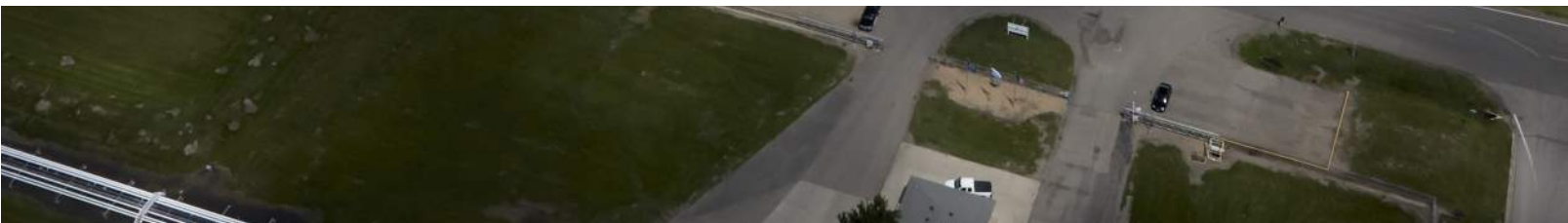




## **SOUTHWEST MINNESOTA REGIONAL AIRPORT** Professional Airport Consulting Services

**John Peterson, PE**  
Client Service Manager  
[john.peterson@tkda.com](mailto:john.peterson@tkda.com) | 651.292.4558

444 Cedar Street, Suite 1500  
Saint Paul, Minnesota 55101-2140  
[www.tkda.com](http://www.tkda.com)





444 Cedar Street, Suite 1500  
Saint Paul, MN 55101  
651.292.4400  
tkda.com

February 28, 2020

Mr. Glenn J. Olson, PE  
Public Works Director/City Engineer  
City of Marshall  
344 West Main Street  
Marshall, Minnesota 56258

Re: Request for Qualifications  
Airport Consultant Services  
Southwest Minnesota Regional Airport

Dear Mr. Olson:

It has been TKDA's pleasure to serve as the consultant for the Southwest Minnesota Regional Airport since our selection by the City in 1992. We are excited for the opportunity to continue working with the City to maintain and improve the airport well into the future. Through our experience working closely with city staff, the Airport Commission, and airport users, we are familiar with and understand the importance of the airport to the community and local businesses.

It is crucial that your aviation consultant understand, enhance, and translate your local needs and vision into a plan that supports sustained growth and economic activity in a fiscally responsible fashion. We advocate on your behalf with the federal and state agencies to ensure you get the maximum amount of funding available, and thus can reduce your local costs. As your trusted advisor, we will help you plan for growth, maintain existing facilities, design cost effective projects, and oversee these projects through completion so your airport can continue to grow and prosper.

We will continue to bring to you the same team that you've become familiar with, including John Peterson, PE as your client service manager, Dan Sherer, PE as lead engineer, Marcus Watson, CM as planning lead, and Jay Wiederholt, AIA as architect. Those key personnel are backed by a talented staff of 35 dedicated full-time aviation experts who are also familiar with your airport, plus technical assistance from over 300 other in-house professionals who are available to assist you. Our superior technical expertise comes from having served Minnesota airports both large and small for over 77 years. That long history provides us with the distinct advantage of having a full range of specialized airport services from a single source.

Our team has extensive experience on projects very similar, if not identical to those you've identified in your Request for Qualifications and 5-year Capital Improvement Program. We have experience in all of the following areas, including previous experience at Southwest Minnesota Regional Airport:

- Acquire Land in the Runway Approach
- Wildlife Management Plan Update
- Acquire Snow Removal Equipment
- Design and Construct Dual Use ARFF and Maintenance Equipment Facility
- Design and Construct Corporate Hangar Facility

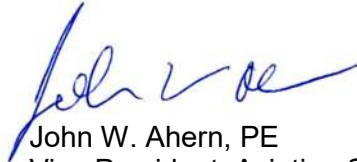
Southwest Minnesota Regional Airport  
City of Marshall  
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- Construct Hangar Site Taxilanes and T-Hangars
- Construct Parking Lot, Access Roads
- Install Airport Perimeter Fencing and Access Gates
- Install Airfield Lighting & Navigational Aids
- Rehabilitate Airfield Pavements
- Conduct Environmental Assessment to Extend Runway 2/20 and Taxiway B
- Construct Runway 2/20 and Taxiway B Extension
- Conduct Miscellaneous Studies for the Above Listed Projects

We are excited about the opportunity to continue to serve the City of Marshall as you improve the Southwest Minnesota Regional Airport to meet the needs of the community. If you have any questions about any of the enclosed information, please contact us. As always, we welcome any opportunity to come out and meet with your Airport Commission or City Council to present our services and discuss the opportunities for your airport.



John N. Peterson, PE  
Group Manager, Aviation Services  
john.peterson@tkda.com  
651.292.4558



John W. Ahern, PE  
Vice President, Aviation Services  
john.ahern@tkda.com  
651.292.4441







## The Source for Expert Aviation Services

Services  
**Engineering**  
**Planning**  
**Sustainable Design**  
**Construction Administration**  
**Architecture**

### Awards

**City of Marshall (Southwest MN Regional Airport); Marshall Air Park East Building Area**

Project of the Year (Key GA Airport)  
Minnesota Council of Airports

**City of Park Rapids; Runway 18/36**

Project of the Year (Key GA Airport)  
Minnesota Council of Airports

**City of Morris; FBO Hangar**

Business Development/  
Non-Aeronautical Award  
Minnesota Council of Airports

**Minneapolis-St. Paul International Airport; Runway 17/35**

Grand Award  
ACEC of Minnesota

**Camp Ripley Taxiway Reconstruction**

Concrete Paving Merit Award  
Concrete Paving Association of Minnesota

**Firm of the Year Award**

ACEC of Minnesota

**Duluth International Airport Terminal**

Project of the Year  
Minnesota Council of Airports

### Minnesota Offices

**Saint Paul, MN**

**Duluth, MN**

**Bloomington, MN - Aviation**

**Mankato, MN - Aviation (coming soon)**

**TKDA** is a Minnesota-based 100% employee-owned engineering, architecture, and planning firm established in 1910. As a multidiscipline firm, TKDA has provided comprehensive, award-winning services to communities, public agencies, and the private industry for over 100 years.

TKDA has operated a strong aviation division since 1943 with a team of airport professionals solely dedicated to airport planning, design, and construction services. This group is supported by TKDA's architecture, facilities engineering, municipal, rail, and surface transportation professionals who work closely with our aviation team to address any project challenges that may arise. Our employees are passionate about aviation and dedicated to delivering the highest standards of excellence to our general, commercial, and military aviation clients across the United States.

We are proud to have served as your trusted advisor over the last 28 years and see ourselves as an extension of your city staff. Our work will be centered on your needs, goals, and values. As your consultant, we will continue to collaborate with you to ensure your expectations are clearly met. As your trusted partner, our expertise and experience supports your leadership role on each successful project.

TKDA has completed many successful projects at MML and we have a keen understanding of your airport needs. We have the experience to complete nearly any type of planning, design, and construction administration project at your airport with a staff based entirely in Minnesota.



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# Firm History and Overview

## Providing Exceptional Service to Minnesota Airports

Our experienced staff and quality service are what have made TKDA a leader in the aviation market in Minnesota for over 77 years. We have performed a wide range of services for our clients including feasibility studies, master planning, preliminary design, cost estimating, surveying, final design, construction observation, and administration. TKDA also provides in-house electrical, mechanical, and structural engineering along with architecture, interior design, hydrology, and GIS. All of these services provide a single-source solution meeting nearly all of your airport needs.

TKDA's success as consulting engineers at airports, large and small, has taught us that engineering design is only part (in some cases, a small part) of the service we provide. **Our true value comes to you when our technical skills are combined with our working understanding of airport environments, MnDOT and FAA relationships, requirements, and processes.**

In addition to FAA compliance, each airport has a unique set of issues: geographic location, soil conditions, property boundaries, airspace restrictions, wetlands, and utility crossings, just to name a few. In each case, these unique issues must be reconciled with MnDOT, FAA, adjacent landowners, environmental agencies, utility companies, and concerned citizens. TKDA recognizes the importance of addressing these issues early and throughout the project, so they can be successfully resolved. Since we are a full-service firm, TKDA can draw from a range of technical disciplines to address virtually any issue that may arise.

