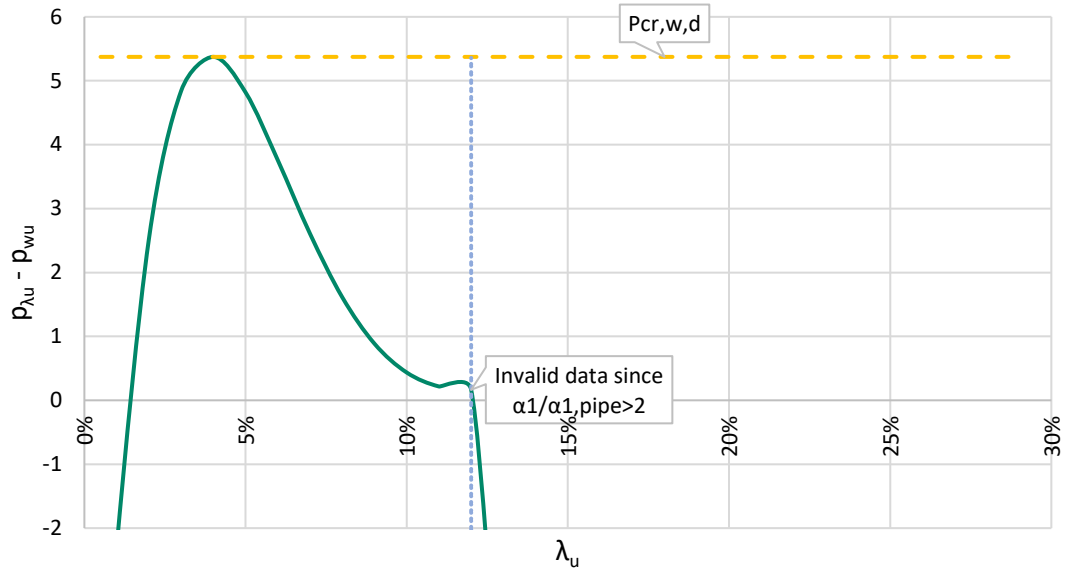
$\eta_L = 1.084347$

$\gamma_L = 0.000921$

$$p_{\lambda L} = \frac{4\pi^4 \cdot m}{\eta^4} \cdot \left[\lambda_L + \frac{1}{144\beta \cdot \eta}\left(6\lambda_L\eta - 4\gamma\rho_2 - 12\eta^3\alpha_r + 12\eta^2\omega\right) \cdot \left(12G\eta^2 + 3\lambda_L{}^2\eta - 4\lambda_L\gamma\rho_2 - 12\lambda_L\eta^3\alpha_r + 12\lambda_L\eta^2\omega\right)\right]$$

Determine Factored Relative Deflection, λ_u (for Long Straight Sections)

T5-38-E2.1



State III → ω = 0.000%

p_{wu} = 10.3 → @ λ_u = 1.41% $p_{\lambda u} \approx p_{wu}$

→ $p_{\lambda u}$ = 10.30976 psi And $P_{cr,w,d}$ = max of above graph + p_{wu} = 15.67 psi

Verify Blister Angle Condition for λ_u: @ λ_u → α_2 = 18.71 → α_1 = 18.71 °

→ $\frac{\alpha_1}{\alpha_{1,pipe}} \leq 2 \rightarrow \frac{0.327}{0.233} = 1.4 \leq 2$ Checked

100-year Design Flex Modulus

T5-26-E1.1 T5-7-E5 T5-13-E2

$E_{100,d} = E_0 \times C_{L,100} \times \Phi_{LM}$

$E_{100,d} = 1{,}450{,}377 \times 0.64 \times 0.8$

$E_{100,d} = 742{,}593$ psi

100-year Design Flex Strength

T5-26-E1.2 T5-7-E5 T5-13-E2

$\sigma_{100,d} = \sigma_F \times F_{L,100} \times \Phi_{LF}$

$\sigma_{100,d} = 17{,}405 \times 0.64 \times 0.9$

$\sigma_{100,d} = 10{,}025$ psi

Design SCC Resistance

T5-26-E1.3 T5-13-E2

$$\varepsilon_{L,d} = \varepsilon_L \times \Phi_{L\varepsilon}$$

$$\varepsilon_{L,d} = 0.0099 \times 1$$

$$\varepsilon_{L,d} = 0.0099$$

Service and Factored Groundwater Pressure

T5-27-E1

$$p_w = \gamma_W \times (H_w - H_b) = 0.434 \times (14.83 - 0) = 6.437522$$

$$p_{w,u} = \gamma_{GW} \times p_w = 1.6 \times 6.438$$

$$p_{w,u} = 10.30004 \text{ psi}$$

Factored Bending Moment in Liner

T5-40-E1 Subcritical

$$M_{w,u} = M_{\lambda u} = 2\pi^2 \times m_d \times L^2 \times \frac{\lambda_u}{\eta^2}$$

$$M_{w,u} = M_{\lambda u} = 2\pi^2 \times 0.813846 \times 21539.05 \times \frac{0.014082}{1.224131}$$

$$M_{w,u} = 3980.374 \text{ lbs-in/in}$$

Factored Hoop Force in Liner

T5-40-E2 Subcritical Long Straight Sections

$$N_{w,u} = N_{\lambda u} = \frac{\pi^2 \cdot n_d}{12} \cdot \frac{L}{\eta^2} \cdot [- 12G\eta^2 + \lambda_u(4\gamma\rho_2 - 3\eta\lambda_u) + 12\eta^3\lambda_u\alpha_r - 12\lambda_u\eta^2\omega]$$

State III → $\omega = 0.000\%$

$$N_{w,u} = 2703.156 \text{ lbs/in}$$

Factored Stress in Liner

T5-29-E3

$$\sigma_{w,f,u} = \frac{6 \times M_{w,u}}{t^2} = \frac{6 \times 3980.374}{11.269449} = 2119.202$$

$$\sigma_{w,h,u} = \frac{N_{w,u}}{t} = \frac{2703.156}{3.357} = 805.2295$$

$$\sigma_{w,c,u} = \sigma_{w,f,u} + \sigma_{w,h,u} = 2119 + 805.2 = 2924.432 \text{ psi}$$

Factored Strain in Liner

T5-29-E4

$$\varepsilon_{w,u} = \frac{\sigma_{w,f,u} - \sigma_{w,h,u}}{E100,d} \times \left(1 - \nu^2 \right)$$

$$\varepsilon_{w,u} = \frac{2119 - 805.2}{742593.024} \times \left(1 - 0.09 \right) = 0.001610189 \text{ in./in}$$

Limit State and Capacity Demand Ratio

T5-30-Subcritical (Long Arc)

$$CDR_1 = \frac{p_{cr,w,d}}{p_{w,u}} = \frac{15.67363}{10.30004} = 1.521706$$

$$CDR_2 = \frac{\sigma F,100,d}{\sigma_{w,c,u}} = \frac{10025.28}{2924.432} = 3.428112$$

$$CDR_3 = \frac{\varepsilon_{L,d}}{\varepsilon_{w,u}} = \frac{0.0099}{0.00161} = 6.148345$$

$$CDR_0 = \frac{p_{\lambda L}}{p_w} = \frac{18.92307}{6.437522} = 2.939496$$

Stability Under all Loads (Critical Hoop Force Coefficients)

T5-6-E1.2

$$R_H = \frac{1-(R/(R+H))^2}{1+(R/(R+H))^2(1-2vs)} = 0.709837$$

R = Span/2 - t/2 = 43.3215

H = Soil cover from surface to the liners top = 47.80702

$$\beta = \frac{1-2v_s}{(1-v_s)^2} = 0.816327$$

Stability Under all Loads (Critical Hoop Force Coefficients)

T5-6-E3

$$N_{cr,m,d} = 1.2 \cdot C_{80} \cdot \left[\frac{\phi_{LM} \cdot E_{50} \cdot I}{1-\nu^2} \right]^{1/3} \cdot \left[\phi_s \cdot M_s \cdot \beta \cdot R_H \right]^{2/3} \qquad C_{80} = 0.55$$

$N_{cr,m,d} = 5416.847$ lbs/in

gives 80% characteristic buckling strength in granular soils

Factored Loads on a Liner in State III

T5-60

$p_{w,u} = p_w \cdot \gamma_{GL} = 2.765795$ psi on the top of liner

$p_{soil,u} = p_{soil} \cdot \gamma_{DL} = 2.891661$ psi

$p_{LL,u} = p_{LL} \cdot \gamma_{LL} = 8.843218$ psi

$p_{SL,u} = p_{SL} \cdot \gamma_{DL} = 0$ psi

$p_{v,u} = p_{w,u} + p_{soil,u} + p_{LL,u} + p_{SL,u} = 14.50067$ psi

Factored Load Effects in State III (Circular)

T5-61-E2

$$N_u = 0.5 \cdot \text{Span} \cdot p_{v,u} = 652.5303 \text{ lbs/in}$$

Capacity demand ratio (for maximum hoop force and maximum hoop stress)

T5-62

$$CDR_4 = \frac{N_{cr,m,d}}{N_u} = \frac{5416.847}{652.5303} = 8.301295 \geq 1 \text{ Checked}$$

$$CDR_5 = \frac{\sigma c,100,d}{N_u/t} = \frac{10025.28}{194.379} = 51.57594 \geq 1 \text{ Checked}$$

In case of the subcritical shape design, this check may be skipped if the depth of the soil cover is 3 ft or greater; but FEA is recommended for burial depth below 3 ft

Non-circular Liner: Response to Parallel Plate Loading. Adjustment Factor

T5-65-E1

Flexible Pipe → $a = 45$, $b = 65.09449$

$$f_3 = 1 + \frac{2 - 4(a/b) + 2(b/a)}{1 + 3.8(a/b) - 0.26(b/a)}$$

$$f_3 = 1 + \frac{2 - 4(0.691) + 2(1.447)}{1 + 3.8(0.691) - 0.26(1.447)} = 1.65456$$

Non-circular Liner: Response to Parallel Plate Loading. Factored strain

T5-65-E2

$$\varepsilon_{ov,(II/III),u} = f_3 \cdot 2.14 \cdot \frac{2 \quad b \quad \cdot \quad dOv_{III,NC}}{R^2} \cdot c$$

$$\varepsilon_{ov,(II/III),u} = 1.655 \cdot 2.14 \cdot \frac{2 \quad 65.09 \quad \cdot \quad 0.02}{3030.20} \cdot 1.679$$

$$\varepsilon_{ov,(II/III),u} = 0.00353$$

Non-circular Liner: Ring in Elastic Continuum (Factored flexural stress)

T5-65-E3

$$\sigma_{ov,III,u} = \frac{E100}{1 - v^2} \times \varepsilon_{ov,III,u}$$

$$\sigma_{ov,III,u} = \frac{928241.3}{1 - 0.09} \times 0.00353 = 3601.128 \text{ psi}$$

Material Strength

T5-54

$$CDR_6 = \frac{\sigma F,100,d}{\sigma_{ov,(II/III),u}} = \frac{10025.28}{3601.128} = 2.783927$$

$$CDR_7 = \frac{\varepsilon_{L,d}}{\varepsilon_{ov,(II/III),u}} = \frac{0.0099}{0.00353} = 2.804246$$

HL-93 Design Tandem Load Distribution on Surface

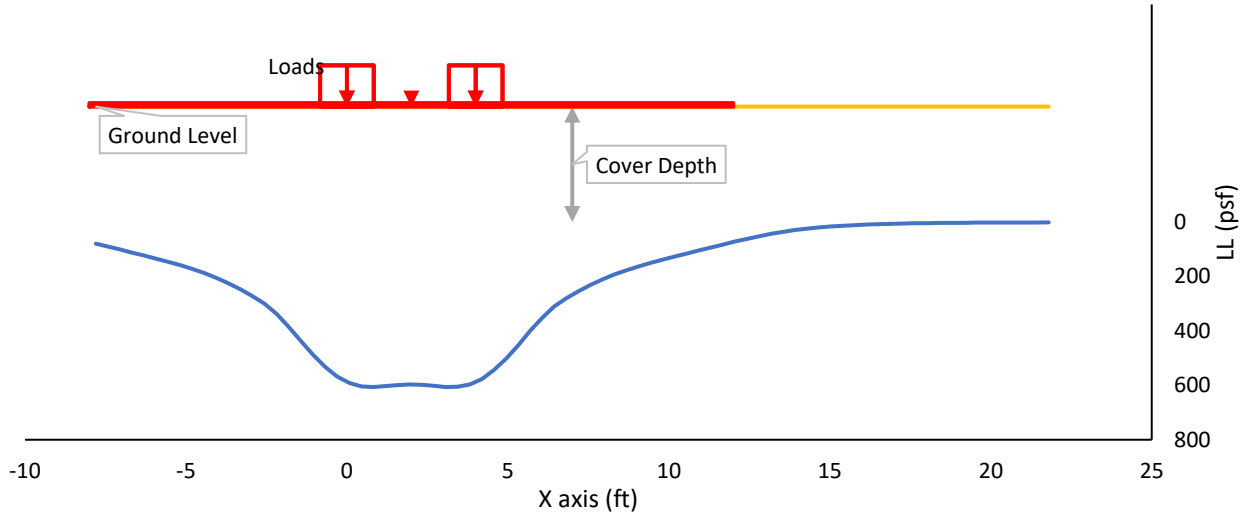
Live Loads (Part 1) Maximum calculted LL pressure is 5.0532672 psi and applied LL is 5.0532672 psi

Load #	-	1	2	3	4	5
Load Name	-	1st Axle W1	1st Axle W2	2nd Axle W1	2nd Axle W2	Uniform Load
Load	lb	12500	12500	12500	12500	640
Load X Dimension	ft	1.667	1.667	1.667	1.667	20.000
Load Y Dimension	ft	0.833	0.833	0.833	0.833	0.833
Pressure	psf	9000.00	9000.00	9000.00	9000.00	768.00
X offset	ft	0	0	4	4	2
Y offset	ft	3	-3	3	-3	0

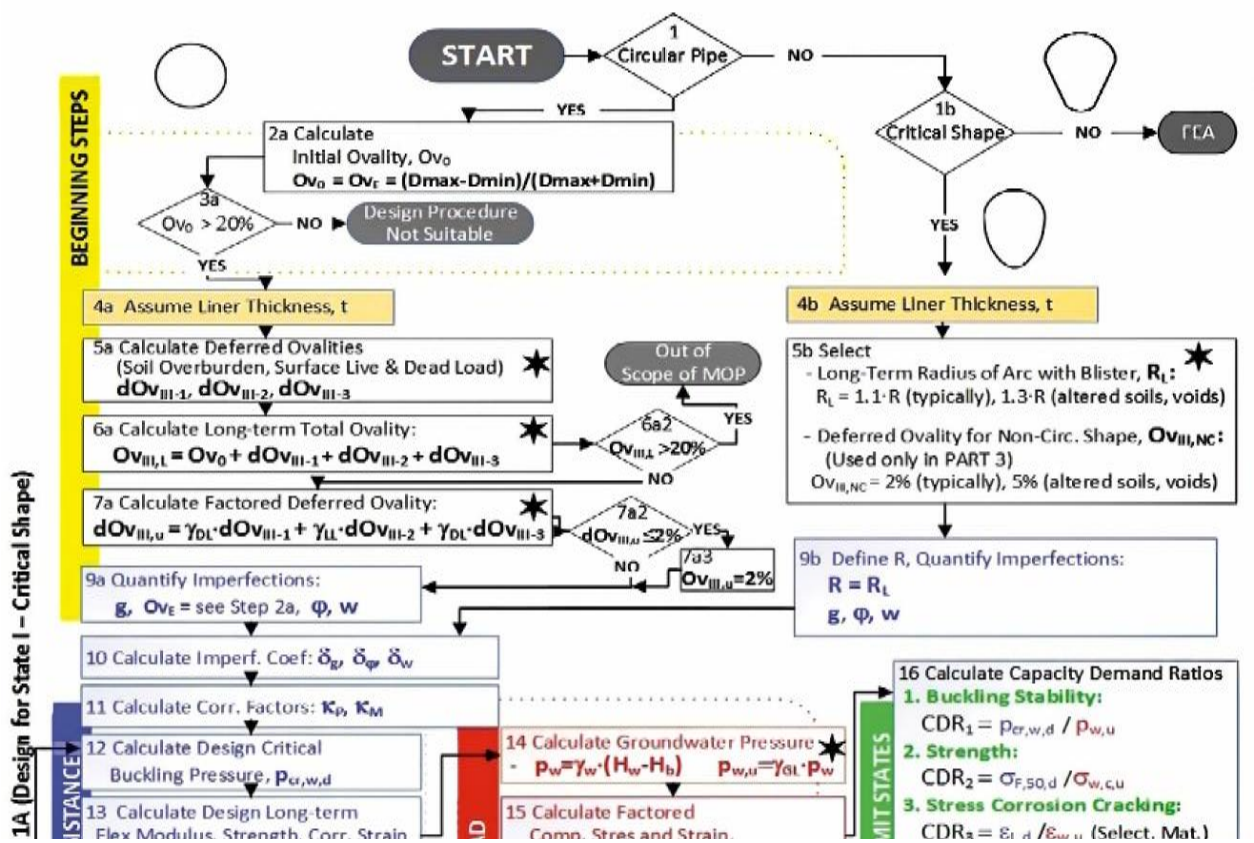
HL-93 Design Tandem Load Distribution on Chart

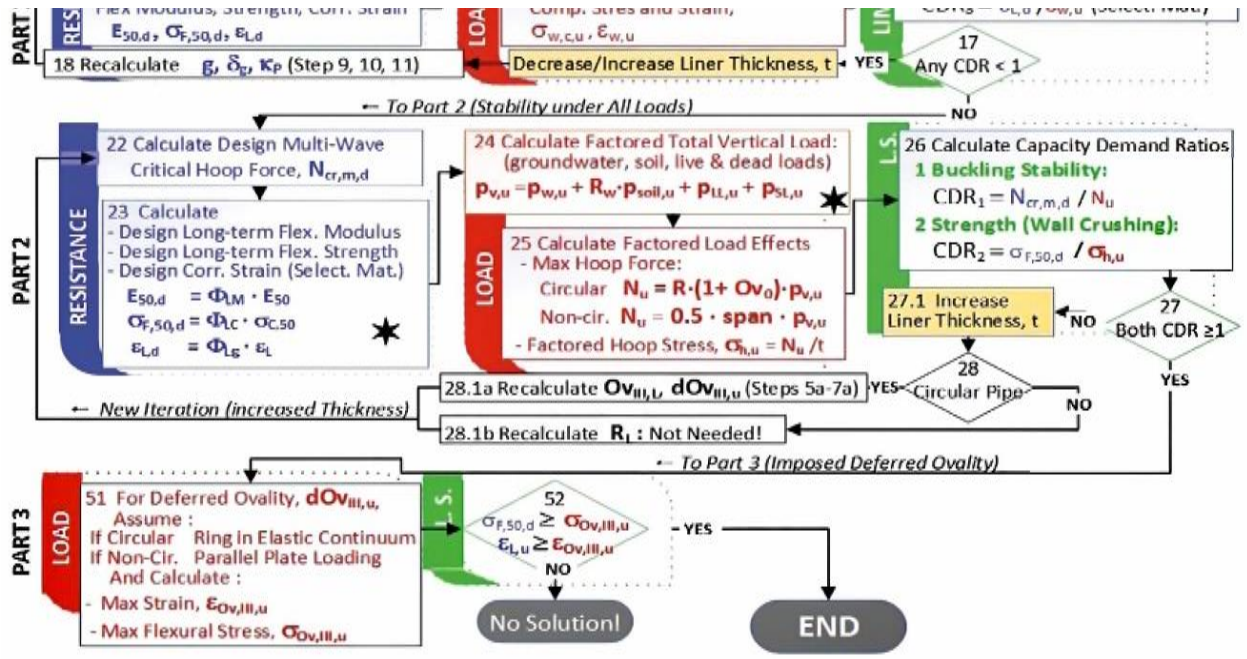
Live Loads Distribution Curve

(LL Pressure distribution at the crown depth, the highest value is taken for calculation)



Flowchart (Source: ASCE MOP145)




PART
RES
LOA
Flex Modulus, Strength, Corr. Strain
$E_{50,d}$, $\sigma_{F,50,d}$, $\varepsilon_{L,d}$
Comp. Stres and Strain,
$\sigma_{w,c,u}$, $\varepsilon_{w,u}$
18 Recalculate g, δ_g, κ_p (Step 9, 10, 11)
Decrease/Increase Liner Thickness, t
YES
17
Any CDR < 1
NO
To Part 2 (Stability under All Loads)
PART 2
RESISTANCE
22 Calculate Design Multi-Wave Critical Hoop Force, $N_{cr,m,d}$
23 Calculate
- Design Long-term Flex. Modulus
- Design Long-term Flex. Strength
- Design Corr. Strain (Select. Mat.)
$E_{50,d} = \Phi_{LM} \cdot E_{50}$
$\sigma_{F,50,d} = \Phi_{LC} \cdot \sigma_{C,50}$
$\varepsilon_{L,d} = \Phi_{LS} \cdot \varepsilon_L$
24 Calculate Factored Total Vertical Load: (groundwater, soil, live & dead loads)
$p_{v,u} = p_{w,u} + R_w \cdot p_{soil,u} + p_{LL,u} + p_{St,u}$
LOAD
25 Calculate Factored Load Effects
- Max Hoop Force:
Circular $N_u = R \cdot (1 + Ov_0) \cdot p_{v,u}$
Non-cir. $N_u = 0.5 \cdot span \cdot p_{v,u}$
- Factored Hoop Stress, $\sigma_{h,u} = N_u / t$
L.S.
26 Calculate Capacity Demand Ratios
1 Buckling Stability:
$CDR_1 = N_{cr,m,d} / N_u$
2 Strength (Wall Crushing):
$CDR_2 = \sigma_{F,50,d} / \sigma_{h,u}$
27.1 Increase Liner Thickness, t
NO
27
Both CDR ≥1
YES
28
Circular Pipe
YES
NO
28.1a Recalculate $Ov_{III,L}$, $dOv_{III,u}$ (Steps 5a-7a)
28.1b Recalculate R_t : Not Needed!
New Iteration (increased Thickness)
To Part 3 (Imposed Deferred Ovality)
PART 3
LOAD
51 For Deferred Ovality, $dOv_{III,u}$,
Assume :
If Circular Ring in Elastic Continuum
If Non-Cir. Parallel Plate Loading
And Calculate :
- Max Strain, $\varepsilon_{Ov,III,u}$
- Max Flexural Stress, $\sigma_{Ov,III,u}$
L.S.
52
$\sigma_{F,50,d} \geq \sigma_{Ov,III,u}$
$\varepsilon_{L,u} \geq \varepsilon_{Ov,III,u}$
YES
NO
No Solution!
END

Notations

α_{arc}	Half angle of a liner's arc where the blister develops, radians.
α_1	In subcritical shapes, the smaller of the two blister angles, radians.
α_2	In subcritical shapes, the greater of the two blister angles, radians. (Also a Coefficient in Calculation of Deferred Ovalities in State III, Unitless)
$\alpha_{1,pipe}$	Angle of the pipe arc (invert or crown or corner) over which α1 extends, radians.
$\alpha_{B,P}$	Half angle of pipe's bottom arc, radians.
$\alpha_{CBL,P}$	Half angle of pipe's bottom-left corner, radians.
$\alpha_{CBR,P}$	Half angle of pipe's bottom-right corner, radians.
α_{cr}	Critical half-angle of the blister, radians.
$\alpha_{CTL,P}$	Half angle of pipe's top-left corner, radians.
$\alpha_{CTR,P}$	Half angle of pipe's top-right corner, radians.
$\alpha_{L,P}$	Half angle of pipe's left arc, radians.
$\alpha_{R,P}$	Half angle of pipe's right arc, radians.
$\alpha_{T,P}$	Half angle of pipe's top arc, radians.
γ_{DL}	Load factor on dead load (soil overburden pressure, surface static load), unitless.
γ_{GW}	Load factor on groundwater pressure, unitless.
γ_{LL}	Load factor on live load (traffic), unitless.
γ_s	Soil density, pcf (kg/m3)
γ_w	Hydrostatic pressure gradient of groundwater (unit weight of water), 0.434 psi/ft (9.81 kN/m3).
δ_g	Imperfection coefficient for annular gap, unitless.
ε_L	Corrosion strain of liner material, in./in (mm/mm)
$\varepsilon_{L,d}$	Design corrosion strain of liner material, i.e., in./in (mm/mm).
$\varepsilon_{ov,II}$	Maximum local strain developed in the liner at the crown owing to ovalization (Design for State II), in./in (mm/mm).
$\varepsilon_{ov,III}$	Maximum local strain developed in the liner at the crown owing to ovalization (Design for State III), in./in (mm/mm).
$\varepsilon_{w,u}$	Factored maximum long-term elongation strain in the liner, in./in (mm/mm). This is elongation at factored groundwater pressure.
κ_M	Amplification factor for critical bending moment, unitless.
$\kappa_{N,4h}$	Amplification factor for hoop force (for 4-hinge ovality), unitless.
κ_p	Reduction factor for critical buckling pressure because of imperfections, unitless.
$\kappa_{p,g}$	Reduction factor for critical buckling pressure because of gap, unitless.
λ	Relative deflection of a liner, unitless.
λ_L	Limit relative deflection (serviceability limit), unitless.
λ_u	Factored relative deflection, that is, relative deflection at factored groundwater pressure, unitless
ν	Poisson's ratio of liner material, unitless.
ν_S	Poisson's ratio of the backfill soil, unitless.
π	3.1415917
$\sigma_{h,u}$	Factored net hoop stress in the liner, psi (kPa).

