City of Battle Creek
RFQ NO: 2025-018Q

Architect/Engineer for Battle Creek Executive Airport at Kellogg Field

August 14, 2024

C&S Engineers, Inc.
38777 Six Mile Rd. Suite 202
Livonia, MI 48152
www.cscos.com

C&S COMPANIES®

August 14, 2024

Ms. Christine Huff
Battle Creek Executive Airport at Kellogg Field
15551 S. Airport Rd.
Battle Creek, MI 49015

Re: Architect/Engineering for Battle Creek Executive Airport at Kellogg Field / RFQ# 2025-018Q

Dear Selection Committee,

The City of Battle Creek and its economic development arm, Battle Creek Unlimited (BCU), have focused energy and resources on reimagining the Battle Creek community. One goal is to provide diversification of economic opportunity for the local residents. Among the primary assets that has driven growth and provided a source of economic prosperity in the community is the Battle Creek Executive Airport at Kellogg Field (BTL). Over its more than 100 years supporting the community, BTL has generated a huge economic impact, with tenants ranging from local corporations, the 110th Wing Air National Guard base, Western Michigan University College of Aviation, Duncan Aviation and WACO Aviation. This history of success has made BTL an airport that is envied across the region.

Veteran leadership team with 50+ years of combined aviation experience to guide a successful consultant transition

Technical experts to manage and program pavement projects, enhance airport infrastructure, and secure essential grant funding for BTL

Experienced team with strong relationships and recent success in securing FAA approval for AAM infrastructure and development

Looking forward, the BTL and BCU leadership team's desire to provide opportunities for innovation and development of emerging technologies as well as continuing to accommodate existing tenants. New opportunities in the aviation and defense sectors related to Advanced Air Mobility (AAM) are growing and expanding quickly. Whether this means cargo deliveries to local manufacturers or medical supplies to nearby hospitals by unmanned aircraft systems (UAS), or manufacturing and operation of electric Vertical Takeoff and Landing (eVTOL) aircraft, BTL is actively looking for ways to play a role in the development and support of emerging technologies that best fit the needs of the local community.

Balancing the desire to continue to expand the tenant base and offerings, the BTL team has the challenge of operating and maintaining a substantial airfield infrastructure network. Elements of the airfield are in very good condition; however, several key taxiways and runways are quickly degrading in condition and need immediate attention. The blessing of having such a substantial airfield is that the airport can accommodate almost any operator. However, the reality of maintaining pavement, lights, signs and navigational aids is that funding beyond the regular maintenance is needed and the primary source of that funding is the Federal Aviation Administration (FAA).

To address and support both the new development and airfield maintenance needs, BTL will need more than just an engineer or architectural firm. It will need a team of professional aviation consultants to help partner with BTL and BCU staff in positioning the airport to capture the unprecedented funding opportunities between now and 2029. As we have discussed in our meetings with Phil Kroll, Miles Weaver and Jim Burnham, the BTL and BCU team is willing to put in the work to build relationships, pursue grants and look for ways to grow the airport. In this

situation having a partner with relationships with the FAA, MDOT AERO, local government agencies and the AAM industry is key. The C&S team possesses national aviation experience combined with our strategic partners Driven Design, WBK Engineering, and AMCG, brings a team that knows how to build customized approaches to support airports. Our team has been working in Michigan airports for more than 20 years and we bring a history and depth of relationships at both the FAA Detroit Airport District Office (ADO) and MDOT Aeronautics. We will work hand in hand with BTL to navigate the opportunities in positioning key pavements for funding, and we have the knowledge and proven experience of getting large and small scale airfield developments approved quickly to avoid schedule impacts. Locally, our partners at Driven Design, WBK, and AMCG have all done work either for the City, BCU, or BTL which has supported the growth of the tenants, supported BTL business plans, and created future opportunities at the airport. ***Finally, in the AAM space, we have been active in Michigan, New York, and around the country in supporting government agencies, airports, and AAM firms such as BETA in this quickly evolving space of the economy.***

Leading the C&S team of experts is myself, Aaron M. Aljets, PE. I have over 24 years of experience focusing solely on work with aviation clients. As one of our Great Lakes team's most experienced project managers and leaders, BTL will benefit from my depth of knowledge not only at general aviation airports (including Ann Arbor, Grosse Ile, and Livingston County) but also various sizes of commercial service airports (including Detroit Metro, Grand Rapids, Muskegon, and Kalamazoo). ***My focus is building a consulting approach that fits each airport, and defining communication plans that acknowledge my clients know their airports best, and allow them the ability to voice what they need and expect in a consultant.*** This approach has benefited our clients by giving them the proper amount of attention and support and keeping them ahead of issues and concerns. For BTL, our team will meet with the decision makers and leaders for the airport and define frequency of communication with the director and assistant director, role of the C&S team in communicating with FAA and MDOT AERO, and most importantly the goals and objectives for the near and long term.

We very much look forward to serving your team and helping drive BTL toward success for the next 100 years!

Sincerely
C&S ENGINEERS, INC.

Aaron M. Aljets, PE
Project Manager

Kelly J. Jost, PE
Principal in Charge / FAA & MDOT Liaison

Interactive Proposal

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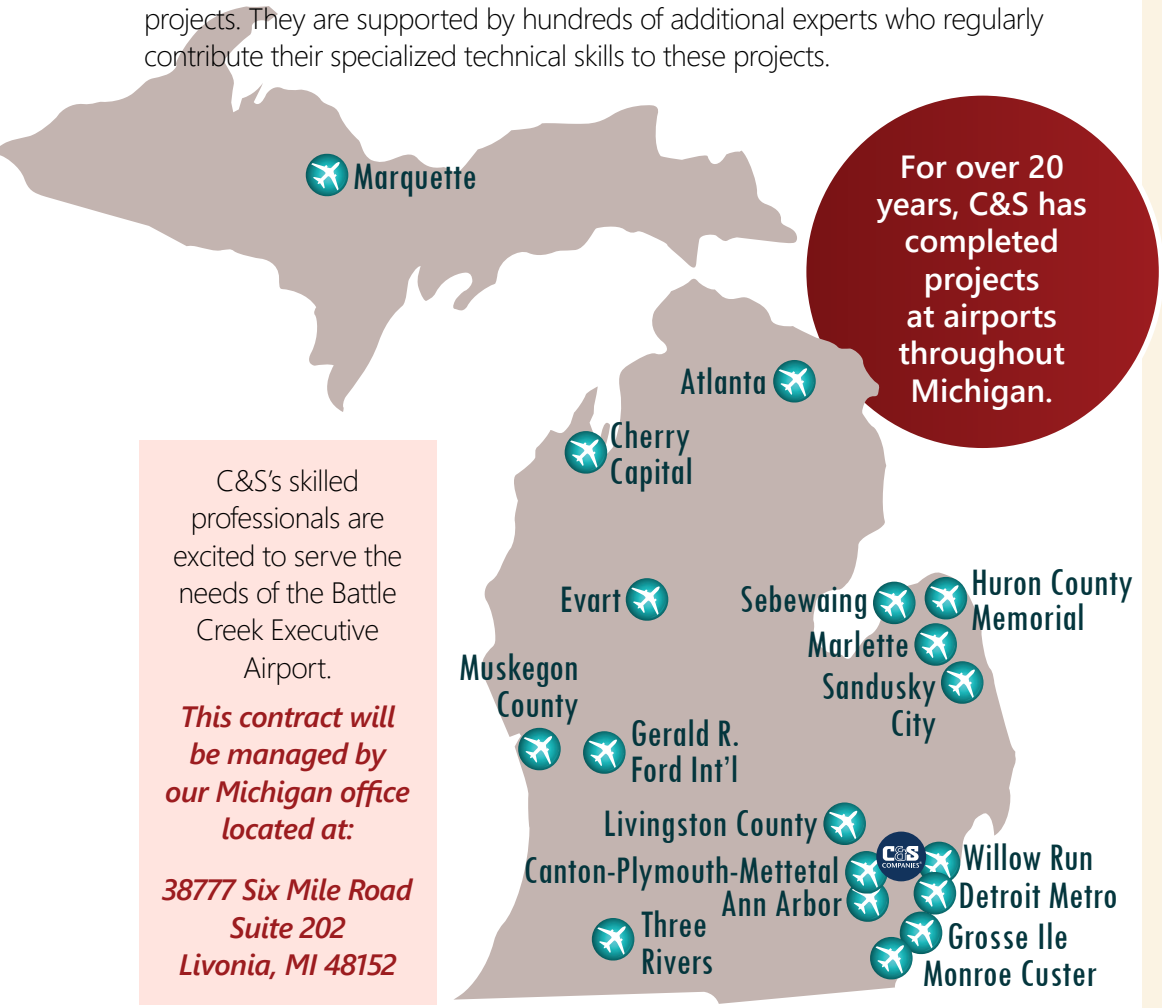
Section A Qualifications

C&S Companies

Airport services have been the cornerstone of our professional practice since our founding in 1968. For more than 55 years, C&S has served diverse airport clients across Michigan and the country. Our client list includes over 200 airports nationwide, ranging from general aviation to commercial service, hub, and military installations. We conduct almost all of our Michigan airport projects through term contracts like this one. ***C&S's in-house expertise is extremely broad, allowing us to deliver almost any type of airport project from start to finish***. With staff dedicated to planning, environmental, airfield and landside engineering, architecture, grants administration, construction services, and other specialized disciplines, we have the necessary resources to help clients realize the vision they have for their facilities.

Our aviation group features more than 120 staff dedicated completely to airport projects. They are supported by hundreds of additional experts who regularly contribute their specialized technical skills to these projects.



For over 20 years, C&S has completed projects at airports throughout Michigan.

C&S's skilled professionals are excited to serve the needs of the Battle Creek Executive Airport.

This contract will be managed by our Michigan office located at:

38777 Six Mile Road
Suite 202
Livonia, MI 48152

On January 1, 1968, professional engineers Mike Calocerinos and Frank Spina opened for business in Syracuse, New York. Their goal was to provide engineering services in a more personalized, high-quality manner. The six-person firm, named Calocerinos and Spina Consulting Engineers, concentrated on civil engineering (sewage and drainage) for local municipalities.

Over the past 55+ years, C&S has expanded from our roots as a small municipal engineering firm to a full-service national design, planning, and construction services firm.

Now some 600-people strong and providing a wide array of service solutions across 20 offices nationwide, the C&S Companies continue to emphasize a very personal, customer-centric approach to business.

Aviation Consulting Experience

Our local C&S aviation team has been hand-selected based on our experience with airport systems and years of preparing and collaborating with the City to learn about the specific needs for your airport. Our team-mates have expertise in every area required by the City for this contract. With staff dedicated to programming, land acquisition, obstruction mitigation and removal, pave-ment rehabilitation, environmental reviews, paint marking, crack sealing, NAVAID/electri-cal, construction administration services, and other specialized disciplines, we have the resources to help you realize the vision you have for your facility. Our aviation experience and qualifications are detailed below.

On-Call Experience

Few firms have as much experience with diverse airport projects as C&S. Our staff have handled almost every type of airport project. The projects included in this section illustrate our valuable experience with the FAA on similar on-call and general consultant contracts as well as individual projects we've recently completed. All of these projects have been conducted within the applicable FAA and state-level agency regulations. Our goal is to act as an extension of your staff so that you can continue to focus on the day-to-day safe operation of your facilities, knowing that your important projects are managed by a trusted partner.

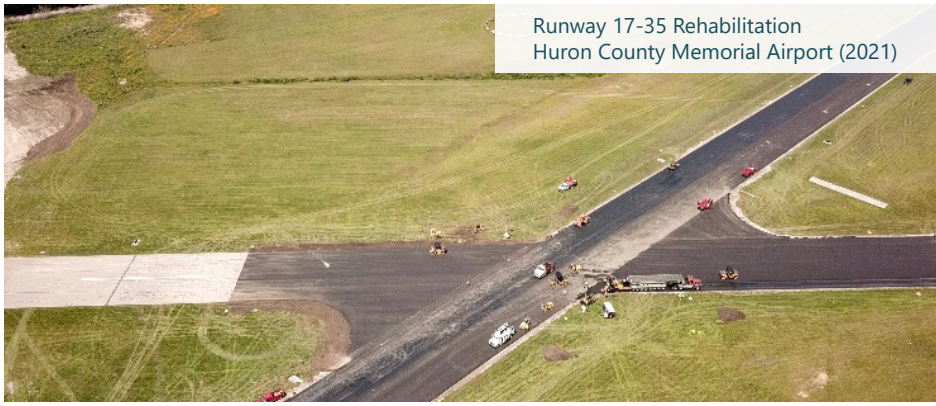
FBO Apron & Taxilane Connector
Gerald R. Ford International Airport
(2019)

Taxiway A Reconstruction
Grosse Ile Airport (2023)

Airports across Michigan and the country trust C&S to achieve their planning, design, and construction administration goals time and time again.

C&S Engineers, Inc. (C&S) is one of the C&S Companies.

C&S plans, designs, constructs, and maintains the built and natural environment.



Runway 17-35 Rehabilitation
Huron County Memorial Airport (2021)

Airfield Pavements

C&S has successfully completed rehabilitation and new construction of runways, taxiways, aprons, service roads, and parking lots using bituminous and Portland cement concrete (PCC). Steps involved in our pavement design procedures are in accordance with *FAA AC 150/5320-6G, Airport Pavement Design and Evaluation*. Our engineers and construction inspectors have specific training for airfield pavements offered by associations such as the American Concrete Pavement Association, Airports Consultants Council, Asphalt Institute, and FAA. The C&S team can perform geotechnical analysis to determine existing pavement and subbase thickness and perform geotechnical laboratory testing to determine CBR values to be used in determining a Pavement Condition Number (PCN) using FAA-developed COMFAA software and in conformance with *AC 150/5335-5C*. We then prepare a report compiling the information for the sponsor.