## Our Service Philosophy

At TKDA, we strive to develop long-term client relationships by providing high-quality, specialized work products and superior client service. Our aviation resume illustrates our strong technical skills, but we know technical competence alone is not enough to fully meet our client's expectations. Client service is easy in concept, but more difficult in practice. Everyone claims to provide it, but few actually deliver it. **TKDA makes superior client service an integral part of our overall aviation services.**

- **Knowing you.** It has been a great pleasure getting to know the Marshall staff and we look forward to further cultivating that relationship.
- **Managing our overall project and client backlog.** We work hard to meet the needs of our existing clients and only undertake new clients when qualified staff is available and can be fully committed to serve the client's needs.

- **Taking time to understand your local challenges.** Other firms ignore the local aspect associated with planned airport development, which often leads to delays and higher development costs. TKDA takes the time to understand your specific challenges, whether it's funding, political opposition, or community concern, we work with you to keep projects moving forward. As an airport advisor, we measure success in how well we meet the needs of your community.
- **Being readily accessible to answer our client's questions and concerns.** Our project team is available in person, by phone, or electronically to provide you the quickest and most efficient service. We strive to provide timely responses to your questions or issues within 24 hours.
- **Routine communication during and between projects.** The importance of project communication is obvious, but we also regularly communicate with our clients between projects by attending airport commission meetings, providing regular updates via telephone, electronically, and during face-to-face meetings. This regular communication between projects is critical since it provides important insight with regard to future development and allows the team to address any unforeseen issues or opportunities.
- **Being a team player.** In the end, this is your airport and must reflect your unique set of uses, features, and amenities. As your advisor, we will continue to ensure your wishes and expectations are addressed in our work and will always be respectful of your leadership role.
- **Delivering projects on time and within budget.** TKDA recognizes projects delivered on time and within budget are vital for success. Over the past 5 years of completed projects, TKDA's average bid cost for airport projects is 13.0% less than the engineer's estimate, with the final project construction cost 3.2% less than the bid price. We also understand the demands of your airport users and the impacts to your airport when schedules are not met.



Mankato Taxiway Lighting Replacement

## Effective Planning

TKDA has worked with many airports to maintain their existing facilities in excellent condition while developing new facilities to accommodate both existing and potential airport users, including airfield development, hangar improvements, and building areas.

TKDA's airport master planning process evaluates short-and long-term issues and opportunities, works with airport stakeholders to identify facility requirements, and presents flexible development options and recommendations. TKDA will continue to assist you in producing a 5-, 10-, and 20-year Capital Improvements Program (CIP) and economic analysis to provide airport management a roadmap for future growth. One of the requirements for receiving funding is for projects to be included on your Airport Layout Plan (ALP). We confirm any changes to your plans are reflected on your ALP and, thus, eligible for state and federal funding.

In addition to the master planning efforts, development on and near the airport must consider zoning requirements and compatible land use. TKDA is well-versed with the Minnesota airport zoning rules in addition to local zoning and land use regulations. TKDA assists our clients in implementing zoning criteria that protects the airport from potential hazards to air navigation while maximizing the opportunity for local land use and positive growth.

Marshall is due to update its airport zoning ordinance to reflect current and planned airport approaches. TKDA has the knowledge and experience to complete that update.

Another critical funding requirement is to have an up-to-date Disadvantaged Business Enterprise (DBE) Plan. We routinely develop and update your DBE plan in order to capitalize on incentives in this area.

## Maximize Grants and Funding

Successful projects depend upon the availability of funding to execute them. TKDA will champion your airport development needs by collaborating with you, airport users, the general public, local entities, elected government officials, and agencies to support the airport's role within the system. TKDA's experience, knowledge of regulations, and long-standing relationships with your FAA and MnDOT representatives will result in a unique and financially feasible plan that meets your specific airport needs.

There are a variety of funding programs available to Minnesota airports including:

- FAA GA Entitlement Funding. Up to \$150,000 per year for federally eligible (NPIAS) general aviation locations. This money can be accumulated for four years before the

funds are in a "use-or-lose" situation.

- FAA Discretionary Funding. These are excess or "turn back" funds distributed toward the end of the FAA fiscal year according to a project priority formula.
- FAA State Apportionment Funding. Approximately \$5.0M is annually distributed statewide according to priorities established by MnDOT and the FAA. These funds are usually designated by location several years in advance.
- MnDOT Grant Program. These funds (historically \$3.0M to \$5.0M per year) are used to supplement FAA projects and project not qualifying for federal funds.
- MnDOT Revolving Hangar Loan Fund. This fund provides for 20-year 80% interest-free loans for hangar buildings.
- MnDOT Operation and Maintenance Funds. These funds are available on a 75% basis for snow removal, mowing, and lighting costs. The amount of funding varies by the size of the airport.
- Alternative funding sources. These may include federal stimulus, "green" programs, state bonding, or economic development grants.

TKDA has worked with all of the above programs and will leverage our knowledge to benefit your development goals. In addition to traditional FAA and State funding sources, we help our airport clients secure FAA Discretionary or State Apportionment funds for major airport development projects. Our staff is very knowledgeable in the FAA grant administration process, requirements, and deadlines. Examples of our recent funding successes for Minnesota general aviation airports include:

- Southwest Minnesota Regional Airport  
Mill and Overlay Runway 2/20 .....\$640,822
- Ely Municipal Airport  
Rehabilitate Runway 12/30, Lighting.....\$3,704,613
- Ely Municipal Airport  
Construct Taxiway, Remove Obstructions .....\$2,836,567
- Alexandria – Chandler Field  
Rehabilitate Runway 4/22, Taxiways, Apron.....\$1,234,874
- Mankato Regional Airport  
Install Taxiway Edge Lights (LED) .....\$1,813,437
- Morris Municipal Airport  
Acquire Land, Construct 110' x 80' Hangar..... \$854,860
- Morris Municipal Airport  
Construct Parallel Taxiway .....\$2,567,160
- Park Rapids Municipal Airport  
Construct Runway 18/36..... \$2,491,395
- Park Rapids Municipal Airport  
Rehabilitate Apron/Taxiway .....\$1,517,745

# Firm History and Overview

## Helping You Get the Most for Your Money

TKDA actively advocates on behalf of the City of Marshall with the FAA and MnDOT Aeronautics to ensure that you are well positioned for federal and state funding to support the projects that are a local priority. We understand that for a community such as yours, the local share is often some of the hardest funding to obtain, so maximizing the federal and state shares is critical to getting your projects completed. We also serve as an open resource to guide you through the myriad of federal and state regulations.

Projects need to provide a return on investment and TKDA will assist the City in maximizing its investment. To achieve that, TKDA will participate in Airport Commission meetings as well as the Capital Improvement Program Outreach Meeting with MnDOT and the FAA every year at no cost to you. Furthermore, when we provide you with a proposal for services, we include a fee schedule illustrating hours estimated, fees, and direct costs. We work with you to identify potential savings to deliver a successful project within its budget.

We also help position our clients for funding by developing detailed project scopes and estimates early in the CIP process. Cities, MnDOT, and the FAA have greatly appreciated the detail and accuracy of TKDA's planning efforts as it has allowed them to better plan for future infrastructure improvements, aggressively compete for funds, and efficiently distribute funds when made available.

## Leveraged Relationships

As stated earlier, grants and funding are the great enabler of your airport's plans. Your success will be the direct result of our ability to leverage our relationships with the FAA and MnDOT Aeronautics. TKDA staff in Saint Paul are in close proximity to, and have strong working relationships with, your agency contacts at MnDOT Aeronautics and the FAA. Recent staff turn-over at both agencies pose challenges to funding, but TKDA's staff maintains close relationships with both new and old contacts, and ensures that your projects remain on track.

TKDA recently re-hired Simon Schmitz after he worked at the FAA's Airport District Office at MSP for five years. Simon provides us with unique insight into working with the FAA that other consultants don't have.

As a result of these relationships, we have a strong working knowledge of these agencies' programs, priorities, and processes and have earned their respect and trust. These characteristics go a long way in securing funding for your airport. In addition, we stay current with recent developments on airport funding and other airport topics

through our involvement with the Minnesota Council of Airports (MCOA) and the University of Minnesota's Airport Technical Assistance Program (AirTAP).

## Knowledge of Regulations and Procedures

TKDA staff have a keen understanding of all FAA Airport Improvement Program (AIP) rules and procedures, particularly FAA Airport Design (FAA AC 150/5300-13) and the FAA AIP Handbook (FAA Order 5100.38). This experience allows us to better package and present your capital projects so they have the highest possible likelihood of being approved.