$\sigma_{w,c}$	Maximum (net) compressive stress in the liner at extreme fibers from groundwater pressure, psi (kpa).
$\sigma_{w,c,u}$	Factored maximum (net) compressive stress in the liner at extreme fibers from groundwater pressure, psi (kpa).
$\sigma_{w,f,u}$	Factored maximum flexural stress in the liner from groundwater pressure, psi (kpa).
$\sigma_{w,h,u}$	Factored maximum hoop stress in liner from groundwater pressure, psi (kpa).
σ_F	Short-term flexural strength of liner material, psi (kpa).
$\sigma_{F,50}$	Long-term (time corrected) flexural strength of liner material at a 50-year service life, psi (kpa).
$\sigma_{F,50,d}$	Design long-term flexural strength of liner (after applying the reduction factor), psi (kpa).
Φ_{LF}	Strength reduction factor (LRFD factor) on a liner's long-term flexural strength, unitless.
$\Phi_{L\varepsilon}$	Strength reduction factor (LRFD factor) on a liner's long-term elongation strength, unitless.
Φ_{LM}	Stiffness reduction factor (LRFD factor) on a liner's long-term flexural modulus, unitless. Also, reduction factor on the liner's long-term buckling stability, unitless.
Φ_S	Strength reduction factor (LRFD factor) on soil constrained modulus, unitless.
A	Cross-sectional area of the unit length of a liner, in2/in (mm2/mm) . For a plain wall, A = t.
a	In a pipe/liner elliptical shape, horizontal semi axis (semimajor). in (mm)
b	In a pipe/liner elliptical shape, vertical semiaxis (semi minor). in (mm)
c	Distance from the liner's neutral axis to the tensile extreme fiber, in (mm).
C_{80}	Correction factor in the formula for a multiwave critical hoop force in the liner, unitless.
CL,100	Creep retention factor for flexural modulus of a liner at 100 years, unitless.
CDR	Capacity Demand Ratio, unitless.
CDR_0	Capacity Demand Ratio for deflection, unitless.
CDR_1	Capacity demand ratio for buckling pressure, unitless.
CDR_2	Capacity demand ratio for compressive stress, unitless.
CDR_3	Capacity demand ratio for flexural strain (elongation), unitless.
CDR_4	Capacity demand ratio for buckling pressure under all loads (State III), unitless.
CDR_5	Capacity demand ratio for wall crushing under all loads (State III), unitless.
d	Liner deflection, in (mm).
d_L	Deflection limit, that is, maximum permissible deflection of a liner as serviceability requirement, in (mm).
D_{equ}	Equivalent diameter (Dequ = P/π), in (mm).
D_{max}	Host pipe's maximum (horizontal) inside diameter, in circular pipes showing ovality, in (mm).
D_{min}	Host pipe's minimum (vertical) inside diameter, in circular pipes showing ovality, in (mm).
$dOv_{III,NC}$	Deferred "ovality" in a noncircular pipe (Design for State III), unitless.
E	Short-term elastic (Young's) modulus of liner material, psi (kPa).
E'	Modulus of soil reaction, psi (kPa).
E_0	Short-term flexural modulus of liner material (ASTM D790), psi (kPa).
E100	Long-term flexural modulus of liner material (ASTM D2990) at a 100-year service life, psi (kPa).
E100,d	Design long-term flexural modulus of liner material (ASTM D2990) at a 100-year service life, psi (k
F_L	Long-term coefficient of relative stiffness, unitless.
FL,100	Flexural strength retention factor of a liner at 100 years, unitless.

g	Annular gap between a liner and a host pipe, in (mm).
g_{max}	Recommended limit for annular gap (Design for States I, II, III), in (mm).
H	Depth of burial. Same as hsoil, ft (m).
H_b	Head of the center of a blister above the pipe invert (vertical distance), ft (m).
H_{bB}	Head of the center of buttom arc above the pipe invert (vertical distance), ft (m).
H_{bL}	Head of the center of left arc above the pipe invert (vertical distance), ft (m).
H_{bR}	Head of the center of right arc above the pipe invert (vertical distance), ft (m).
H_{bT}	Head of the center of top arc above the pipe invert (vertical distance), ft (m).
h_{soil}	Soil cover thickness (pavement excluded) above the top of a pipe, ft. (m) Note: In Design for State I and II, hsoil is measured to the pipe; in Design for State III, it is measured to the liner. The measurement is taken from the soil surface to the outside wall (top) of the pipe or liner in the pipe crown area.
H_w	Head of water above a pipe invert, ft (m). Note: For the calculation of the groundwater pressure, Hw is taken at the pipe invert. For the calculation of the buoyancy factor, Hw is taken at the pipe crown and, just as it is for hsoil, it is measured to the pipe in Design for State I and II, and to the liner in Design for State III.
I	Area moment of inertia of the unit length of a liner, in.4/in (mm4/mm). For a plain wall, I = t3/12.
k	Buckling mode (deformation mode), that is, the number of blisters that develop because of external pressure. 1 or 2.
k_2	Lateral earth pressure coefficient, unitless.
L	Length of the straight section in a subcritical pipe shape, in (mm).
L_B	Length of the bottom straight section in a subcritical pipe shape, in (mm).
L_L	Length of the left straight section in a subcritical pipe shape, in (mm).
L_R	Length of the right straight section in a subcritical pipe shape, in (mm).
L_T	Length of the top straight section in a subcritical pipe shape, in (mm).
$M_{\lambda u}$	Factored maximum bending moment at the factored relative deflection, λu, that is, maximum bending moment from factored groundwater pressure (per unit length) lbs-in./in (N-mm/mm).
$M_{cr,w,d}$	Design critical bending moment for a liner under groundwater pressure (per unit length), lbs-in./in (N-mm/mm).
M_S	Constrained soil modulus, psi (kPa).
M_w	Max bending moment in the liner (per unit length) from groundwater pressure, lbs-in./in (N-mm/mm).
$M_{w,u}$	Factored max bending moment in the liner (per unit length) from factored groundwater pressure, lbs-in./in (N-mm/mm).
N_{cr}	Critical hoop force (per unit length), lbs/in (N/mm).
$N_{cr,m,d}$	Design multiwave critical hoop force (per unit length), lbs/in (N/mm).
$N_{cr,w,d}$	Design hoop force for a liner under groundwater pressure (per unit length), lbs/in (N/mm).
$N_{\lambda u}$	Factored hoop force at the factored relative deflection, λu, that is, hoop force from factored groundwater pressure (per unit length), lbs-in./in (N-mm/mm).
N_u	Factored hoop force (per unit length), lbs/in.
N_w	Hoop force in a liner (circumferential) from groundwater pressure (per unit length), lbs/in (N/mm).

$N_{w,u}$	Factored hoop force in a liner (circumferential) per unit length from factored groundwater pressure, lbs/in (N/mm).
Ov_0	Initial ovality at the time of rehabilitation (Design for State I, II, III), unitless.
$Ov_{III,L}$	Long-term total ovality (Design for State III), unitless.
Ov_E	Ovality of an elliptical type, unitless.
P	Perimeter of a liner at the neutral axis, in (mm).
p_{cr}	Critical buckling pressure, psi (kPa).
$p_{cr,w}$	Critical buckling pressure for a liner under groundwater pressure, psi (kPa).
$p_{cr,w,d}$	Design critical buckling pressure for a liner under groundwater pressure, psi (kPa).
p_λ	External (groundwater) pressure on a liner at relative deflection λ, psi (kPa).
$p_{\lambda L}$	External (groundwater) pressure on a liner at the relative deflection λL, psi (kPa).
$p_{\lambda u}$	Factored groundwater pressure on a liner (pλu = pw,u), psi (kPa). This pressure causes a factored relative deflection, λu.
p_{LL}	Surface live load, psi (kPa).
$p_{LL,u}$	Factored surface live load, psi (kPa).
p_{SL}	Surface static load, psi (kPa).
$p_{SL,u}$	Factored surface static (dead) load, psi (kPa).
p_{soil}	Soil overburden, psi (kPa).
$p_{soil,u}$	Factored soil overburden pressure, psi (kPa).
$p_{v,u}$	Factored total load (vertical pressure) on top of a liner, psi (kPa).
p_w	Service groundwater pressure on a liner, psi (kPa).
$p_{w,u}$	Factored groundwater pressure on a liner, psi (kPa).
R	In a circular pipe, the radius of a liner (measured to the liner's neutral axis), in (mm). In a noncircular pipe, the radius of a liner arc where the blister develops (measured to the liner's
r_1	In a subcritical shape, the radius of a smaller liner arc that is adjacent to the "straight" section from where a blister spreads (measured to the neutral axis), in (mm).
r_2	In a subcritical shape, the radius of greater liner arc that is adjacent to the "straight" section from where the blister spreads (measured to the neutral axis), in (mm).
R_{arc}	Radius of a pipe arc where the blister develops (measured to the pipe wall), in (mm).
R_B	Radius of the bottom side of the pipe, in (mm).
R_{CBL}	Radius of the bottom-left corner of the pipe, in (mm).
R_{CBR}	Radius of the bottom-right corner of the pipe, in (mm).
R_{cor}	Radius of a pipe arc at the corner (measured to the pipe wall), in (mm). Rc
R_{CTL}	Radius of the top-left corner of the pipe, in (mm).
R_{CTR}	Radius of the top-right corner of the pipe, in (mm).
R_L	Long-term radius of a pipe arc with a blister (Design for State III), in (mm). And Radius of the left side of the pipe, in (mm).
R_R	Radius of the right side of the pipe, in (mm).
R_T	Radius of the top side of the pipe, in (mm).
R_w	Water buoyancy factor, unitless.

s	Liner material shrinkage, %.
span	Liner's span (external width), in (mm). Roughly, the host pipe's inside width, as designed and built
t	Thickness of the liner, in (mm).
t_P	Wall thickness of the host pipe, in (mm).
w_{crack}	Crack (opening) width, in (mm).

Wiley Hollen

From: Matthew E. Hill <mehill@sanfordmaine.org>
Sent: Tuesday, April 14, 2026 12:09 PM
To: David Nader; Taylor Lynn
Subject: Twombley Road Large Culvert Repair Estimate
Attachments: Arch Pipe @ Twombley Rd, Sanford, US -CH3401 R1-Profile.pdf; MOP145 -Arch Pipe @ Twombley Rd, Sanford, US -CH3401 R1.pdf; Channeline_brochure 2025.pdf; WAG Price Rule of Thumb.docx

Importance: High

CAUTION: This is an external email.

Please find the email below and attachments concerning estimated costs for slip line repair of some of our larger and more problematic culverts.

Matthew E. Hill, P.E.
Director of Public Works
City Engineer

(207) 324-9135
156 School Street, Sanford, ME 04073

Sanford
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From: Don LeBlanc <don@dlvews.com>
Sent: Friday, April 10, 2026 12:03 PM
To: Matthew E. Hill <mehill@sanfordmaine.org>; Peter L. Smith <plsmith@sanfordmaine.org>; Christian R. Barrett <crbarrett@sanfordmaine.org>
Cc: Scott Robitaille <srobitaille@sanfordmaine.org>; 'Dwayne Morin' <dmorin@townofnorthberwick.org>
Subject: Re: Culvert Review for GRP Application
Importance: High

Hello Matt and Co -

See attachments. I would very much like to schedule a Teams call to walk you through the various shape profiles and designs. Let me know if you have any questions and when you might be available for reviewing this information together. This is the 1st email and is for **Twombley Road**. I'll send you a couple of other emails for the other roads so we can keep them separate.

The **estimated cost of this liner is $197,125** which includes freight as of today.

Total estimated cost including the liner usually estimated ~ 2.5X to 3X the cost of the liner. Given that there was not much sediment in the pipe, I do not foresee a ton of cleaning costs. See attached WAG rule of thumb that I have used for years and seems to hold pretty true.

Thanks,

Don LeBlanc, P.E.*
State of Maine
President, DLVEWS, Inc.
C: 207-992-3080

From: mehill@sanfordmaine.org
When: 9:00 AM - 10:30 AM March 25, 2026
Subject: Culvert Review for GRP Application
Location: 156 School Street

Meet to review culverts at:

Sand Pond Road
Twombley Road
Morrison Road

Dwayne, we should be to the Johnson Mill Bridge (culvert) around 9:15 or so. You can reach me at (207) 272-8279 to confirm.

Thanks,

Matthew E. Hill, P.E.
Director of Public Works
City Engineer

(207) 324-9135
156 School Street, Sanford, ME 04073

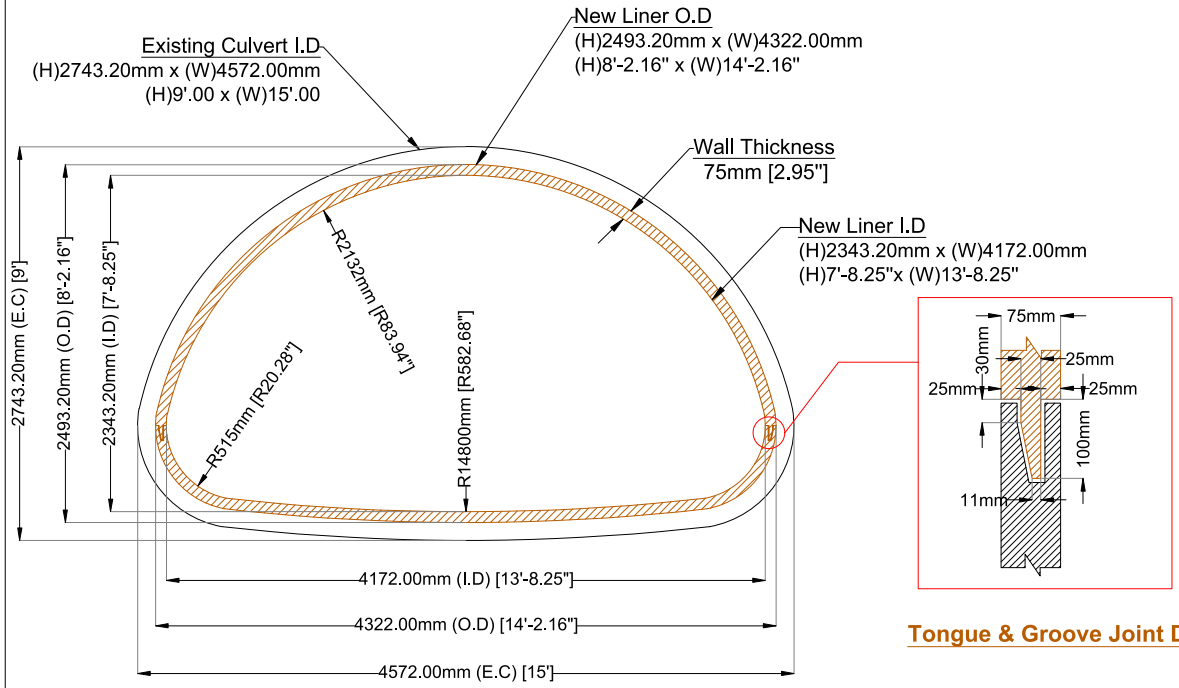


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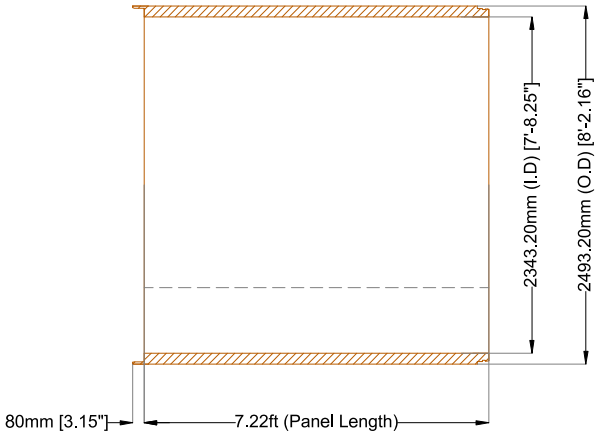
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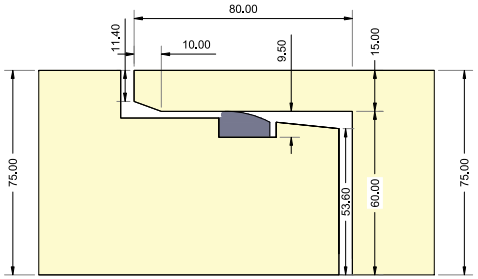
Proposed New Liner
Profile (2-Piece)

Tongue & Groove Joint Detail



Side View

Joint Detail



New Liner I.D	(H)7'-8.25" x (W)13'-8.25"
Wall Thickness	75mm[2.95"]
Total Length	43LF
Unit Length	7.22ft
Weight	1085Lbs/LF

Existing Culvert I.D
P = 11.936m [39.160ft]
A = 9.966sq.m [107.273sq.ft]

New Liner I.D
P = 10.679m [35.036ft]
A = 7.705sq.m [82.935sq.ft]

CUSTOMER APPROVAL
Name of Company _____
Address _____
Date _____
Signature _____

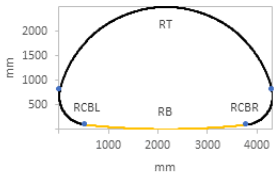
channeline
GRP STRUCTURAL LINING SYSTEMS

ISSUED BY: TIM WEBB	PROJ. TITLE: Arch Pipe @ Twombley Rd, Sanford, US		
REVIEWED BY: BB			
DRAWN BY: VP	CLIENT / CONTRACTOR :	DRAWING NO.	REV.
DATE: 09 APR. 26	All dimension are in millimeter,u.n.o and with a tolerance of ±2mm.	DWG No: CH/3401/US/SF/2PA/D01	01

Summary Report

Host Pipe

Shape: Arch
Pipe Material: Flexible
Height (in): 98.16
Width (in): 170.16
Initial Ovality (Ov_0): 0.00%
Design Side: Bottom
Pipe Thickness (in): 0



For the Slip lining method, the host pipe is the outside dimensions of the liner.

Liner Properties

Flex Modulus (E0) (psi): 1,450,377
Flex Modulus Retention(CL,100): 64%
Flex Strength (σ0) (psi): 17,405
Flex Strength Retention (FL,100): 64%
Stress Cracking: Yes
Corrosion Strain: 0.99%
Poisson's Ratio: 0.3
Material Shrinkage: 0.50%

Loads

Design State: State III, Fully deteriorated
Burial Depth to invert (ft): 12.00
Ground Water Depth (ft): 0.00

Load and Resistance Factors: AASHTO

γ_{GW}: 1.6 Φ_{LM}: 0.8
γ_{DL}: 1.3 Φ_{LF}: x
γ_{LL}: 1.75 $\Phi_{L\varepsilon}$: 1

Soil Properties

Ms (psi): 1,000.00
vs: 0.3
Soil Density (pcf): 120.00

Surface Loads

Live Load Standard: HL-93 Design Truck
Live Load Pressure (psi): 5.121241579
Dead Surface Load (psi): 0

Imperfection

Gap: 0 in
Second Imperfection Type: No Imperfection
Imperfection on the blister? No

Dimension ratio (DR) = Equivalent diameter / thickness : 46.8

Results

Liner Thickness: **2.923 in** = (74.2 mm)

λ_L: 3%

Maximum Liner Deflection
CDR_0 = 1.536

Buckling Stability
CDR_1 = 1.308

Material Strength
CDR_2 = 1.126

Stress Corrosion Cracking
CDR_3 = **1.08**

Maximum Hoop Force
CDR_4 = 7.194

CDR_5 = 45.26

Imposed Deferred Ovality
CDR_6 = 3.442

CDR_7 = 3.467

PS = 42.8 psi

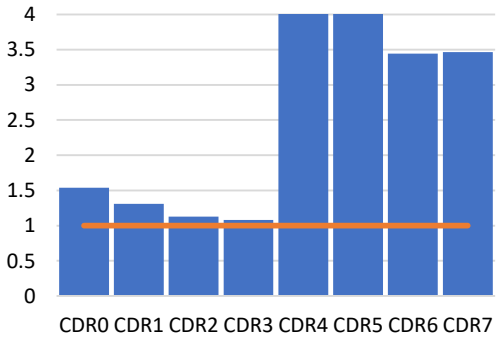
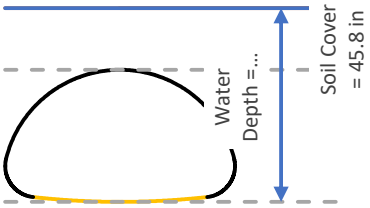


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Host pipe geometry (US Customary Report)



Pipe shape: Arch

tp:	0	**R_B**	**585.6**	**H_{bB}**	**0**	**$\alpha_{B,P}$**	**0.11**
R	585.6	R_T	86.89	H_{bT}	8.18	$\alpha_{T,P}$	1.331
Hb	0	R_R	0	H_{bR}	1.41	$\alpha_{R,P}$	0
H	70	R_L	0	H_{bL}	1.41	$\alpha_{L,P}$	0
W	90	R_{CTR}	0	**L_B**	**0**	$\alpha_{CTR,P}$	0
P	438.7	R_{CTL}	0	L_T	0	$\alpha_{CTL,P}$	0
D_{equ}	-	**R_{CBR}**	**23.23**	L_R	0	**$\alpha_{CBR,P}$**	**0.845**
Rarc	585.6	**R_{CBL}**	**23.23**	L_L	0	**$\alpha_{CBL,P}$**	**0.845**
P_{liner}	429.5	K =	1	P	438.7		
α_{arc}	5.732	Height	98.16	Width	170.2		
L	116.9						
R_{C1}	21.77						
R_{C2}	21.77	Please refer to notations for units					

Design Side: Bottom

Verify Geometry Condition

T5-32-E3 and T5-14-E1

$$\alpha_{cr} = 2.54 \times (1+0.15 \times \delta_g) \times \frac{1}{K^{0.2}} \times \left(\frac{I}{A} \times \frac{P}{R^3}\right)^{0.2}$$

$$\alpha_{cr} = 2.54 \times (1+0.15 \times 0) \times \frac{1}{1} \times \left(\frac{2.081}{2.923} \times \frac{429.5}{2E+08}\right)^{0.2} = 0.175 \text{ rad}$$

$$\frac{\alpha_{cr}}{\alpha} = \frac{0.175}{0.1} = 1.745$$ Change to subcritical limit is: 1.06

→ Subcritical Long ← αcr/α is more than1.06

Pipe Stiffness Calculation

(Castigliano Theorem)

PS is determined by applying a force at the midpoint of the top arc, assuming the pipe remains stable under this load. The vertical deflection resulting from this force will be calculated by integrating across the pipeusing below equation where M is the moment resulting from applied F force. where at each length along from 0 from midtop point to L at midbottom point M=F x (horizontal ditance).