Our experience with pavement evaluation includes developing Pavement Maintenance and Management Programs (PMMP) for numerous airports. These projects involved researching the history of pavement construction at the airport, conducting a pavement condition survey (outlined in *FAA AC 150/5380-6*), and developing a PMMP for the airport to preserve and extend the life of existing airfield pavements. Utilizing this approach enables our team to closely coordinate with MDOT AERO provided PMP and Pavement Condition Index (PCI) maps, which detail distresses, and maintenance and rehabilitation history. Additionally, our ACIP planning will work closely with the PMP findings to provide BTL with real time updates on future PCI, forecasts required maintenance and allows prioritization of maintenance in such a way that the network of pavements can be cost effectively maintained in a safe condition throughout their service life.

Drainage

An airfield's drainage characteristics have a substantial effect on the safety, usability, and both short- and long-term maintenance requirements of that airfield. FAA advisory circulars (AC) carefully regulate airfield drainage. Other federal, state, and local agencies have stormwater regulations that also must be adhered to. C&S has performed drainage design work at airports for decades. We have developed a skill set, relationship with agencies, and an understanding of the nuances of the various regulations that allows us to navigate the process effectively. When local regulations are involved, they can be the most time-consuming to address.

Paint Marking & Signage

Most of our airfield pavement projects include marking the new pavement and often require new or relocated airfield signage. C&S uses and interprets *FAA AC 150/5340-1M, Standards for Airport Markings* and *FAA AC 150-5340-18G, Standards for Airport Sign Systems* in order to keep airports in compliance. All standards for markings are built using the standard dimensions and layouts from *FAA AC 150/5300-13A, Airport Design*, reiterating the importance of understanding the facility and using the correct geometry.

NAVAID/Electrical

C&S has designed installations for all types of airfield lighting and navigational systems including runway and taxiway edge lighting; LED lighting; in-pavement edge, centerline, and touchdown zone lights; guidance signs; visual aids such as REIL and PAPI systems; and instrument landing systems. These projects have included all related electrical power distribution, controls, equipment installations, and stand-alone airfield electrical buildings. In addition, C&S has completed emergency power systems for airports including stand-by generators and transfer equipment. We have designed airfield signage and marking plans and designed runway and taxiway lighting systems at more than 100 airport facilities.

Facility Architecture & Engineering

Our architects, supplemented by Driven Design, will work hand-in-hand with our specialized engineers to deliver complete project solutions. In addition to new buildings or renovations, our team assists with programming, conceptual design and feasibility studies, three-dimensional computer rendering, code analysis, building envelope restoration, historic preservation, and construction administration and inspection. Our 55+ years of experience, combined with our strategic team's local experience, will allow BTL to address immediate issues such as the ATCT elevator but also possible future issues that are expected with the BTL owned buildings.

Construction Services

C&S maintains a full-time staff of construction managers, inspectors, and support staff, whose sole focus is the successful completion of aviation-related projects. Our construction personnel are fully knowledgeable of federal aviation requirements. Their involvement occurs throughout the design process in the form of constructability reviews that provide office design personnel with the realities of a contractor's perspective, feedback on construction phasing, methods, materials and specifications, contract packaging, and contract administration matters. Scheduling, coordination, quality assurance, issue resolution, and budget control becomes our focus upon commencement of construction.

Additional aviation services include:

- ***Obstruction studies***
- ***Safety area improvements***
- ***Fencing & security***
- ***Sustainability & electrification***
- ***FAA/MDOT grant administration***
- ***Equipment procurement***
- ***Public/community outreach***
- ***Planning***
- ***Environmental***

Grant Funding Assistance

Our team is composed of grant program and technical specialists who are experts at finding and obtaining grant funding. Due to professional experience working on a multitude of municipal and private projects, as well as close relationships with grant-making agencies and organizations, C&S staff are well positioned to locate funding sources and develop high quality grant proposals for clients for a variety of purposes. Based on community and client goals, C&S tailors grant recommendations to meet the unique needs of each individual project. We have decades of experience with grant programs offered by federal, state, local, and private entities.

Land Use + Economics

C&S advises airports on strategic positioning, planning, and development of their real estate. We employ sophisticated analytical and implementation tools complemented by our years of diverse market experience to support client decision making to fully leverage collateral assets. Our comprehensive services focus on formulating market strategies to optimize land use and to further airports' financial goals and objectives for office, industrial, retail, restaurant, commercial services, and hotel projects among others.

Teammates

Supplementing the C&S team beyond these strategic partners, we will use other specialty services, such as geotechnical engineering, material acceptance testing and topographic survey on an as-needed basis. This method will allow for more opportunity for the consultant community and will allow for a project-by-project approach to meet DBE goals.

DRIVEN DESIGN

Role: Aviation Facilities Support

Driven Design is an architecture and interior design firm that believes in making a difference in each community where we work in. A multi-disciplined team that is client and community oriented, they are driven by the relationships they build with each client and aim to provide top tier customer service while striving for the highest quality final product. They accomplish this through the latest technology and working corroboratively, both internally and externally. Striving to create spaces to live, work, and play throughout the various communities they serve, it is their goal to ensure they are stewards to the environment, work with a diverse range of clients, push the bounds of design, and to ensure the communities and clients are satisfied with their end product.

Driven Design is well known in the Battle Creek community, Cody Newman and his team have supported municipal and commercial projects in Battle Creek as well as around the State of Michigan. As a locally based strategic partner, Driven Design will expedite local project permitting and support local coordination during construction.

WBK ENGINEERING Part of Bodwé Group

Role: Landside Support / Planning

WBK Engineering, LLC (WBK) is a tribally-owned SBA 8(a) disadvantaged small business, established in 1998 dedicated to providing high quality professional engineering services to clients. WBK focuses on providing the personal service of a small, local firm coupled with a high degree of experience, and the depth of resources found in large engineering organizations.

WBK has been providing engineering services to public and private sector clients for the past 25+ years. Their staff includes an experienced team of experts in Civil Engineering and related fields with current practice in Water Resources, Transportation, Structures, Municipal Services, Environmental Resources, Planning and Development, and Construction. Their clients include public agencies, Tribal governments, and private sector companies looking for solutions to engineering challenges that integrate client objectives in the built and natural environments.

WBK supported BTL and BCU with preliminary planning and site layout options for the AAM development areas. WBK's experience in the Battle Creek area combined with their national experience will expedite site planning and permitting elements for landside improvements.

AMCG

Role: Management/Business Support

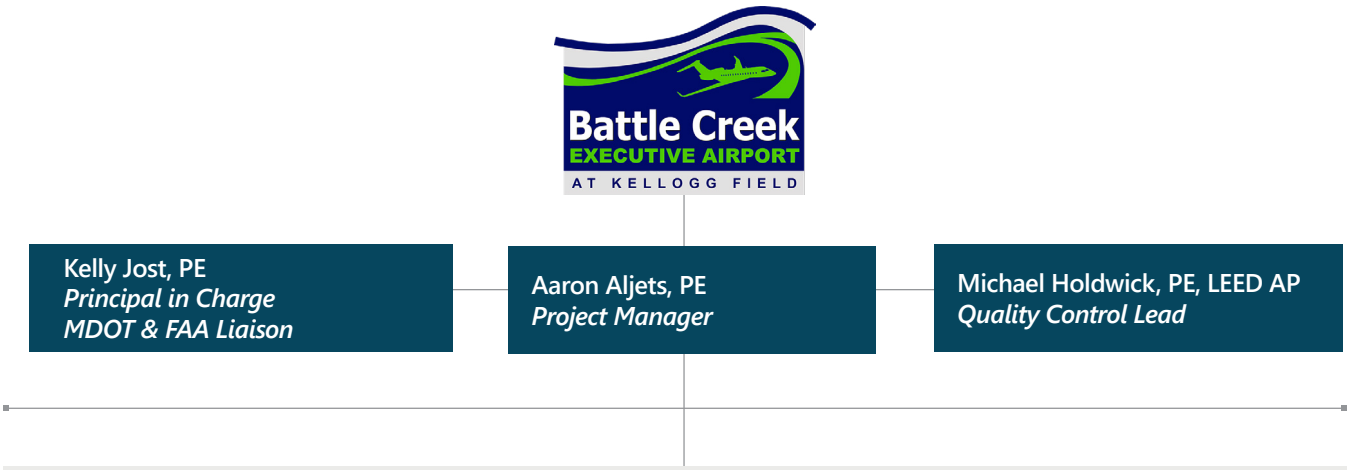
AMCG has been promoting aviation management excellence through the provision of trusted consulting services, support, and resources for over 25 years. AMCG's clients consist of airports, aviation businesses, aviation agencies, aviation associations, and other industry stakeholders (e.g., aircraft owners and/or operators; airport property lessees and/or developers; industry vendors; financial institutions; law firms; architectural, engineering, and planning firms; etc.).

AMCG is composed of a unique blend of talented and respected aviation industry professionals who have strong credentials, proven track records, and over 190 years of combined aviation industry experience. Together, these individuals have first-hand aviation, aviation business, and airport planning, development, operations, management, leadership, and consulting experience and many of the firm's principals, consultants, and most project analysts are pilots.

AMCG has supported BTL on an Airport Strategic Business plan, market assessments, and compliance documentation.

Key Personnel

C&S has assembled a team of airport consulting experts who will work collaboratively to deliver successful on-call support to BTL. Led by project manager, Aaron Aljets, PE, C&S's Michigan-based team of engineers are supplemented by local subconsultants with specialized skills who contribute to C&S's in-house expertise. Resumes are included on the following pages.



The above team will be supplemented by specialty subconsultants on an as-needed basis to meet unique project needs and/or DBE requirements.

Aaron Aljets, PE

Project Manager

Aaron Aljets has 24 years of experience in civil and aviation engineering. He leads and coordinates design teams and assumes technical design responsibility for airfield-related projects. His expertise includes geometrical and structural bituminous/concrete pavement design and evaluation, grading and drainage design, runway safety area compliance analysis, navaid design, airfield lighting layout, pavement marking design, Pavement Condition Index (PCI) analysis, Pavement Classification Number (PCN) analysis, technical specification development and cost estimating. He has designed airfield projects at airports ranging from general aviation to large hubs, including runways, taxiways, taxilanes, commercial, cargo and GA aprons, fuel farms, hangar development, and BAK 12/14 Aircraft Arresting Systems. Airport planning experience includes airport layout plans and master plans, obstruction analyses, and construction management plans.

Total Experience
24 years

With C&S Since
2019

Education
B.S., Civil Engineering, Michigan State University, 1999

Registrations
Professional Engineer—MI, OH, IN

Organizations
Aviation Studies Advisory Board Member, Bowling Green State University

Ohio Aviation Association – Member

Great Lakes Chapter – American Association of Airport Executives

Michigan Association of Airport Executives

Experience

Detroit Metro Airport, MI, 2019-Present— Project manager and technical support for various projects. C&S is providing engineering design and construction administration for airfield development projects. Task orders include:

- Taxiways Y rehabilitation, north and south
- Emergency pavement repairs
- Vehicle Service Road/Haul Road construction
- Watermain and security checkpoint improvements
- Pavement condition indexing and pavement classification numbering services
- FAA Procurement Support

Aaron is, and was at his previous employer, the primary client contact, project manager and design engineer for several airports in Michigan and Ohio. Work for each of the following airports includes development of the 10-year airport capital improvement plan (ACIP) with cost estimates and justification for each project in addition to leading design and construction projects.

- Three Rivers Municipal-Dr. Haines Airport On-call Consulting, Three Rivers, MI, 2009 - Ongoing
- Ann Arbor Municipal Airport On-call Consulting, Ann Arbor, MI, 2013- Ongoing
- Put-in-Bay Airport On-call Consulting, Put-in-Bay, OH, 2021 – Ongoing
- Monroe-Custer Airport On-call Consulting, Monroe, MI, 2021 – Ongoing

The following on-call/general consultant contracts were completed as an employee of a previous firm.

- Monroe-Custer Airport On-call Consulting, Monroe, MI, 2005 – 2018
- Sparta Paul C. Miller Airport On-call Consulting, Sparta, MI, 2005 - 2011
- Toledo Express and Executive Airport On-call Consulting, Toledo, OH, 2011 – 2018
- Put-in-Bay Airport On-call Consulting, Put-in-Bay, OH, 2011 – 2018
- Kelley Island Land Field Airport On-call Consulting, Kelleys Island, OH, 2011 – 2018
- Henry County Airport On-call Consulting, Napoleon, OH, 2011 – 2018
- Findlay Airport On-call Consulting, Findlay, OH, 2018

Kelly J. Jost, PE

Principal in Charge / FAA & MDOT Liaison

Kelly Jost is the Service Group Manager for C&S's Great Lakes Regional offices in Detroit (MI), Cleveland (OH), and Hebron (KY). A collaborative participant of C&S's National Aviation Steering Group, Kelly brings 24 years of experience in the A/E industry including 6 years with the Michigan Department of Transportation (MDOT). She has experience serving both general aviation and primary/commercial service airports. Her knowledge of FAA advisory circulars, along with governmental regulations, funding, and her working relationships with airport staff, MDOT, and the FAA have proven to be a great asset for the sponsors she regularly supports.