We are effective at following the grant administrative process from start to finish to provide timely project completion and reimbursement. Our staff have an eye on the "big picture" so your projects are identified for funding well ahead of time. We work with your community to develop a realistic path forward for funding and implementing your priority projects. We help you complete all project formulation steps. A sample formulation program for major development is below:

- ☐ Complete Airport Planning (3-5 years prior)
- ☐ Identify Project on CIP (3-5 years prior)
- ☐ Secure Project Funding on FAA's "List" (3 years prior)
- ☐ Prepare Environmental Documentation (2 years prior)
- ☐ Prepare Project Plans & Specifications (1 year prior)

We also find strategies to condense timelines within the bounds of the FAA and State funding requirements. Once your project is ready for grant funding, TKDA regularly assists airport clients with all grant administration procedures to secure FAA grant funding. Required steps for a typical design/construction project are identified below:

- ☐ Complete Consultant Selection
- ☐ Update Disadvantaged Business Enterprise (DBE) Plan
- ☐ Update Capital Improvement Plan
- ☐ Obtain Environmental Approval
- ☐ Prepare FAA Grant Pre-Application
- ☐ Submit Consultant Scope of Services
- ☐ Submit Construction Safety/Phasing Plan
- ☐ Submit Project Plans/Specifications for FAA Review
- ☐ Advertise Project for Bids
- ☐ Submit FAA Grant Application
- ☐ Obtain Grant Offer/Execute Grant
- ☐ Notice-to-Proceed/Begin Work
- ☐ Complete Grant Closeout Report



# Firm History and Overview

Finally, at TKDA we do not consider the project to be successful until the final closeout documentation is approved by MnDOT and the FAA. This is important because it allows your final grant payment and withholding amount to be released. We prioritize grant closeout procedures as soon as practicable after all project costs have been incurred and shepherd the paperwork through the agency approval process.

## Efficient Design Services

Our team has very recent experience with all aspects of airport engineering and architectural design. Since we work at airports of all sizes, and do it every day, we are very efficient at moving design projects forward quickly while delivering a product that has already been tested as tried and true. We are intimately familiar with federal and state regulations and the development of plans and specifications complying with these regulations so you will not need to worry about costly rework. With TKDA, you know the personnel on your projects are uniquely qualified and capable of completing your airport projects.

As technologies advance, we actively seek out new and innovative ways of not only improving our internal design procedures, but also seeking out new and innovative construction methods and materials. New innovations and techniques often will save you money, while providing a final product that meets or exceeds your expectations. For example, we have recently completed several paving projects that saved our clients extensive reconstruction costs by providing a pavement solution that delivered a quality product at a fraction of the cost. Whether it is bituminous or concrete overlays, joint sealing and repair, pavement surface sealants, partial or full depth reclamation, we've successfully done it before.

Our specialized design experience at both large and small airports also allows us the ability to have full-time staff that is knowledgeable in all facets of airport design. For instance, our in-house electrical engineers frequently design edge lighting systems, NAVAIDS, and power distribution systems of all complexities for airports of various sizes. Those specialists are up-to-date with current regulations and also knowledgeable with upcoming technologies. They can design a system for utilizing new LED lighting and upgrades in your distribution systems to realize real-life energy savings. This is just one example where our in-house expertise will be beneficial to your airport.

## Quality Construction Services

TKDA is committed to providing clients with dedicated, quality construction observation. We know by having projects built as designed, clients can be confident their projects will be closed out and funded as planned. For each project, we will incorporate construction services into the project scope, define the level of construction services required, and assign properly qualified personnel. We only use trained aviation staff for airport construction inspection. Our personnel know the FAA regulations and requirements and will guide your projects to a safe and successful outcome. Our field representatives are also involved in grant closeouts so they know the importance of following all the required policies and procedures of MnDOT and the FAA. This ensures a timely closeout and proper funding of your projects.

## Comprehensive Project Support from Start to Finish

We believe our experience, reputation as airport engineers, and collaborative approach to problem solving provide our clients with the information and the credibility needed to reach a successful outcome for all parties. TKDA supports its airport clients in all aspects of airport development from project start-up to project closeout.



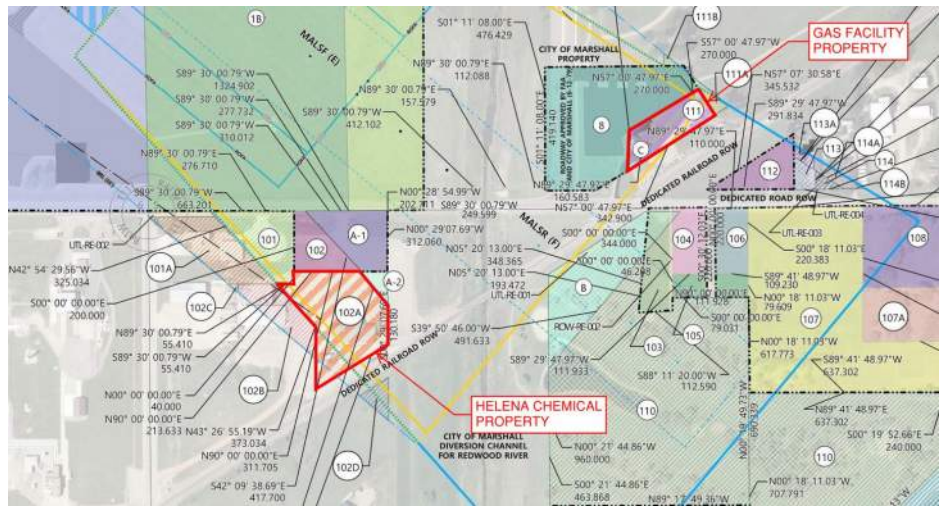


# Project Understanding

TKDA has worked with the City to identify near-term projects, to be accomplished within the next three years. Those projects include:

## Land Acquisition Assistance

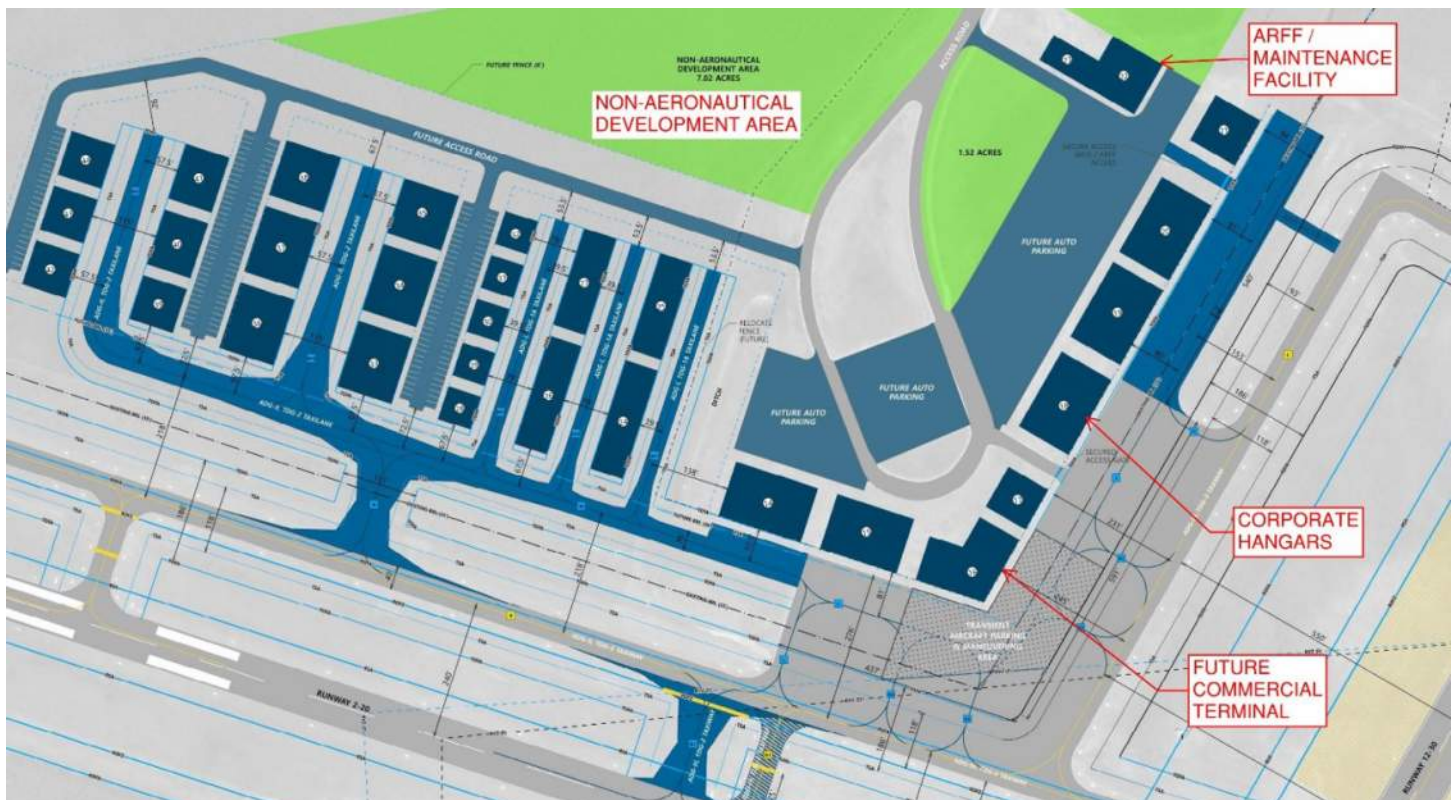
The City has long desired to acquire land within the approach to Runway 30, including the Helena Chemical Property, and a gas facility. TKDA has assisted the City in project formulation necessary to obtain state or federal funding for these property acquisitions. TKDA continues to partner with Evergreen Land Services to provide any necessary land acquisition assistance with negotiations and appraisals and ensure compliance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 which is necessary for federal funding eligibility. These acquisitions are programmed to occur in 2020 and 2021.