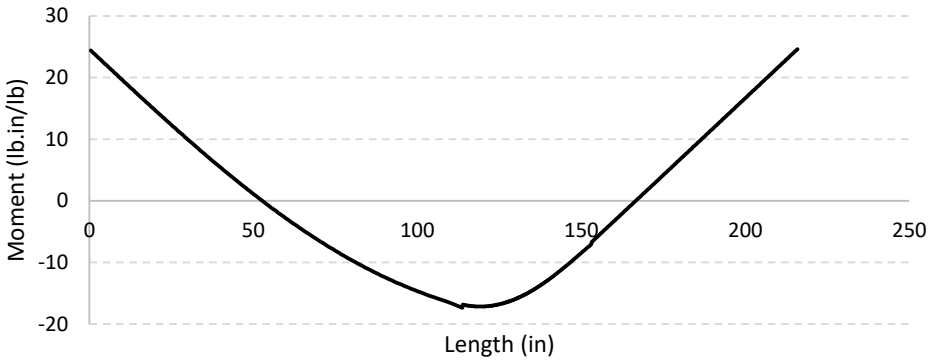
$$\Delta y = \int_0^L \frac{M}{EI}\frac{M}{F} ds$$

And the pipe stiffness, based on ASTM D2412, will be determined as follows:

$$PS = \frac{F}{\Delta y} = 42.8 \text{ psi} > 35.96934 \text{ psi}$$ Checked, 35.9693448357883 psi is based on practical experience

Moment Distribution Along the Perimeter for PS Calculation

Stars from top arc midpoint at 0 and end at bottom arc midpoint at length of half perimeter.



Soil Overburden Pressure (p_{soil})

T2-2

$$R_w = 1 - 0.33 \times \frac{H_{w,cr}}{H_{soil,Cr}} = 1 - 0.33 \times \frac{3.82}{3.82} = 0.67 \quad \text{Unitless}$$

$p_{soil} = H_{soil} \times \gamma_s \times R_W /144$

$p_{soil} = 3.82 \times 120 \times 0.67 /144 = 2.132951$ psi

Surface Live Load (p_{LL})

T5-42-E8

The maximum live load on top of liner based on distribution: HL-93 Design Truck

Boussinesq equation has been used

p_{LL}= 5.121 psi

Hinge Rotation Angles, Deferred and Long-Term in Design for State II (Radians)

T5-63

$R_L = 1.1 \cdot R = 584.1684$ in

$dOv_{III,NC}$ = 0.02 For typical soils

Calculate Blister arc radii (to the neutral axis)

T5-33-E1

$r_1 = \min(R_{c1} , R_{c2}) - t/2$

$r_1 = \min(23.23 , 23.23) - 1.462 = 21.77$ in

$r_2 = \max(R_{c1} , R_{c2}) - t/2$

$r_2 = \max(23.23 , 23.23) - 1.462 = 21.77$ in

Calculate Length of the straight section

T5-33-E3

If the straight section is not flat

$L = L_{arc} \times (R / R_{arc})$

$L_{arc} = 2 \times R_{arc} \times (\alpha_{arc})$ in

$L_{arc} = 2 \times 585.6 \times (0.1) = 117.2$

→ $L = 117.2 \times (584.2 / 585.6)$

$L = 116.9$ in ##

Calculate Model Parameters

T5-34-E1

$$\beta = \frac{2}{k} \times \frac{I}{A} \times \frac{P}{L^3} = \frac{2}{1} \times \frac{2.081}{2.923} \times \frac{429.5}{2E+06} = 0.000383 \text{ unitless}$$

$$\lambda = \frac{d_L}{L} = \frac{3.506}{116.9} = 0.03$$

$$\theta_1 = \frac{r_1}{L} = \frac{21.77}{116.9} = 0.186 \qquad \theta_2 = \frac{r_2}{L} = \frac{21.77}{116.9} = 0.186$$

$$\alpha_r = \frac{\alpha}{\pi^2} = \frac{1}{2 \times \pi^2} \times \frac{L_{arc}}{R_{arc}} = \frac{1}{2 \times \pi^2} \times \frac{117.2}{585.6} = 0.010136$$

Calculate Model Parameters (continue)

T5-34-E6.1

$$\rho_2 = 1 - \frac{r_2}{R} = 1 - \frac{21.77}{584.2} = 0.963$$

$$g_{12} = 1 + \sqrt{\left(\frac{r_1}{r_2}\right)} \times \sqrt{\left(\frac{R - r_2}{R - r_1}\right)}$$

$$g_{12} = 1 + \sqrt{\left(\frac{21.77}{21.77}\right)} \times \sqrt{\left(\frac{584.2 - 21.77}{584.2 - 21.77}\right)} = 2$$

Calculate Model Parameters (continue)

T5-34-E8

$\eta = 1 + g_{12} \times \theta_2 \times \alpha_2$

$\eta = 1 + 2 \times 0.186 \times 0.712 = 1.265$

$\gamma = g_{12} \times \theta_2^2 \times \alpha_2^3$

$\gamma = 2 \times 0.035 \times 0.362 = 0.025$

$$G = \frac{2 \times g}{k \times \pi \times L}$$

$$G = \frac{2 \times 0}{1 \times \pi \times 116.9} = 0$$

Calculate Model Parameters (continue)

T5-34-E11

$$m = \frac{E100 \times I}{(1- v^2) \times L^3}$$

$$m = \frac{9.3E+05 \times 2.081}{(1- 0.09) \times 2E+06} = 1.33$$

$$m_d = \frac{E100,d \times I}{(1- v^2) \times L^3}$$

$$m_d = \frac{7.4E+05 \times 2.081}{(1- 0.09) \times 2E+06} = 1.064$$

Calculate Model Parameters (continue)

T5-34-E13

$$n = k \times \frac{E100 \times A}{(1- v^2) \times P}$$

$$n = 1 \times \frac{9.282E+05 \times 2.923}{(1- 0.09) \times 429.5} = 6941$$

$$n_d = k \times \frac{E100,d \times A}{(1- v^2) \times P}$$

$$n_d = 1 \times \frac{7.426E+05 \times 2.923}{(1- 0.09) \times 429.5} = 5553$$

Additional Model Parameter (ω) (State III)

T5-48

$$\omega = \frac{2\cdot \theta_{II,L}}{\pi^2} = \frac{2\cdot 0.000\%}{\pi^2} = 0.000\%$$

Blister angle, α_2 (in arc with greater radius) State II, III

T5-49

$$120\pi^2\theta_1\beta\lambda\cdot P_1+[(3\lambda\cdot P_1+4\rho_2\theta_2\boldsymbol{\alpha_2}^2)+4\cdot P_1^2\omega]\cdot(3\lambda^2\pi^2\theta_1\cdot P_1+12G\pi^2\theta_1\cdot P_1^2+2\lambda\cdot P_2)=0$$

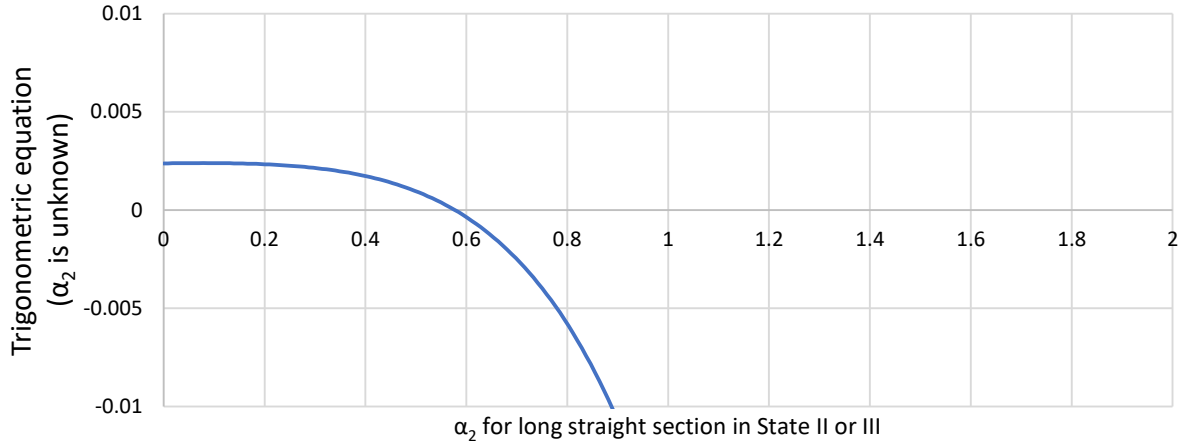
$$P_1=1+g_{12}\theta_2\boldsymbol{\alpha_2}$$

$$P_2=g_{12}\{-3g_{12}^2+2[3+(-3+g_{12})g_{12}]\pi^2\}\cdot(1-\rho_2)\cdot\theta_1\theta_2^2\boldsymbol{\alpha_2}^3+6\pi^2\theta_1(-\alpha_r+\omega)+$$

$$6\pi^2g_{12}\theta_1\theta_2\cdot\boldsymbol{\alpha_2}(-3\alpha_r+2\omega)-2\pi^2\theta_2^2\boldsymbol{\alpha_2}^2\{[\theta_1-\theta_2\cdot(1-g_{12})^3]\cdot\boldsymbol{\alpha_2}-3g_{12}^2\theta_1(-3\alpha_r+\omega)\}$$

→ $\boldsymbol{\alpha_2}$ = 0.577474 rad = 33.09 °

Blister angle, α_2 Graph for Long Straight Sections (State II, III)



Blister angle, α_1 (in arc with smaller radius)

T5-35-E8

$$\alpha_1 = \sqrt{\left(\frac{r_2 \times (R - r_2)}{r_1 \times (R - r_1)}\right)} \times \alpha_2$$

$$\alpha_1 = \sqrt{\left(\frac{21.77 \times (584.2 - 21.77)}{21.77 \times (584.2 - 21.77)}\right)} \times 0.577474$$

α_1 = 0.577473696 = 33.09 °

Verify Blister Angle Condition

T5-37-E1

Box or Arch

$$\frac{\alpha_1}{\alpha_{1,pipe}} \leq 2 \rightarrow \frac{0.577}{0.845} = 0.683 \leq 2$$ Checked

External Pressure at Deflection Limit

T5-38-E2

for long straight section

$p_{\lambda L}$ = 7.998642 psi

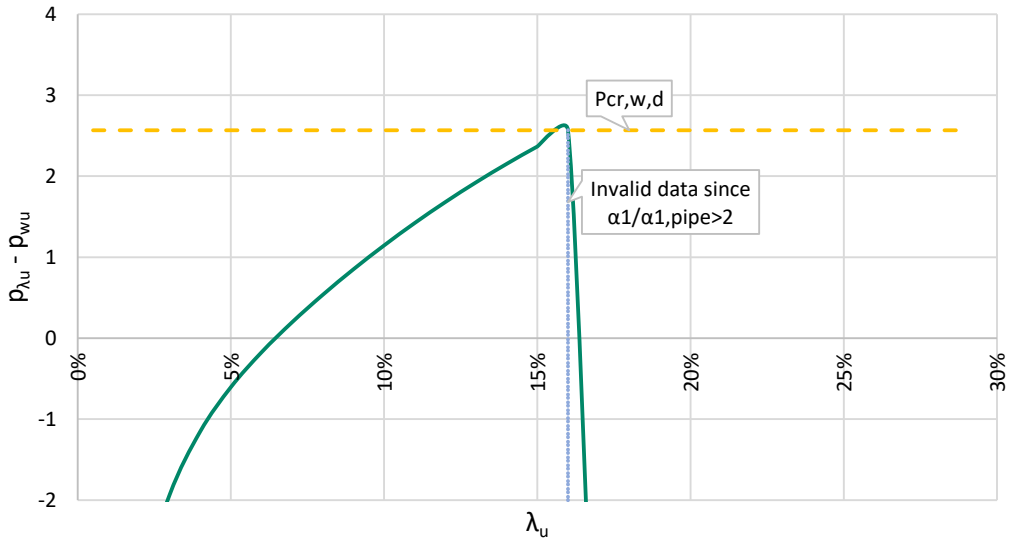
η_L = 1.215101

γ_L = 0.013359

$$p_{\lambda L} = \frac{4\pi^4 \cdot m}{\eta^4}\left[\lambda_L + \frac{1}{144\beta \cdot \eta}\left(6\lambda_L\eta - 4\gamma\rho_2 - 12\eta^3\alpha_r + 12\eta^2\omega\right)\cdot\left(12G\eta^2 + 3\lambda_L{}^2\eta - 4\lambda_L\gamma\rho_2 - 12\lambda_L\eta^3\alpha_r + 12\lambda_L\eta^2\omega\right)\right]$$

Determine Factored Relative Deflection, λ_u (for Long Straight Sections)

T5-38-E2.1



State III → ω = 0.000%

p_{wu} = 8.333 → @ λ_u = 6.51% $p_{\lambda u} \approx p_{wu}$

→ $p_{\lambda u}$ = 8.340063 psi And $P_{cr,w,d}$ = max of above graph +p_{wu} = 10.9 psi

Verify Blister Angle Condition for λ_u: @ λ_u → α_2 = 40.82 → α_1 = 40.82 °

$$\rightarrow \frac{\alpha_1}{\alpha_{1,pipe}} \leq 2 \rightarrow \frac{0.712}{0.845} = 0.843 \leq 2 \quad \text{Checked}$$

100-year Design Flex Modulus

T5-26-E1.1 T5-7-E5 T5-13-E2

$E_{100,d} = E_0 \times C_{L,100} \times \Phi_{LM}$

$E_{100,d} = 1{,}450{,}377 \times 0.64 \times 0.8$

$E_{100,d} = 742{,}593$ psi

100-year Design Flex Strength

T5-26-E1.2 T5-7-E5 T5-13-E2

$\sigma_{100,d} = \sigma_F \times F_{L,100} \times \Phi_{LF}$

$\sigma_{100,d} = 17{,}405 \times 0.64 \times 0.9$

$\sigma_{100,d} = 10{,}025$ psi

Design SCC Resistance

T5-26-E1.3 T5-13-E2

$$\varepsilon_{L,d} = \varepsilon_L \times \Phi_{L\varepsilon}$$

$$\varepsilon_{L,d} = 0.0099 \times 1$$

$$\varepsilon_{L,d} = 0.0099$$

Service and Factored Groundwater Pressure

T5-27-E1

$$p_w = \gamma_W \times (H_w - H_b) = 0.434 \times (12 - 0) = 5.208$$

$$p_{w,u} = \gamma_{GW} \times p_w = 1.6 \times 5.208$$

$$p_{w,u} = 8.3328 \text{ psi}$$

Factored Bending Moment in Liner

T5-40-E1 Subcritical

$$M_{w,u} = M_{\lambda u} = 2\pi^2 \times m_d \times L^2 \times \frac{\lambda_u}{\eta^2}$$

$$M_{w,u} = M_{\lambda u} = 2\pi^2 \times 1.063816 \times 13659.41 \times \frac{0.065102}{1.601104}$$

$$M_{w,u} = 11662.82 \text{ lbs-in/in}$$

Factored Hoop Force in Liner

T5-40-E2 Subcritical Long Straight Sections

$$N_{w,u} = N_{\lambda u} = \frac{\pi^2 \cdot n_d}{12} \cdot \frac{L}{\eta^2} \cdot [- 12G\eta^2 + \lambda_u(4\gamma\rho_2 - 3\eta\lambda_u) + 12\eta^3\lambda_u\alpha_r - 12\lambda_u\eta^2\omega]$$

State III → $\omega = 0.000\%$

$$N_{w,u} = 2080.467 \text{ lbs/in}$$

Factored Stress in Liner

T5-29-E3

$$\sigma_{w,f,u} = \frac{6 \times M_{w,u}}{t^2} = \frac{6 \times 11662.82}{8.543929} = 8190.248$$

$$\sigma_{w,h,u} = \frac{N_{w,u}}{t} = \frac{2080.467}{2.923} = 711.7575$$

$$\sigma_{w,c,u} = \sigma_{w,f,u} + \sigma_{w,h,u} = 8190 + 711.8 = 8902.006 \text{ psi}$$

Factored Strain in Liner

T5-29-E4

$$\varepsilon_{w,u} = \frac{\sigma_{w,f,u} - \sigma_{w,h,u}}{E100,d} \times \left(1 - \nu^2\right)$$

$$\varepsilon_{w,u} = \frac{8190 - 711.8}{742592.9256} \times \left(1 - 0.09\right) = 0.009164411 \text{ in./in}$$

Limit State and Capacity Demand Ratio

T5-30-Subcritical (Long Arc)

$$CDR_1 = \frac{p_{cr,w,d}}{p_{w,u}} = \frac{10.90012}{8.3328} = 1.308098$$

$$CDR_2 = \frac{\sigma F,100,d}{\sigma_{w,c,u}} = \frac{10025}{8902.006} = 1.126151$$

$$CDR_3 = \frac{\varepsilon_{L,d}}{\varepsilon_{w,u}} = \frac{0.0099}{0.009164} = 1.080266$$

$$CDR_0 = \frac{p_{\lambda L}}{p_w} = \frac{7.998642}{5.208} = 1.535838$$

Stability Under all Loads (Critical Hoop Force Coefficients)

T5-6-E1.2

$$R_H = \frac{1-(R/(R+H))^2}{1+(R/(R+H))^2(1-2vs)} = 0.696607$$

R = Span/2 - t/2 = 43.5385

H = Soil cover from surface to the liners top = 45.84252

$$\beta = \frac{1-2v_s}{(1-v_s)^2} = 0.816327$$

Stability Under all Loads (Critical Hoop Force Coefficients)

T5-6-E3

$$N_{cr,m,d} = 1.2 \cdot C_{80} \cdot \left[\frac{\phi_{LM} \cdot E_{50} \cdot I}{1-\nu^2}\right]^{1/3} \cdot \left[\phi_s \cdot M_s \cdot \beta \cdot R_H\right]^{2/3} \qquad C_{80} = 0.55$$

$N_{cr,m,d}$ = 4657.755 lbs/in

gives 80% characteristic buckling strength in granular soils

Factored Loads on a Liner in State III

T5-60

$p_{w,u} = p_w \cdot \gamma_{GL}$	= 2.652608	psi	on the top of liner
$p_{soil,u} = p_{soil} \cdot \gamma_{DL}$	= 2.772836	psi	
$p_{LL,u} = p_{LL} \cdot \gamma_{LL}$	= 8.962173	psi	
$p_{SL,u} = p_{SL} \cdot \gamma_{DL}$	= 0	psi	

$$p_{v,u} = p_{w,u} + p_{soil,u} + p_{LL,u} + p_{SL,u} = 14.38762 \text{ psi}$$

Factored Load Effects in State III (Circular)

T5-61-E2

$$N_u = 0.5 \cdot Span \cdot p_{v,u} = 647.4427 \text{ lbs/in}$$

Capacity demand ratio (for maximum hoop force and maximum hoop stress)

T5-62

$$CDR_4 = \frac{N_{cr,m,d}}{N_u} = \frac{4657.755}{647.4427} = 7.19408 \geq 1 \text{ Checked}$$

$$CDR_5 = \frac{\sigma c,100,d}{N_u/t} = \frac{10025}{221.4994} = 45.25974 \geq 1 \text{ Checked}$$

In case of the subcritical shape design, this check may be skipped if the depth of the soil cover is 3 ft or greater; but FEA is recommended for burial depth below 3 ft

Non-circular Liner: Response to Parallel Plate Loading. Adjustment Factor

T5-65-E1

Flexible Pipe → $a = 45$, $b = 49.07874$

$$f_3 = 1 + \frac{2 - 4(a/b) + 2(b/a)}{1 + 3.8(a/b) - 0.26(b/a)}$$

$$f_3 = 1 + \frac{2 - 4(0.917) + 2(1.091)}{1 + 3.8(0.917) - 0.26(1.091)} = 1.122292$$

Non-circular Liner: Response to Parallel Plate Loading. Factored strain

T5-65-E2

$$\varepsilon_{ov,(II/III),u} = f_3 \cdot 2.14 \cdot \frac{2 \; b \cdot dOv_{III,NC}}{R^2} \cdot c$$

$$\varepsilon_{ov,(II/III),u} = 1.122 \cdot 2.14 \cdot \frac{2 \; 49.08 \cdot 0.02}{2212.70} \cdot 1.462$$

$$\varepsilon_{ov,(II/III),u} = 0.002855$$

Non-circular Liner: Ring in Elastic Continuum (Factored flexural stress)

T5-65-E3

$$\sigma_{ov,III,u} = \frac{E100}{1 - v^2} \times \varepsilon_{ov,III,u}$$

$$\sigma_{ov,III,u} = \frac{928241.2}{1 - 0.09} \times 0.002855 = 2912.643 \text{ psi}$$

Material Strength

T5-54

$$CDR_6 = \frac{\sigma F,100,d}{\sigma_{ov,(II/III),u}} = \frac{10025}{2912.643} = 3.441893$$

$$CDR_7 = \frac{\varepsilon_{L,d}}{\varepsilon_{ov,(II/III),u}} = \frac{0.0099}{0.002855} = 3.467108$$

HL-93 Design Truck Load Distribution on Surface

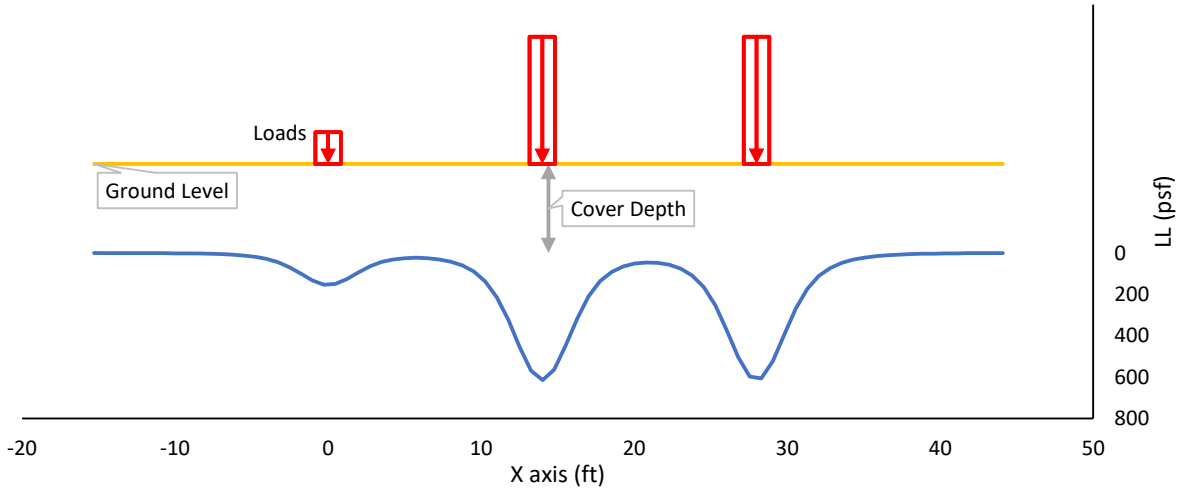
Live Loads (Part 1) Maximum calculted LL pressure is 5.1212416 psi and applied LL is 5.1212416 psi

Load #	-	1	2	3	4	5	6
Load Name	-	Front W	Front W	Rear W1	Rear W1	Rear W2	Rear W2
Load	lb	4000	4000	16000	16000	16000	16000
Load X Dimension	ft	1.667	1.667	1.667	1.667	1.667	1.667
Load Y Dimension	ft	0.833	0.833	0.833	0.833	0.833	0.833
Pressure	psf	2880.00	2880.00	11520.00	11520.00	11520.00	11520.00
X offset	ft	0	0	14	14	28	28
Y offset	ft	3	-3	3	-3	3	-3

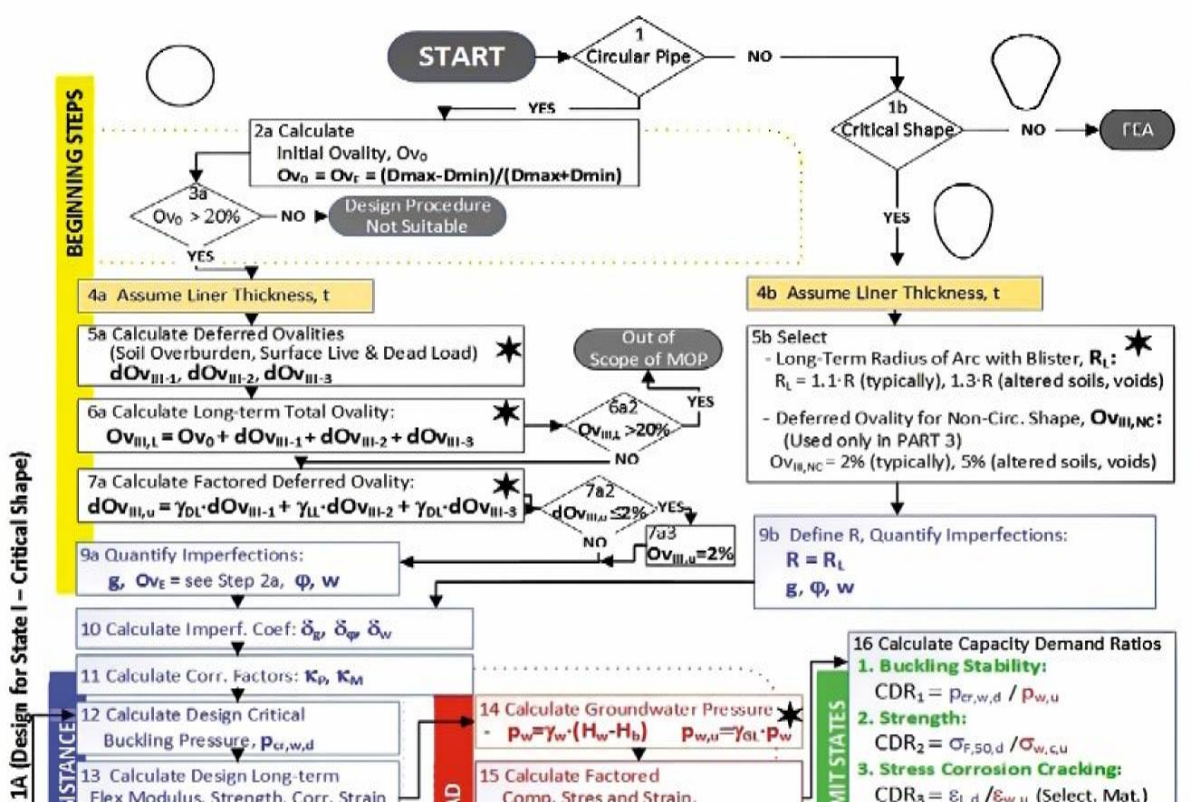
HL-93 Design Truck Load Distribution on Chart