Total Experience
24 years

With C&S Since
2006

Education
B.S., Civil Engineering, Michigan Technological University, 2000

Registrations
Professional Engineer — MI

Private Pilot Certificate, Lapeer Aviation, 2006

Organizations
Michigan Association of Airport Executives (MAAE) Board Member

Airport Consultants Council (ACC)

Society of Women Engineers (SWE)

Women in Aviation International (WAI)

Specialized Training
Women in Leadership: Program for Emerging Leaders, Harvard University, 2024

ACEC Pathways to Executive Leadership, 2022

Envision Accreditation Workshop, 2016

PSMJ Project Management Boot Camp, 2010

Private Pilot Ground School, Kitze Aviation, 2005

Appointments
FAA Women in Aviation Advisory Board (WIAAB), 2020-2022

Experience

Gerald R. Ford International Airport, MI, 2019-Present—Contract manager for on-call projects. C&S is providing engineering design and construction administration/inspection for airfield development projects. Task orders include:

- Runway 8L-26R Surface Treatment
- Section 163 Determinations (multiple sites)
- FBO Apron and Taxilane Connector, Design and Construction
- FBO Apron Fence, Design and Construction
- Tenant Development Standards
- South Perimeter Road, Drainage Improvements, Design and Construction
- South Perimeter Road Reconstruction, Design and Construction
- Cargo Ramp Parking Analysis
- ALP Updates
- Airfield Concrete Pavement Repairs
- Capital Improvement Program support – grants, cost estimates, financial plans

Muskegon County Airport, MI, 2017-Present—Contract manager for on-call projects. C&S is providing engineering design and construction administration/inspection for airfield development projects. Task orders include:

- Terminal Roof Replacement – Phasing and Grants
- Taxiway B Lighting Rehabilitation
- Airfield Signage Study and Design
- Taxiway A Planning and Design
- Runway 6-24 Rehabilitation – Lighting and Pavement
- DBE/ACDBE Management
- Generator Installation
- Security Upgrades at TSA Checkpoint
- Update of Signage and Marking Plan
- Capital Improvement Program Support – grants, cost estimates, financial plans

Cherry Capital Airport, MI, 2017-Present—Contract manager for on-call projects. C&S is providing sustainability services for the airport. Task orders include:

- Energy Assessment and Renewable Energy Roadmap – Phase 1 and 2
- Procurement of electric utility vehicles through the Zero Emissions Vehicle and Infrastructure (ZEV) Program

Michael D. Holdwick, PE, LEED AP

Quality Control Lead

As chief engineer, Michael Holdwick is responsible for overseeing all project aspects from planning, design, bidding, and construction. His more than 17 years of experience includes program management consulting, planning, design, and construction of all aspects of airport improvement projects at both primary and general aviation airports. His specific project experience includes projects at numerous airports, including new runways, taxiways and aprons, terminals, hangars, pavement rehabilitations, roads, parking lots, lighting and signage, navaids, drainage, utilities, fencing, safety area improvements, and engineering studies. Michael's projects have won several awards, including awards of excellence from Michigan Concrete Association and the Asphalt Pavement Association of Michigan.

Total Experience
17 years

With C&S Since
2016

Education
M.S., Civil Engineering, Wayne State University, 2008

B.S., Civil Engineering, Michigan State University, 2005

PSMJ-Project Management Bootcamp

Registrations
Professional Engineer — MI, OH

LEED Accredited Professional

Organizations
Associate Member, American Society of Civil Engineers

Great Lakes Chapter–American Association of Airport Executives

Michigan Association of Airport Executives

Experience

On-Call/General Consultant Contracts

Michael has served as the client contact, project manager and design engineer for several commercial service and general aviation airports in Michigan. Work for each airport included development of capital improvement plans, and project management of the design and construction phases.

- Livingston County Airport, Howell, MI, 2018–Ongoing
- Huron County Memorial Airport, Bad Axe, MI, 2018–Ongoing

The projects below were performed for a previous employer.

- On-call Airport Engineering, Alpena County Regional Airport, Alpena, MI, 2015
- On-call Airport Engineering, Hillsdale Municipal Airport, Hillsdale, MI, 2015
- On-call Airport Engineering, Monroe Custer Airport Monroe, MI, 2015
- On-call Airport Engineering, Paul C. Miller-Sparta Airport Sparta, MI, 2015

General Aviation Airport Design and Construction

Easement Acquisition, Huron County Memorial Airport, Bad Axe, MI, Ongoing— Civil engineer of record for Land Acquisition project in cooperation with 4D Acquisition and Consulting. C&S will provide coordination between the airport, MDOT, 4D Acquisition and property owners, C&S will also prepare necessary drawings to reflect the boundary of the proposed parcels, which will include boundary information provided by the title, owner's name, non-surveyed location of existing structures, acreage of property, obstructions, and FAR Par 77 Surfaces contours.

East Side Taxilanes E4 and E5 Development, Erie-Ottawa International Airport, Port Clinton, OH 2021—Project manager for expansion of the existing apron and extension of the existing taxiway. The work was on an accelerated schedule to meet the deadlines of the FAA grant cycle. The work required coordination between subcontractors, our design team, the client and the FAA. This work was designed in conjunction with the master plan team. Coordination was required for the design to meet the requirements identified in the master plan as it was being developed.

Nicholas G. Makhlouf, PE

Airfield Engineering Lead

As a Project Engineer, Nick is responsible for managing the design and construction of airport projects varying in types, sizes, and locations. He has been involved with construction management, project management, project scoping, geometric design, pavement design, grading, hydraulic design, drainage analysis and design, construction inspection, and grant reimbursements for airport projects around the country. His project experience includes the reconstruction/ rehabilitation of runways, taxiways, aprons, automobile parking lots, storm drain design, terminal buildings, airfield lighting, and NAVAIDS. He has experience serving airports of all sizes and has a strong background and understanding of FAA advisory circulars as he supports the technical upkeep of C&S' Aviation group and his involvement with industry leading organizations. Nick has a solid background in AutoCAD Civil 3D design, along with the assembly of plans and specifications.

Total Experience
11 years

With C&S Since
2013

Education
B.S., Civil Engineering, Syracuse University

Registration and Certifications
OSHA 10-hour

Professional Engineer — MI, OH, AZ

Professional Organizations
American Society of Civil Engineers

Airport Consultants Council

Michigan Association of Airport Executives

Experience

Taxiway A Reconstruction, Muskegon County Airport, Muskegon, MI, Ongoing— Project Manager for this reconstruction project. This project includes new asphalt pavement on Taxiway A, the parallel taxiway to Runway 6/24. It also includes taxiways A1, C, H, K, and B. Associated components to this project include new medium intensity taxiway edge lights, cable, conduit, cans, and LED guidance signs for parallel Taxiway A and taxiway connectors, drainage improvements, and grading. Final design is planned for 2023 and construction is planned for 2025.

Taxiway B Lighting Rehabilitation, Muskegon County Airport, Muskegon, MI, Ongoing — Project Manager for the design of new in-pavement taxiway edge lighting along the southwest edge of Taxiway B at Runway end 14. This project generally includes trenching of the existing Taxiway B pavement, installation of new in-pavement edge lighting, conduit, cable, and remarking of the taxiway markings. Also included is the removal of existing lighting that was no longer compliant with current design and geometry standards and replacing with new taxiway edge lights in compliant order.

Beacon Replacement, Muskegon County Airport, Muskegon, MI, Ongoing — Project Manager for the reconstruction of the Airport Beacon Tower. This project generally includes the removal of the existing beacon tower, salvaging the existing beacon, grading, forming, and pouring the concrete foundation for the new beacon tower, and installation of the new tower and salvaged beacon.

Terminal Building Reconstruction Project, Put-In-Bay Airport, Put-In-Bay, OH, Ongoing—Project engineer responsible for the design of the terminal reconstruction project. The project includes the demolition of the existing terminal building, construction of a new terminal building, reconstruction of the surrounding parking lot and construction of a new curb and sidewalk system that is ADA compliant. Also included is the relocation of utilities including water, electrical, and gas. As the project engineer, Nick coordinated with the FAA and the Owner to secure project funding through the historic FAA Airport Terminal Program funding made available through the FAA Bipartisan Infrastructure Law (BIL).

Kirstin Finnila, EIT

Airfield Engineering Support

As a Staff Engineer, Kirstin is responsible for supporting the design and construction of airport projects varying in types, sizes, and locations. She has been involved with geometric design, pavement design, grading, hydraulic design, drainage analysis and design, construction inspection, and grant support for airport projects around the Great Lakes Region. Her project experience includes the reconstruction/rehabilitation of runways, taxiways, aprons, airfield lighting, and NAVAIDS. As a Battle Creek area resident, Kirstin is passionate about the community and will be a major contributor to this assignment.

Total Experience
1 year

With C&S Since
2023

Education
B.S. Civil Engineering., University of Detroit Mercy, 2023

Experience

Airport Design

Concrete Panel Replacement, Partial Pavement Rehabilitation, Akron-Fulton International Airport, Akron, OH 2023 —Design engineer for the ODOT Grant project to replace a portion of the existing apron, along with some drainage/grading improvements.

Pavement Rehabilitation Apron Slab Replacement, Phase II, Cuyahoga County Airport, Cuyahoga, OH 2023—Design engineer for the ODOT Grant project consisting of full-depth reconstruction of the apron, along with some additional panel replacements.

Taxiway V Rehabilitation and 2024 Pavement Repairs, Gerald. R. Ford International Airport, Grand Rapids, MI, 2024—Design engineer for the Taxiway V Rehabilitation which included fieldwork to establish current conditions. Poor concrete conditions led to a decision to remove and replace panels along Taxiway V. The pavement repairs portion of the project includes full depth reconstruction of select slabs.

Taxiway K South Pre-Fieldwork, Detroit Metro Airport, Detroit, MI, 2024—Assisted in leading the fieldwork team by creating exhibits from record drawings and collecting data from the field to assess the current conditions of the taxiway prior to design.

Airport Capital Improvement Program (ACIP) Updates, Various General Aviation Airports—Work for each airport that includes development of a 5-year plan with cost estimates, justification, and location sketch for each project.

Airport Construction

Rehabilitate Runway 1/19 (3,000' x 60'), Reconstruct Runway 1/19 (1,000' x 60'), RSA Grading Improvements, Kent State University Airport, Stow, OH, Completed in 2023—Field Inspector for the reconstruction and rehabilitation of Runway 1/19. Project included a 1000' reconstruction area and a 3000' asphalt pavement rehabilitation with full depth crack repairs. The RSA was regraded with electrical improvements. Completed daily Appia reports, tracked all quantities, communicated with client, and worked with contractors on following the design.

Christopher Brubach, PE

Airfield Electrical Lead

Chris Brubach has 22 years of experience with project management and design at both general aviation and primary airports with a specialty in airfield electrical infrastructure. He has taken a primary role in over 80 separate aviation projects, totaling more than $450 million in construction costs and a secondary role of numerous others. Chris has managed and designed a wide variety of airport and roadway improvement projects, including security improvements, lighting and signage improvements, navigational aid installations, obstruction studies, runway safety area improvements, site grading and drainage improvements, new pavement construction, and airport pavement rehabilitation and reconstructions. Chris takes an active and supporting role in construction, inspection, and construction administration tasks.

Total Experience
22 years

With C&S Since
2001

Education
B.S. Environmental Resources and Forest Engineering, SUNY ESF/ Syracuse University, 2001

Registrations
Professional Engineer:
New York
Vermont
Pennsylvania
Ohio
Michigan
Florida
Rhode Island

PSMJ Project Manager's Bootcamp

FAA Eastern Regions Lab Procedures Manual Training for P-401 Asphalt Pavements

OSHA – 10 hour Course, Construction Safety and Health

AAAE – Airport Certified Employee (ACE) – Airfield Lighting, 2019

Experience

Taxiway Y South Reconstruction, Detroit Metro Airport, Detroit, MI, 2022—Quality control engineer for Taxiway Y South, which includes a 4,000' x 75' parallel taxiway and connectors, and portions of Taxiway K and U. The project includes concrete pavement rehabilitation, drainage, signage, taxiway lighting and pavement marking. Phasing work involves coordination with several different entities within the airport including ATC, airlines, operations and maintenance, and engineering staff. The project includes meeting all FAA standards and working closely with the FAA Detroit ADO. The project was constructed in the spring/summer of 2023.

Taxiway B Rehabilitation, Syracuse Hancock International Airport, Syracuse, NY, Ongoing—Project manager and lead engineer for the rehabilitation of Taxiway B including drainage, lighting, signage, shoulder addition, and pavement improvements.

Airfield Guidance Sign and Navigational Aid Rehabilitation, Niagara Falls International Airport, Niagara Falls, NY, Ongoing—Project manager for the replacement of all airfield guidance signs, wind cones and rotating beacon, including all power cables and conduit. The project included renaming all airfield pavements using the current FAA methodology, the permanent closure of Runway 10R-28L, navigational aid decommissioning, and airfield pavement markings modifications.

General Aviation (GA) Apron and Taxiways Rehabilitation, Buffalo Niagara International Airport, Buffalo, NY, Ongoing—Project manager and lead engineer for the rehabilitation of the 400,000-sf asphalt aircraft apron and 3,000 linear feet of concrete taxiways P&Q at 50-feet in width. Project incidentals included stormwater, deicing collection, pavement markings, airfield lighting and signage rehabilitation.

Runway 10-28 Safety Area Improvements, Allegheny County Airport, West Mifflin, Pennsylvania, Ongoing—Project manager and lead engineer for design modifications/ relocations and other adjustments to the FAA owned and operated navigational aids which are impacted as part of the project work activities. Affected equipment included Runway 10 REIL, Runway 10 ILS localizer, Runway 28 MALSR and associated equipment shelters.

Benjamin Imhoff, PE

Construction Supervisor

Ben Imhoff is a seasoned aviation-focused engineer with nearly 18 years of design and construction phase experience at airports ranging from large hub to general aviation. He has a broad background in airfield pavements, including large-scale reconstructions of runways, taxiways, and aprons. He is responsible for design and construction inspection from conception through bidding and construction. His airport design experience includes 2D and 3D design using Microstation and AutoCAD. Ben's experience in construction inspection includes new airport pavement, airport pavement rehabilitation, and airport drainage.

Total Experience
18 years

With C&S Since
2006

Education
B.S. Civil Engineering,
University of Akron

Registrations
Professional Engineer — OH

Experience

Construction Inspection

Reconstruct Taxiway Y South, Detroit Metro Airport, Detroit, MI, Ongoing——Resident Project Representative for the reconstruction of Taxiway Y South. The project involves asphalt pavement rehabilitation, PCC pavement reconstruction and repairs, drainage and electrical.

Reconstruct Taxiway Y North, Detroit Metro Airport, Detroit, MI, 2022——Resident Project Representative for the reconstruction of Taxiway Y North. The project involves asphalt pavement rehabilitation, PCC pavement reconstruction and repairs, drainage and electrical.