*Airport Property Map – Southwest Parcels (2019 ALP)*

## Design and Construction of ARFF and Maintenance Equipment Facility

The city desires to construct a new facility in the East Building Area to replace the aging and undersized maintenance shop, as well as provide firefighting capabilities to support both future FAR Part 139 aircraft operations, as well as provide fire fighting for the City to the west of the railroad. Through the master plan process, a facility was sited to accommodate all of these functions in one common location. TKDA staff including lead architect Jay Wiederholt, AIA have extensive experience designing maintenance equipment storage facilities, as well as municipal and airport fire stations. Several examples are included on page 10 in this statement of qualifications.



*Terminal Area – East Building Area (2019 ALP)*

# Project Understanding

## Design and Construct Corporate Hangar Facility

TKDA has extensive experience in providing project formulation, design, and construction services for development of corporate style box hangar buildings. TKDA advocates on behalf of the City with the agencies to find any possible funding sources, including the future bonding program which MnDOT Aeronautics is currently exploring with the legislature. TKDA has identified Marshall as a good candidate for that funding.

## Construct Parking Lots and Access Roads

As development on the East Building Area proceeds, parking lots and access roads will be necessary to support the development. TKDA prepared preliminary design for these areas during the early development of the building area, and could efficiently design these projects as they become necessary. TKDA will provide design and construction phase services, as well as work with the state and federal agencies to obtain the maximum amount of funding available.

## Install Airport Perimeter Fencing and Access Gates

Perimeter fencing is required for improved security of the airport, as well as reducing any wildlife incursions within the airport environment. TKDA has extensive experience with security and wildlife fencing at airports of all sizes.

## Rehabilitate Airfield Pavements

TKDA is available to assist with any type of runway rehabilitation project, from bituminous mill and overlays, crack repairs, concrete joint sealing, and slurry seals. We actively seek out new products and repair methods such as mastics and concrete surface repairs like Elephant Armor, and will work with the agencies to make sure they are able to be funded.

## Wildlife Hazard Management Plan Update

A new wildlife hazard site assessment was completed by USDA Wildlife Services as part of the recently completed Airport Master Plan. The result of that assessment was a recommendation to update the airport's Wildlife Hazard Management Plan (WHMP). TKDA partners with wildlife biologists from firms such as Advantage Consulting to prepare these WHMP's. The WHMP will be funded through a future FAA entitlement grant.

## Acquire Snow Removal Equipment

TKDA will advise you and provide project formulation to apply for funding for necessary equipment for use on the airport, including snow removal equipment. Snow removal equipment identified on your CIP includes a front-end loader with push blade, and snow blowers. TKDA often prepares equipment sizing and justification studies to ensure the equipment acquired is eligible for federal or state funding.

## Other projects likely to begin within the next five years, include:

### Conduct Environmental Studies for Runway and Taxiway Extensions

When aircraft operations justify the extension of the secondary runway, TKDA staff will be able to perform the necessary environmental evaluations to comply with state and federal regulations. Through the Airport Master Plan prepared by TKDA, the runway extension was determined to be justified at a time when the design critical aircraft is nearing 500 operations a year. TKDA has extensive experience in working with our clients in determining when to start that process, and then expediting the project to get it completed in a timely manner.

### Runway 2/20 Extension and Taxiway B Extension

TKDA has extensive experience with runway and taxiway extensions, including our previous experience on two runways in Marshall. Once the environmental studies are complete for that project, TKDA will work with the City to formulate a funding plan that maximizes federal discretionary dollars and completes the extensions in an expedited manner.

### Install Airfield Lighting and Navigational Aids

The City has identified several projects for lighting and NAVAID upgrades, including new or relocated AWOS-3 weather station. TKDA has also assisted many airports to upgrade runway and taxiway lighting to LED for energy savings, and TKDA's in-house electrical engineering staff is available to assist the City in those endeavors.

### Runway Redesignation – Magnetic Declination Change

Due to changes in the Earth's magnetic fields, runway designations, which coincide with compass headings, can change over time. Such is the case for both runways at MML. Runway 12/30 would be redesignated as Runway 13/31, and Runway 2/20 would become Runway 3/21. By coordinating with the FAA, it was determined that this would best be completed during the next major runway construction project. The project would include pavement markings, signage replacement, as well as updating the aeronautical charts and airport records. TKDA has experience performing this type of project at several airports.

### FAR Part 139 Certification

TKDA will partner with the City to provide all assistance needed to help guide you through the process of obtaining Part 139 Certification for the airport. We're able to identify design deficiencies in advance, and get those corrected prior to any certification inspections, which goes a long ways in getting your airport certified faster. TKDA's experience at MSP has given us the critical insight, and contacts within the FAA that you'll need to obtain certification.



# Firm Experience at MML

## TKDA has extensive project experience at the Southwest Minnesota Regional Airport.

In addition to project specific services, TKDA has provided continuous aviation advice in all aspects of airport development and operations, including:

- Project Formulation and Cost Estimates
- Capital Improvement Program (CIP) Development
- Agency (FAA and MnDOT) Coordination
- Federal and State Grant Administration and Funding Assistance
- Obstruction Removal Survey and Assistance
- Planning Studies
- Aeronautical Obstruction Evaluations
- Runway Approach Development
- Equipment Acquisition

The following is a list of some of the great projects at the Southwest Minnesota Regional Airport that we have been involved with:

### Airport Master Plan and Airport Layout Plan Update

In 2015, TKDA began preparing a new Master Plan and Airport Layout Plan, to plan for the future of the airport for the next 20-years. The resulting long-term recommendations of the master plan include a future extension of crosswind Runway 2/20 by 799 feet to 4,798 feet, and building area expansion that best utilizes the existing infrastructure for both aeronautical and airport related businesses. This necessary planning document ensures that future airport projects remain eligible for federal funding.

### Runway 2/20 Mill and Overlay

TKDA completed the 2018 bituminous mill and overlay paving of Runway 2/20. This project was accelerated on the CIP and design efforts expedited to take advantage of federal discretionary dollars that had freed up within the state. Working with the City, we were able to secure those funds and get the project completed a year earlier than planned. TKDA worked closely with the Contractor to minimize disruption to airport operations, and the project was completed within 6 days.

### East Building Area – Marshall Airpark

TKDA completed a \$4.3M development of a bridge, entrance roadway, building area, airfield apron and taxiways to support future commercial development at the airport. Planning efforts for this development included Environmental Assessments to support all future expansion, and updates to the Airport Layout Plan. Future plans include



areas for corporate aircraft hangars, commercial service terminal building, auto parking and an airport maintenance/ARFF facility. Funding from the MnDOT Aeronautics Development Program was utilized to provide over 70 percent of the funds for this building area expansion.

### Runway 12/30 Extension

Primary Runway 12/30 was extended from 5,010 feet to 7,220 feet to accommodate overseas corporate jet operations, as well as potential commercial air service or scheduled charter operations. Included in this project were land acquisition, relocation of township roadways, and major earthwork for the extended runway, taxiway and associated safety areas. The extended pavements were paved with a high-performance bituminous mixture, and the existing runway and taxiway were provided with a bituminous overlay to support larger aircraft. The \$14.0M program for the extension of both runways was accomplished almost entirely with Federal discretionary funds, and completed in a very short three-year timeline from planning to construction.