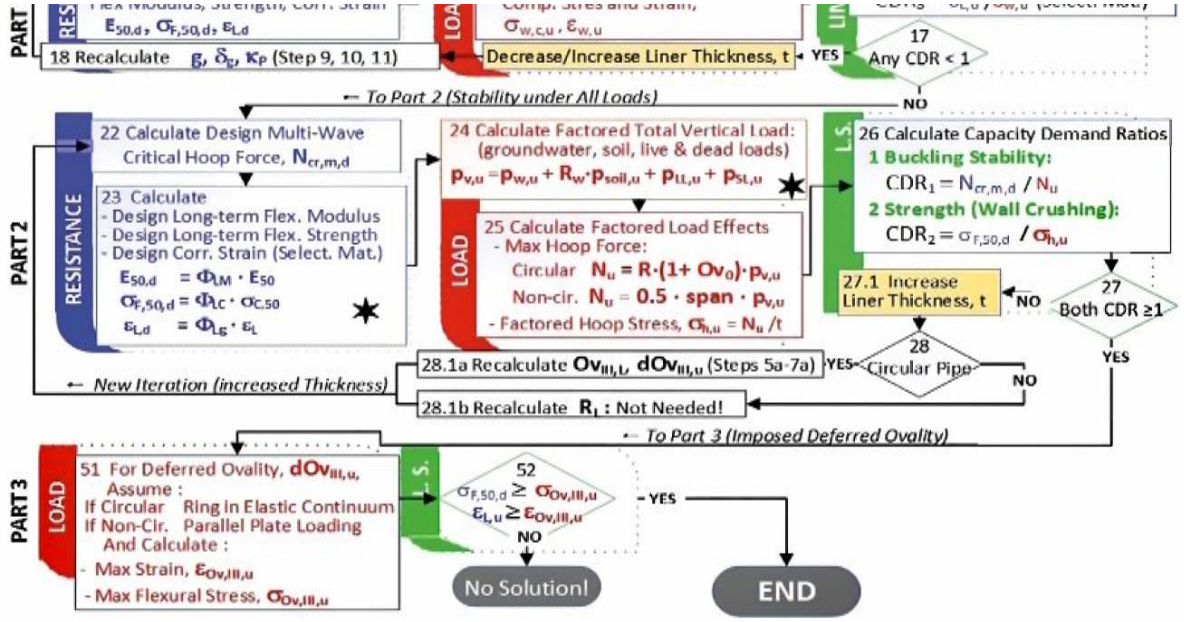
Live Loads Distribution Curve

(LL Pressure distribution at the crown depth, the highest value is taken for calculation)



Flowchart (Source: ASCE MOP145)




PART
RES
LOA
LIN
$E_{50,d}$, $\sigma_{F,50,d}$, $\varepsilon_{L,d}$
$\sigma_{w,c,u}$, $\varepsilon_{w,u}$
18 Recalculate β, δ_c, κ_P (Step 9, 10, 11)
Decrease/Increase Liner Thickness, t
YES
17
Any CDR < 1
NO
← To Part 2 (Stability under All Loads)
PART 2
RESISTANCE
22 Calculate Design Multi-Wave Critical Hoop Force, $N_{cr,m,d}$
23 Calculate
- Design Long-term Flex. Modulus
- Design Long-term Flex. Strength
- Design Corr. Strain (Select. Mat.)
$E_{50,d} = \Phi_{LM} \cdot E_{50}$
$\sigma_{F,50,d} = \Phi_{LC} \cdot \sigma_{C,50}$
$\varepsilon_{L,d} = \Phi_{Lε} \cdot \varepsilon_L$
LOAD
24 Calculate Factored Total Vertical Load: (groundwater, soil, live & dead loads)
$p_{v,u} = p_{w,u} + R_w \cdot p_{soil,u} + p_{LL,u} + p_{St,u}$
25 Calculate Factored Load Effects
- Max Hoop Force:
Circular $N_u = R \cdot (1 + Ov_0) \cdot p_{v,u}$
Non-cir. $N_u = 0.5 \cdot span \cdot p_{v,u}$
- Factored Hoop Stress, $\sigma_{h,u} = N_u / t$
L.S.
26 Calculate Capacity Demand Ratios
1 Buckling Stability:
$CDR_1 = N_{cr,m,d} / N_u$
2 Strength (Wall Crushing):
$CDR_2 = \sigma_{F,50,d} / \sigma_{h,u}$
27.1 Increase Liner Thickness, t
NO
27
Both CDR ≥1
YES
28
Circular Pipe
YES
NO
28.1a Recalculate $Ov_{III,L}$, $dOv_{III,u}$ (Steps 5a-7a)
28.1b Recalculate R_I : Not Needed!
← New Iteration (increased Thickness)
← To Part 3 (Imposed Deferred Ovality)
PART 3
LOAD
51 For Deferred Ovality, $dOv_{III,u}$,
Assume :
If Circular Ring in Elastic Continuum
If Non-Cir. Parallel Plate Loading
And Calculate :
- Max Strain, $\varepsilon_{Ov,III,u}$
- Max Flexural Stress, $\sigma_{Ov,III,u}$
L.S.
52
$\sigma_{F,50,d} \geq \sigma_{Ov,III,u}$
$\varepsilon_{L,u} \geq \varepsilon_{Ov,III,u}$
YES
NO
No Solution!
END

Notations

α_{arc}	Half angle of a liner's arc where the blister develops, radians.
α_1	In subcritical shapes, the smaller of the two blister angles, radians.
α_2	In subcritical shapes, the greater of the two blister angles, radians. (Also a Coefficient in Calculation of Deferred Ovalities in State III, Unitless)
$\alpha_{1,pipe}$	Angle of the pipe arc (invert or crown or corner) over which α1 extends, radians.
$\alpha_{B,P}$	Half angle of pipe's bottom arc, radians.
$\alpha_{CBL,P}$	Half angle of pipe's bottom-left corner, radians.
$\alpha_{CBR,P}$	Half angle of pipe's bottom-right corner, radians.
α_{cr}	Critical half-angle of the blister, radians.
$\alpha_{CTL,P}$	Half angle of pipe's top-left corner, radians.
$\alpha_{CTR,P}$	Half angle of pipe's top-right corner, radians.
$\alpha_{L,P}$	Half angle of pipe's left arc, radians.
$\alpha_{R,P}$	Half angle of pipe's right arc, radians.
$\alpha_{T,P}$	Half angle of pipe's top arc, radians.
γ_{DL}	Load factor on dead load (soil overburden pressure, surface static load), unitless.
γ_{GW}	Load factor on groundwater pressure, unitless.
γ_{LL}	Load factor on live load (traffic), unitless.
γ_s	Soil density, pcf (kg/m3)
γ_w	Hydrostatic pressure gradient of groundwater (unit weight of water), 0.434 psi/ft (9.81 kN/m3).
δ_g	Imperfection coefficient for annular gap, unitless.
ε_L	Corrosion strain of liner material, in./in (mm/mm)
$\varepsilon_{L,d}$	Design corrosion strain of liner material, i.e., in./in (mm/mm).
$\varepsilon_{ov,II}$	Maximum local strain developed in the liner at the crown owing to ovalization (Design for State II), in./in (mm/mm).
$\varepsilon_{ov,III}$	Maximum local strain developed in the liner at the crown owing to ovalization (Design for State III), in./in (mm/mm).
$\varepsilon_{w,u}$	Factored maximum long-term elongation strain in the liner, in./in (mm/mm). This is elongation at factored groundwater pressure.
κ_M	Amplification factor for critical bending moment, unitless.
$\kappa_{N,4h}$	Amplification factor for hoop force (for 4-hinge ovality), unitless.
κ_p	Reduction factor for critical buckling pressure because of imperfections, unitless.
$\kappa_{p,g}$	Reduction factor for critical buckling pressure because of gap, unitless.
λ	Relative deflection of a liner, unitless.
λ_L	Limit relative deflection (serviceability limit), unitless.
λ_u	Factored relative deflection, that is, relative deflection at factored groundwater pressure, unitless.
ν	Poisson's ratio of liner material, unitless.
ν_S	Poisson's ratio of the backfill soil, unitless.
π	3.1415917
$\sigma_{h,u}$	Factored net hoop stress in the liner, psi (kPa).

$\sigma_{w,c}$	Maximum (net) compressive stress in the liner at extreme fibers from groundwater pressure, psi (kpa).
$\sigma_{w,c,u}$	Factored maximum (net) compressive stress in the liner at extreme fibers from groundwater pressure, psi (kpa).
$\sigma_{w,f,u}$	Factored maximum flexural stress in the liner from groundwater pressure, psi (kpa).
$\sigma_{w,h,u}$	Factored maximum hoop stress in liner from groundwater pressure, psi (kpa).
σ_F	Short-term flexural strength of liner material, psi (kpa).
$\sigma_{F,50}$	Long-term (time corrected) flexural strength of liner material at a 50-year service life, psi (kpa).
$\sigma_{F,50,d}$	Design long-term flexural strength of liner (after applying the reduction factor), psi (kpa).
Φ_{LF}	Strength reduction factor (LRFD factor) on a liner's long-term flexural strength, unitless.
$\Phi_{L\varepsilon}$	Strength reduction factor (LRFD factor) on a liner's long-term elongation strength, unitless.
Φ_{LM}	Stiffness reduction factor (LRFD factor) on a liner's long-term flexural modulus, unitless. Also, reduction factor on the liner's long-term buckling stability, unitless.
Φ_S	Strength reduction factor (LRFD factor) on soil constrained modulus, unitless.
A	Cross-sectional area of the unit length of a liner, in2/in (mm2/mm) . For a plain wall, A = t.
a	In a pipe/liner elliptical shape, horizontal semi axis (semimajor). in (mm)
b	In a pipe/liner elliptical shape, vertical semiaxis (semi minor). in (mm)
c	Distance from the liner's neutral axis to the tensile extreme fiber, in (mm).
C_{80}	Correction factor in the formula for a multiwave critical hoop force in the liner, unitless.
CL,100	Creep retention factor for flexural modulus of a liner at 100 years, unitless.
CDR	Capacity Demand Ratio, unitless.
CDR_0	Capacity Demand Ratio for deflection, unitless.
CDR_1	Capacity demand ratio for buckling pressure, unitless.
CDR_2	Capacity demand ratio for compressive stress, unitless.
CDR_3	Capacity demand ratio for flexural strain (elongation), unitless.
CDR_4	Capacity demand ratio for buckling pressure under all loads (State III), unitless.
CDR_5	Capacity demand ratio for wall crushing under all loads (State III), unitless.
d	Liner deflection, in (mm).
d_L	Deflection limit, that is, maximum permissible deflection of a liner as serviceability requirement, in (mm).
D_{equ}	Equivalent diameter (Dequ = P/π), in (mm).
D_{max}	Host pipe's maximum (horizontal) inside diameter, in circular pipes showing ovality, in (mm).
D_{min}	Host pipe's minimum (vertical) inside diameter, in circular pipes showing ovality, in (mm).
$dOv_{III,NC}$	Deferred "ovality" in a noncircular pipe (Design for State III), unitless.
E	Short-term elastic (Young's) modulus of liner material, psi (kPa).
E'	Modulus of soil reaction, psi (kPa).
E_0	Short-term flexural modulus of liner material (ASTM D790), psi (kPa).
E100	Long-term flexural modulus of liner material (ASTM D2990) at a 100-year service life, psi (kPa).
E100,d	Design long-term flexural modulus of liner material (ASTM D2990) at a 100-year service life, psi (kF
F_L	Long-term coefficient of relative stiffness, unitless.
FL,100	Flexural strength retention factor of a liner at 100 years, unitless.

g	Annular gap between a liner and a host pipe, in (mm).
g_{max}	Recommended limit for annular gap (Design for States I, II, III), in (mm).
H	Depth of burial. Same as hsoil, ft (m).
H_b	Head of the center of a blister above the pipe invert (vertical distance), ft (m).
H_{bB}	Head of the center of buttom arc above the pipe invert (vertical distance), ft (m).
H_{bL}	Head of the center of left arc above the pipe invert (vertical distance), ft (m).
H_{bR}	Head of the center of right arc above the pipe invert (vertical distance), ft (m).
H_{bT}	Head of the center of top arc above the pipe invert (vertical distance), ft (m).
h_{soil}	Soil cover thickness (pavement excluded) above the top of a pipe, ft. (m) Note: In Design for State I and II, hsoil is measured to the pipe; in Design for State III, it is measured to the liner. The measurement is taken from the soil surface to the outside wall (top) of the pipe or liner in the pipe crown area.
H_w	Head of water above a pipe invert, ft (m). Note: For the calculation of the groundwater pressure, Hw is taken at the pipe invert. For the calculation of the buoyancy factor, Hw is taken at the pipe crown and, just as it is for hsoil, it is measured to the pipe in Design for State I and II, and to the liner in Design for State III.
I	Area moment of inertia of the unit length of a liner, in.4/in (mm4/mm). For a plain wall, I = t3/12.
k	Buckling mode (deformation mode), that is, the number of blisters that develop because of external pressure. 1 or 2.
k_2	Lateral earth pressure coefficient, unitless.
L	Length of the straight section in a subcritical pipe shape, in (mm).
L_B	Length of the bottom straight section in a subcritical pipe shape, in (mm).
L_L	Length of the left straight section in a subcritical pipe shape, in (mm).
L_R	Length of the right straight section in a subcritical pipe shape, in (mm).
L_T	Length of the top straight section in a subcritical pipe shape, in (mm).
$M_{\lambda u}$	Factored maximum bending moment at the factored relative deflection, λu, that is, maximum bending moment from factored groundwater pressure (per unit length) lbs-in./in (N-mm/mm).
$M_{cr,w,d}$	Design critical bending moment for a liner under groundwater pressure (per unit length), lbs-in./in (N-mm/mm).
M_S	Constrained soil modulus, psi (kPa).
M_w	Max bending moment in the liner (per unit length) from groundwater pressure, lbs-in./in (N-mm/mm).
$M_{w,u}$	Factored max bending moment in the liner (per unit length) from factored groundwater pressure, lbs-in./in (N-mm/mm).
N_{cr}	Critical hoop force (per unit length), lbs/in (N/mm).
$N_{cr,m,d}$	Design multiwave critical hoop force (per unit length), lbs/in (N/mm).
$N_{cr,w,d}$	Design hoop force for a liner under groundwater pressure (per unit length), lbs/in (N/mm).
$N_{\lambda u}$	Factored hoop force at the factored relative deflection, λu, that is, hoop force from factored groundwater pressure (per unit length), lbs-in./in (N-mm/mm).
N_u	Factored hoop force (per unit length), lbs/in.
N_w	Hoop force in a liner (circumferential) from groundwater pressure (per unit length), lbs/in (N/mm).

$N_{w,u}$	Factored hoop force in a liner (circumferential) per unit length from factored groundwater pressure, lbs/in (N/mm).
Ov_0	Initial ovality at the time of rehabilitation (Design for State I, II, III), unitless.
$Ov_{III,L}$	Long-term total ovality (Design for State III), unitless.
Ov_E	Ovality of an elliptical type, unitless.
P	Perimeter of a liner at the neutral axis, in (mm).
p_{cr}	Critical buckling pressure, psi (kPa).
$p_{cr,w}$	Critical buckling pressure for a liner under groundwater pressure, psi (kPa).
$p_{cr,w,d}$	Design critical buckling pressure for a liner under groundwater pressure, psi (kPa).
p_λ	External (groundwater) pressure on a liner at relative deflection λ, psi (kPa).
$p_{\lambda L}$	External (groundwater) pressure on a liner at the relative deflection λL, psi (kPa).
$p_{\lambda u}$	Factored groundwater pressure on a liner (pλu = pw,u), psi (kPa). This pressure causes a factored relative deflection, λu.
p_{LL}	Surface live load, psi (kPa).
$p_{LL,u}$	Factored surface live load, psi (kPa).
p_{SL}	Surface static load, psi (kPa).
$p_{SL,u}$	Factored surface static (dead) load, psi (kPa).
p_{soil}	Soil overburden, psi (kPa).
$p_{soil,u}$	Factored soil overburden pressure, psi (kPa).
$p_{v,u}$	Factored total load (vertical pressure) on top of a liner, psi (kPa).
p_w	Service groundwater pressure on a liner, psi (kPa).
$p_{w,u}$	Factored groundwater pressure on a liner, psi (kPa).
R	In a circular pipe, the radius of a liner (measured to the liner's neutral axis), in (mm). In a noncircular pipe, the radius of a liner arc where the blister develops (measured to the liner's
r_1	In a subcritical shape, the radius of a smaller liner arc that is adjacent to the "straight" section from where a blister spreads (measured to the neutral axis), in (mm).
r_2	In a subcritical shape, the radius of greater liner arc that is adjacent to the "straight" section from where the blister spreads (measured to the neutral axis), in (mm).
R_{arc}	Radius of a pipe arc where the blister develops (measured to the pipe wall), in (mm).
R_B	Radius of the bottom side of the pipe, in (mm).
R_{CBL}	Radius of the bottom-left corner of the pipe, in (mm).
R_{CBR}	Radius of the bottom-right corner of the pipe, in (mm).
R_{cor}	Radius of a pipe arc at the corner (measured to the pipe wall), in (mm). Rc
R_{CTL}	Radius of the top-left corner of the pipe, in (mm).
R_{CTR}	Radius of the top-right corner of the pipe, in (mm).
R_L	Long-term radius of a pipe arc with a blister (Design for State III), in (mm). And Radius of the left side of the pipe, in (mm).
R_R	Radius of the right side of the pipe, in (mm).
R_T	Radius of the top side of the pipe, in (mm).
R_w	Water buoyancy factor, unitless.

s	Liner material shrinkage, %.
span	Liner's span (external width), in (mm). Roughly, the host pipe's inside width, as designed and built.
t	Thickness of the liner, in (mm).
t_P	Wall thickness of the host pipe, in (mm).
w_{crack}	Crack (opening) width, in (mm).

Wiley Hollen

From: Matthew E. Hill <mehill@sanfordmaine.org>
Sent: Tuesday, April 14, 2026 12:12 PM
To: David Nader; Taylor Lynn
Subject: FW: Madison Street Box, Sanford
Attachments: Box Culvert @ Sanford, ME, US -CH3386-Profile.pdf; MOP 145- Box Culvert @ Stanford, ME, US -CH3386.pdf

Importance: High

CAUTION: This is an external email.

And here is one of those ancient small box culverts which are falling apart. The price appears to be much more palatable until you consider we probably have about 6 of them along this channel…

At any rate, a good estimate to consider future costs.

Thanks,

Matthew E. Hill, P.E.
Director of Public Works
City Engineer

(207) 324-9135
156 School Street, Sanford, ME 04073

Sanford
PUBLIC WORKS

www.sanfordmaine.org

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From: Don LeBlanc <don@dlvews.com>
Sent: Friday, April 10, 2026 12:25 PM
To: Matthew E. Hill <mehill@sanfordmaine.org>; Peter L. Smith <plsmith@sanfordmaine.org>; Scott Robitaille <srobitaille@sanfordmaine.org>; Christian R. Barrett <crbarrett@sanfordmaine.org>
Subject: Madison Street Box, Sanford
Importance: High

EXTERNAL
This e-mail originated from outside of the City of Sanford E-mail System. **Do Not** click links or open attachments unless you recognize the sender address and know the content is safe.

Matt & Co -

See attached for Madison Street box culvert and let's discuss as soon as possible.

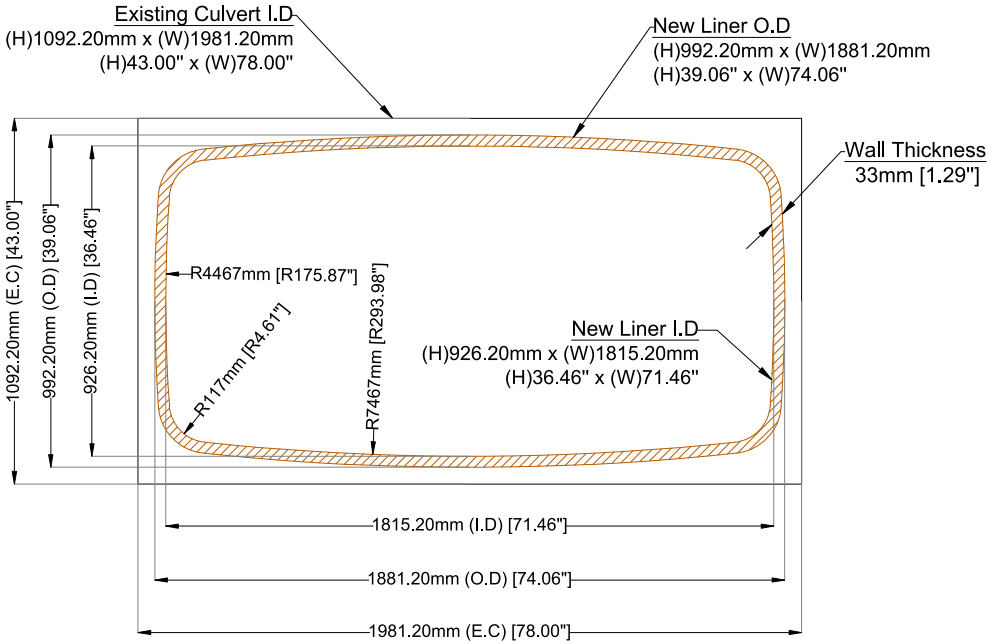
See attachments. Let me know if you have any questions and when you might be available for reviewing this information together. This is the 3rd email and is for **Madison Street**. I'll send you a couple of other emails for the other roads so we can keep them separate.

The **estimated cost of this liner is $62,800** which includes freight as of today.