Rehabilitation of Runway 9/27, Taxiway K and Taxiway J, Cincinnati/Northern Kentucky International Airport, Hebron, KY, Construction 2021—Resident Project Representative for the rehabilitation of Runway 9-27, and adjacent taxiways. Phase 1 (Ramp 3 Taxilane) construction began in Fall of 2020. The project involves asphalt pavement rehabilitation, PCC pavement reconstruction and repairs, drainage and electrical.

Central Deicing Facility and Hold Bay, Detroit Metro Airport, Detroit, MI, 2019—Resident Engineer for the reconstruction of 190,000-square yard Portland cement concrete deicing apron and remain-over-night (RON) parking apron and construction of a new 1200-foot long x 75-foot wide hold bay taxiway. The apron included 7 deicing positions and 11 RON parking positions. Primary responsibilities include electrical resident engineer and onsite FAA point of contact.

Reconstruction of Runway 3L/21R and Associated Taxiways, Detroit Metro Airport, Detroit, MI, Construction 2018—Resident engineer for the reconstruction of 8,501-foot-by-150-foot PCC runway, full-length parallel taxiway, and connecting taxiways. A deicing apron was reconstructed and the parallel taxiway on the east side of the runway was extended to make it the full length of the runway. The project involves full-depth reconstruction of 500,000 square yards of a PCC and 180,000 square yards of asphalt pavement. Primary responsibilities include electrical resident engineer and onsite FAA point of contact. The project was constructed over two construction seasons in 2019 and 2020.

C&S COMPANIES®

Yazan Wraikat

Construction Inspector

Yazan's inspection responsibilities range over the past 10 years and cover all items associated with small to large, complex projects. Yazan has experience with concrete and asphalt paving, drainage, grading, structural concrete, structural steel, soil/concrete testing, bridges, roads and runway/taxiway reconstruction. His construction management duties have included maintenance of project records in accordance with applicable state or federal record keeping systems, enforcement of contract drawings and specifications, scheduling, and the coordination of work between the owner, engineer, and contractor.

Total Experience
9 years

With C&S Since
2022

Education
M.S., Civil Engineering,
Wayne State University, 2018

B.S., Civil Engineering,
Misr University for Science & Technology, 2013

Registrations and Certifications

OHSA
30-hour Construction Excavation & Trenching Safety

MIOHSA
Respirable Crystalline Silica Training

MDOT
Concrete Paving
Hot Mix Asphalt Paving Operations
Density Control
Drilled Shaft Inspection
Bridge Construction/Rehabilitation Inspection
Computerized Office Tech
Certified Nuclear Gauge
Hazardous Material & Radiation Safety

ACI
Concrete Field-Testing Grade 1

ACPA
Concrete Pipe Inspection

Experience

Aviation

Taxiway Y South Reconstruction, Detroit Metro Airport, Detroit, MI, 2023—Lead inspector for Taxiway Y South construction, which includes a 4,000' x 75' parallel taxiway and connectors, and portions of Taxiway K and U. The project includes concrete pavement rehabilitation, drainage, signage, taxiway lighting and pavement marking. The project includes meeting all FAA standards and working closely with the FAA Detroit ADO.

Airfield Haul Road Construction, Detroit Metro Airport. Detroit, MI, 2022—Lead inspector and control manager for roadway construction, the project includes construction of a new 26-foot-wide access road connecting Checkpoint 34F to TWY Y2 with gravel shoulders. Widen fence angle at checkpoint 34F and installing guardrail adjacent to existing fence, installing concrete pipe culverts at drainage crossings and install recessed taxiway edge lights. This work consists of improvements to the existing service road from the construction Checkpoint to TWY Q (approximately 1,500 linear feet) and the installation of a new section of service road between TWY Q and TWY Y (approximately 1,800 linear feet), including associated signage, ditch-work and culvert installation.

Watermain and Checkpoint, Detroit Metro Airport, Detroit, MI, 2022—Field Inspector for the construction of repairs to Checkpoint #34F and a new water main. This project includes (1) work associated with improving existing infrastructure at existing construction Security Checkpoint #34F including, airfield operations area (AOA) fence/gate work, modifications to the existing fence mounted Perimeter Intrusion Detection System (PIDS), installation of new cable reinforced gate arms, new guard booths, new fiber optic cabling, security controls, power supply, security camera tower and concrete paving; and (2) installation of approx. 750 linear feet of new water main service including, tapping of existing water main, new gate wells/valving, new hydrants and appurtenances.

Airfield Pavement Repairs, Detroit Metro Airport, Detroit, MI, 2022—Lead inspector for Taxiway K repairs. The project involved 31,000 square yards of isolated pavement repairs. Also included replacing taxiway centerline lights within the pavement limits, as well as miscellaneous pavement marking and pavement base repairs. The project was constructed in 2022.

Gayle McKee, CM

Airside & Landside, NEPA, AAM Planning Lead

Gayle McKee is an Associate Director in the Aviation Group. She has more than 30 years of experience with project and client management for airport planning and environmental projects. Her responsibilities include managing and training project teams, preparation of project scopes, budgets, and schedules, overseeing subconsultants work and report preparation, QA/QC review of reports, and public presentations. Her project experience includes preparing airport master plans, evaluation of airside and landside needs, airport layout plan updates, NEPA environmental assessments, obstruction studies, non-aeronautical site development, and AAM opportunities and needs.

Total Experience
31 years

With C&S Since
1993

Education
Master of Urban Planning, University at Buffalo, 1995

B.S., Aeronautical Studies/ Airport Management, Embry-Riddle Aeronautical University, 1987

Training
ACI-NA/ACC Planning & NEPA Workshop, 2015

ACC Technical Workshop, 2016

ACC Technical Workshop, 2020

ACC FAA/SME Engagement on Runway Length, 2023

Certifications
American Association of Airport Executives (AAAE), Certified Member

Professional Organizations
AAAE – Emerging Aviation Technologies Working Group

Airports Council International—North America (ACI-NA)

Airports Consultants Council (ACC)

Experience

AAM & Environmental Assessments

Griffiss International Airport Land Release EA for Airport Business Park Development Site and Preliminary Design, Rome, NY, ongoing—Project manager for EA assessing potential impacts associated with developing a 286-acre site for a mix of aeronautical and non-aeronautical uses associated with traditional and emerging industries related to UAS and AAM such as manufacturing of AAM vehicles, hangar space for R&D companies. Major development items include building construction, extension/installation of utilities and site infrastructure, site grading, ground-based heliport, automobile parking, and landscaping. The EA includes technical studies for traffic and construction noise; roadway traffic and level of service; socioeconomic impacts, public services and social conditions, wetlands, Phase 1/2 environmental site assessments, Phase 1A and Phase 2 archeological surveys, and drainage and stormwater. Project also includes a land release application and completion of 30% design for site utilities. Project involved collaboration with county, municipal, state, and private agencies on a monthly basis to refine the site development plan, discuss funding opportunities, and address potential impacts.

Master Plans

Hudson Valley Regional Airport Master Plan, Wappingers Falls, NY, Ongoing—Project manager for a master plan that involved a growing facility that completed most development on the current ALP. Included identifying potential direction for the airport over the next twenty-years. Future plans needed to maintain existing runway length, accommodate the increase in jet aircraft operations, and maximize use of airport property to accommodate future hangar demand. Project also included AGIS survey and property boundary survey.

Airport Layout Plan Updates

Georgetown Airport, Airport Layout Plan Update & Narrative Report, Georgetown, CA, 2018—Team member for ALP update assigned to determine the critical aircraft, evaluate compliance with federal design standards, identify key issues, develop aviation demand forecasts, and determine facility requirements.

Barbara E. Schalmo, AICP

Land Use + Economics Lead

With a background in city and regional planning and real estate economics, Barbie leads the national Land Use + Economics practice at C&S, working with all types of airports and other entities across the US. She and her team craft innovative planning and development strategies to help clients advance strategic goals that balance operational needs, enhance community benefits, support economic growth, diversify revenue, and build cross-purpose resiliency through strategic land use. Barbie's expertise includes institutional real estate and development strategy, comprehensive and master planning, diverse market and economic analyses, redevelopment, targeted research and policy planning, land use optimization, regulatory process support, asset positioning strategy, economic development, and community engagement. She specializes in navigating complex, cross-disciplinary and collaborative projects to formulate responsive solutions that link desired outcomes to sustainable growth and interconnected benefits.

Total Experience
16 years

With C&S Since
2012

Education
Master in City and Regional Planning, University of North Carolina

B.A., American Language and Literature, University of Tennessee at Chattanooga

Registrations
American Institute of Certified Planners (AICP)

Organizations
American Planning Association (APA)

American Association of Airport Executives (AAAE)

Airports Council International—North America (ACI-NA)

Airport Consultants Council (ACC)

Former board member - Commercial Real Estate Women (CREW) Orlando

Experience

Commercial Site Development Standards, Gerald R. Ford International Airport, Grand Rapids, MI, 2020—Advised and assisted airport staff on key elements and inclusions for comprehensive site standards for future compatible, commercial development on airport land. Provided research and prepared documentation with engineering team.

Flexjet Development Support & Advisory Services, Cuyahoga County Airport, 2021— Project manager for multi-discipline effort to assist the Airport with the development process for new on-airport Global Operations Center for Flexjet, a leading fractional jet ownership company, and existing tenant wishing to expand. Providing content review and input, advice and counsel throughout lease negotiation which includes existing lease consolidation and restructuring, adding new leasehold areas, and negotiating updated terms, rates, fees and escalation structure. Managing FAA coordination and multi-agency involvement due to proposed removal of historic hangar and required NEPA process for EA. Advised airport through Section 163 review and determination by FAA, including required submissions and associated research.

Griffiss International Airport Land Release EA for Airport Business Park Development Site and Preliminary Design, Rome, NY, ongoing—Task leader for EA assessing potential impacts associated with developing a 286-acre site for a mix of aeronautical and non-aeronautical uses associated with traditional and emerging industries related to UAS and AAM such as manufacturing of AAM vehicles, hangar space for R&D companies. Major development items include building construction, extension/installation of utilities and site infrastructure, site grading, ground-based heliport, automobile parking, and landscaping. The EA includes technical studies for traffic and construction noise; roadway traffic and level of service; socioeconomic impacts, public services and social conditions, wetlands, Phase 1/2 environmental site assessments, Project involved collaboration with county, municipal, state, and private agencies on a monthly basis to refine the site development plan, discuss funding opportunities and address potential impacts.

Posh Supupramai, PE

GIS Lead

Posh leads the digital delivery services within C&S's aviation practice. With a comprehensive background in BIM/CAD and GIS design obtained through extensive experience in the aviation industry, Posh brings a wealth of expertise to his role. His project portfolio encompasses a wide range of areas in airports' landside and airside development, highlighting his adept utilization of BIM/CAD, GIS methodologies, and seamless data integration techniques. In his role, Posh is responsible for overseeing the seamless integration of project BIM/CAD and GIS elements, implementing effective project delivery strategies, and facilitating multidisciplinary design coordination. Recognized for his talent in providing innovative project delivery solutions, Posh plays a pivotal role in driving innovation and ensuring the efficient completion of projects.

Total Experience
11 years

With C&S Since
2022

Education
BS, Civil Engineering, Florida Atlantic University, 2013

Registrations
Professional Engineer, FL No. 84255

Organizations
buildingSMART USA, Airport Room Group Lead

AAAE Geospatial Working Group, Member

ACC BIM Committee, Member

Experience

Airport Design

Taxiway Y South Rehabilitation, Detroit Metro Airport, Detroit, MI, Completed Design—Civil BIM Manager for the design service of the Taxiway Y South rehabilitation project at the Detroit Metropolitan Wayne County Airport (DTW). Responsibilities included collaboration with the design team for phasing and utility model coordination. Utilized visualization for phasing meeting coordination with Airport staff. Facilitated model coordination meetings for utility conflicts during the design of the project.

Critical Asset Remote Monitoring Proof of Concept Project, Philadelphia International Airport (PHL), Philadelphia, PA, Ongoing Task—Project Lead for the deployment of a remote monitoring system of different asset types at the airport under a proof of project. The project includes the hardware installation of IoT sensors and remote monitoring devices onto the assets and the remote monitoring software integration. The asset types being tested included escalator, elevator, moving walkway, gravity system utility, pressurized system utility, and pump station. The purpose of the project is to monitor outages and trigger alerts to the airport's facility team based on the parameters that are set up in real-time. Using the Trimble Unity bridge to Esri ArcGIS, the project also includes testing the integration of the monitored assets into the airport's GIS database.

GIS Management & Data Integration Services, Philadelphia International Airport (PHL), Philadelphia, PA, Ongoing Task—BIM/CAD/GIS Support Staff for the airport leading the optimization of data integration within the airport's network. Services include enhancing GIS workflows to improve current and future data integration processes. Responsibilities encompass analyzing existing datasets and establishing future datasets libraries for airport consumption. Additionally, the role involves providing data integration services, utilizing Extract, Transform, Load (ETL) software, such as Safe Software's FME, to integrate data to and from GIS and other databases. A key focus area is facilitating integration between the airport's asset management system and its GIS system.

Amy Sonbuchner, AIA, LEED AP

Aviation Facilities Lead

Amy Sonbuchner is an architect and project manager for C&S, based in Minneapolis. Amy has 19 years of architecture design experience, with 14 years primarily focused on aviation facilities. She has worked with five small to large hub airports, focusing on security checkpoints, federal inspection services (FIS), concessions, wayfinding, and building improvements such as roofing, curtain wall, and door replacements. She fosters relationships with client and airline stakeholders by providing on-going communication, maintaining schedules and budgets, proactively addressing possible issues, and responding to concerns. As a seasoned project manager, she coordinates with internal and external team members to ensure commitments and quality workproduct are always maintained.

Total Experience
19 years

With C&S Since
2022

Education
Bachelor of Arts in Architecture, Rice University, 2003

Bachelor of Architecture Rice University, 2005

Registrations
Registered Architect—IL, KY, MI, and OH

LEED AP

Organizations
Airports Consultants Council (ACC), Former Terminal and Facilities Committee Chair and current BIM Chair.