### Runway 2/20 Extension

TKDA completed bituminous paving and lighting of the extended runway and parallel taxiway in 2008. Runway 2/20 was extended from 3,200-feet to 4,000-feet to minimize disruption to normal aircraft traffic during subsequent planned construction closures of primary Runway 12/30 and to improve the operational safety for arriving aircraft during periods of high crosswinds. Additional surface and subsurface drainage were also included in this project.

### Terminal Area Improvements

In 2001-2002, TKDA assisted the City of Marshall in redevelopment of the existing South Building Area, an investment of approximately \$8.0M. This terminal area improvement program provided for new and relocated buildings, aircraft apron areas, auto parking, access roadways, landscaping, and city utilities. Innovative



# Firm Experience at MML

approaches were taken to maintain regular airport operations while completing major construction of a new terminal area. Existing T-Hangar buildings were salvaged and relocated to a new apron area along Highway 19. An existing electrical distribution facility was relocated to a new hangar building. TKDA worked diligently with State and Federal officials to ensure strong justification was provided in order to obtain the highest State and Federal funding rates possible.

## Airfield Development, 1995-1996

In 1995-1996, a \$6.5M airfield development program was completed, providing upgraded apron pavements, safety areas, runway lighting and guidance signs, navigational aids, partial Taxiway B, and a full length parallel Taxiway A. These improvements formed the foundation for future improvements and extensions to the airport.

## Instrumented Landing System and Approach Lighting Systems

TKDA provided design of the Instrumented Landing System (ILS) for Runway 12. This included the Medium Intensity Approach Lighting System (MALRS), Localizer, Glide Slope Antenna and associated equipment shelters and electrical distribution equipment. Our experience with the design and construction of the system was valuable in the relocation of the ILS equipment during the runway extension later on.



## Wildlife Management Plan

TKDA worked with Peterson Environmental to develop a wildlife management plan for the airport. New FAA regulations will require the airport to revisit this plan in the near future, and our previous experience will help ensure efficiencies in meeting the new regulations. This wildlife management plan is still in place, and will be updated to current standards with an upcoming project.

## Land Acquisition Assistance

TKDA and our teaming partner Evergreen Land Services worked with the City to complete the Land Acquisition for the construction of the future runway extension. All land acquisition services were conducted in a manner that will ensure that federal regulations were met, and that all land acquisition will be eligible for reimbursement from the FAA at a 90 percent participation rate.

## Utilities

TKDA provided design of all sanitary sewer, storm sewer, watermain, telecommunications, natural gas, and electrical utilities for the South and East Building Areas.

## Power Distribution and Navigation Aids

TKDA provided design for all the airfield electrical systems. These systems included Runway and Taxiway Edge Lights, Runway End Identifier Lights (REIL's), Precision Approach Path Indicators (PAPI's) and Lighted Windcones. TKDA's familiarity with these systems will be beneficial for any future upgrades.

## Environmental Assessments

TKDA provided Environmental Assessments for all development work on the airport since 1992. By packaging the environmental work into major development programs, TKDA was able to obtain environmental approval without a project by project effort being required. A Finding of No Significant Impact (FONSI) was obtained for the runway extensions, and a later Environmental Assessment obtained a FONSI for the build out of the East Building Area. Those EA's helped clear the way for project approvals and funding for those major development programs.

## Southwest Minnesota Regional Airport Awards

- ☐ **2014 Project of the Year (Key GA Airport) – Marshall Airport East Building Area**  
Minnesota Council of Airports (MCOA)
- ☐ **2008 Merit Award**  
Minnesota Society of Professional Engineers
- ☐ **2003 City Engineers Association of Minnesota Award**  
City Engineers Association of Minnesota
- ☐ **2003 Governor's Award**  
Federal Aviation Administration
- ☐ **2002 League of Minnesota Cities Award**  
League of Minnesota Cities
- ☐ **2002 Project of the Year**  
Minnesota Council of Airports

# Firm Experience

## ARFF AND MAINTENANCE EQUIPMENT FACILITIES



**Corporate Campus Fire Station**  
**Confidential Corporate Client,**  
**Cordova, IL**

A corporate chemical plant is planning a major expansion in the near future. The current on-site fire station is outdated and unable to support the operational mission. TKDA worked with the client's in-house fire department staff to develop the building program through interactive presentations and interviews. The new facility will have three drive-through apparatus bays, gear locker storage, decontamination area, classroom, office, campus fire suppression control room, and support spaces. The team has creatively utilized cost-effective and durable building materials, such as insulated wall panels and pre-engineered metal building components to meet the project budget of \$2.5M. The 8,100 SF facility is planned for completion in 2021.



**WINONA SRE**  
**Winona Municipal Airport (ONA),**  
**Winona, MN**

The City of Winona required a building for the storage of snow removal equipment and sand. The City also wanted the building to include public restrooms for airport users and site improvements to refresh the entrance road to the airport. TKDA coordinated with City officials and the FAA to identify the best location for the SRE Building. The selected location balanced many factors, including building functionality, proximity to existing public utilities, impacts to navigational aids, integration with surrounding buildings, and project cost.

TKDA prepared several architectural concepts from which the City officials and City Council were able to identify preferred alternatives. The final design was carefully coordinated with the FAA and MnDOT Aeronautics for maximized funding eligibility. TKDA prepared 100% design drawings and specifications for public bid.

The SRE Building consists of over 3,100 square feet of enclosed, heated space. The building features two vehicle/equipment bays and a partial bay for indoor sand storage. Supporting features include mechanical and electrical rooms, as well as a storage mezzanine for maximized use of interior space. Two public restrooms will be accessible from the exterior of the building.



**Fire Station No. 11 Schematic**  
**Design Study**  
**Duluth, MN**

The design of a new Fire Station No. 11 in Duluth began with an intensive study of different sites. Fire apparatus needs, infrastructure requirements, traffic counts and patterns, and response call locations and times were examined for each site. A final site was selected for testing a preliminary schematic design for the facility and developing a project budget estimate.

The facility was designed around "Hot," "Transition," and "Cold" zones to address the hazardous materials that firefighters and emergency response teams encounter on a daily basis. The goal was to isolate the contaminated apparatus in the hot zone, create a transition zone where individuals and gear can be decontaminated, and provide a cold or clean zone of office and living space that would remain contamination-free. In addition to careful space planning, the design required sophisticated mechanical system controls and zoning to maintain the integrity of each area.

## HANGARS

### **LARGE AIRCRAFT HANGAR** **Morris Municipal Airport (MOX),** **Morris, MN**

TKDA and the City of Morris worked together to complete the FAA project programming documents, develop a project scope based on tenant needs, and select the most responsible and cost effective alternatives based on the bid results. The hangar is 110 feet by 80 feet with in-floor heat and an 80-foot by 20-foot strap lift bi-fold door. TKDA provided a 30% and final design package for a contractor led design-build bidding process that led to more competitive bids and lower overall development costs. TKDA performed construction inspection and contract administration. The hangar serves the Morris Airport's corporate clients. This project won the 2014 Business Development/Non-Aeronautical Award from the Minnesota Council of Airports.

### **TRANSIENT AIRCRAFT STORAGE HANGAR** **Dodge Center Municipal Airport (TOB),** **Dodge Center, MN**

The Dodge Center Municipal Airport required additional hangar storage for transient aircraft that utilize the airport on a daily and seasonal basis. TKDA worked closely with city staff, the Airport Advisory Board and the FBO to develop a business plan to fund the capital and operational expense of a hangar facility to accommodate the daily and seasonal transient aircraft of varying sizes.

TKDA prepared a 30% design and performance based specifications package for use by contractors in bidding, and the selected manufacturer/bidder provided final design services once awarded the contract. Bid alternates were included to match the desired facility features to the available funding. Bid alternates were awarded for additional concrete apron, and under floor insulation.



### **WASECA FBO HANGAR** **Waseca Municipal Airport (ACQ),** **Waseca, MN**

The Waseca Municipal Airport and its FBO (Fixed Based Operator), Stensrud Aviation, required additional hangar space to accommodate aircraft maintenance and storage for transient aircraft. Working closely with MnDOT Aeronautics staff, TKDA was able to help obtain the necessary state funding to make this project possible.

TKDA provided project formulation, conceptual design (30% design), bidding, and construction phase services on this project. On pre-manufactured steel buildings such as this, TKDA has had much success utilizing an innovative partial design-build approach, which can result in lower construction costs and generate additional interest by bidders. TKDA prepared a 30% design and performance based specifications package for use by contractors in bidding, and the selected manufacturer/bidder provided final design services once awarded the contract.