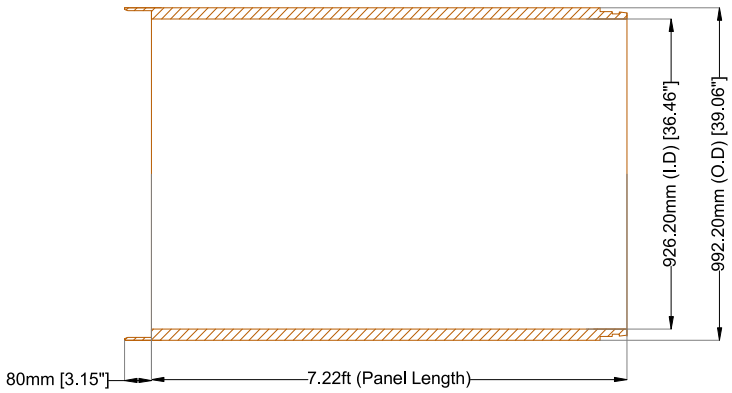
Thanks,

Don LeBlanc, P.E.*
State of Maine
President, DLVEWS, Inc.
C: 207-992-3080

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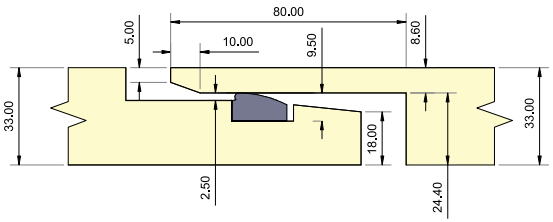


Proposed New Liner



Side View

Joint Detail



New Liner I.D	(H)36.46" x (W)71.46"
Wall Thickness	33mm [1.29"]
Total Length	43LF
Unit Length	7.22ft
Weight	244Lbs/LF

Existing Culvert I.D

P = 6.147m [20.167ft]

A = 2.164sq.m [23.325sq.ft]

New Liner I.D

P = 5.080m [16.666ft]

A = 1.597sq.m [17.189sq.ft]

CUSTOMER APPROVAL

Name of Company _____

Address _____

Date _____

Signature _____

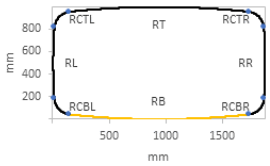
channeline
GRP STRUCTURAL LINING SYSTEMS

ISSUED BY: TIM WEBB	PROJ. TITLE: Box Culvert @ Sanford, ME, US		
REVIEWED BY: BB			
DRAWN BY: VP	CLIENT / CONTRACTOR :	DRAWING NO.	REV.
DATE: 27 MAR. 26	All dimension are in millimeter,u.n.o and with a tolerance of ±2mm.	DWG No: CH/3386/US/ME/1PB/D01	0

Summary Report

Host Pipe

Shape: Box Test
Pipe Material: Flexible
Height (in): 39.06
Width (in): 74.06
Initial Ovality (Ov_0): 0.00%
Design Side: Bottom
Pipe Thickness (in): 0



For the Slip lining method, the host pipe is the outside dimensions of the liner.

Liner Properties

Flex Modulus (E0) (psi): 1,450,377
Flex Modulus Retention(CL,100): 64%
Flex Strength (σ0) (psi): 17,405
Flex Strength Retention (FL,100): 64%
Stress Cracking: Yes
Corrosion Strain: 0.99%
Poisson's Ratio: 0.3
Material Shrinkage: 0.50%

Loads

Design State: State III, Fully deteriorated
Burial Depth to invert (ft): 6.58
Ground Water Depth (ft): 0.00

Load and Resistance Factors: AASHTO

γ_{GW}: 1.6 Φ_{LM}: 0.8
γ_{DL}: 1.3 Φ_{LF}: x
γ_{LL}: 1.75 $\Phi_{L\varepsilon}$: 1

Soil Properties

Ms (psi): 1,000.00
vs: 0.3
Soil Density (pcf): 120.00

Surface Loads

Live Load Standard: HL-93 Design Truck
Live Load Pressure (psi): 6.644803345
Dead Surface Load (psi): 0

Imperfection

Gap: 0 in
Second Imperfection Type: No Imperfection
Imperfection on the blister? No

Dimension ratio (DR) = Equivalent diameter / thickness : 50.0

Results

Liner Thickness: **1.294 in** = (32.9 mm)

λ_L: 3%

Maximum Liner Deflection
CDR_0 = 2.39
Buckling Stability
CDR_1 = 2.38
Material Strength
CDR_2 = 2.918
Stress Corrosion Cracking
CDR_3 = 3.121

Maximum Hoop Force
CDR_4 = 3.443
CDR_5 = 21.429
Imposed Deferred Ovality
CDR_6 = 8.739
CDR_7 = 8.803
PS = **36.7** psi

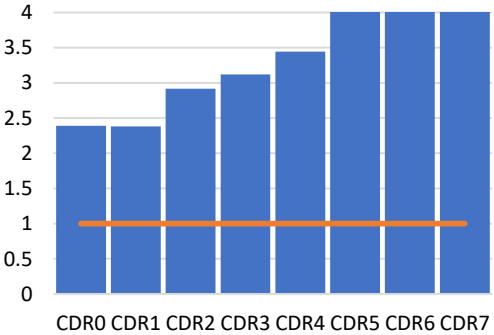
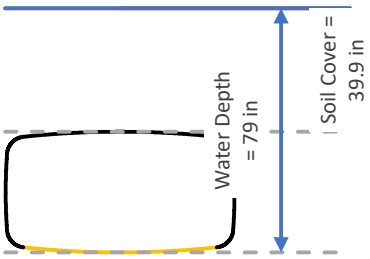


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Host pipe geometry (US Customary Report)



Pipe shape: Box Test

tp:	0	R_B	295.3	H_{bB}	0	$\alpha_{B,P}$	0.106
R	295.3	R_T	295.3	H_{bT}	3.26	$\alpha_{T,P}$	0.106
Hb	0	R_R	177.2	H_{bR}	1.63	$\alpha_{R,P}$	0.07
H	39.06	R_L	177.2	H_{bL}	1.63	$\alpha_{L,P}$	0.07
W	74.06	R_{CTR}	5.906	L_B	0	$\alpha_{CTR,P}$	0.699
P	207.5	R_{CTL}	5.906	L_T	0	$\alpha_{CTL,P}$	0.699
D_{equ}	-	R_{CBR}	5.906	L_R	0	$\alpha_{CBR,P}$	0.699
Rarc	295.3	R_{CBL}	5.906	L_L	0	$\alpha_{CBL,P}$	0.699
P_{liner}	203.4	K =	1	P	207.5		
α_{arc}	5.503	Height	39.06	Width	74.06		
L	56.6						
R_{C1}	5.259						
R_{C2}	5.259	Please refer to notations for units					

Design Side: Bottom

Verify Geometry Condition

T5-32-E3 and T5-14-E1

$$\alpha_{cr} = 2.54 \times (1+ 0.15 \times \delta_g) \times \frac{1}{K^{0.2}} \times \left(\frac{I}{A} \times \frac{P}{R^3}\right)^{0.2}$$

$$\alpha_{cr} = 2.54 \times (1+ 0.15 \times 0) \times \frac{1}{1} \times \left(\frac{0.181}{1.294} \times \frac{203.4}{3E+07}\right)^{0.2} = 0.164 \text{ rad}$$

$$\frac{\alpha_{cr}}{\alpha} = \frac{0.164}{0.096} = 1.704$$ Change to subcritical limit is: 1.06

→ Subcritical Long ← αcr/α is more than1.06

Pipe Stiffness Calculation

(Castigliano Theorem)

PS is determined by applying a force at the midpoint of the top arc, assuming the pipe remains stable under this load. The vertical deflection resulting from this force will be calculated by integrating across the pipeusing below equation where M is the moment resulting from applied F force. where at each length along from 0 from midtop point to L at midbottom point M=F x (horizontal ditance).

$$\Delta y = \int_0^L \frac{M}{EI}\frac{M}{F} ds$$

And the pipe stiffness, based on ASTM D2412, will be determined as follows:

$$PS = \frac{F}{\Delta y} = 36.7 \text{ psi} > 35.96934 \text{ psi}$$ Checked, 35.9693448357883 psi is based on practical experience

Moment Distribution Along the Perimeter for PS Calculation

Stars from top arc midpoint at 0 and end at bottom arc midpoint at length of half perimeter.



Soil Overburden Pressure (p_{soil})

T2-2

$$R_w = 1 - 0.33 \times \frac{H_{w,cr}}{H_{soil,Cr}} = 1 - 0.33 \times \frac{3.325}{3.325} = 0.67 \quad \text{Unitless}$$

$p_{soil} = H_{soil} \times \gamma_s \times R_W /144$

$p_{soil} = 3.325 \times 120 \times 0.67 /144 = 1.856319$ psi

Surface Live Load (p_{LL})

T5-42-E8

The maximum live load on top of liner based on distribution: HL-93 Design Truck

Boussinesq equation has been used

p_{LL}= 6.645 psi

Hinge Rotation Angles, Deferred and Long-Term in Design for State II (Radians)

T5-63

$R_L = 1.1 \cdot R = 294.6286$ in

$dOv_{III,NC}$ = 0.02 For typical soils

Calculate Blister arc radii (to the neutral axis)

T5-33-E1

$r_1 = \min(R_{c1} , R_{c2}) - t/2$

$r_1 = \min(5.906 , 5.906) - 0.647 = 5.259$ in

$r_2 = \max(R_{c1} , R_{c2}) - t/2$

$r_2 = \max(5.906 , 5.906) - 0.647 = 5.259$ in

Calculate Length of the straight section

T5-33-E3

If the straight section is not flat

$L = L_{arc} \times (R / R_{arc})$

$L_{arc} = 2 \times R_{arc} \times (\alpha_{arc})$ in

$L_{arc} = 2 \times 295.3 \times (0.096) = 56.72$

→ $L = 56.72 \times (294.6 / 295.3)$

$L = 56.6$ in ##

Calculate Model Parameters

T5-34-E1

$$\beta = \frac{2}{k} \times \frac{I}{A} \times \frac{P}{L^3} = \frac{2}{1} \times \frac{0.181}{1.294} \times \frac{203.4}{181301} = 0.000313 \text{ unitless}$$

$$\lambda = \frac{d_L}{L} = \frac{1.698}{56.6} = 0.03$$

$$\theta_1 = \frac{r_1}{L} = \frac{5.259}{56.6} = 0.093 \qquad \theta_2 = \frac{r_2}{L} = \frac{5.259}{56.6} = 0.093$$

$$\alpha_r = \frac{\alpha}{\pi^2} = \frac{1}{2 \times \pi^2} \times \frac{L_{arc}}{R_{arc}} = \frac{1}{2 \times \pi^2} \times \frac{56.72}{295.3} = 0.009732$$

Calculate Model Parameters (continue)

T5-34-E6.1

$$\rho_2 = 1 - \frac{r_2}{R} = 1 - \frac{5.259}{294.6} = 0.982$$

$$g_{12} = 1 + \sqrt{\left(\frac{r_1}{r_2}\right)} \times \sqrt{\left(\frac{R - r_2}{R - r_1}\right)}$$

$$g_{12} = 1 + \sqrt{\left(\frac{5.259}{5.259}\right)} \times \sqrt{\left(\frac{294.6 - 5.259}{294.6 - 5.259}\right)} = 2$$

Calculate Model Parameters (continue)

T5-34-E8

$\eta = 1 + g_{12} \times \theta_2 \times \alpha_2$

$\eta = 1 + 2 \times 0.093 \times 0.807 = 1.15$

$\gamma = g_{12} \times \theta_2^2 \times \alpha_2^3$

$\gamma = 2 \times 0.009 \times 0.526 = 0.009$

$$G = \frac{2 \times g}{k \times \pi \times L}$$

$$G = \frac{2 \times 0}{1 \times \pi \times 56.6} = 0$$

Calculate Model Parameters (continue)

T5-34-E11

$$m = \frac{E100 \times I}{(1-\nu^2) \times L^3}$$

$$m = \frac{9.3E+05 \times 0.181}{(1-0.09) \times 181301} = 1.016$$

$$m_d = \frac{E100,d \times I}{(1-\nu^2) \times L^3}$$

$$m_d = \frac{7.4E+05 \times 0.181}{(1-0.09) \times 181301} = 0.813$$

Calculate Model Parameters (continue)

T5-34-E13

$$n = k \times \frac{E100 \times A}{(1-\nu^2) \times P}$$

$$n = 1 \times \frac{9.282E+05 \times 1.294}{(1-0.09) \times 203.4} = 6489$$

$$n_d = k \times \frac{E100,d \times A}{(1-\nu^2) \times P}$$

$$n_d = 1 \times \frac{7.426E+05 \times 1.294}{(1-0.09) \times 203.4} = 5191$$

Additional Model Parameter (ω) (State III)

T5-48

$$\omega = \frac{2 \cdot \theta_{II,L}}{\pi^2} = \frac{2 \cdot 0.000\%}{\pi^2} = 0.000\%$$

Blister angle, α_2 (in arc with greater radius) State II, III

T5-49

$$120\pi^2\theta_1\beta\lambda \cdot P_1 + [(3\lambda \cdot P_1 + 4\rho_2\theta_2\boldsymbol{\alpha_2}^2) + 4 \cdot P_1^2\omega] \cdot (3\lambda^2\pi^2\theta_1 \cdot P_1 + 12G\pi^2\theta_1 \cdot P_1^2 + 2\lambda \cdot P_2) = 0$$

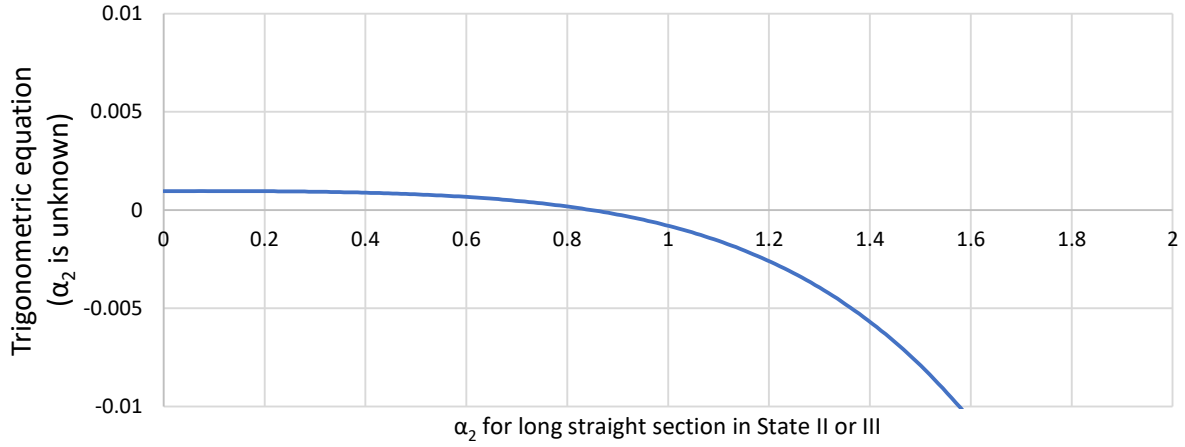
$$P_1 = 1 + g_{12}\theta_2\boldsymbol{\alpha_2}$$

$$P_2 = g_{12}\{-3g_{12}^2 + 2[3 + (-3+g_{12})g_{12}]\pi^2\} \cdot (1-\rho_2) \cdot \theta_1\theta_2^2\boldsymbol{\alpha_2}^3 + 6\pi^2\theta_1(-\alpha_r+\omega) +$$

$$6\pi^2 g_{12}\theta_1\theta_2 \cdot \boldsymbol{\alpha_2}(-3\alpha_r+2\omega) - 2\pi^2\theta_2^2\boldsymbol{\alpha_2}^2\{[\theta_1-\theta_2 \cdot (1-g_{12})^3] \cdot \boldsymbol{\alpha_2} - 3g_{12}^2\theta_1(-3\alpha_r+\omega)\}$$

→ $\boldsymbol{\alpha_2}$ = 0.848739 rad = 48.63 °

Blister angle, α_2 Graph for Long Straight Sections (State II, III)



Blister angle, α_1 (in arc with smaller radius)

T5-35-E8

$$\alpha_1 = \sqrt{\left(\frac{r_2 \times (R - r_2)}{r_1 \times (R - r_1)}\right)} \times \alpha_2$$

$$\alpha_1 = \sqrt{\left(\frac{5.259 \times (294.6 - 5.259)}{5.259 \times (294.6 - 5.259)}\right)} \times 0.848739$$

$\alpha_1 = 0.848739071 = 48.63\ °$

Verify Blister Angle Condition

T5-37-E1

Box or Arch

$$\frac{\alpha_1}{\alpha_{1,pipe}} \le 2 \rightarrow \frac{0.849}{0.699} = 1.214 \le 2 \quad \text{Checked}$$

External Pressure at Deflection Limit

T5-38-E2

for long straight section

$p_{\lambda L} = 6.824652$ psi

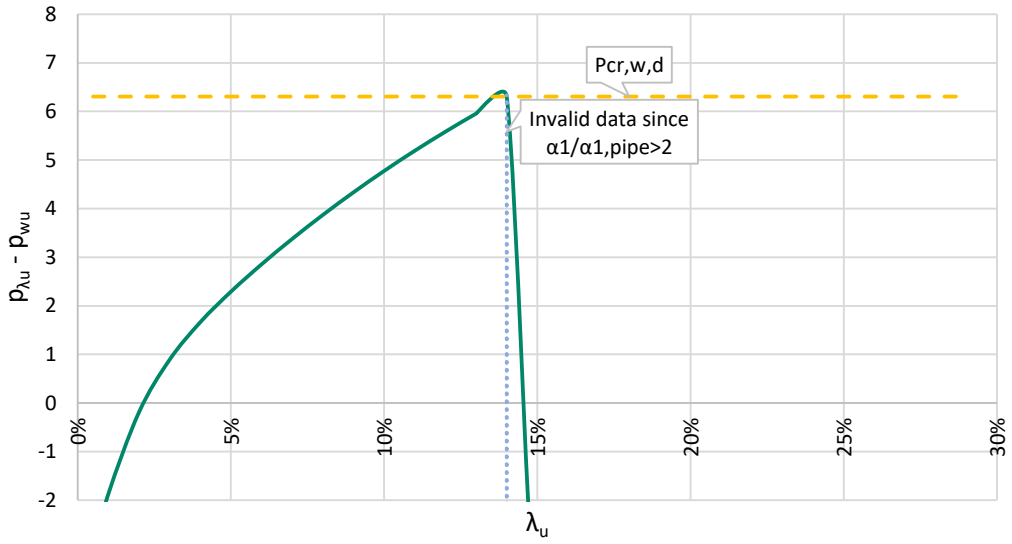
$\eta_L = 1.157713$

$\gamma_L = 0.010555$

$$p_{\lambda L} = \frac{4\pi^4 \cdot m}{\eta^4}\left[\lambda_L + \frac{1}{144\beta \cdot \eta}\left(6\lambda_L\eta - 4\gamma\rho_2 - 12\eta^3\alpha_r + 12\eta^2\omega\right)\cdot\left(12G\eta^2 + 3\lambda_L{}^2\eta - 4\lambda_L\gamma\rho_2 - 12\lambda_L\eta^3\alpha_r + 12\lambda_L\eta^2\omega\right)\right]$$

Determine Factored Relative Deflection, λ_u (for Long Straight Sections)

T5-38-E2.1



State III → ω = 0.000%

p_{wu} = 4.569 → @ λ_u = 2.16% $p_{\lambda u} \approx p_{wu}$

→ $p_{\lambda u}$ = 4.587133 psi And $P_{cr,w,d}$ = max of above graph +p_{wu} = 10.88 psi

Verify Blister Angle Condition for λ_u: @ λ_u → α_2 = 46.25 → α_1 = 46.25 °

$$\rightarrow \frac{\alpha_1}{\alpha_{1,pipe}} \leq 2 \rightarrow \frac{0.807}{0.699} = 1.154 \leq 2 \quad \text{Checked}$$

100-year Design Flex Modulus

T5-26-E1.1 T5-7-E5 T5-13-E2

$E_{100,d} = E_0 \times C_{L,100} \times \Phi_{LM}$

$E_{100,d} = 1{,}450{,}377 \times 0.64 \times 0.8$

$E_{100,d} = 742{,}593$ psi

100-year Design Flex Strength

T5-26-E1.2 T5-7-E5 T5-13-E2

$\sigma_{100,d} = \sigma_F \times F_{L,100} \times \Phi_{LF}$

$\sigma_{100,d} = 17{,}405 \times 0.64 \times 0.9$

$\sigma_{100,d} = 10{,}025$ psi

Design SCC Resistance

T5-26-E1.3 T5-13-E2

$$\varepsilon_{L,d} = \varepsilon_L \times \Phi_{L\varepsilon}$$

$$\varepsilon_{L,d} = 0.0099 \times 1$$

$$\varepsilon_{L,d} = 0.0099$$

Service and Factored Groundwater Pressure

T5-27-E1

$$p_w = \gamma_W \times (H_w - H_b) = 0.434 \times (6.58 - 0) = 2.85572$$

$$p_{w,u} = \gamma_{GW} \times p_w = 1.6 \times 2.856$$

$$p_{w,u} = 4.569152 \text{ psi}$$

Factored Bending Moment in Liner

T5-40-E1 Subcritical

$$M_{w,u} = M_{\lambda u} = 2\pi^2 \times m_d \times L^2 \times \frac{\lambda_u}{\eta^2}$$

$$M_{w,u} = M_{\lambda u} = 2\pi^2 \times 0.812702 \times 3203.316 \times \frac{0.021633}{1.322516}$$

$$M_{w,u} = 840.5618 \text{ lbs-in/in}$$

Factored Hoop Force in Liner

T5-40-E2 Subcritical Long Straight Sections

$$N_{w,u} = N_{\lambda u} = \frac{\pi^2 \cdot n_d}{12} \cdot \frac{L}{\eta^2} \cdot [- 12G\eta^2 + \lambda_u(4\gamma\rho_2 - 3\eta\lambda_u) + 12\eta^3\lambda_u\alpha_r - 12\lambda_u\eta^2\omega]$$

State III → $\omega = 0.000\%$

$$N_{w,u} = 548.0875 \text{ lbs/in}$$

Factored Stress in Liner

T5-29-E3

$$\sigma_{w,f,u} = \frac{6 \times M_{w,u}}{t^2} = \frac{6 \times 840.5618}{1.674436} = 3011.982$$

$$\sigma_{w,h,u} = \frac{N_{w,u}}{t} = \frac{548.0875}{1.294} = 423.5607$$

$$\sigma_{w,c,u} = \sigma_{w,f,u} + \sigma_{w,h,u} = 3012 + 423.6 = 3435.543 \text{ psi}$$

Factored Strain in Liner

T5-29-E4

$$\varepsilon_{w,u} = \frac{\sigma_{w,f,u} - \sigma_{w,h,u}}{E100,d} \times \left(1 - \nu^2\right)$$

$$\varepsilon_{w,u} = \frac{3012 - 423.6}{742592.9256} \times \left(1 - 0.09\right) = 0.003171944 \text{ in./in}$$

Limit State and Capacity Demand Ratio

T5-30-Subcritical (Long Arc)

$$CDR_1 = \frac{p_{cr,w,d}}{p_{w,u}} = \frac{10.87516}{4.569152} = 2.380127$$

$$CDR_2 = \frac{\sigma F,100,d}{\sigma_{w,c,u}} = \frac{10025}{3435.543} = 2.918027$$

$$CDR_3 = \frac{\varepsilon_{L,d}}{\varepsilon_{w,u}} = \frac{0.0099}{0.003172} = 3.121114$$

$$CDR_0 = \frac{p_{\lambda L}}{p_w} = \frac{6.824652}{2.85572} = 2.389818$$

Stability Under all Loads (Critical Hoop Force Coefficients)

T5-6-E1.2

$$R_H = \frac{1-(R/(R+H))^2}{1+(R/(R+H))^2(1-2vs)} = 0.708058$$

R = Span/2 - t/2 = 36.3845

H = Soil cover from surface to the liners top = 39.89701

$$\beta = \frac{1-2v_s}{(1-v_s)^2} = 0.816327$$

Stability Under all Loads (Critical Hoop Force Coefficients)

T5-6-E3

$$N_{cr,m,d} = 1.2 \cdot C_{80} \cdot \left[\frac{\phi_{LM} \cdot E_{50} \cdot I}{1-\nu^2}\right]^{1/3} \cdot \left[\phi_s \cdot M_s \cdot \beta \cdot R_H\right]^{2/3} \qquad C_{80} = 0.55$$

$N_{cr,m,d} = 2084.504$ lbs/in

gives 80% characteristic buckling strength in granular soils

Factored Loads on a Liner in State III

T5-60

$p_{w,u} = p_w \cdot \gamma_{GL} = 2.305408$ psi on the top of liner

$p_{soil,u} = p_{soil} \cdot \gamma_{DL} = 2.413215$ psi

$p_{LL,u} = p_{LL} \cdot \gamma_{LL} = 11.62841$ psi

$p_{SL,u} = p_{SL} \cdot \gamma_{DL} = 0$ psi

$$p_{v,u} = p_{w,u} + p_{soil,u} + p_{LL,u} + p_{SL,u} = 16.34703 \text{ psi}$$

Factored Load Effects in State III (Circular)

T5-61-E2

$$N_u = 0.5 \cdot Span \cdot p_{v,u} = 605.3549 \text{ lbs/in}$$

Capacity demand ratio (for maximum hoop force and maximum hoop stress)

T5-62

$$CDR_4 = \frac{N_{cr,m,d}}{N_u} = \frac{2084.504}{605.3549} = 3.443441 \geq 1 \text{ Checked}$$

$$CDR_5 = \frac{\sigma c,100,d}{N_u/t} = \frac{10025}{467.8168} = 21.42934 \geq 1 \text{ Checked}$$