American Institute of Architects

Experience

Aviation

Snow Equipment Removal Facility (SRE), Grand Rapids (GRR), Grand Rapids, Michigan, 2022-Present—As project architect for the SRE at GRR, Amy collaborates with the owner as they navigate building footprint needs versus the budget and with internal staff on building design.

The projects below were performed for a previous employer.

Folded Plate Repairs, Metropolitan Airports Commission (MAC), Minneapolis-St. Paul, MN, 2021-Under Construction—Project management for this Federal project which included planning for future phases and design of the first phase of roof replacement for the iconic Folded Plate structure over ticketing at MSP Terminal 1. Procurement challenges resulted in phasing the project so that more readily available materials were installed earlier in the project. Amy held frequent coordination meetings with Trades staff to understand their access needs and inform the design of the accessible "interstitial space" requested to monitor the folded plate concrete structure. She worked with the Airport Safety Committee to navigate realignment of a service road. Estimated Construction Cost: $12 million. Estimated Design Fees: $2.5 million.

Armed Forces Service Center, MAC, Minneapolis-St. Paul, MN, 2019-2020—Project Management and construction administration for the relocation of the MSP Armed Forces Service Center. Amy held numerous meetings with key stakeholders during design and coordinated closely with their team during construction. The new space was designed to include reception, tv viewing lounge, a business center, dining area, kitchen, play room, baggage storage, restrooms, showers, sleeping chambers, offices, office storage, and a conference room. Estimated Construction Cost: $1.8 million. Estimated Design Fees: $375,000.

Publications and Industry Involvement

- Chair of ACC Terminal and Facilities BIM Subcommittee with five webinars executed under my leadership. Speaker in "BIM 101", Spring 2018.
- Past Chair and Vice-Chair of ACC Terminal and Facilities Committee.
- University of Minnesota Architecture Student Mentor, 2011-Present.
- Architecture, Construction, and Engineering (ACE) Mentor, 2008-2011.

William S. Frye, LEED AP

Fuel Farm

Bill Frye "The Fuel Farm Guy" has over 33 years of experience and takes the lead on C&S projects involving the compliance and design of oil/petroleum and chemical storage facilities. He is responsible for many facets of engineering including planning, design, bidding assistance, construction administration and inspection, budgeting, and scheduling. Bill is also an authorized Class A/B Underground Storage Tank Operator and leads the firm in providing related training.

Total Experience
33 years

With C&S Since
1991

Education
B.S. Cum Laude, Environmental Studies, SUNY College of Environmental Science and Forestry, 1991

A.A.S., Automotive Technology, SUNY Canton College of Technology, 1981

Registrations
Authorized Class A/B UST Operator in NY

LEED Accredited Professional

Training
OSHA 10-Hour Construction, 2008

American Petroleum Institute (API) Introductory Training to Standards 620, 650, and 653

National Fire Protection Association (NFPA) 30– Flammable Liquids Fundamentals

Experience

Fuel Facilities

Lockheed Martin, TPS-77 Radar, Generator Fueling System Designs, Several Locations, Kuwait, 2024—As part of a design of several radar sites, Mr. Frye was the lead designer of a main fuel storage tank and multiple day tank systems to serve multiple emergency generators. Scope included overfill prevention systems, secondary containment, supply and return fuel piping systems, and tank foundations. Design cost: $600,000.

Blue Grass Airport Fuel Facility Replacement – Conceptual Designs, Lexington, KY, 2024— Project manager for the conceptual designs of a new aboveground storage tank (AST) aviation fuel and de-icing chemical facility, and permanent closure of an existing AST fuel facility. Project elements include conceptual designs of two facilities and different locations. Each design included five 40,000-gallon jet fuel ASTs, one 12,000-gallon aviation gasoline ASTs, and three 20,000-gallon ASTs for aircraft de-icing chemicals. Features also included multiple canopies, equipment shed, secondary containment systems, level/leak monitoring and fuel management systems, extensive drainage and grading systems, camera security system, power and controls, and site lighting. Design Contract Cost: $333,000.

Livingston County Hampton's Corners Fuel Facility Replacement, Groveland, NY, 2024— Project Manager of an automotive fuel facility that includes two 12,000-gallon aboveground storage tanks (ASTs). Features include canopy, concrete foundations and pads, fuel transfer and dispensing secondary containment system, equipment protections, remote dispensers, level/leak monitoring system, relocation of fuel management system, camera security system, power and controls, and site lighting. Construction Est: $1.6 million.

Gerald R. Ford International Airport, Airport Field Maintenance Fuel and Chemical Facility – Fast Track Replacement, Grand Rapids, MI, 2023— Project manager for a new aboveground storage tank fuel facility and permanent closure of an existing underground storage tank facility. Project elements include two 12,000-gallon aboveground storage tanks (ASTs) for automotive fuels, three 20,000-gallon ASTs for runway de-icing chemicals, 44' by 150' by 18'clear height canopy, equipment shed, secondary containment systems, level/leak monitoring and fuel management systems, extensive drainage and grading systems, camera security system, power and controls, and site lighting. Design and construction were completed between Jan. – Dec. 2023. Construction Contract Cost: $4.3 million.

John Trendowski, PE, LEED AP

Energy Efficiency / VALE

John Trendowski is a Senior Principal at C&S and is a national leader in the field of airport air quality. He coordinates the successful completion of projects related to air quality, energy, and sustainability. John specializes in emission mitigation projects, such a electrification and charging infrastructure, and maximizing funding opportunities for our clients. He has served as project manager for projects at Detroit Metro, Port Authority of New York & New Jersey, Las Vegas International, San Antonio International, Massachusetts Port Authority/Boston Logan, Port of Portland, Columbus International, Cleveland Hopkins, Cincinnati/Northern Kentucky, Milwaukee General Mitchell, and Seattle-Tacoma International airports. Other air quality experience includes work at San Diego International, Port of Oakland, Salt Lake City International, Lehigh Valley, Ithaca Tompkins Regional and Fresno Yosemite International. He is currently the principal investigator for ACRP Project 02-90 Development of the Airport Construction Emission Inventory Tool, Version 2.0 and the MDOT Multimodal Airport Charging Station Deployment- Phase I projects/

John is also the former Co-Chair of the Air Quality Working Group of ACI-NA, Air Quality Issues leader for the AAAE and the Air & Waste Management Board. He has presented on airport air quality issues at several conferences including the AAAE Airport Air Quality Conference, the University of California Davis Noise and Air Quality Symposium, and the FAA Western Pacific Environmental Conference.

Total Experience
38 years

With C&S Since
1986

Education
B.S., Chemical Engineering, Clarkson University

Graduate Studies, Syracuse University

OSHA 40-Hour Health and Safety Course

Registrations
Professional Engineer — NY

LEED Accredited Professional

Certified Carbon Reduction Manager – Association of Energy Engineers

Organizations
Air & Waste Management Association Board Member

Airports Council International-North America (ACI-NA)

Water Environmental Federation

Experience

Electric Charging Infrastructure and Rental Car Facility Evaluation, Port of Portland, OR 2023- John is the project manager and technical lead in evaluating the feasibility and costs associated with the installation of electric charging infrastructure to convert petroleum-based GSE to electric GSE at Portland International Airport (PDX). The feasibility study and subsequent research identified the advantages, challenges, emission reductions, and capital costs. Subsequent investigations included locating potential locations of the chargers, detailed cost estimates, ownership of the chargers and associated equipment, the revenue projections associated with electric charger ownership, and the evaluation of rental car processing, capital and monitoring costs, as well as safety concerns associated with vehicle battery fires. *John also served as the Principal Investigator for this MDOT project.*

Gate Electrification, Pre-Conditioned Air, and VALE Grant Application Assistance, Wayne County Airport Authority, Detroit, MA, 2023— C&S evaluated gate electrification and pre-conditioned air (PCA), calculated emission reductions and prepared a VALE grant application in accordance with FAA guidelines for Detroit Metro International Airport. John's responsibilities included project management, coordination with the airport, evaluating aircraft operations, and application development. Based on the work of the project team, WCAA received a VALE grant of approximately $5.4 million and is currently waiting for FAA approval of an additional $4.71 million grant for 28 GPUs and 22 PCA units at gates in the Evans Terminal.

Corey Johnson, CEM, ENV SP

Sustainability

Corey Johnson specializes in energy and sustainability within the aviation industry. His expertise includes airport renewable energy development, aircraft and vehicle electrification, and data-driven approaches to sustainability management. His clients have included airports, Fortune 500 companies, universities, and government agencies. Prior to joining C&S, Corey worked in the energy practice at Booz Allen Hamilton in Washington, D.C., supporting domestic and international clients including the FAA, Amtrak, Tennessee Valley Authority, and the United States Marine Corps.

Total Experience
13 years

With C&S Since
2018

Education
Master of Environmental Management, Yale University

B.S. Business Administration, University of New Hampshire

Registrations
Certified Energy Manager

Envision Sustainability Professional

Private Pilot

Organizations
American Association of Airport Executives

Airports Council International—North America

Airports Consultants Council

Association of Energy Engineers

Experience

Sustainability On-Call Contracts

On-Call Sustainability Consulting, Albuquerque International Sunport, Albuquerque, NM, Ongoing—C&S was selected as the prime consultant in 2021 to support ABQ's sustainability program. As Program Manager, Corey oversees major tasks on the project, which include VALE and ZEV funding, ACA application support and greenhouse gas inventories, updates to the Airport's Sustainability Management System (SMS), and an electric vehicle plan.

On-Call Sustainability Consulting, Indianapolis Airport Authority, Indianapolis, IN, Ongoing—C&S has served as the on-call sustainability consultant at IND since 2018. Under this contract, Corey has served technical leadership roles on multiple deliverables, including a Sustainability Toolkit, which won multiple industry awards for its innovative approach to integrating sustainabilty into airport projects. Developed video-based training to accompany Sustainability Toolkit, including a lead role in script writing, animations, recording, and production. Conducted research related to sustainable aviation fuels and summarized US government investment in their development. Developed VALE & ZEV application materials for eGSE chargers and electric shuttle buses. Developed a Hydrogen Infrastructure Investment Roadmap to help the Airport identify opportunities for using hydrogen fuels. Assessed the airport's options for recycling large scale battery energy storage technologies at end of life.

Philadelphia Division of Aviation, Philadelphia, PA, Ongoing—C&S has served as the on-call sustainability consultant for the DOA since 2015. Corey serves as Program Manager and has led several major deliverables, including the DOA's Vehicle & Equipment Electrification Strategic Plan at Philadelphia International Airport, which identified opportunities to electrify the airport's fleet and parking facilities. Additional tasks have included leading development of the DOA's FY 2022 Environmental, Social, and Governance (ESG) Report; developing summary documents on available funding opportunities for low emissions vehicles; coordinating an assessment of energy efficiency and renewable energy opportunities, including solar and geothermal; and developing VALE application materials for gate preconditioned air (PCA) funding.

C&S COMPANIES®

Driven Design Studio Owner
117 West Michigan Avenue
Battle Creek, MI 49017
(269) 753-8040
cody@drivendesignstudio.com

Education

Bachelor of Architecture
University of Michigan

Master of Architecture
University of Michigan
Thesis - A specialization in the future of transportation and it's affect on architecture. Business and real estate were additional areas of interest.

Credentials

Licensed Architect - Michigan
Licensed Architect - Indiana
Licensed Architect - Ohio
Licensed Architect - New Jersey
Licensed Architect - Washington
Licensed Architect - Oregon
Licensed Architect - Colorado

Cody Newman

Architect Aviation Facilities Support

Cody is the owner of Driven Design Studio. He launched the firm as a way to help fellow community members in towns around his home state of Michigan renovate or start their version of the American Dream. As a licensed 36 C.R.F. Part 61 architect Cody's work has been focused on community revitalization, building restoration, modern design, and sustainable design.

Architect/Developer
Restore (269)
Battle Creek, MI

As Co-Founder of Restore (269), it is Cody's focus to be the architect, project manager, construction manager, and Chief Financial Officer of the company. Cody has overseen projects such as the Record Box redevelopment. The Record Box was a two million dollar renovation of a 19,000 square foot historic building that features a brewery, co-working space, and event space.

Community Involvement

Battle Creek Planning Commission - Commissioner
2017 - Present
Battle Creek Historic District Commission - Chair
2018 - Present
Battle Creek Community Foundation Scholarship - Member
2018 - 2021
Ignite BC (Professional Organization)- Founder
2018 - 2020
Downtown Development Authority Board Member - Battle Creek
2019 - Present

Project Experience

Albion College Alumni Center
Albion, MI
Higher Ed | 14,000 SF

Marquette Condos
Marquette, MI
Multi-Family Res. | 17,000 SF

DOW Chemical
Auburn, MI
Lab and Manf. | 300,000 SF

Royal Apartments and Hotel
Marshall, MI
Rehabilitation | 14,000 SF

Burn Boot Camp
Battle Creek, MI
Rehabilitation | 5,000 SF

Record Box
Battle Creek, MI
Mixed Use Rehab | 19,000 SF

WBK ENGINEERING
Part of Bodwé Group

Justian Crane, PE

Landside Engineering Lead

Contact Information
e: jcrane@bodwegroup.com
p: 269.589.9068

Justian has over 20 years of industry experience designing and managing civil engineering projects. Throughout his career, he has worked on a mix of public, municipal, federal, and private projects. Justian leads WBK's office in downtown Battle Creek, MI, where he works with WBK's team of over 35 engineers, who work within our Bodwe Professional Services Group of nearly 200 professionals.