The new FBO hangar consists of an 80-foot by 80-foot fully insulated pre-manufactured steel building. A suspended mezzanine constructed across the rear of the hangar provides additional aircraft parts storage while maintaining the entire floor area for maintenance and aircraft storage purposes. Heating and plumbing in the hangar allow for year round aircraft maintenance activities by the FBO.



### **4-UNIT AIRCRAFT STORAGE HANGAR** **Benson Municipal Airport (BBB),** **Benson, MN**

In 2012, a 4-unit hangar was constructed along with a taxiway and apron pavements. TKDA provided architectural design services, site design, and construction phase services for this project. The project was 90% federally funded, including TKDA's services for FAA programming and project formulation.



### **T-HANGAR DESIGN AND CONSTRUCTION** **Hutchinson Municipal Airport (HCD),** **Hutchinson, MN**

TKDA provided design engineering, grant assistance, and construction observation services to the City of Hutchinson for the construction of a new 8-unit nested T-hangar at the Hutchinson Municipal Airport. The hangar was constructed on a previously graded and paved apron designed by TKDA. Construction of the new hangar was completed in 120 days. Total construction cost was \$277,300 and used Federal AIP Entitlement Funds at a 95% participation rate.



# Firm Experience

## PAVEMENT REHABILITATION



### 2018 PAVEMENT REHABILITATION Ely Municipal Airport (ELO), Ely, MN

The 2018 Pavement Rehabilitation project included reconstructing 18,000 square yards of general aviation apron pavement, airport entrance road and parking lot pavement, new overhead lighting, a new automatic gate operator, and storm sewer improvements. Ely's existing parking lot was originally sized for when the airport had commercial operations and was much too large to suit their current needs. The new parking lot was resized to create additional green space and new LED overhead lighting was installed to reduce the airport's energy consumption. The project secured \$1.33 million in federal discretionary funding and \$600,000 in State funding in September 2018. Construction was completed in summer 2019.

New aircraft tie-downs were installed near the terminal building to help ensure safe aircraft operations on the GA apron. The existing GA aircraft tie-down anchors were located near the tie-down anchors used by the United States Forest Service (USFS). The mixing of GA aircraft traffic and USFS traffic on the apron was causing safety hazards. The combination of new tie-down locations and new automatic gate opener greatly increased safety at the airport.

### ADDITIONAL PROJECTS

- On-going Pavement Management Programs – MSP, Alexandria, Park Rapids, Mankato, Ely, Waseca, St. James, Morris, and Benson



### RUNWAY 12/30 RECONSTRUCTION AND ELECTRICAL DISTRIBUTION Ely Municipal Airport (ELO), Ely, MN

Ely Municipal Airport opened its fully reconstructed Runway 12/30 in August 2015. The new 5,600-foot by 100-foot paved and lighted runway replaced aging runway pavement and an inadequate electrical distribution system. The pavement reconstruction included full-depth excavation to remove frost susceptible soils and construction of a bituminous pavement, aggregate base, and granular section. Airfield electrical improvements included a new electrical distribution system, conduit and counterpoise, energy-efficient LED runway edge lights, and airfield sign LED retrofits.

Construction began in May 2015 and was limited to 90 days. The closure of Runway 12/30 was further restricted to 60 days to minimize impacts to airfield and United States Forest Service operations. The \$4.3M funding was accomplished with nearly 90% federal discretionary and entitlement funds, 5% state funds and 5% local funds. The in-house staff at TKDA provided project programming: engineering, civil, structural, and electrical design services.



### RUNWAY 18/36 PAVING AND LIGHTING Park Rapids Municipal Airport (PKD), Park Rapids, MN

Completed in July 2014, the new 75-foot by 3,500-foot paved and lighted Runway 18/36 replaced a turf runway, allowing the airport to offer improved year-round operations and land aircraft in nearly all wind and weather conditions. TKDA provided all planning, environmental assessments, design engineering, and construction phase services for this project. The \$3.4M program for the paving and lighting of the crosswind runway was accomplished almost entirely with Federal discretionary and entitlement funds, and completed in a short timeline from planning to construction. TKDA worked to obtain the highest federal funding participation rate possible, with much of the runway program funded 95 percent by the FAA.

### BITUMINOUS CRACK REPAIR St. James Municipal Airport (JYG), St. James, MN

TKDA provided design and construction services for the 2014 and 2018 Bituminous Crack Repair projects at St. James Municipal Airport. The project included bituminous pavement crack repairs, resealing and bituminous surface repair on the runway, taxiway, and apron. Deep cracks on the taxiway were leveled with mastic for an improved ride on the taxiway. Other minor cracks were sealed to minimize water intrusion into the base and improve long-term pavement performance.

## LIGHTING



### **TAXIWAY LIGHTING REPLACEMENT** **Mankato Regional Airport (MKT),** **Mankato, MN**

The project includes several unique design features, and through an accelerated schedule was able to take advantage of federal discretionary funds that may have otherwise been unavailable. At the request of Kevin Baker and City staff, helical screw anchors were designed for use as light bases. These anchors had successfully been installed previously on the runway threshold lights, and had greatly improved performance over the standard concrete encased light bases. Since this is not a standard FAA design, TKDA lobbied the FAA to include this project as a test case in order to qualify for federal funding. Working alongside TKDA staff, the local FAA staff successfully got the anchors approved in the funding package.

The replacement of all of the taxiway edge lights with LED fixtures will reduce the energy consumption of the airfield lighting by upwards of 40%. The replacement of the light bases will eliminate the concrete light bases which have experienced significant movement due to expansive soils on the airport.

TKDA's close working relationship with the Minneapolis FAA staff helped us to secure federal discretionary funding for this project. The City of Mankato's ability to obtain the matching local share ensured that this project moved forward on an accelerated basis.



### **RUNWAY LIGHTING REPLACEMENT** **St. James Municipal Airport (JYG),** **St. James, MN**

The Runway Lighting Replacement Project at the St. James Municipal Airport provided for the replacement of aging runway edge lighting, cable, conduit and REILs for Runway 15/33. The existing system had reached the end of its usable life. The project greatly improved the reliability of the runway lighting at the St. James Municipal Airport, ensuring a safe operating environment during nighttime hours.

The project called for the replacement of 52 runway edge lights and associated cables as well as modifications to the electrical distribution building and new regulators. The existing system was direct buried and wired in parallel with no regulators which lead to significant voltage drops and reliability issues.

TKDA designed a replacement runway lighting system featuring constant current regulators and new energy efficient LED runway edge lights and threshold lights. New conduit was run to concrete encased light foundations designed in accordance with FAA Regulations. Concrete protector pads placed around all light foundations ensure protection of the lights from mowing and airport maintenance operations. New LED REIL's were installed at both runway ends.

## FENCING



### **SECURITY FENCE IMPROVEMENTS** **Mankato Regional Airport (MKT),** **Mankato, MN**

The Security Fence Improvements project at MKT included the construction of 420 linear feet of chain link fence, installation of a new automatic access gate, replacement of 4 swing gates, installation of a swing arm gate, security sign installation, and bituminous restoration. TKDA completed project programming, final design, and construction engineering services for this program.



### **PERIMETER FENCE SECURITY IMPROVEMENTS** **Minneapolis-St. Paul International Airport (MSP), MN**

The Perimeter Fence Security Improvements program was a three-year program to install new crash-rated security gates and security cable within portions of an existing perimeter fence line to minimize the threat of vehicle incursions. TKDA completed preliminary design, final design, and construction engineering services for this program.

# Firm Experience

## ENVIRONMENTAL ANALYSIS



### ENVIRONMENTAL ASSESSMENT – RUNWAY 14/32 EXTENSION [Morris Municipal Airport \(MOX\), Morris, MN](#)

TKDA, in partnership with Wenck, is completing an environmental assessment for an 897-foot runway extension at this general aviation airport to support expanded business aviation use. The scope of the project includes agency coordination, wetland delineation, as well as historical and cultural resource reviews. Unique to this project is to mitigate potential impacts to a nearby Federal Waterfowl Production Area (WPA), a Section 4(f) public resource. The study is expected to be completed in early 2020.

### ENVIRONMENTAL ASSESSMENT - PARALLEL TAXIWAY CONSTRUCTION [Morris Municipal Airport \(MOX\), Morris, MN](#)

TKDA completed the environmental assessment for a new full-length parallel taxiway to meet all NEPA and FAA environmental requirements.