In case of the subcritical shape design, this check may be skipped if the depth of the soil cover is 3 ft or greater; but FEA is recommended for burial depth below 3 ft

Non-circular Liner: Response to Parallel Plate Loading. Adjustment Factor

T5-65-E1

Flexible Pipe → a = 37.0315, b = 19.5315

$$f_3 = 1 + \frac{2 - 4(a/b) + 2(b/a)}{1 + 3.8(a/b) - 0.26(b/a)}$$

$$f_3 = 1 + \frac{2 - 4(1.896) + 2(0.527)}{1 + 3.8(1.896) - 0.26(0.527)} = 0.438609$$

Non-circular Liner: Response to Parallel Plate Loading. Factored strain

T5-65-E2

$$\varepsilon_{ov,(II/III),u} = f_3 \cdot 2.14 \cdot \frac{2 \; b \cdot dOv_{III,NC}}{R^2} \cdot c$$

$$\varepsilon_{ov,(II/III),u} = 0.439 \cdot 2.14 \cdot \frac{2 \; 19.53 \cdot 0.02}{799.84} \cdot 0.647$$

$$\varepsilon_{ov,(II/III),u} = 0.001125$$

Non-circular Liner: Ring in Elastic Continuum (Factored flexural stress)

T5-65-E3

$$\sigma_{ov,III,u} = \frac{E100}{1 - v^2} \times \varepsilon_{ov,III,u}$$

$$\sigma_{ov,III,u} = \frac{928241.2}{1 - 0.09} \times 0.001125 = 1147.205 \text{ psi}$$

Material Strength

T5-54

$$CDR_6 = \frac{\sigma F,100,d}{\sigma_{ov,(II/III),u}} = \frac{10025}{1147.205} = 8.738634$$

$$CDR_7 = \frac{\varepsilon_{L,d}}{\varepsilon_{ov,(II/III),u}} = \frac{0.0099}{0.001125} = 8.802653$$

HL-93 Design Truck Load Distribution on Surface

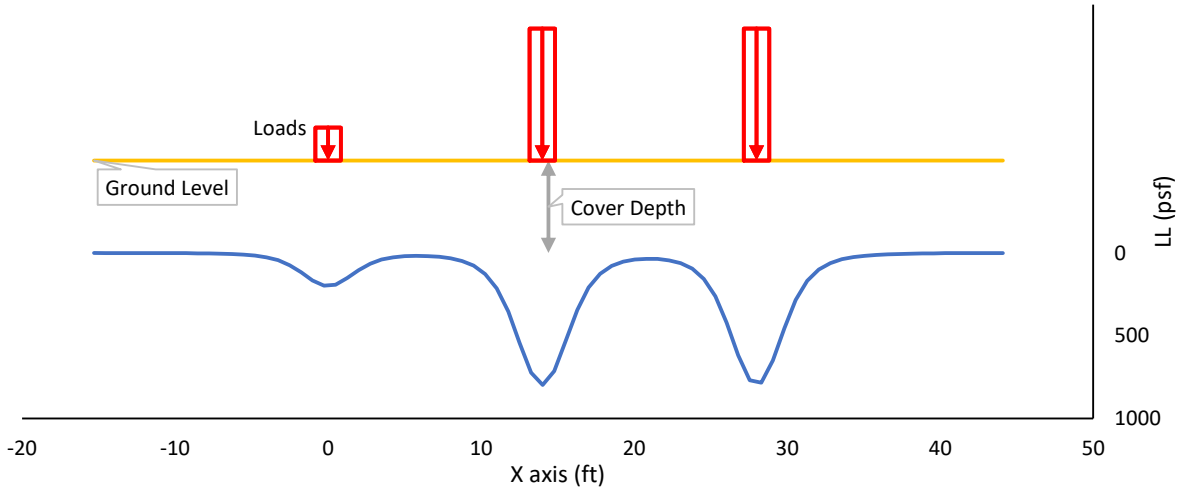
Live Loads (Part 1) Maximum calculted LL pressure is 6.6448033 psi and applied LL is 6.6448033 psi

Load #	-	1	2	3	4	5	6
Load Name	-	Front W	Front W	Rear W1	Rear W1	Rear W2	Rear W2
Load	lb	4000	4000	16000	16000	16000	16000
Load X Dimension	ft	1.667	1.667	1.667	1.667	1.667	1.667
Load Y Dimension	ft	0.833	0.833	0.833	0.833	0.833	0.833
Pressure	psf	2880.00	2880.00	11520.00	11520.00	11520.00	11520.00
X offset	ft	0	0	14	14	28	28
Y offset	ft	3	-3	3	-3	3	-3

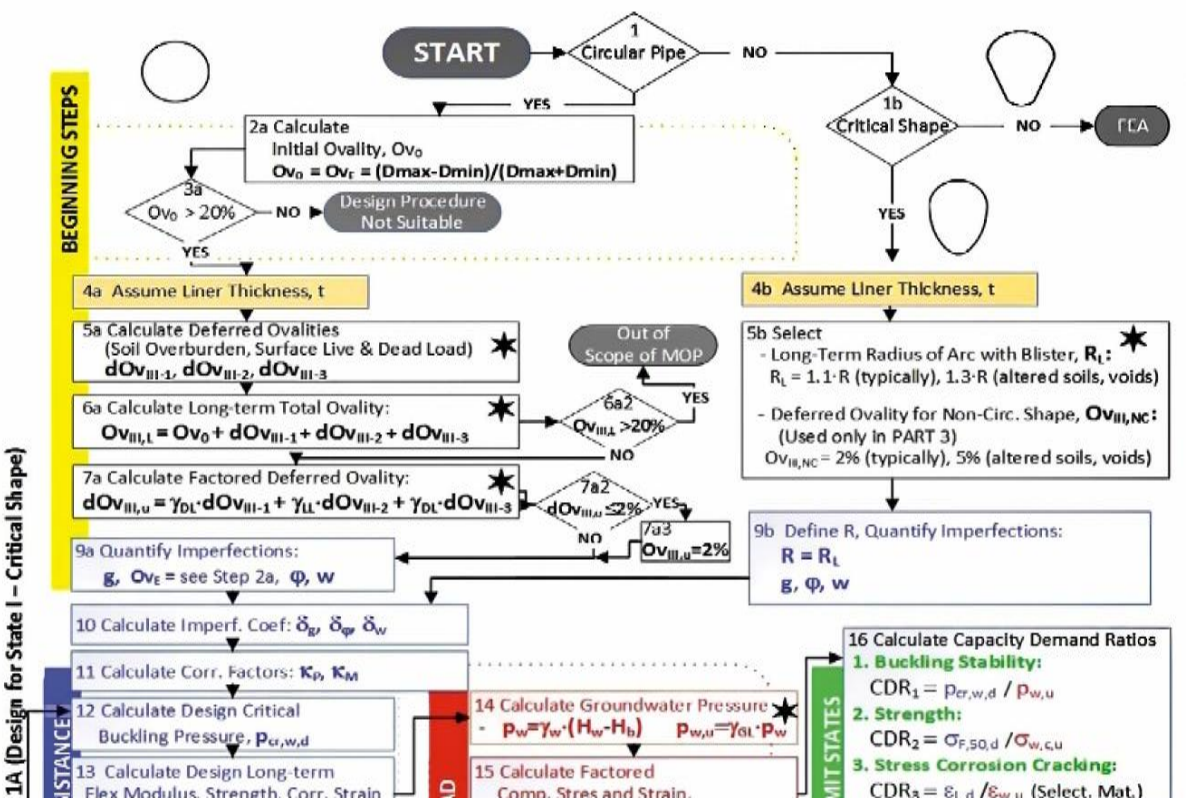
HL-93 Design Truck Load Distribution on Chart

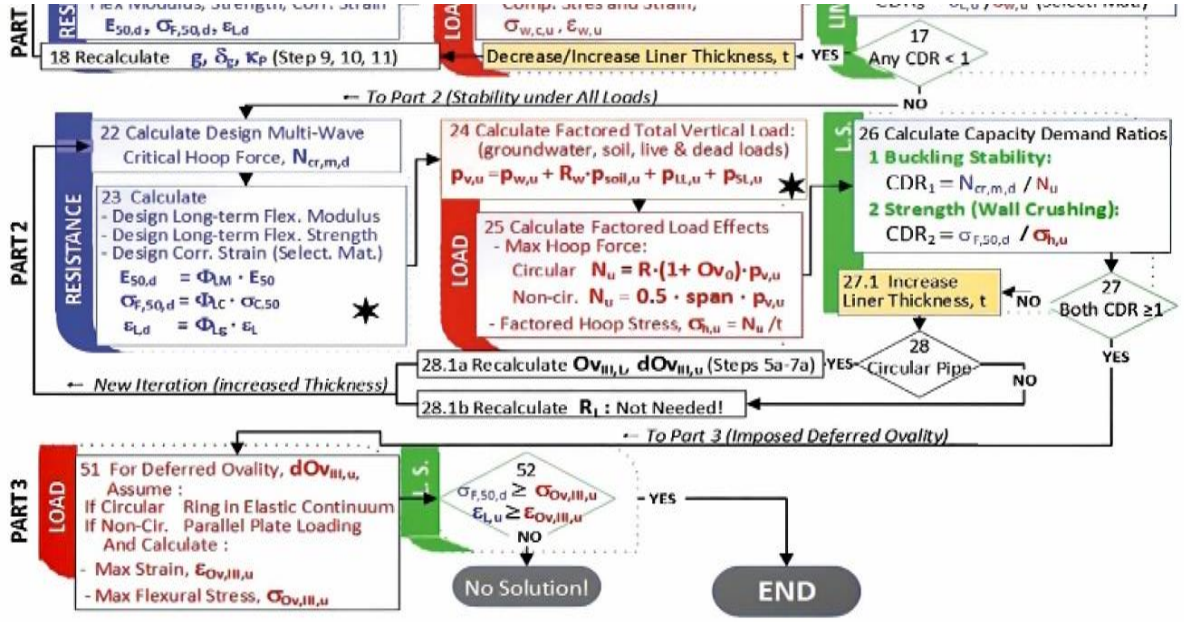
Live Loads Distribution Curve

(LL Pressure distribution at the crown depth, the highest value is taken for calculation)



Flowchart (Source: ASCE MOP145)




PART
RES
LOA
LIN
$E_{50,d}$, $\sigma_{F,50,d}$, $\varepsilon_{L,d}$
$\sigma_{w,c,u}$, $\varepsilon_{w,u}$
18 Recalculate β, δ_c, κ_P (Step 9, 10, 11)
Decrease/Increase Liner Thickness, t
YES
17
Any CDR < 1
NO
To Part 2 (Stability under All Loads)
PART 2
RESISTANCE
22 Calculate Design Multi-Wave Critical Hoop Force, $N_{cr,m,d}$
23 Calculate
- Design Long-term Flex. Modulus
- Design Long-term Flex. Strength
- Design Corr. Strain (Select. Mat.)
$E_{50,d} = \Phi_{LM} \cdot E_{50}$
$\sigma_{F,50,d} = \Phi_{LC} \cdot \sigma_{C,50}$
$\varepsilon_{L,d} = \Phi_{Lg} \cdot \varepsilon_L$
LOAD
24 Calculate Factored Total Vertical Load: (groundwater, soil, live & dead loads)
$p_{v,u} = p_{w,u} + R_w \cdot p_{soil,u} + p_{LL,u} + p_{St,u}$
25 Calculate Factored Load Effects
- Max Hoop Force:
Circular $N_u = R \cdot (1 + Ov_0) \cdot p_{v,u}$
Non-cir. $N_u = 0.5 \cdot span \cdot p_{v,u}$
- Factored Hoop Stress, $\sigma_{h,u} = N_u / t$
L.S.
26 Calculate Capacity Demand Ratios
1 Buckling Stability:
$CDR_1 = N_{cr,m,d} / N_u$
2 Strength (Wall Crushing):
$CDR_2 = \sigma_{F,50,d} / \sigma_{h,u}$
27.1 Increase Liner Thickness, t
NO
27
Both CDR ≥1
YES
28
Circular Pipe
YES
NO
28.1a Recalculate $Ov_{III,L}$, $dOv_{III,u}$ (Steps 5a-7a)
28.1b Recalculate R_I : Not Needed!
New Iteration (increased Thickness)
To Part 3 (Imposed Deferred Ovality)
PART 3
LOAD
51 For Deferred Ovality, $dOv_{III,u}$,
Assume :
If Circular Ring in Elastic Continuum
If Non-Cir. Parallel Plate Loading
And Calculate :
- Max Strain, $\varepsilon_{Ov,III,u}$
- Max Flexural Stress, $\sigma_{Ov,III,u}$
L.S.
52
$\sigma_{F,50,d} \geq \sigma_{Ov,III,u}$
$\varepsilon_{L,u} \geq \varepsilon_{Ov,III,u}$
YES
NO
No Solution!
END

Notations

α_{arc}	Half angle of a liner's arc where the blister develops, radians.
α_1	In subcritical shapes, the smaller of the two blister angles, radians.
α_2	In subcritical shapes, the greater of the two blister angles, radians. (Also a Coefficient in Calculation of Deferred Ovalities in State III, Unitless)
$\alpha_{1,pipe}$	Angle of the pipe arc (invert or crown or corner) over which α1 extends, radians.
$\alpha_{B,P}$	Half angle of pipe's bottom arc, radians.
$\alpha_{CBL,P}$	Half angle of pipe's bottom-left corner, radians.
$\alpha_{CBR,P}$	Half angle of pipe's bottom-right corner, radians.
α_{cr}	Critical half-angle of the blister, radians.
$\alpha_{CTL,P}$	Half angle of pipe's top-left corner, radians.
$\alpha_{CTR,P}$	Half angle of pipe's top-right corner, radians.
$\alpha_{L,P}$	Half angle of pipe's left arc, radians.
$\alpha_{R,P}$	Half angle of pipe's right arc, radians.
$\alpha_{T,P}$	Half angle of pipe's top arc, radians.
γ_{DL}	Load factor on dead load (soil overburden pressure, surface static load), unitless.
γ_{GW}	Load factor on groundwater pressure, unitless.
γ_{LL}	Load factor on live load (traffic), unitless.
γ_s	Soil density, pcf (kg/m3)
γ_w	Hydrostatic pressure gradient of groundwater (unit weight of water), 0.434 psi/ft (9.81 kN/m3).
δ_g	Imperfection coefficient for annular gap, unitless.
ε_L	Corrosion strain of liner material, in./in (mm/mm)
$\varepsilon_{L,d}$	Design corrosion strain of liner material, i.e., in./in (mm/mm).
$\varepsilon_{ov,II}$	Maximum local strain developed in the liner at the crown owing to ovalization (Design for State II), in./in (mm/mm).
$\varepsilon_{ov,III}$	Maximum local strain developed in the liner at the crown owing to ovalization (Design for State III), in./in (mm/mm).
$\varepsilon_{w,u}$	Factored maximum long-term elongation strain in the liner, in./in (mm/mm). This is elongation at factored groundwater pressure.
κ_M	Amplification factor for critical bending moment, unitless.
$\kappa_{N,4h}$	Amplification factor for hoop force (for 4-hinge ovality), unitless.
κ_p	Reduction factor for critical buckling pressure because of imperfections, unitless.
$\kappa_{p,g}$	Reduction factor for critical buckling pressure because of gap, unitless.
λ	Relative deflection of a liner, unitless.
λ_L	Limit relative deflection (serviceability limit), unitless.
λ_u	Factored relative deflection, that is, relative deflection at factored groundwater pressure, unitless.
ν	Poisson's ratio of liner material, unitless.
ν_S	Poisson's ratio of the backfill soil, unitless.
π	3.1415917
$\sigma_{h,u}$	Factored net hoop stress in the liner, psi (kPa).

$\sigma_{w,c}$	Maximum (net) compressive stress in the liner at extreme fibers from groundwater pressure, psi (kpa).
$\sigma_{w,c,u}$	Factored maximum (net) compressive stress in the liner at extreme fibers from groundwater pressure, psi (kpa).
$\sigma_{w,f,u}$	Factored maximum flexural stress in the liner from groundwater pressure, psi (kpa).
$\sigma_{w,h,u}$	Factored maximum hoop stress in liner from groundwater pressure, psi (kpa).
σ_F	Short-term flexural strength of liner material, psi (kpa).
$\sigma_{F,50}$	Long-term (time corrected) flexural strength of liner material at a 50-year service life, psi (kpa).
$\sigma_{F,50,d}$	Design long-term flexural strength of liner (after applying the reduction factor), psi (kpa).
Φ_{LF}	Strength reduction factor (LRFD factor) on a liner's long-term flexural strength, unitless.
$\Phi_{L\varepsilon}$	Strength reduction factor (LRFD factor) on a liner's long-term elongation strength, unitless.
Φ_{LM}	Stiffness reduction factor (LRFD factor) on a liner's long-term flexural modulus, unitless. Also, reduction factor on the liner's long-term buckling stability, unitless.
Φ_S	Strength reduction factor (LRFD factor) on soil constrained modulus, unitless.
A	Cross-sectional area of the unit length of a liner, in2/in (mm2/mm) . For a plain wall, A = t.
a	In a pipe/liner elliptical shape, horizontal semi axis (semimajor). in (mm)
b	In a pipe/liner elliptical shape, vertical semiaxis (semi minor). in (mm)
c	Distance from the liner's neutral axis to the tensile extreme fiber, in (mm).
C_{80}	Correction factor in the formula for a multiwave critical hoop force in the liner, unitless.
CL,100	Creep retention factor for flexural modulus of a liner at 100 years, unitless.
CDR	Capacity Demand Ratio, unitless.
CDR_0	Capacity Demand Ratio for deflection, unitless.
CDR_1	Capacity demand ratio for buckling pressure, unitless.
CDR_2	Capacity demand ratio for compressive stress, unitless.
CDR_3	Capacity demand ratio for flexural strain (elongation), unitless.
CDR_4	Capacity demand ratio for buckling pressure under all loads (State III), unitless.
CDR_5	Capacity demand ratio for wall crushing under all loads (State III), unitless.
d	Liner deflection, in (mm).
d_L	Deflection limit, that is, maximum permissible deflection of a liner as serviceability requirement, in (mm).
D_{equ}	Equivalent diameter (Dequ = P/π), in (mm).
D_{max}	Host pipe's maximum (horizontal) inside diameter, in circular pipes showing ovality, in (mm).
D_{min}	Host pipe's minimum (vertical) inside diameter, in circular pipes showing ovality, in (mm).
$dOv_{III,NC}$	Deferred "ovality" in a noncircular pipe (Design for State III), unitless.
E	Short-term elastic (Young's) modulus of liner material, psi (kPa).
E'	Modulus of soil reaction, psi (kPa).
E_0	Short-term flexural modulus of liner material (ASTM D790), psi (kPa).
E100	Long-term flexural modulus of liner material (ASTM D2990) at a 100-year service life, psi (kPa).
E100,d	Design long-term flexural modulus of liner material (ASTM D2990) at a 100-year service life, psi (kF
F_L	Long-term coefficient of relative stiffness, unitless.
FL,100	Flexural strength retention factor of a liner at 100 years, unitless.

g	Annular gap between a liner and a host pipe, in (mm).
g_{max}	Recommended limit for annular gap (Design for States I, II, III), in (mm).
H	Depth of burial. Same as hsoil, ft (m).
H_b	Head of the center of a blister above the pipe invert (vertical distance), ft (m).
H_{bB}	Head of the center of buttom arc above the pipe invert (vertical distance), ft (m).
H_{bL}	Head of the center of left arc above the pipe invert (vertical distance), ft (m).
H_{bR}	Head of the center of right arc above the pipe invert (vertical distance), ft (m).
H_{bT}	Head of the center of top arc above the pipe invert (vertical distance), ft (m).
h_{soil}	Soil cover thickness (pavement excluded) above the top of a pipe, ft. (m) Note: In Design for State I and II, hsoil is measured to the pipe; in Design for State III, it is measured to the liner. The measurement is taken from the soil surface to the outside wall (top) of the pipe or liner in the pipe crown area.
H_w	Head of water above a pipe invert, ft (m). Note: For the calculation of the groundwater pressure, Hw is taken at the pipe invert. For the calculation of the buoyancy factor, Hw is taken at the pipe crown and, just as it is for hsoil, it is measured to the pipe in Design for State I and II, and to the liner in Design for State III.
I	Area moment of inertia of the unit length of a liner, in.4/in (mm4/mm). For a plain wall, I = t3/12.
k	Buckling mode (deformation mode), that is, the number of blisters that develop because of external pressure. 1 or 2.
k_2	Lateral earth pressure coefficient, unitless.
L	Length of the straight section in a subcritical pipe shape, in (mm).
L_B	Length of the bottom straight section in a subcritical pipe shape, in (mm).
L_L	Length of the left straight section in a subcritical pipe shape, in (mm).
L_R	Length of the right straight section in a subcritical pipe shape, in (mm).
L_T	Length of the top straight section in a subcritical pipe shape, in (mm).
$M_{\lambda u}$	Factored maximum bending moment at the factored relative deflection, λu, that is, maximum bending moment from factored groundwater pressure (per unit length) lbs-in./in (N-mm/mm).
$M_{cr,w,d}$	Design critical bending moment for a liner under groundwater pressure (per unit length), lbs-in./in (N-mm/mm).
M_S	Constrained soil modulus, psi (kPa).
M_w	Max bending moment in the liner (per unit length) from groundwater pressure, lbs-in./in (N-mm/mm).
$M_{w,u}$	Factored max bending moment in the liner (per unit length) from factored groundwater pressure, lbs-in./in (N-mm/mm).
N_{cr}	Critical hoop force (per unit length), lbs/in (N/mm).
$N_{cr,m,d}$	Design multiwave critical hoop force (per unit length), lbs/in (N/mm).
$N_{cr,w,d}$	Design hoop force for a liner under groundwater pressure (per unit length), lbs/in (N/mm).
$N_{\lambda u}$	Factored hoop force at the factored relative deflection, λu, that is, hoop force from factored groundwater pressure (per unit length), lbs-in./in (N-mm/mm).
N_u	Factored hoop force (per unit length), lbs/in.
N_w	Hoop force in a liner (circumferential) from groundwater pressure (per unit length), lbs/in (N/mm).

$N_{w,u}$	Factored hoop force in a liner (circumferential) per unit length from factored groundwater pressure, lbs/in (N/mm).
Ov_0	Initial ovality at the time of rehabilitation (Design for State I, II, III), unitless.
$Ov_{III,L}$	Long-term total ovality (Design for State III), unitless.
Ov_E	Ovality of an elliptical type, unitless.
P	Perimeter of a liner at the neutral axis, in (mm).
p_{cr}	Critical buckling pressure, psi (kPa).
$p_{cr,w}$	Critical buckling pressure for a liner under groundwater pressure, psi (kPa).
$p_{cr,w,d}$	Design critical buckling pressure for a liner under groundwater pressure, psi (kPa).
p_λ	External (groundwater) pressure on a liner at relative deflection λ, psi (kPa).
$p_{\lambda L}$	External (groundwater) pressure on a liner at the relative deflection λL, psi (kPa).
$p_{\lambda u}$	Factored groundwater pressure on a liner (pλu = pw,u), psi (kPa). This pressure causes a factored relative deflection, λu.
p_{LL}	Surface live load, psi (kPa).
$p_{LL,u}$	Factored surface live load, psi (kPa).
p_{SL}	Surface static load, psi (kPa).
$p_{SL,u}$	Factored surface static (dead) load, psi (kPa).
p_{soil}	Soil overburden, psi (kPa).
$p_{soil,u}$	Factored soil overburden pressure, psi (kPa).
$p_{v,u}$	Factored total load (vertical pressure) on top of a liner, psi (kPa).
p_w	Service groundwater pressure on a liner, psi (kPa).
$p_{w,u}$	Factored groundwater pressure on a liner, psi (kPa).
R	In a circular pipe, the radius of a liner (measured to the liner's neutral axis), in (mm). In a noncircular pipe, the radius of a liner arc where the blister develops (measured to the liner's
r_1	In a subcritical shape, the radius of a smaller liner arc that is adjacent to the "straight" section from where a blister spreads (measured to the neutral axis), in (mm).
r_2	In a subcritical shape, the radius of greater liner arc that is adjacent to the "straight" section from where the blister spreads (measured to the neutral axis), in (mm).
R_{arc}	Radius of a pipe arc where the blister develops (measured to the pipe wall), in (mm).
R_B	Radius of the bottom side of the pipe, in (mm).
R_{CBL}	Radius of the bottom-left corner of the pipe, in (mm).
R_{CBR}	Radius of the bottom-right corner of the pipe, in (mm).
R_{cor}	Radius of a pipe arc at the corner (measured to the pipe wall), in (mm). Rc
R_{CTL}	Radius of the top-left corner of the pipe, in (mm).
R_{CTR}	Radius of the top-right corner of the pipe, in (mm).
R_L	Long-term radius of a pipe arc with a blister (Design for State III), in (mm). And Radius of the left side of the pipe, in (mm).
R_R	Radius of the right side of the pipe, in (mm).
R_T	Radius of the top side of the pipe, in (mm).
R_w	Water buoyancy factor, unitless.

s	Liner material shrinkage, %.
span	Liner's span (external width), in (mm). Roughly, the host pipe's inside width, as designed and built.
t	Thickness of the liner, in (mm).
t_P	Wall thickness of the host pipe, in (mm).
w_{crack}	Crack (opening) width, in (mm).