Professional Registrations
Professional Engineer:
MI #PE55619
IN #PE11700802
ND #PE27127
SD #PE13678

Education
Michigan Technological University
Bachelor of Science, Civil Engineering

Experience
21 years

Professional Affiliations (Current and Past)
American Society of Civil Engineers (ASCE)

American Public Works Association (APWA), Southwest Michigan Branch

American Council of Engineering Companies (ACEC)

Michigan Association of County Drain Commissioners (MACDC)

Battle Creek Unlimited
Shranks Food Truck Concept Design
Battle Creek, MI
Senior Civil Engineer leading engineering conceptual design efforts to redevelop a vacant infill lot in Downtown Battle Creek into a lively and inviting public plaza focused on providing safe and convenient access to food trucks. The food truck park will offer a full range of amenities necessary to facilitate the food trucks' operations, including utility connections for sanitary services, potable water, and electricity. An outdoor refrigerated container for safe food storage, a practical amenity for vendors, is included. The plaza will be shaded by an overhead tensile fabric canopy, illuminated with market-type lighting, and also consist of a circular seating area with an outdoor fireplace, a solar PV canopy over picnic tables, and a bicycle repair station. The park's primary design principles utilize decorative pavers that mirror the city's historic streetscapes and introduce landscape areas with native species to create an inviting urban space marking a new landmark destination in Downtown Battle Creek.
Year Design Completed: 2023

Bureau of Indian Education
Many Farms High School
Addition & Renovation
Many Farms, AZ
Civil Engineer. WBK Engineering performed civil engineering services for the renovation of the existing school and its maintenance facility, ultimately delivering a 129,613 SF renovated educational facility, housing 431 students. New buildings and additions consolidated the campus footprint from 74 acres to 48 acres, eliminating the need for students to walk outside to remote buildings, enhancing controlled access and campus security. Site civil design included coordination with Navajo Tribal Utility Authority (NTUA) on water main interconnect between the campus system and NTUA's high pressure system, electrical utilities, and natural gas. Sanitary sewer related work included over 2.2 miles of sewer line replacement, replacement of the sanitary sewer lift station, and rehabilitation of over 20 acres of sewer lagoon. Water main improvements to the site included replacement or addition of 2.5 miles of water main, replacement of fire hydrants, and design of a new water softening treatment building to provide treatment for the whole campus. WBK design drainage improvements included large box culverts under roadways, storm sewer piping, and open channels with a total length of over 2.3 miles. Local roads were designed for replacement due to condition and adjacent utility installation, road design included blending into existing driveway, total roadway pavement length was over 2.1 miles with an additional 4.7 acres of parking lot pavement. Finally, the project included pedestrian sidewalk equivalent to over 5.5 miles of 6-foot wide walk.
Year Design Completed: 2023

Additional Battle Creek Experience:
- Battle Creek Unlimited TIFA Industrial Development
- General Services Administration/DLA Hart-Dole-Inouye Federal Center Overhead Door Study
- Nottawaseppi Huron Band of the Potawatomi Health Clinic & Fitness Center
- Green Eden Facilities Provisioning Centers
- Evolution Grow Hydroponic Grow Facility
- Compound North Development Pennfield Township Biggby Coffee
- Calhoun County Water Resources Commissioner Blackmore Drain
- Calhoun County Water Resources Commissioner Horseshoe Pond Drain
- Minges Brook Big Marsh Intercounty Drain

WBK ENGINEERING
Part of Bodwé Group

Adam Rak

Landside Planning Support

Contact Information
e: arak@wbkengineering.com
p: 269.224.3182

Adam is a planning and urban design professional with more than 15 years of professional experience. Through his work with both nationally and internationally recognized design and planning firms, he has accumulated knowledge in planning and zoning for public sector and municipal clients, as well as design and entitlement experience in private development.

Adam primarily serves as project manager and senior planner, coordinating projects and deliverables for various clients. Through the years, he has added to his knowledge and refined his skillset participating in projects in both domestic and international locations throughout North America, Europe, Asia and the Middle East.

He has served as a member of several international design teams and through his own personal travels, has been fortunate enough to experience the urbanism and architecture of a number of world-class cities.

Education
University of Miami
Masters of Urban Design

University of Miami
Bachelor of Architecture

Experience
15 years

Professional Affiliations
Urban Land Institute

Battle Creek Unlimited — MICH-AIR Battle Creek Executive Airport at Kellogg Field Drone Area
Battle Creek, MI
Senior Urban Designer leading the conceptual design for the BCU – MICH AIR Development at Battle Creek Executive Airport at Kellogg Field, envisioning a state-of-the-art drone-area development. The BCU – MICH AIR Development in Battle Creek, Michigan, involves a comprehensive concept plan study for a future drone-area development along the west side of the existing Battle Creek Executive Airport at Kellogg Field. The proposed development spans approximately 100 acres and includes facilities for drone manufacturing and production, aircraft storage and maintenance, corporate offices, transport and logistics, and proposed vertiports for future autonomous air taxi services. Primary access to the site is planned through a new access road connection to Buckner Road. The project also allocates an additional 53.3 acres for potential "Large-User" development or the expansion of nearby military facilities. A key feature of the development is "The Airport Green," envisioned as a gateway entrance and public space for demonstrations and events, celebrating the technology and innovation central to this development. This space aims to serve as a focal point for the community and visitors, showcasing the advancements in drone technology and autonomous air services.
Year Design Completed: 2024

Battle Creek Unlimited
Shranks Food Truck Concept Design
Battle Creek, MI
Senior Urban Designer leading conceptual design efforts to redevelop a vacant infill lot in Downtown Battle Creek into a lively and inviting public plaza focused on providing safe and convenient access to food trucks. The food truck park will offer a full range of amenities necessary to facilitate the food trucks' operations, including utility connections for sanitary services, potable water, and electricity. An outdoor refrigerated container for safe food storage, a practical amenity for vendors, is included. The plaza will be shaded by an overhead tensile fabric canopy, illuminated with market-type lighting, and also consist of a circular seating area with an outdoor fireplace, a solar PV canopy over picnic tables, and a bicycle repair station. The park's primary design principles utilize decorative pavers that mirror the city's historic streetscapes and introduce landscape areas with native species to create an inviting urban space marking a new landmark destination in Downtown Battle Creek.
Year Design Completed: 2023

Bureau of Indian Education
Many Farms High School
Many Farms, AZ
Senior Planner. Many Farms High School serves Native American high school students in grades 9-12. The BIE retained 7GAE, WBK Engineering and Steelhead Engineering to provide full architectural and engineering design services to renovate the existing school and its maintenance facility, ultimately delivering a 129,613-square-foot renovated educational facility that will house 431 students. Work will also entail designing a new gymnasium, kitchen and dining room, a dormitory that will house approximately 104 students, and a 30-unit living quarters. The living quarters will consist of three (3) three-bedroom 1,100-square-foot single family houses, seven (7) two-bedroom 1,000-square-foot single-family houses, one (1) three-bedroom duplex, and six (6) two-bedroom triplexes. 7GAE will also provide design drawings to renovate the school's existing sports athletic fields and bleachers.
Year Design Completed: 2023

David C. Benner, C.M. | MANAGMENT AND BUSINESS SUPPORT

Experience

David has over **15 years** of aviation planning, operations, management, and consulting experience.

For the last **10 years**, David has managed AMCG's proprietary aviation industry database that includes industry data, information, and documentation pertaining to airports and aviation businesses published by federal and state aviation agencies and collected through the research efforts of AMCG (including survey and project-related data collection). David has served as a key research team leader on 5 ACRP projects including ACRP Report 156 (Complying with Federal Regulations: An Integrated Approach) and ACRP Report 77 (Guidebook for Developing General Aviation Airport Business Plans).

Education and Certifications

- Bethel College: Bachelor of Science – Business Administration
- Embry-Riddle Aeronautical University (ERAU): Master of Business Administration degree in Aviation with a concentration in Airport Management
- Commercial pilot with instrument and multi-engine ratings
- Certified Flight Instructor (CFI)
- American Association of Airport Executives: Certified Member (C.M.)

Background

- ERAU graduate assistant: research projects included an Aviation Forecast Study for San Diego International Airport, a Security Study for San Francisco International Airport, and a Customer Satisfaction Survey for Daytona Beach International Airport
- ERAU Internship: Completed an airport operations internship at Daytona Beach International Airport

Airport Expertise

- Primary Management and Compliance Documents (*Rules and Regulations, Minimum Standards, Leasing/Rents and Fees Policy, Development Standards)*
- Regulatory Compliance
- Strategic Business Planning/Plans
- Rent Studies
- Fee Analysis and Studies
- Appraisals *(Fee Simple, Leasehold Interest, Leased Fee)*
- Lease, Use, and Operating Agreements
- Market Assessments/Feasibility Studies
- Operational, Managerial, and Financial Assessments
- RFI/RFQ/RFP Development/Evaluation
- Valuation (*Business, Stock, Asset)*

Aviation Business Expertise

- Market Assessments/Feasibility Studies
- RFI/RFQ/RFP Response Development (Proposal)
- Valuation (*Business, Stock, Asset)*
- Appraisals (*Fee Simple, Leasehold Interest, Leased Fee)*
- Lease, Use, and Operating Agreements
- Operational, Managerial, and Financial Assessments
- Acquisition, Divestiture, and Due Diligence
- Strategic Business Planning/Plans

C&S Project Experience

C&S is proud of our decades of experience completing a variety of projects for hundreds of airports across the nation. The projects that follow detail some of our demonstrated experience and success delivering similar projects.

Detroit Metro Wayne County Airport
On-Call Architectural & Engineering Services

C&S has been working for the Wayne County Airport Authority (WCAA) performing on-call architectural and engineering services at Detroit Metro and Willow Run airports since 2005 and were recently selected again in 2019. The contracts have encompassed a wide variety of projects and tasks including airfield, landside, environmental, and facilities. Many of these projects were included in the airport's capital improvement program. Some projects performed in the past five years include:

- Taxiway Y reconstruction
- Access gate and water main improvements
- Access road construction
- Vale grant support
- Pavement condition index update

Similar Project Elements

- New Taxiways
- Airfield Signs and Markings
- Airport Security Standards
- NAVAIDS
- Runway Extensions
- Pavement Management

Reference

Theresa Samosiuk, Director Airfield and Landside Facilities; Planning, Design and Construction
(734) 247-3692
theresa.samosiuk@wcaa.us

Grosse Ile Municipal Airport
General Airport Consulting Services

C&S has provided general consulting services to Grosse Ile Municipal Airport since 2011, delivering planning, engineering design, and construction services. C&S was responsible for the design, including demolition, runway and taxiway lighting, electrical vault modifications, PAPI design, soil erosion and sedimentation control, construction safety phasing, drainage, and pavement marking plans. The project was on a quick timeline due to funding, and C&S completed it on time.

Similar Project Elements

- Taxiway A Reconstruction
- Runway Pavement Maintenance
- Grading and Drainage Improvements
- Apron Rehabilitation

Reference

Janel MacNee, Airfield/ Commerce Park Manager
(734) 675-0155
janelm@grosseileairport.com

Muskegon County Airport
General Airport Consulting Services

C&S was first selected as Muskegon County Airport's on-call consultant in 2017 and we were just reselected again in 2022. As the client has a limited staff, C&S serves as an extension of the airport's staff supporting grant services, DBE tracking and reporting, and overall ACIP planning and development. Example projects:

- Runway 6-24 rehabilitation
- Taxiway A shift and reconstruction
- Security upgrades to terminal to improve the TSA screening area by replacing TSA baggage desks and counters, and checkpoint partitions

Similar Project Elements

- Airfield Pavement Rehabilitations
- Apron and Taxiway Rehabilitation
- Taxilane Development
- Grant Assistance

Reference

Ken Efting, Airport Manager
(231) 698-8187
EftingKe@co.muskegon.mi.us

Griffiss International Airport
Design, Planning, and Environmental Services

Griffiss International Airport (RME) has played an integral role in the development of unmanned aircraft systems (UAS) in Central New York and the Mohawk Valley. Northeast UAS Airspace Integration Research Alliance, Inc. (NUAIR) manages operations of the New York UAS test site at RME and is responsible to the FAA and NASA to conduct operations for UAS and advanced air mobility (AAM) eVTOL testing. C&S has been supporting the airport sponsor, Oneida County in a number of ways related to UAS and AAM technologies including the following:

AAM Related Design Services

- Innovare Advancement Center—150,000 square foot open innovation hub.
- Skydome—An indoor UAS research and testing facility with 22,500 square foot of indoor flight-testing area, the largest in the United States.

Case Study: Business Park Development Plan

At RME, our team's work on the Airport Business Park Development Plan is facilitating the future development of 258 acres of RME property for economic development. We worked closely with the County's economic development team, EDGE, and Airport leadership to hear their ideas regarding existing airport assets and market alignments and to understand their priorities, such as quality job creation and revenue generation through land assets to advance both community economic opportunity and financial self-sustainability for the airport. Our responsive approach helped the team evaluate and validate their focus on key industries including advanced air mobility (AAM) and advanced manufacturing with tie-ins to existing supply-chain providers and a rapidly expanding chip fabrication industry in the Central Upstate region of New York State.

- Planning 286-acre site that leverages connections between traditional and emerging industries related to UAS and AAM on airport.
- NEPA EA to assess potential impacts related to 286-acre site related to buildings, utilities, site infrastructure, site grading, ground-based heliport automobile parking, and landscaping.