### ENVIRONMENTAL ASSESSMENT - RUNWAY 18/36 IMPROVEMENT PROJECT

[Park Rapids Municipal Airport \(PKD\),  
Park Rapids, MN](#)

Completed in July 2014, the new 75-foot by 3,500-foot paved and lighted Runway 18/36 replaced a turf runway, allowing the airport to offer improved year-round operations and support aircraft in nearly all wind and weather conditions. TKDA provided all planning, environmental assessments, design engineering, and construction phase services for this project. The \$3.4M program for the paving and lighting of the crosswind runway was accomplished almost entirely with Federal discretionary and entitlement funds, and completed in a short timeline from planning to construction. TKDA worked to obtain the highest federal funding participation rate possible, with much of the runway program funded 95% by the FAA.

### ENVIRONMENTAL ASSESSMENT - CONNECTOR TAXIWAY AND OBSTRUCTION REMOVAL

[Ely Municipal Airport \(ELO\), Ely, MN](#)

In spring of 2016, TKDA completed the Environmental Assessment for connector taxiway, partial parallel taxiway, apron extension, and obstruction removal projects to meet all NEPA and FAA environmental requirements. Also included was a Phase I Archaeological Resources Survey and wetland permitting.

## ZONING

### UPDATE AIRPORT ZONING ORDINANCE

[Little Falls/Morrison County Airport  
\(LXL\) MN](#)

TKDA was hired by the City of Little Falls to assist the community with updating the zoning ordinance for the Little Falls/Morrison County Airport (LXL). The city was in need of an updated ordinance to protect airspace and land use for their planned paved crosswind runway as identified on their Airport Layout Plan. TKDA airport planning team assisted with establishing a new multi-jurisdictional Joint Airport Zoning Board (JAZB), educating the JAZB on the basic fundamentals of airport zoning, answering questions at the public hearing, and coordinating with MnDOT Office of Aeronautics. The team assisted the JAZB with complying with newly revised Minnesota State Statutes Chapter 360 to develop an ordinance that meets minimum standards yet was tailored for their airport.

A unique feature of this project included developing flexibility for two crosswind runway configurations. The ordinance is crafted to protect for both the existing and future crosswind runways, but allows the old runway restrictions to “sunset” when the new runway is built. The airspace and land use zones were developed in Geographical Information Systems (GIS) format, allowing the City and Morrison County to include this information in reviewing land use proposals. The zoning ordinance received a Commissioner’s Order from MnDOT, and was adopted by the JAZB in January 2020.

### ADDITIONAL ZONING PROJECTS

- ☐ [Waseca Municipal Airport](#)
- ☐ [Dodge Center Municipal Airport](#)
- ☐ [Winona Municipal Airport](#)



# Project Team Organization



**John Ahern, PE**  
Principal



**John Peterson, PE**  
Client Service Manager

## FACILITIES ENGINEERING

**Jay Wiederholt, AIA,  
LEED AP BD+C**  
Architect

**Chris Leiter, PE**  
Electrical Engineer

## AIRPORT ENGINEERING

**Dan Sherer, PE**  
Aviation Engineer

**Matt Gustafson, PE**  
Aviation Engineer

**Mike Rydel**  
Construction Inspection

**Nathan DuBois**  
Construction Inspection

## PLANNING & ENVIRONMENTAL

**Marcus Watson, CM**  
Project Programming

**Junior Lindsay, PMP, CM**  
Zoning

## ADDITIONAL IN-HOUSE RESOURCES

Architects – 20  
Electrical Engineers – 13  
Structural Engineers – 24

Mechanical Engineers – 13  
Civil Engineers – 64  
Hydrologist – 1  
*(some hold multiple registrations)*

GIS Analysts – 3  
Aviation Planners – 1

Designers and Technicians – 137

Administrative – 47

# Project Team



## John Peterson, PE Client Service Manager

John manages TKDA's services for Greater Minnesota Airports and will provide project oversight, while assuring client satisfaction. John has served as design engineer and client manager for Marshall for 20-years. He will handle coordination with the FAA and MnDOT on any project issues and funding. He is an experienced project manager working on projects at both large hub airports and numerous regional and municipal airports. John's experience includes project formulation, planning, environmental analysis, site grading and drainage design, utility design, project coordination, preliminary surveys, and construction administration. His strong attention to detail and past experience working with the MnDOT Office of Material and Road Research contribute to the successful completion of projects.

### Education

University of Minnesota  
Bachelor of Civil Engineering

### Registrations/Affiliations

Professional Engineer – MN  
American Society of Civil  
Engineers  
American Planning  
Association

### PROJECT EXPERIENCE

- **Airpark East Building Area Development** | Southwest Minnesota Regional Airport, MN
- **Runway 12/30 and 2/20 Extensions** | Southwest Minnesota Regional Airport, MN
- **Airport Master Plan/ALP Update** | Southwest Minnesota Regional Airport, MN
- **Runway Pavement Rehabilitation** | St. James Municipal Airport, MN
- **Transient Aircraft Storage Hangar** | Dodge Center Municipal Airport, MN
- **Arrival/Departure Building** | City of Benson, MN
- **Taxiway Lighting Replacement** | Mankato Regional Airport, MN
- **Runway 18/36 Paving and Lighting** | Park Rapids Municipal Airport, MN
- **Terminal Area Improvements** | Park Rapids Municipal Airport, MN
- **Hangar Apron Reconstruction** | Grand Rapids-Itasca County Airport Commission, MN
- **Hangar Site Taxiway Development and Apron Reconstruction** | Waseca Municipal Airport, MN



## John Ahern, PE Principal

John is directly involved with airport planning and engineering from small general aviation airports to large international airports. He is experienced in all aspects of airside and landside development and has extensive experience in construction staging and phasing plans to accommodate major construction projects while maintaining airport operations. As Vice President of TKDA's Aviation Division, he is responsible for allocating division resources and performing quality control and assurance duties.

### Education

University of Minnesota  
Bachelor of Civil Engineering

### Registrations/Affiliations

Professional Engineer –  
WI, FL, IL, MI, MN  
American Association of  
Airport Executives

### PROJECT EXPERIENCE

- **Taxiway Lighting Replacement** | Mankato Regional Airport, MN
- **Runway 12/30 Reconstruction and Electrical Distribution** | Ely Municipal Airport, MN
- **Taxiway S Reconstruction** | MSP Airport, Minneapolis-St. Paul, MN
- **Runway 17/35** | MSP Airport, Minneapolis-St. Paul, MN
- **Enhanced Master Plan** | Mankato Regional Airport, MN
- **West Terminal Utility Relocation** | MSP Airport, Minneapolis-St. Paul, MN
- **2019 Passenger Boarding Bridge Replacement Design** | MSP Airport, Minneapolis-St. Paul, MN
- **Concourse A/B Reconfiguration** | MSP Airport, Minneapolis-St. Paul, MN
- **Electrical Infrastructure Rehabilitation** | MSP Airport, Minneapolis-St. Paul, MN



## Dan Sherer, PE, LEED GA, ENV-SP Aviation Engineer

Dan has been designing aviation projects for both the public and private sector for over 16 years and will serve as lead engineer for MML airfield design. He leads design efforts from programming and concept generation through final documentation and construction, carefully coordinating with design team members. Dan has worked on several runway and taxiway rehabilitations and expansions, apron expansions, and airside infrastructure projects throughout the country.

### Education

North Dakota State  
University  
Bachelor of Civil Engineering

### Registrations/Affiliations

Professional Engineer – MN  
Airport Consultant Council  
(ACC) – Engineering

### PROJECT EXPERIENCE

- **Taxiway A Realignment and Hangar Taxilane** | Eveleth-Virginia Municipal Airport, MN
- **Hangar Apron Pavement Reconstruction** | Fairmont Municipal Airport, MN
- **Airfield Pavement Rehabilitation** | Little Falls/Morrison County Airport, MN
- **Apron and Taxilane Pavement Rehabilitation** | Mankato Regional Airport, MN
- **Taxiway S Reconstruction** | MSP Airport, Minneapolis-St. Paul, MN
- **Consolidated Loading Dock Facility** | MSP Airport, Minneapolis-St. Paul, MN



## Matt Gustafson, PE Aviation Engineer

Matt is a Registered Engineer with over eight years of engineering and design experience. Matt has been the design engineer for several projects at MML, including the Runway 2/20 Mill and Overlay Project. He has worked on numerous airport projects including apron expansions and rehabilitation, aircraft hangars, taxilanes, and pavement reconstruction. He is well versed in FAA design standards, AutoCAD, and Civil 3D. Matt also works closely with MnDOT and the FAA on grant assistance and DBE program development.