Appendix E – NOAA Atlas 14 for Sanford, Maine

NOAA Atlas 14, Volume 10, Version 3
Location name: Sanford, Maine, USA*
Latitude: 43.4408°, Longitude: -70.7775°
Elevation: 305 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orlan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.312 (0.236-0.407)	0.373 (0.283-0.487)	0.473 (0.357-0.620)	0.556 (0.418-0.731)	0.671 (0.491-0.919)	0.757 (0.544-1.06)	0.847 (0.595-1.23)	0.949 (0.635-1.40)	1.10 (0.709-1.67)	1.22 (0.772-1.89)
10-min	0.442 (0.335-0.576)	0.529 (0.400-0.690)	0.671 (0.506-0.878)	0.788 (0.592-1.04)	0.950 (0.695-1.30)	1.07 (0.771-1.50)	1.20 (0.842-1.74)	1.34 (0.899-1.98)	1.56 (1.00-2.37)	1.73 (1.09-2.68)
15-min	0.520 (0.394-0.678)	0.622 (0.471-0.812)	0.789 (0.596-1.03)	0.927 (0.697-1.22)	1.12 (0.818-1.53)	1.26 (0.906-1.76)	1.41 (0.991-2.04)	1.58 (1.06-2.33)	1.83 (1.18-2.78)	2.03 (1.29-3.15)
30-min	0.693 (0.525-0.903)	0.829 (0.628-1.08)	1.05 (0.794-1.38)	1.24 (0.929-1.63)	1.49 (1.09-2.04)	1.68 (1.21-2.35)	1.88 (1.32-2.72)	2.11 (1.41-3.11)	2.44 (1.58-3.71)	2.71 (1.72-4.20)
60-min	0.865 (0.656-1.13)	1.04 (0.784-1.35)	1.32 (0.992-1.72)	1.54 (1.16-2.03)	1.86 (1.36-2.55)	2.10 (1.51-2.94)	2.35 (1.65-3.41)	2.64 (1.76-3.89)	3.05 (1.97-4.65)	3.39 (2.15-5.26)
2-hr	1.13 (0.861-1.46)	1.37 (1.04-1.77)	1.76 (1.33-2.28)	2.08 (1.57-2.72)	2.52 (1.85-3.44)	2.85 (2.06-3.97)	3.20 (2.26-4.62)	3.61 (2.42-5.29)	4.21 (2.73-6.37)	4.71 (2.99-7.26)
3-hr	1.33 (1.01-1.71)	1.61 (1.23-2.08)	2.08 (1.58-2.69)	2.47 (1.87-3.21)	3.00 (2.21-4.08)	3.40 (2.46-4.72)	3.82 (2.71-5.50)	4.32 (2.90-6.30)	5.05 (3.28-7.62)	5.67 (3.61-8.71)
6-hr	1.74 (1.33-2.23)	2.12 (1.62-2.72)	2.75 (2.10-3.54)	3.28 (2.49-4.24)	3.99 (2.96-5.40)	4.53 (3.30-6.25)	5.10 (3.63-7.30)	5.77 (3.89-8.38)	6.77 (4.41-10.1)	7.61 (4.85-11.6)
12-hr	2.23 (1.72-2.84)	2.74 (2.10-3.49)	3.57 (2.73-4.56)	4.26 (3.24-5.47)	5.20 (3.87-6.99)	5.91 (4.32-8.10)	6.66 (4.76-9.48)	7.55 (5.10-10.9)	8.88 (5.80-13.2)	9.99 (6.39-15.1)
24-hr	2.66 (2.06-3.37)	3.33 (2.57-4.21)	4.42 (3.40-5.61)	5.32 (4.07-6.79)	6.56 (4.90-8.78)	7.48 (5.50-10.2)	8.48 (6.12-12.1)	9.71 (6.58-13.9)	11.6 (7.60-17.2)	13.3 (8.51-19.9)
2-day	2.97 (2.31-3.74)	3.82 (2.96-4.80)	5.20 (4.02-6.56)	6.35 (4.88-8.05)	7.93 (5.98-10.6)	9.08 (6.75-12.5)	10.4 (7.60-14.9)	12.1 (8.18-17.2)	14.8 (9.72-21.8)	17.3 (11.1-25.8)
3-day	3.24 (2.52-4.06)	4.16 (3.23-5.21)	5.66 (4.39-7.11)	6.91 (5.32-8.72)	8.62 (6.52-11.5)	9.86 (7.37-13.5)	11.3 (8.31-16.2)	13.2 (8.94-18.7)	16.3 (10.7-23.8)	19.1 (12.3-28.4)
4-day	3.51 (2.73-4.38)	4.46 (3.47-5.57)	6.02 (4.67-7.53)	7.31 (5.64-9.20)	9.09 (6.88-12.1)	10.4 (7.76-14.2)	11.8 (8.74-17.0)	13.8 (9.39-19.5)	17.1 (11.2-25.0)	20.1 (13.0-29.8)
7-day	4.27 (3.34-5.29)	5.26 (4.11-6.53)	6.88 (5.35-8.57)	8.22 (6.37-10.3)	10.1 (7.65-13.3)	11.4 (8.56-15.5)	12.9 (9.57-18.4)	15.0 (10.2-21.1)	18.4 (12.2-26.7)	21.5 (13.9-31.8)
10-day	4.98 (3.90-6.16)	6.00 (4.70-7.42)	7.66 (5.97-9.50)	9.03 (7.01-11.3)	10.9 (8.31-14.3)	12.3 (9.22-16.6)	13.8 (10.2-19.5)	15.9 (10.9-22.3)	19.3 (12.7-27.9)	22.3 (14.5-32.8)
20-day	7.08 (5.57-8.70)	8.18 (6.43-10.1)	9.97 (7.81-12.3)	11.5 (8.93-14.2)	13.5 (10.2-17.4)	15.0 (11.2-19.8)	16.7 (12.1-22.8)	18.6 (12.8-25.8)	21.5 (14.3-30.9)	24.0 (15.6-35.1)
30-day	8.82 (6.96-10.8)	9.99 (7.87-12.2)	11.9 (9.35-14.6)	13.5 (10.5-16.6)	15.7 (11.9-20.1)	17.3 (12.9-22.6)	19.0 (13.8-25.6)	20.9 (14.4-28.9)	23.5 (15.7-33.5)	25.6 (16.7-37.3)
45-day	11.0 (8.68-13.4)	12.2 (9.67-14.9)	14.3 (11.3-17.5)	16.0 (12.6-19.7)	18.4 (14.0-23.4)	20.2 (15.0-26.1)	22.0 (15.9-29.3)	23.9 (16.5-32.8)	26.2 (17.5-37.2)	28.0 (18.3-40.5)
60-day	12.8 (10.1-15.5)	14.1 (11.2-17.2)	16.3 (12.9-19.9)	18.2 (14.3-22.3)	20.7 (15.7-26.1)	22.7 (16.8-29.1)	24.6 (17.7-32.4)	26.4 (18.3-36.1)	28.7 (19.2-40.6)	30.3 (19.8-43.8)

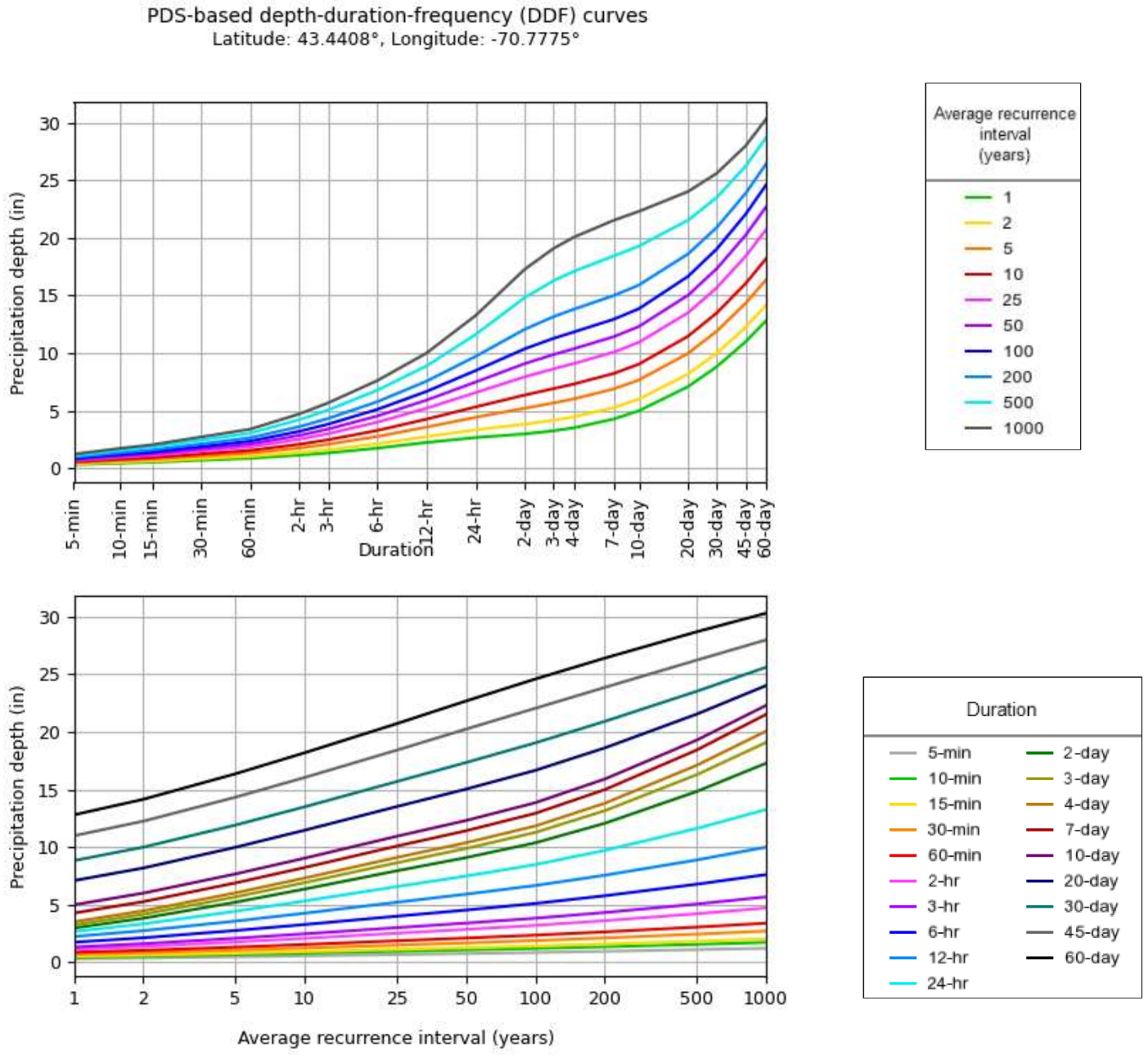
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical



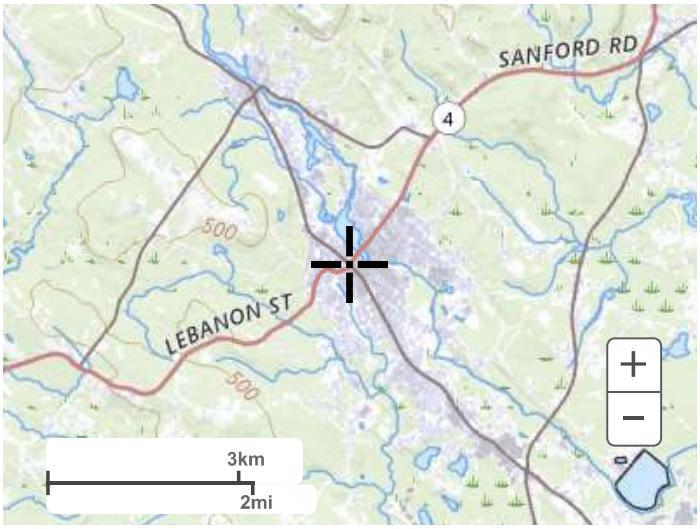
NOAA Atlas 14, Volume 10, Version 3

Created (GMT): Mon Mar 30 14:07:24 2026

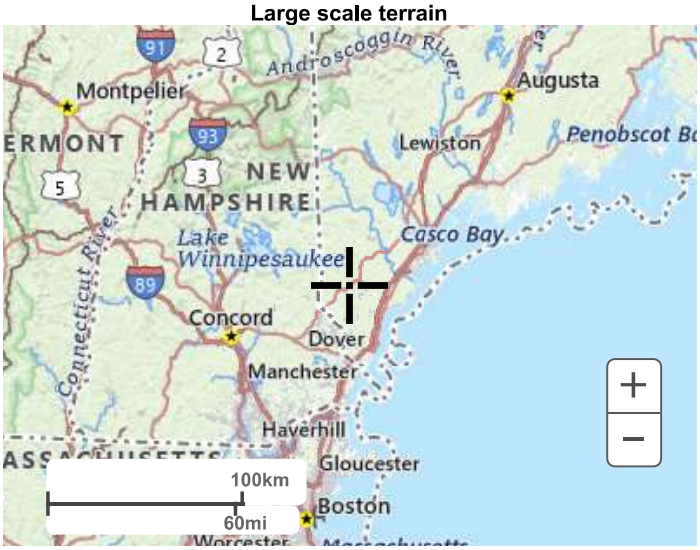
Back to Top

Maps & aerials

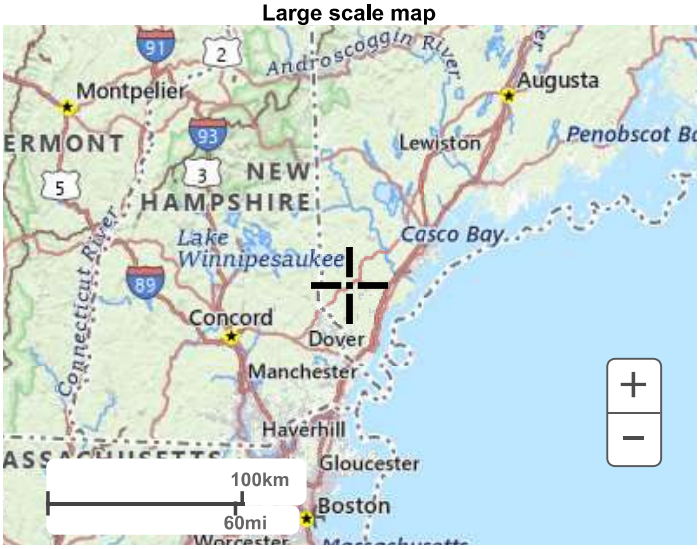
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

Appendix F – Wright Pierce Dam CIP Proposal

WRIGHT-PIERCE
Engineering a Better Environment

11 Bowdoin Mill Island, Suite 140
Topsham, ME 04086
207.725.8721 | wright-pierce.com

April 7, 2026

Matthew E. Hill, P.E.
Director of Public Works, City Engineer
156 School Street
Sanford, ME 04073

SUBJECT: Sanford Dams – Capital Improvement Plan

Dear Matt,

Wright-Pierce is pleased to provide this proposal to the City of Sanford (City) to develop a capital improvement plan for a series of City owned/maintained dams along the Mousam River watershed.

Project Understanding

We understand the City owns or has maintenance responsibilities for a total of nine dams along the Mousam River watershed located within the City, the village of Springvale, and Town of Shapleigh. The Mousam River is an approximately 30-mile-long river with its primary source being Mousam Lake, located between the towns of Shapleigh and Acton. The Mousam flows through Shapleigh, Sanford, and Kennebunk and terminates into the Atlantic Ocean just west of Kennebunk Beach. The Mousam River has a series of 13 dams along the main stretch of the river (excluding major and minor tributaries) that includes the following:

1. Square Pond Outlet, Shapleigh (major tributary) *Low Hazard*
2. Emery Mills Dam, Shapleigh *High Hazard*
3. Mill Street Dam, Springvale *High Hazard*
4. Bridge Street Dam, Springvale
5. Nason Grist Mill Dam, Springvale
6. River Street Dam, Sanford *Significant Hazard*
7. Number One Pond Dam, Sanford *Low Hazard*
8. Goodall-Sanford Complex #1, Sanford
9. Goodall-Sanford Complex #2, Sanford
10. Estes Lake Dam, Sanford *High Hazard* *Private Ownership* *not included in scope*
11. Old Falls Dam, Kennebunk *not included in scope*
12. Dane Perkins Dam, Kennebunk *not included in scope*
13. Twine Mill Dam, Kennebunk *not included in scope*
14. Kesslan Dam, Kennebunk *not included in scope*

Wright-Pierce understands most of these dams are currently used for impoundment and recreation, with former industrial uses around the turn of the 19th century. Dams 1-9 listed above will be reviewed as part of the capital improvement plan scope presented herein. A map showing the location of each dam is provided as an attachment to this proposal.

Dams classified as high and significant hazard potential dams are being inspected by a state dam inspector in accordance with Maine State Law (Title 37B MRSA, Chapter 24), entitled "Dam Safety" which assigns administration of the Maine Dam Safety Program (DSP) to the Maine Department of Defense, Veterans and Emergency Management. We understand the City would like to assess the condition of all dams, regardless of hazard classification, and develop a wholistic capital improvement plan in coordination with the inspection information gathered by the state. Wright-Pierce will use the information from the state to inform inspections and the repair programs of high and significant hazard dams.

Scope of Services

We propose to undertake the following scope of services in accordance with our project understanding and to support the City in programing capital improvements for their dam infrastructure.

Task 1: Project Kick-Off and Data Collection

Task 1.1: Initiation and Data Review

Wright-Pierce will review available existing city historic plans and data for the dam sites, and previous design studies including the Mill Street Dam rehabilitation study completed by Wright-Pierce in 2013. Wright-Pierce will review existing available data from the Maine Emergency Management Agency as well as the Federal Emergency Management Agency National Inventory of Dams.

Task 1.2: Project Meetings

Wright-Pierce will conduct a kick-off meeting with the City to review existing project information and project approach. Wright-Pierce will work with the City to coordinate one meeting with relevant stakeholders after the kick-off meeting with the City. Stakeholders may include MEMA, lake associations, private property owners, and other relevant stakeholders. Two in-person meetings are assumed (kick-off and stakeholder meeting) and three virtual progress meetings with the City throughout the project.

Task 1.3: Confirm Design Criteria

Wright-Pierce will develop a basis of design report which will confirm design criterion for future capital improvements. Design will be in accordance with Title 37B MRSA, Chapter 24.

Task 2: Dam Condition Inspection & Analysis

Task 2.1: Field Dam Inspection

Wright-Pierce will perform a condition inspection of each dam with a two-person inspection crew. Five days of inspections are anticipated, or 80 engineering hours. Inspections will be performed on ground with common hand tools and through a visual inspection in areas where hands-on access cannot be easily obtained. During the inspection, Wright-Pierce will:

- Document and report to the City observed discovery of visible deterioration, defect, or structural deficiency that could be hazardous to the downstream public.
- Determine the extent of minor deterioration and develop conceptual recommendations to the City to plan for routine maintenance and repair work.

- Determine the extent of major deterioration and develop conceptual recommendations to the City to make decisions relative to dam rehabilitation, replacement, and/or removal.
- Recommendations for further study may also be provided to support rehabilitation, replacement, or removal conclusions.

Task 2.2: Dam Condition Inspection Report

A dam condition inspection report for each dam will be provided that will include a summary of field inspection findings and recommendations as described below.

Dam Condition Inspection Report:

- Overview
- General Dam Information
- Inspection Observations – Condition Assessment
  - Conditions will be broken down for each component of the dam (i.e. spillway, embankment, low level outlet, training walls, etc.)
- Hazard Assessment*
- Recommendations
- Attachments
  - Dam Location Map
  - Inspection Sketch produced in AutoCAD C3D
  - Photo Location Plan and Photo Log
  - Existing Plans

*Wright-Pierce will review the hazard classifications provided by MEMA and will alert the City if we believe the hazard classification should be further evaluated by MEMA. Wright-Pierce will not develop its own evaluation of hazard classification.

Task 2.3: Hydrologic and Hydraulic Analysis

Hydrologic Analysis

Wright-Pierce will perform a hydrologic analysis for the nine dams located along the Mousam River watershed included within this scope. The purpose of this analysis is to evaluate watershed characteristics, estimate runoff, and establish inflow hydrographs for each dam under design storm conditions.

The hydrologic analysis will include the following steps:

- Watershed Delineation and Hydrologic Data Preparation:
  - Delineate watersheds contributing to each dam using publicly available LiDAR data and contour mapping. Automated delineation tools such as USGS StreamStats may be utilized to confirm drainage boundaries and compute watershed parameters.

- Analyze land cover and soils data to assist with runoff calculations. NRCS soils data will be used to classify hydrologic soil groups, and land cover classifications will be determined from high-resolution NOAA CCAP Data.

- Hydrologic Model Development:
  - Develop a hydrologic model to represent the flow routing schematic, estimated storage capacity, and computed runoff timing of all nine dams and their contributing watersheds. This approach will allow for an evaluation of capacity constraints and the interactions among the dams within the system.
    - We assume bathymetric data will not be available and bathymetric surveys are not part of the project scope. Impoundment volumes will be estimated using normal pool area, surrounding topography, and dam height from existing plans and/or record drawings.
  - Evaluate approximate spillway capacity, identify overtopping potential and storage limitations.
  - Using the model, complete watershed evaluations for the 10-, 25-, 50-, and 100-year storm events.

Wright-Pierce will also review the capability of aquatic organism passage (AOP) at each dam and make recommendations for improvement, if desired.

Hydraulic Analysis

Following completion of the hydrologic analysis, Wright-Pierce will perform hydraulic modeling for each dam to evaluate existing spillway capacity, outlet performance, and downstream conveyance enhancements under design storm conditions. The inflow hydrographs developed in the hydrologic analysis will be used as input to the hydraulic models. Hydraulic modeling will be completed using HEC-RAS. Flow channel cross-sections will be generated from LiDAR data, and spillway and outlet geometry will be based on available record drawings and inspection data. Primary tasks will include:

- Develop HEC-RAS models for selected dams based on assessed capacity, downstream risk, and structural rehab needs.
  - Incorporate inflow hydrographs from the hydrologic (HydroCAD) model to simulate design storm conditions.
  - Assess peak water surface elevation in the conveyance network (stream channels) at select locations where dam discharge rates are proposed for modification.
  - Design and size proposed improvements to dam spillway structures, and assess the resultant impact on the dam network.

Wright-Pierce has budgeted up to 95 hours to create hydraulic models for existing and proposed conditions models, as required, to assess the hydraulic impacts for recommended repairs.

Task 2.4: Emergency Action Plan Updates

Wright-Pierce will review the Emergency Action Plans (EAP) on file for the Emery Mills, Mill Street, and River Street Dams and will assist the City with updates. The last EAP updates for these dams, in accordance with MEMA, is 5/7/2024. As required by Dam Safety laws, EAP's need to be updated every two years for high and significant hazard dams.

Wright-Pierce will provide the following services to update the EAP's:

- Update the Emergency Action Plans (EAPs) for Emery Mills, Mill Street, and River Street Dams to align with the most recent MEMA EAP template available at the time of project initiation. Updates are assumed to be primarily organizational and formatting based unless otherwise noted.
- Coordinate with the City and MEMA personnel to verify all emergency contact information and notifications.
- A high-level review of the existing dam breach analysis and inundation maps will be performed to confirm consistency with current dam geometry and downstream development. This scope assumes no revisions are required. If updates are required due to MEMA review comments, changed conditions, or new regulatory requirements, additional services would be performed under separate authorization.
- Provide a draft EAP to the City for review and acceptance. Upon acceptance, the Agreement form will be circulated to those with tasks and responsibilities defined in the EAP. Once received, the updated EAP will be certified and submitted to the MEMA for review and acceptance.
- Address any comments received from MEMA staff, revise the document accordingly, and resubmit as needed. This scope includes one round of responses to MEMA review comments.
- Provide up to ten (10) hard-copy sets of the final, MEMA accepted EAP to designated plan holders.