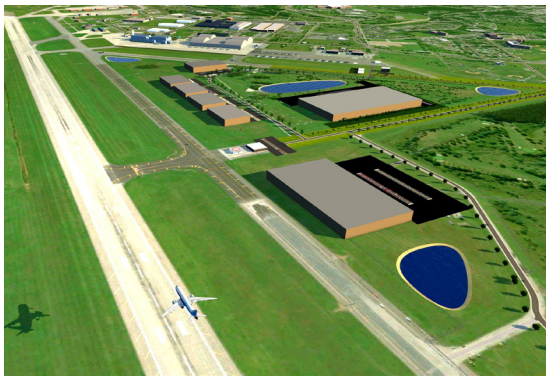
Similar Project Elements

- Terminal and FIS buildings
- ARFF building renovations
- Airfield lighting and marking plan
- New T-hangars
- New corporate hangar construction
- Self-service Avgas fuel farm and 90,000-gallon jet A fuel farm
- Runway 15-33 rehabilitation
- Apron rehabilitation
- Taxiway edge lighting/marking/signage
- Reconstruction of Taxiway J

Reference

Ed Arcuri, Commissioner of Aviation (315) 736-4171
earcuri@ocgov.net

C&S supported the Skydome development at RME



AAM related Business Park Development at RME

Cuyahoga County Airport
On-Call Architectural & Engineering Services

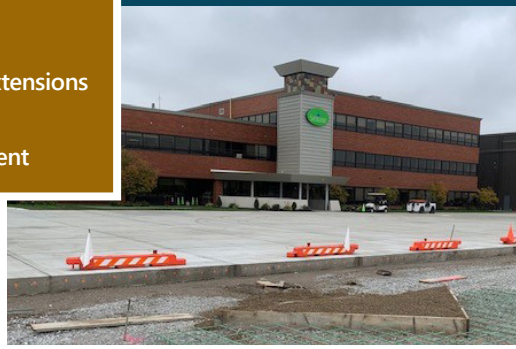
C&S was selected for a five-year contract to help support the airport from design projects, grants administration, and land use support. It was necessary for the selection at the time to be well transitioned as within the first year of the five-year on-call contract, C&S would be working directly with the previous consultant, who was the engineer of record for a project which was to start construction in the spring of 2020. C&S would be representing the airport as the resident project representative on site. Although this appeared to be a challenge, the C&S team worked in conjunction and closely with the design engineer, to transfer knowledge base on the design of the project, as well as information transfer from the previous years.

Similar Project Elements

- New Taxiways
- Airfield Signs and Markings
- Airport Security Standards
- NAVAIDS
- Runway Extensions
- Pavement Management

Reference

John Myers, Esq., Administrator, Property Management Dept. Public Works (216) 698-2517 jmyers@cuyahogacounty.us



Teammate Project Experience

City of Battle Creek
Water Storage Building

The City of Battle Creek needed a new storage facility for their water division. The Battle Creek Water Storage Building was developed to replace 1950's sheds that were built to store cast iron pipes for the city. The existing storage buildings were past their usable life. Driven Design evaluated the existing site and found the best location for the new building. The new building houses the Water Department's additional service equipment and piping. The project was completed on time and budget. Our team provided architectural services for the project.

Reference

Todd Gerber, Field Service Superintendent (269) 966-3507

Battle Creek Unlimited MICH-AIR
BTL Drone Area

WBK Engineering assisted BCU with the Concept Planning Services for the BCU - MICH-AIR Development in Battle Creek, Michigan, involving a comprehensive concept plan study for a future drone-area development along the west side of the existing Battle Creek Executive Airport at Kellogg Field. The proposed development spans approximately 100 acres and includes facilities for drone manufacturing and production, aircraft storage and maintenance, corporate offices, transport and logistics, and proposed vertiports for future autonomous air taxi services.

Reference

Robert Corder, Vice President, Attraction & Development (231) 798-4596 corder@bcunlimited.org

City of Battle Creek
Airport Strategic Business Plan

AMCG worked with the City of Battle Creek to develop an Airport Strategic Business Plan for the W.K. Kellogg Airport, which included Marketing and Financial Plans. Additionally, AMCG worked with the City to develop an Airport Market Assessment, a Rent Study to determine the market rental rate for the land, Primary Management and Compliance Documents, and provided Consulting/Advisory Services.

Reference

Phil Kroll, Aviation Director (269) 966-3470 pskroll@battlecreekmi.gov

Reference for Michigan Customers

Our clients are the best index for the assessment of our professional abilities. The clients shown on each of our project profiles and below can give you a realistic picture of C&S's performance, demonstrated quality of work, and ability to meet schedules and budgets. We are proud of the positive and long-lasting relationships we have earned with our clients throughout our years of service. We encourage you to contact our references and talk to them about how C&S has met their needs.

	Detroit Metropolitan Wayne County Airport	Theresa Samosiuk, PE Director Airfield and Landside Facilities; Planning, Design and Construction (734) 247-3692 theresa.samosiuk@wcaa.us
	Gerald R. Ford International Airport	Casey Ries, PE, LEED AP Engineering and Planning Director (616) 233-6040 cries@grr.org
	Grosse Ile Municipal Airport	Janel MacNee Airfield/Commerce Park Manager (734) 675-0155 janelm@grosseileairport.com
	Ann Arbor Municipal Airport	Matt Kulhanek Airport Manager (734) 972-9112 mjkulhanek@a2gov.org

Section B Soundness of Approach

Aaron M. Aljets, PE will be your project manager and primary contact for all issues related to planning, design, and construction for all projects included in this scope of work. With over 24 years of experience in support of airports ranging from large hub to general aviation facilities, he brings a wealth of experience to BTL. Aaron will be able to handle any level of project from large airfield reconstruction projects to smaller, less complex projects. Aaron has managed the airport on-call contracts and similar assignments for airports such as Ann Arbor, Three Rivers, Monroe and Detroit Metro. Aaron's recent and proven experience of leading all sizes of projects from small pavement repair projects to large airfield reconstruction projects at DTW will provide BTL with a terrific asset, as BTL and BCU will be able to rely on Aaron for experienced, thoughtful, and proactive approaches to all of your projects, specifically balancing the west development areas against the planned airfield reconstruction/rehabilitation projects.

Aaron understands the level of effort needed to provide a cost-effective, on-time approach to project delivery. He will focus on making sure you have the right resources from project concepts through design and construction closeout to ensure the highest level of project quality. He has extensive history with all the included C&S team members, both as a PM and as a task leader.

Aaron's effective PM approach includes:

- Customized communication plan to fit BTL and BCU needs
- Over 20 years of experience in civil airside engineering leading and coordinating on-call, design, and CA teams
- Project Manager for GA to large hub airport on-calls around the region
- MDOT AERO experience as PM for on-call assignments at ARB, HAI, and TTF
- Project Manager for over 200 assignments throughout his career

Project Management, Communication, and Coordination

Through the life of the contract, Aaron will be your single point of contact. Aaron's approach to similar contracts starts with meeting with your team to understand your priorities, what is currently happening, and how we can best support the upcoming projects. He will continue to check in on a periodic basis via phone. He is committed to meeting with you in your offices, as needed, to understand BTL program goals and to monitor project progress as needed.

Aaron has supported airport on-call assignments since the start of his career. BTL will be able to count on this experience to support critical and immediate issues, and leading complex multi-year construction programs. BTL will benefit from his wealth of experience and his approach to solving problems.

BTL will also benefit from Aaron and the C&S team's approach to funding support. We closely monitor funding opportunities for our clients. Aaron will be supported by dedicated funding experts who take a proactive approach to bringing funding opportunities to our airport partners. This will allow the BTL leadership team to concentrate on other important initiatives and continue to grow the airport and maximize the airport's economic impact to the community.

Aaron will be the key conduit within the C&S team, creating a streamlined flow of information to the appropriate team members. With the depth of knowledge and experience of the C&S team, Aaron will ensure the right experts are engaged to address each project challenge. Aaron will be supported internally by his project engineers, allowing for checks and balances, subconsultant coordination support, and to ensure the work is moving forward on schedule.

Familiarity and Understanding of the Airport

The airfield at BTL is a dynamic and sizable asset for the Battle Creek community. With over 100 years serving the community, the role the airport has played has changed over time, however, it has long been a home to military, corporate, educational and other general aviation partners that drive a considerable amount of the economic strength in the community. Looking forward, BTL and BCU have set out a number of project goals for the next five years. The following sections detail the C&S team's understanding and familiarity with those important projects.

"The C&S team, lead by Aaron Aljets, recently completed the DTW Taxiway Y North Reconstruction for the Wayne County Airport Authority (WCAA). Aaron, Ben Imhoff and their team routinely went above and beyond and have become trusted teammates of the WCAA Planning, Design & Construction (PD&C) Department. Aaron and Ben worked hard, and effectively communicated, with both the Contractor and PD&C to provide equitable solutions to these challenges in the best interest of WCAA."

Daniel Howe, Senior Project Manager, Wayne County Airport Authority

BTL & BCU Management Organization

BTL is owned and operated by the City of Battle Creek. The BTL staff has long been responsible for operations and maintenance at the airport, this included maintaining FAA Part 139 certification. Recently, the City determined that it would surrender this certification due to the high costs associated with maintaining the airfield at a high standard, including the Part 139 record keeping elements and airport rescue fire fighting (ARFF) minimum standards. As BTL shifts away from being a Part 139 airport, the staff is undergoing a number of internal discussions on possible cost savings options to create a more sustainable operation. The upcoming projects are an opportunity to bring this new approach to fruition, balancing the high standards BTL is known for with an eye toward a more resilient, manageable, right sized facility.

An important partner agency for the BTL staff is BCU. This independent economic development agency of the City provides BTL with important financial and business development resources. For BTL this means that BCU's political and business relationships provide access to important markets in the defense and aviation sectors of the economy. Of chief importance is the Mich-Air initiative focused on leveraging the community's history in national defense (air guard) and aviation manufacturing (Duncan and WACO) to bring the emerging Advanced Air Mobility (AAM) industry to BTL and the City. The C&S team includes key partners who have supported BCU and Mich-Air in its early efforts. Combine this with the C&S experience in supporting aviation clients in developing available land, and BCU and BTL will find a terrific partner in the C&S team.

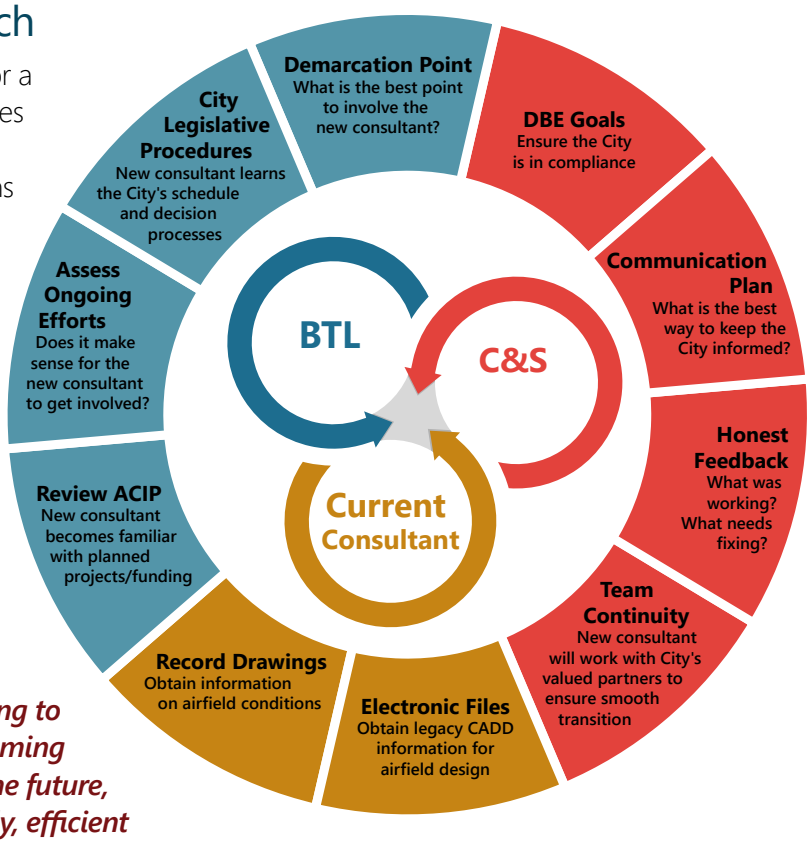
Right Sizing and Future Proofing the Asset

The future plans for Runway 5R-23L will greatly impact development, capital plan and the future of BTL

With BTL working on the airport layout plan update, the future of the airport is actively going to be an important conversation in the near future. This document will be key in unlocking developable land and supporting growing tenants such as Duncan and WACO, as well as laying out the future opportunities for the west side development parcels which are being proposed for the AAM opportunities. The other key decision will be looking at existing pavements and beginning to have hard decisions when it comes to right sizing of the airport. This will include decisions on future runway and taxiway design groups for the airfield geometries, the need for the smaller GA Runway 5R-23L as well as the future use of Runway 5L-23R. The C&S team is excited to support these discussions with BTL and the planning consulting team. Our history around the country and the state will give BTL a great third party to discuss how the future airport will look and how the planning will impact the future ACIP being managed by this contract. This effort will be embedded in our communications plan previously noted and will provide great added value for the BTL team.

Consultant Transition Approach

BTL has worked with the current consultant for a number of years and we respect our colleagues as the current contract holder. Our team understands and appreciates the BTL concerns on how such a transition works. Questions such as "What happens to the existing contracts the old firm is currently work on?", "Will we have to redo studies and designs we have already done?" and "Will all the proper FAA and MDOT forms be submitted on time while the transition is ongoing?" These questions reasonable and need to be understood prior to making such a change. The C&S team, led by Aaron Aljets, PE, has history in working through similar situations and understands the issues and pitfalls in transitioning. ***Our team will focus on listening to BTL staff, focusing on avoiding time consuming rework efforts and will keep our eyes on the future, giving BTL staff what they need, in a timely, efficient manner.***



Key Project Focus

The C&S team has experience in supporting airports around the country in all the projects noted for the next five years at BTL. However, we feel a few projects and programs stand out and deserve additional consideration. See the map on page 39 and the following for discussions on these key projects.

Taxiway A pavement conditions

Reconstruct Taxiway A Pavement & Lighting

The reconstruction of Taxiway A project planning has been ongoing for a number of years. The project entails reconstruction of Taxiway A from the 23R threshold to Taxiway E. A main issue surrounding the project is the justified and eligible width of the taxiway and its associated connectors. Currently, this pavement serves large aircraft, such as military and cargo aircraft on an infrequent basis. This frequency has been the primary element delaying this important project. A previously completed taxiway design group study will be reviewed by our team to determine any possible issues with eligibility. ***Our team has worked at other similar airports with design group issues and have helped to craft equitable solutions with FAA and MDOT to determine what airports similar to BTL can get funded and what may need to be locally funded to avoid future operational situations which may limit the airport.***

Limiting WMU operations impacts will be key to project design

With the combination of WMU and other corporate GA traffic needing access to the Runway 23R threshold end, this project needs to move forward quickly to address the issues the quickly degrading pavement has created. The C&S team understands the need to possibly move quickly to be able to position the airport for discretionary or other supplemental funding. This project will need to focus on tenant engagement to build a phasing plan to limit operational impacts. This may include expedited phasing, night work or temporary pavement alternatives to avoid and limit impacts to the BTL tenants.