### Education

University of Minnesota  
Bachelor of Civil Engineering

### Registrations/Affiliations

Professional Engineer – MN  
American Society of Civil  
Engineers

### PROJECT EXPERIENCE

- **Mill and Overlay Runway 2/20** | Southwest Minnesota Regional Airport, MN
- **Hangar Site Taxiway** | St. James Municipal Airport, MN
- **Runway Pavement Rehabilitation** | St. James Municipal Airport, MN
- **Transient Aircraft Storage Hangar** | Dodge Center Municipal Airport, MN
- **Arrival/Departure Building** | City of Benson, MN
- **GA Apron & Taxilane Rehabilitation** | Morris Municipal Airport, MN
- **Fueling Facility Site Preparation** | Mankato Regional Airport, MN
- **Pavement Rehabilitation** | Ely Municipal Airport, MN
- **Pavement Rehabilitation** | Alexandria Municipal Airport, MN
- **Taxiway Lighting Replacement** | Mankato Regional Airport, MN



## Nathan Dubois Construction Inspection

Nathan has experience in project scheduling, field inspection, and construction management. He specializes in overseeing construction administration and inspection activities for airport projects. He has performed construction staking and field inspections for various aviation projects including: **Taxiway S Reconstruction, T1-Lindbergh Parking Ramp Site Preparation, Concourse A-B Reconfiguration and 2015 Pavement Reconstruction** at MSP Airport, Minneapolis-St. Paul, MN.



# Project Team



## Jay Wiederholt, AIA, NCARB, LEED AP Architect

Jay has 16 years of experience designing and managing projects for aviation, government, and corporate/industrial clients. From planning and programming through construction documents, he works efficiently with detailed client programs and demanding requests, translating them into facility designs which exceed client requirements and express a clean, modern aesthetic. Having extensive aviation experience, Jay understands the nuances associated with aviation facilities and the details that improve their overall functionality.

### Education

Iowa State University  
Bachelor of Architecture

### Registrations/Affiliations

Architect - MN  
LEED AP  
NCARB Certified  
AIA – American Institute of Architects  
PHA-MSP – Passive House Alliance –President

### PROJECT EXPERIENCE

- **Corporate Campus Fire Station** | Confidential Corporate Client, Cordova, IL
- **Winona SRE Building** | Winona Municipal Airport, MN
- **Transient Aircraft Storage Hangar** | Dodge Center Municipal Airport, MN
- **FBO Hangar** | Waseca Municipal Airport, MN
- **Arrival/Departure Building** | Benson Municipal Airport, MN
- **Passenger Boarding Bridge Kiosks** | Delta Air Lines, MSP Airport, Minneapolis-St. Paul, MN\*
- **Terminal 1 Hub Control Center Renovation** | Delta Air Lines, MSP Airport, Minneapolis-St. Paul, MN\*
- **Public Safety Facility** | The Eastern Iowa Airport, Cedar Rapids, IA\*
- **Terminal 2 Expansion** | MSP Airport, Minneapolis-St. Paul, MN\*
- **Terminal 2 Parking Facility** | MSP Airport, Minneapolis-St. Paul, MN\*
- **Light Rail Station** | MSP Airport, Minneapolis-St. Paul, MN\*

\* Project from Previous Employment



## Chris Leiter, PE Electrical Engineer

Chris has experience in the design and construction administration of aviation facilities. This includes lighting, underground construction, communication, security, and power distribution systems. He is knowledgeable in the design of series lighting circuits, airfield signage, sponsor and FAA navigational aids, control systems, and power distribution. Chris has also performs field inspections during the aviation construction season at the Minneapolis-St. Paul International Airport.

### Education

University of Minnesota  
Bachelor of Electrical Engineering

### Registrations/Affiliations

Professional Engineer - MN,  
AK, CA, CT, DE, MD, NC, OR,  
PA, TN, VA, WA, WI  
NCEES

### PROJECT EXPERIENCE

- **Municipal Airport Improvements** | Southwest Minnesota Regional Airport, MN
- **Airpark East Apron Design and Construction** | Southwest Minnesota Regional Airport, MN
- **Municipal Airport Improvements** | Benson Municipal Airport, MN
- **Runway 5/23 Paving and Lighting** | Grand Rapids-Itasca County Airport, MN
- **Taxiway C-D Complex** | MSP Airport, Minneapolis-St. Paul, MN
- **Runway 12L/30R Segment 3 Reconstruction** | MSP Airport, Minneapolis-St. Paul, MN
- **FiberOptic Cable/Switch Upgrade** | MSP Airport, Minneapolis-St. Paul, MN
- **Taxiway M Construction** | MSP Airport, Minneapolis-St. Paul, MN
- **Runway 12/30 Reconstruction and Electrical Distribution** | Ely Municipal Airport, MN



## Marcus Watson, CM Project Programming

Marcus will lead your airport project programming, funding, and planning phases. He is an aviation planner as well as client and project manager with experience in airport master planning, ALPs, airport design, and FAA AIP grant funding. His goal is to work together with clients to identify and achieve their airport development goals. Marcus has 13 years of experience as a consultant serving general aviation and commercial service airports. He is also a licensed FAA commercial pilot with an instrument rating, providing a unique operator's perspective to airport planning efforts.

### Education

University of North Dakota  
Bachelor of Science  
Business Administration,  
Aviation

### Registrations/Affiliations

FAA Licensed Commercial Pilot  
with Instrument Rating  
Certified Member –American  
Association of  
Airport Executives

### PROJECT EXPERIENCE

- **Airport Master Plan/ALP Update** | Southwest Minnesota Regional Airport, MN
- **Airport Master Plan/ALP Update** | St. James Municipal Airport, MN
- **Airport Master Plan/ALP Update** | Morris Municipal Airport, MN
- **Airport Master Plan/ALP Update** | Mankato Regional Airport, MN
- **Airport Master Plan/ALP Update** | Winona Municipal Airport, MN
- **Airport Master Plan** | West Bend Municipal Airport, WI
- **Airport Master Plan** | Portage Municipal Airport, WI
- **Environmental Assessment** | Morris Municipal Airport, MN



## Junior Lindsay, PMP, CM Zoning

Planner Junior Lindsay has over six years of experience in aviation planning and is knowledgeable in FAA airport planning and design guidelines. He is familiar with the airport master planning process and experienced in airport baggage handling systems. Junior has recent experience preparing airport zoning ordinances in accordance with current Minnesota regulations. His goal is to work together with clients to identify and achieve their airport development goals. Junior is a proficient aviation technical writer and possesses solid analytical and critical thinking skills. He is experienced in AutoCAD, GIS, INM, Google Sketch, and Smartsheet.

### Education

Bachelor of Science  
Aviation Management  
Florida Institute of  
Technology

### Registrations/Affiliations

Private Pilot Certificate – FAA

### PROJECT EXPERIENCE

- **Environmental Assessment** | Morris Municipal Airport, MN
- **Airport Master Plan/ALP Update** | Morris Municipal Airport, MN
- **Airport Master Plan** | Portage Municipal Airport, WI
- **Airport Master Plan/ALP Update** | Winona Municipal Airport, MN



## Mike Rydel Construction Inspection

Mike Rydel has over 37 years of field experience including as both a field representative and as a surveyor. He understands how to coordinate construction with client operations. His experience facilitates the construction process while maintaining a safe and secure site. He successfully incorporates his skills as a surveyor into project observation through routine checks of contractor work. His attention to detail helps projects keep on schedule and run smoothly.

### PROJECT EXPERIENCE

- **Airpark East Building Area Development** | Southwest Minnesota Regional Airport, MN
- **Runway 12/30 and 2/20 Extensions** | Southwest Minnesota Regional Airport, MN
- **Airport Master Plan/ALP Update** | Southwest Minnesota Regional Airport, MN

## References

At TKDA, we dedicate the necessary time and resources of our experienced professionals to build relationships and oversee the details of the services we provide. We offer you the following references and welcome you to contact them regarding the quality of our services:

**Mr. Jeff Johnson, PE**

Director of Public Works/City Engineer, City of Mankato  
507.387.8640  
jjohnson@mankatomn.gov

**Mr. Blaine Hill**

City Manager, City of Morris  
320.589.3141  
bhill@ci.morris.mn.us

**Mr. Pat Mosites**

Project Manager, Metropolitan Airport Commission  
612.713.7499  
pat.mosites@mspmac.org