Task 3: Capital Improvement Plan

Task 3.1: Repair Matrix

Wright-Pierce will prepare a repair matrix using Microsoft Excel based on the findings from Tasks 1 and 2. The repair matrix will identify the following:

- Identify critical short-term repair or replacement needs
- Identify long-term rehabilitation or replacement needs
- Identify areas of further study
- Prioritizes repairs based on a likelihood of failure within a specific time period
- Pair data analysis and hydraulic modeling from Task 2.3 to consider over-arching effects for each action and inform the City of permitting strategies and sequencing of work that minimizes critical risks while optimizing environmental betterments.
- Develop a planning level cost estimate (AACE Class 5) for each action that captures either maintenance, repair, or replacement costs depending on the condition assessment as determined in Task 2.2.
- Review potential funding opportunities associated with rehabilitation or replacement recommendations.

Task 3.2: Capital Improvement Plan

Wright-Pierce will develop a Capital Improvement Plan that will outline action steps identified during Task 3.1. It is assumed a draft report will be submitted to the City for review and comment. One round of comments is assumed to be received and incorporated into a final report. The Capital Improvement Plan is anticipated to include the following sections:

Capital Improvement Plan:

- Executive Summary
- Introduction
  - Project Background
  - Previous Inspections and Studies
  - Watershed
  - Scope of Work
- Dams
  - Inspection Reports
- Repair Recommendations Summary
  - Cost estimates
  - Potential funding opportunities
  - Environmental permitting strategies

Fee

For the Scope of Services detailed above, we have prepared the following fee breakdown.

Task and Fee Breakdown	Associated Fee
1) Project Kick-Off and Data Collection	$ 11,000
2) Dam Condition Inspection and Analysis	$ 122,500
3) Capital Improvement Plan	$ 31,500
Estimated Non-Labor Costs	$ 1,500
Total Fee	**$ 166,500**

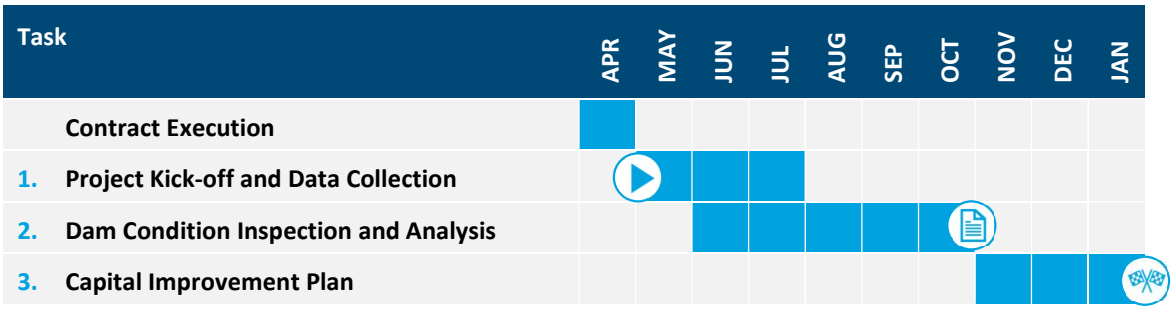
This fee includes our time and all reimbursable expenses. Fees charged by Wright-Pierce will be invoiced monthly and will be based on our hourly billing rates, plus non-labor expenses, which will be billed at straight costs in accordance with our Structural Engineering Consultant Professional Services Agreement or under a separate agreement with the City. Our fee reflects our understanding of the needs of the City.

Scope Assumptions

1. Existing EAPs will be provided to Wright-Pierce.
2. Future studies identified will not be performed under this scope of services.
3. Utility coordination will be provided by others, as needed.
4. No survey services are included within this proposal.
5. Geotechnical engineering services are not included within this proposal.
6. Natural resource delineation and permitting services are not included within this proposal.
7. Preliminary and final design services are not included within this proposal.
8. A visual inspection will be conducted only, with limited hands-on access.
9. No dive inspections are included within this proposal.
10. No material testing is included within this proposal.

Schedule

Wright-Pierce is available to begin work on this project upon receiving authorization to proceed. We anticipate the scope of services to be completed within nine (9) months under the following proposed schedule.



Inspections are assumed to be completed during fair weather conditions and not during winter conditions. We have schedule flexibility as needed and are willing to work with the City to develop a detailed project delivery schedule. Should you have any questions or wish to discuss this proposal further, please do not hesitate to contact me at 207-798-3757.

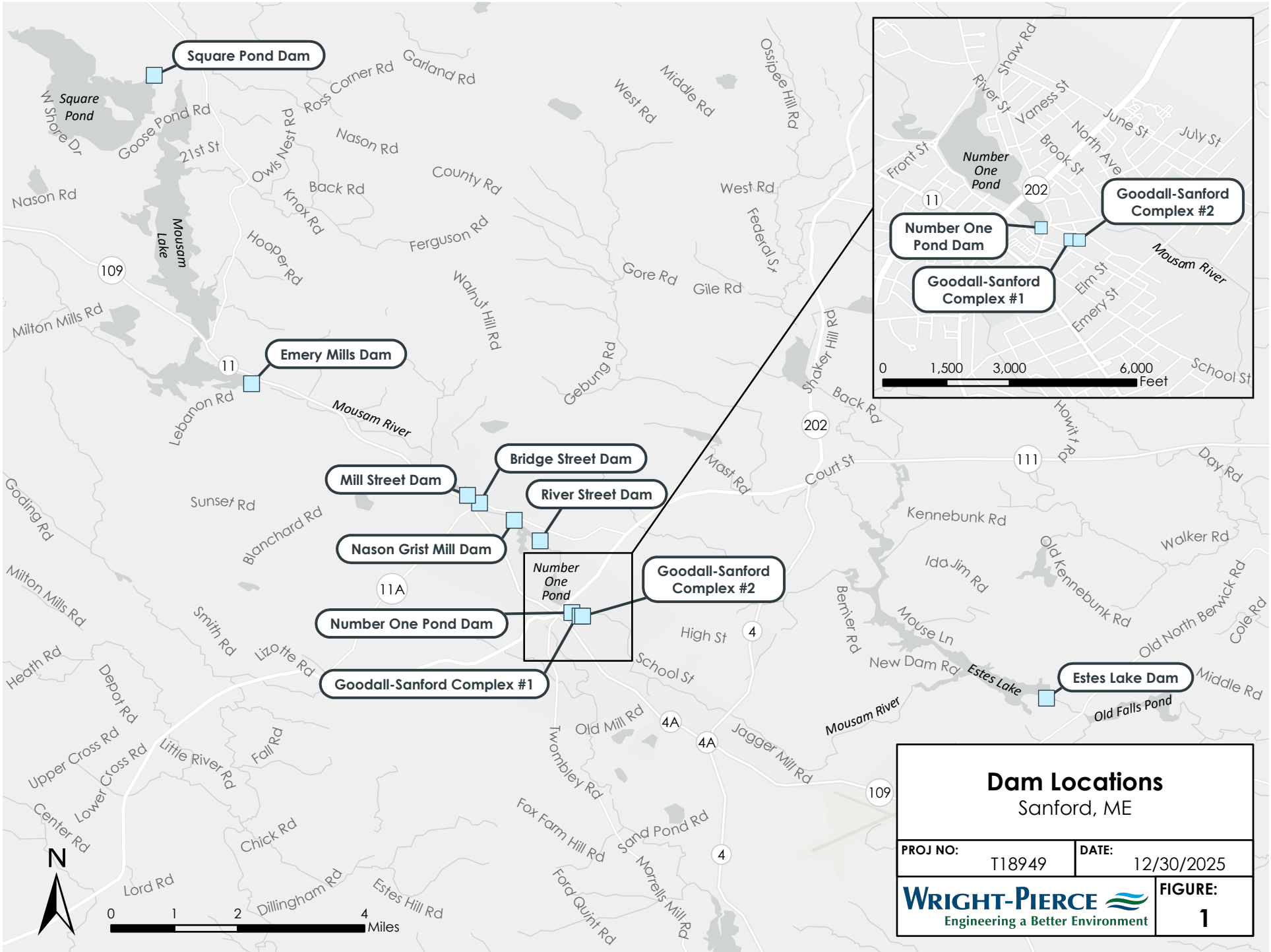
Sincerely,
WRIGHT-PIERCE

Westley Nuhn, PE
Project Manager
westley.nuhn@wright-pierce.com

Jason Gallant, PE
Senior Associate
jason.gallant@wright-pierce.com

Attachments:
- Dam Location Map

WRIGHT-PIERCE
Engineering a Better Environment



Dam Locations
Sanford, ME

PROJ NO:	DATE:
T18949	12/30/2025

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FIGURE: 1

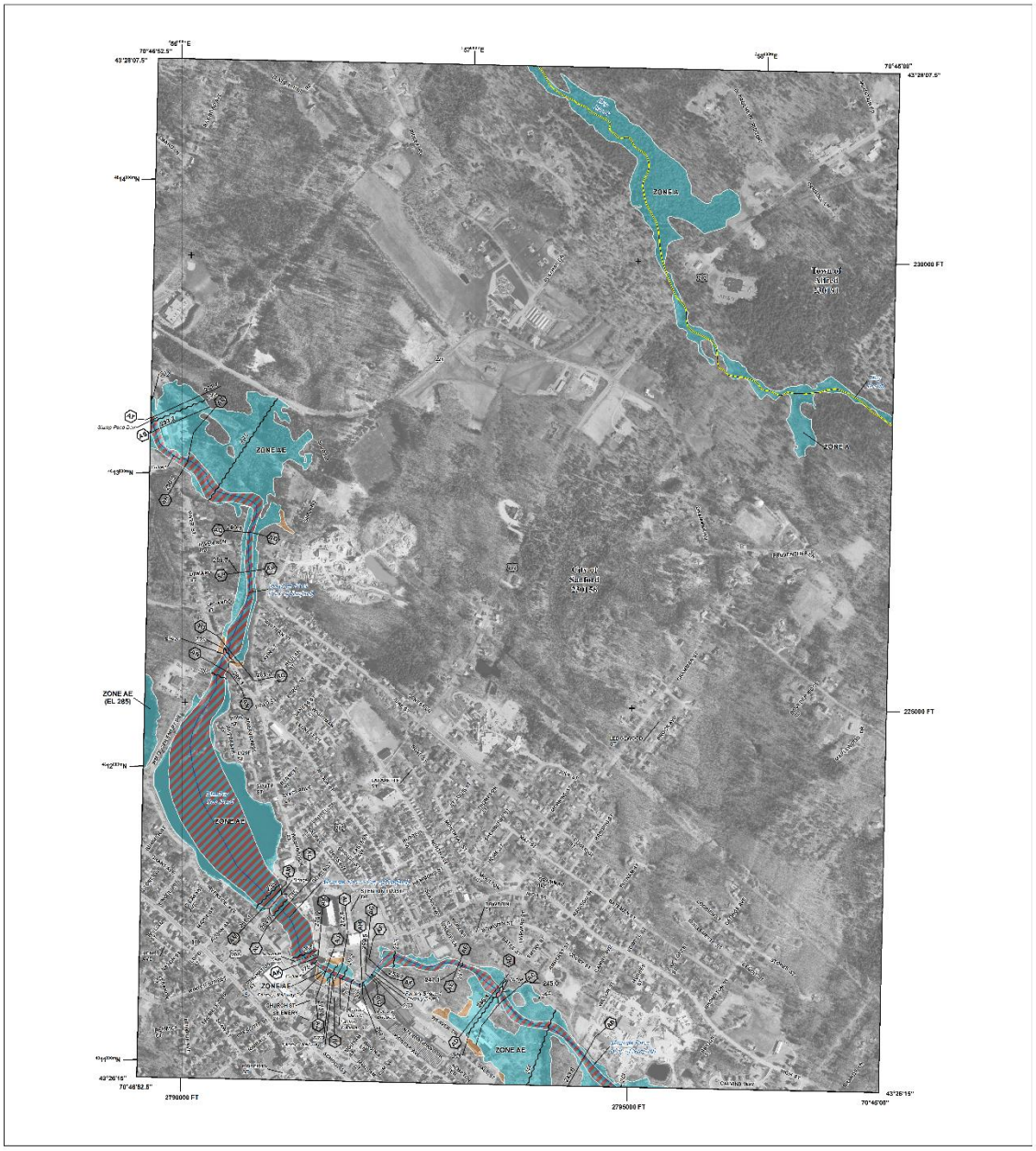
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Appendix G – Stormwater Utility References

Stormwater Utility References

Maine MS4 Program
https://www.maine.gov/dep/water/wd/ms4/index.html
US EPA
Paying for Stormwater - The Benefits of a Utility | US EPA
Southern Main Stormwater Working Group
https://smswg.org/
The Watershed Institute – Stormwater Utility
https://thewatershed.org/25653-2/
The Watershed Institute – Sample Ordinance from Watershed Institute and NJDEP
https://thewatershed.org/wp-content/uploads/2023/11/Watershed-Institute-Enhanced-Stormwater-Management-Ordinance-2023-1.pdf
Stormwater Utility Fees and Credits: A Funding Strategy for Sustainability
https://www.mdpi.com/2071-1050/11/7/1913
Stormwater Fees: Overview of Municipal Stormwater Fee Programs – Pennsylvania Environmental Council
2021-04-StormwaterFee_Guide_REV.pdf
Local Municipal Reference & Case Study – Portland, Maine
https://portlandmaine.gov/1108/Stormwater-Billing
https://www.cascobayestuary.org/wp-content/uploads/2021/01/Review-of-Stormwater-Fee-Implementation-Final-11-26-18.pdf
Local Municipal Reference – Bangor, Maine
https://www.bangormaine.gov/m/faq?cat=33#question-160
Local Municipal Reference – Lewiston, Maine
https://me-lewiston.civicplus.com/199/Stormwater-Utility
Municipal Reference – Dedham
https://www.dedham-ma.gov/town-departments/engineering/stormwater-utility-fee#:~:text=The%20Town%20of%20Dedham%20issues%20a%20utility,of%20total%20impervious%20area%20are%20not%20billed.
Municipal Reference – Red Wing, Minnesota
https://www.redwingmn.gov/DocumentCenter/View/916/Understanding-Stormwater-Utility-Fees-PDF
Municipal Reference & Case Study – Sumner, Iowa
https://iowastormwater.org/resources/stormwater-utilities/
https://www.msa-ps.com/stormwater-utility-fees-a-good-fit-for-your-community/

Appendix H – FEMA Flood Maps



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTPS://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Area of Undetermined Flood Hazard Zone D

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall
- 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- Base Flood Elevation Line (BFE)

OTHER FEATURES
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

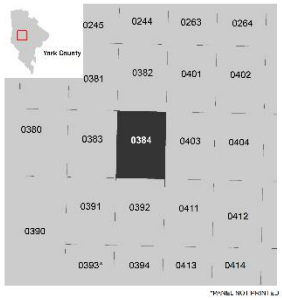
SCALE

1 inch = 500 feet 1:6,000

0 500 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

YORK COUNTY, MAINE

PANEL 0384 OF 0800

FEMA

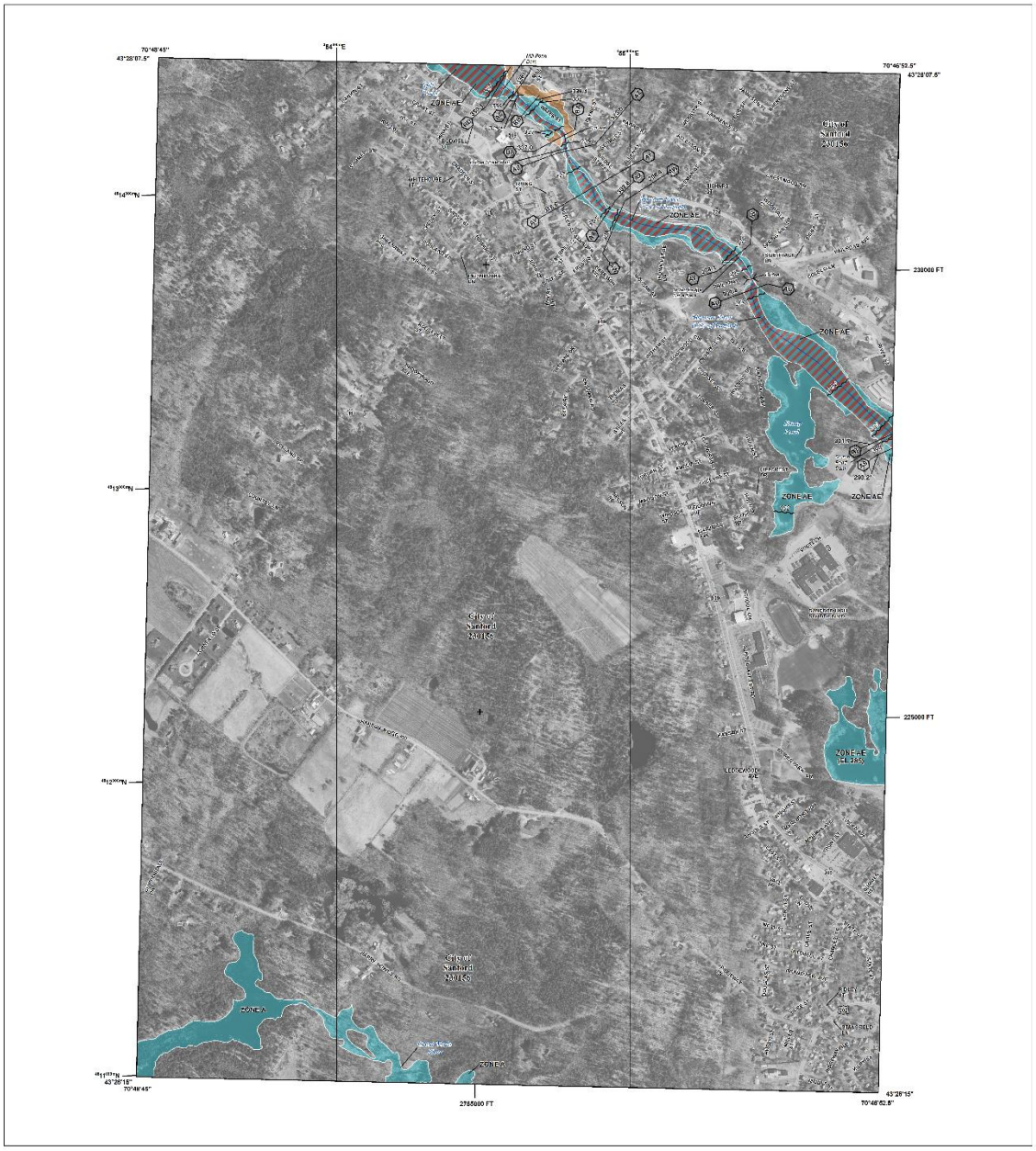
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VERSION NUMBER
2.3.2.1

MAP NUMBER
23031C0384G

EFFECTIVE DATE
July 17, 2024



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

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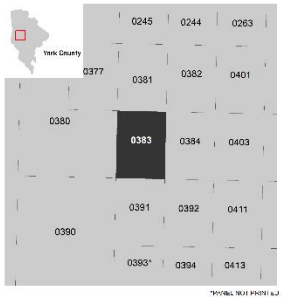
OTHER FEATURES
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- Jurisdiction Boundary

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0 125 250 500 Meters

PANEL LOCATOR

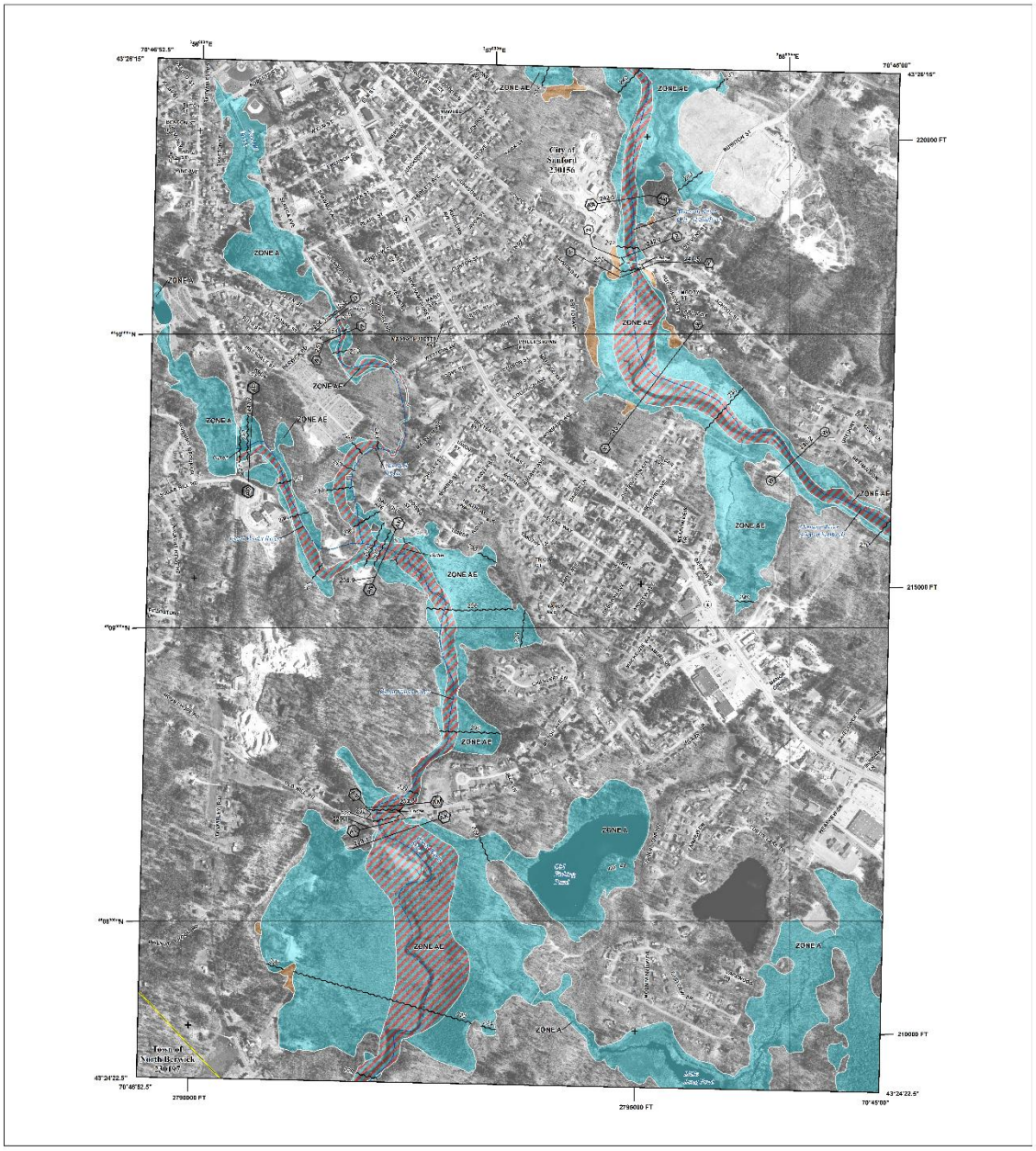


FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
YORK COUNTY, MAINE
PANEL 0383 OF 0800
Panel Contains:
COMMUNITY NUMBER PANEL SUFFIX

VERSION NUMBER 2.3.2.1
MAP NUMBER 23031C0383G
EFFECTIVE DATE July 17, 2024



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTPS://MSC.FEMA.GOV

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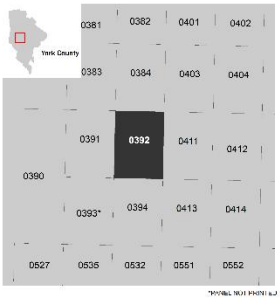
OTHER FEATURES
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

SCALE

1 inch = 500 feet 1:6,000
0 500 1,000 2,000 Feet
0 125 250 500 Meters

PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
YORK COUNTY, MAINE
PANEL 0392 OF 0800
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
SANFORD, CITY OF	230151	0392	G

VERSION NUMBER
2.3.2.1
MAP NUMBER
23031C0392G
EFFECTIVE DATE
July 17, 2024