Construct Taxiway M

The construction of Taxiway M is potentially a game changing project for BTL. This project removes sections of Taxiway D and opens up large tracts of land on the west side of the airport. This project will be closely tied to possible development of parcels between this future taxiway and the adjacent railroad. The ongoing ALP update and Mich-Air negotiations with the AAM industry will need to be in lock step and private developer interest will need to be in place to move this forward to create a solid purpose and need for this new taxiway. Our partner firms WBK and ACMG have supported BCU efforts in pre-planning for this development. Our team will combine this local experience with C&S's national expertise

Taxiway M construction is closely tied to the possible AAM development efforts

supporting such big picture vision for moving communities forward. We will be there to support the concurrent MDOT NEPA efforts in making sure that the program is presented in the right way and that the NEPA efforts move the project forward and are not a roadblock.

A major issue this project will need to address is airport stormwater. The existing airfield in general has a huge amount of flow which ends up in the area and crosses under the railroad. It will be important to work with the City and the state early in getting the drainage system defined and sized to handle these new impervious areas. Our team, which includes WBK, has experience in working with the local communities to determine the permitting and environmental issues needing to be addressed to move similar projects forward.

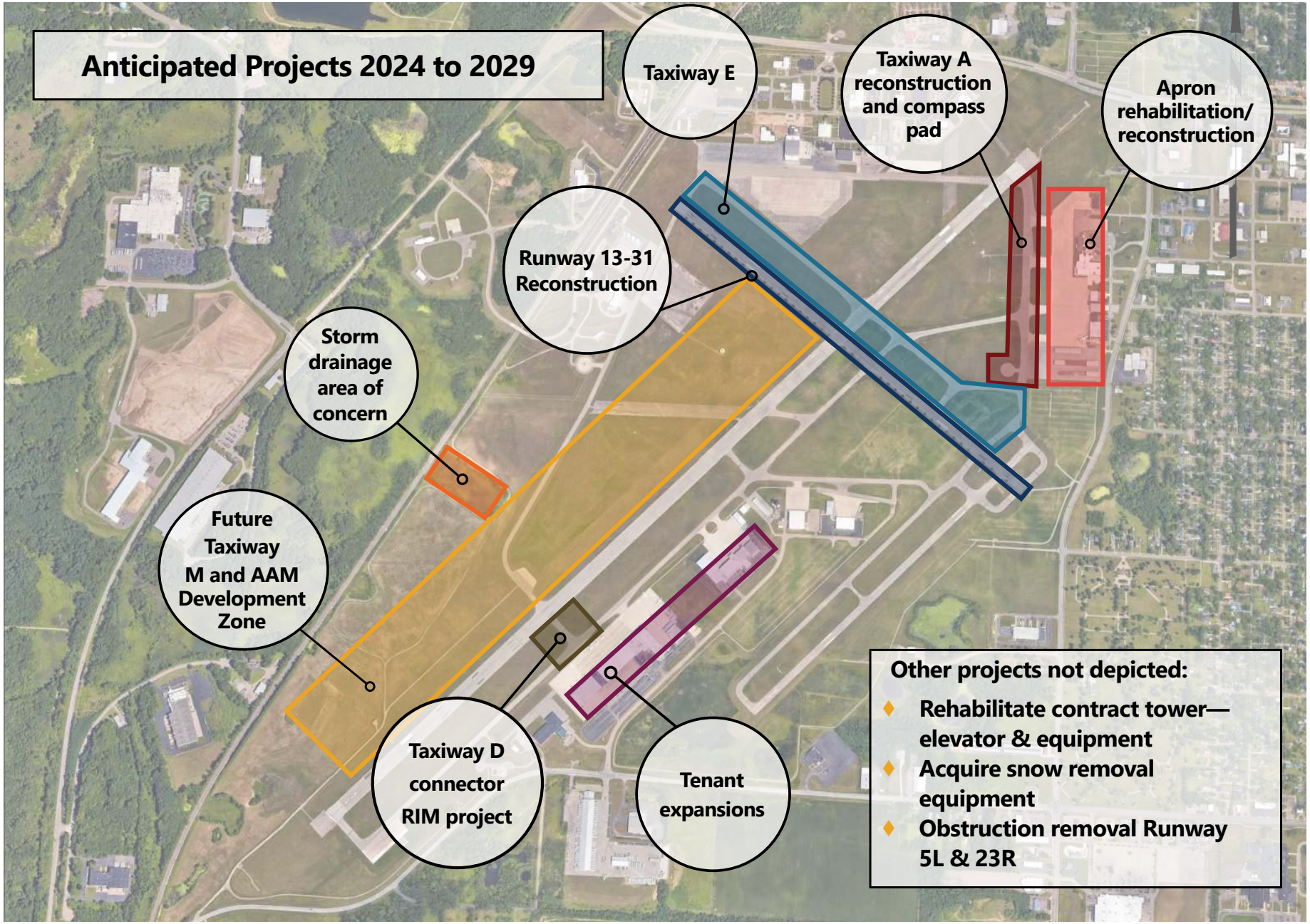
A major challenge will be addressing stormwater challenges on the entire airport and the AAM footprint

Reconstruct Taxiway E & Reconstruct Runway 13/31

As Runway 13/31 and Taxiway E are parallel to each other, the reconstruction of these two pavements will be closely entwined. This project will need to be carefully programmed and messaged with MDOT and FAA to position it for funding. Crosswind runways have been getting pushed back against for funding to allow for FAA to concentrate on primary runways. With this being the case, it will be imperative to make a decision if the City will want to focus some of its political will on getting supplemental or other funding (BIL Clean up funding) to address this project while the funding is still available.

With Taxiway E having impacts to the Runway 5L-23R, 5R- 23L and 13-31 traffic from all the users working closely with the tenants and stakeholders will be very important. Similar to the Taxiway A project, finding a balance to this key route will take a proactive and creative team effort to minimize the impacts from this project and stabilize this key corridor for the airport operations.

Please see the following page for the Project Exhibit.


Anticipated Projects 2024 to 2029
Taxiway E
Taxiway A reconstruction and compass pad
Apron rehabilitation/ reconstruction
Runway 13-31 Reconstruction
Storm drainage area of concern
Future Taxiway M and AAM Development Zone
Taxiway D connector RIM project
Tenant expansions
Other projects not depicted:
Rehabilitate contract tower—elevator & equipment
Acquire snow removal equipment
Obstruction removal Runway 5L & 23R

Section C/E/F Efficiency/Availability/ Adaptability

Efficiency Starts at the Beginning

From the moment a project moves from an idea to a ACIP concept, our team will use our experience and understanding of various project types and scales to develop a framework that will allow for the most efficient and optimized approach to get projects done. This means understanding the risks for each type of project up front and communicating them early to BTL staff. Some projects due to their impacts to the airfield will need more time and larger teams, other simplier projects can be done with less cost and time necessary to accomplish the goals. With the leadership of Kelly and Aaron, the BTL team will know and understand the variables and work hand in hand with our team to develop strategies during the programming phase to maximize funding and get the most done int the shortest period of time.

After the project is in place, this preparation work will lead to less headaches and delays during design. This will mean a bottom line of less costs and an airfield with its needs met. Aaron and Kelly have proven track records in this sort of mindset and will benefit BTL moving forward.

Availability

Staff	Role	Availability
Aaron Aljets, PE	Project Manager	30%
Kelly Jost, PE	Principal in Charge/MDOT & FAA Liaison	5%
Michael Holdwick, PE, LEED AP	Quality Control Lead	5%
Nick Makhlouf, PE	Airfield Engineering Lead	30%
Kirstin Finnila, EIT	Airfield Engineering Support	50%
Chris Brubach, PE	Airfield Electrical Lead	15%
Justian Crane, PE	Landside Engineering Lead	15%
Ben Imhoff, PE	Construction Supervisor	25%
Yazan Wraikat	Construction Inspection	50%
Gayle McKee, CM	Airside & Landside, NEPA, AAM Planning Lead	15%
Barbie Schalmo, AICP	Land Use + Economics Lead	15%
Adam Rak	Landside Planning Support	15%
Posh Supupramai, PE	GIS Lead	10%
David Benner, CM	Management and Business Support	10%
Amy Sonbuchner, AIA, LEED AP	Aviation Facilities Lead	10%
Cody Newman	Architect Aviation Facilities Support	10%
Bill Frye, LEED AP	Fuel Farm	10%
John Trendowski, PE, LEED AP	Energy Efficiency/VALE	10%
Cory Johnson, CEM, ENV SP	Sustainability	10%

Maintaining Project Schedules & Adaptability

The C&S team has been delivering projects for Michigan GA airports for more than 20 years. We have a wealth of experience in developing and maintaining project schedules that are built around how the MDOT AERO schedule works. This schedule has recently shifted to remove some flexibility for the airports in the state, however, our team with experience all over the country is well prepared and experienced in this new more structured approach. This approach very much means putting in the work prior to the design contract getting put in place. Carefully navigating the FAA grant preapplication and application deadlines, Michigan Aeronautics Commission meetings and the City's internal approval processes takes thoughtful and proactive project management. Aaron and the C&S leadership team is well versed in putting our clients in the optimal position to get projects funded and built.

From a resource management prospective, our aviation practice has focused on providing clients the right resources to get projects done on time. This means at a national level we look at all the projects to make sure that if the local team, which is more than 25 strong in the Great Lake region, is unable to support Aaron, he will have access to our talented team from across the country. BTL projects will never be understaffed. We look to put the right team on each project to cost effectively and efficiently deliver for you.

Finally, change happens. Assumptions get challenged, rules and regulations change. What is important is how your consultant team reacts to those changes. Having an experienced project manager and leader in Aaron, the C&S team will be able to adapt and pivot to deal with changing situations. First and foremost, we view it as our duty to serve our clients well and treat them fairly. We will be clear and upfront on the impact changes may have to current or future projects. This transparency and trust will go both ways and will allow the C&S and BTL teams to partner to move projects and initiatives forward on time.

Section D Integrity

Core Values & Principals

At C&S, we're privileged to provide services that make the world a better place and we take great pride in that. Our foundation is built upon four core values that not only shape our culture but also steer our operations:

- ***Integrity:*** It's the compass that guides every action we take. Our team is steadfast in doing what's right, visibility notwithstanding.
- ***Authenticity:*** We champion a workplace where awareness, diversity, equity, and inclusion are not just buzzwords but lived experiences. This empowers every member of our team to embrace and express their authentic selves daily.
- ***Team Spirit:*** With a collaborative, shoulder-to-shoulder approach, we join forces with our clients, working towards shared objectives with unwavering resolve.
- ***All-In:*** We step into our roles with an 'all-in' mindset. Our dedication is total, ensuring accountability to one another, our mission, and the broader vision we share.

C&S's success hinges on attracting and developing individuals who are not only intelligent and diverse but also deeply passionate about making a mark with their careers. At C&S, we take immense pride in recruiting and retaining the industry's finest talents—professionals who resonate with our culture and values.

We're relentless in our pursuit of excellence, infusing value into every facet of our service. Our client-centric approach isn't just a component of our operations; it's the signature of the C&S brand.

Awards and Special Recognition

In addition to the successes of the projects represented in ***Section A—Qualifications***, C&S is proud of the awards and recognitions we have earned for our diverse projects. The listing below represents just some of the many accolades that we have received recently.

- 2024 AAAE Great Lakes Chapter Commercial Airport Project of the Year—Airfield for the Gerald R. Ford International Airport Field Maintenance Fast Track Fuel Facility
- 2024 Michigan Concrete Association Award of Excellence for Detroit Metropolitan Wayne County Airport Taxiway Y South (Phase 1)
- 2023 Michigan Concrete Association Award of Excellence for Detroit Metropolitan Wayne County Airport Taxiway Y North Reconstruction
- 2021 ASCE Michigan Outstanding Civil Engineering Achievement Award for Gerald R. Ford International Airport Terminal Apron Reconstruction and Expansion
- 2021 ACEC Michigan Engineering Merit Award for Gerald R. Ford International Airport Terminal Apron Reconstruction and Expansion
- 2021 Michigan Concrete Association Award of Excellence for Detroit Metro Airport Runway 3L/21R & Centralized Deicing Facility

The C&S Team was recently awarded the 2024 AAAE Great Lakes Chapter Commercial Airport Project of the Year—Airfield for the Gerald R. Ford International Airport Field Maintenance Fast Track Fuel Facility

- 2020 Michigan Concrete Association Award of Excellence for Gerald R. Ford International Airport Terminal Apron Reconstruction
- 2020 ACI-NA Environmental Achievement Award for Indianapolis Airport Authority Sustainability Toolkit
- 2020 AAAE Airports Going Green Award for Indianapolis Airport Authority Sustainability Toolkit
- 2019 ACEC New York Platinum Award for Engineering Excellence for T.F. Green Airport Runway 5 Extension
- 2019 Institute for Sustainable Infrastructure Envision Gold Award for Detroit Metro Airport Reconstruction of Runway 3L/21R and Associated Taxiways
- 2017 ACEC Ohio Honor Award for Youngstown Warren Regional Airport Midfield Taxiway Improvements
- 2016 Envision Silver Award for Detroit Metro Runway 4L/22R and Associated Taxiways Reconstruction
- 2016 Michigan Department of Transportation Office of Aeronautics Robert G. Peckham Consultant of the Year
- 2016 Award of Excellence from the Asphalt Pavement Association of Michigan and MDOT for Grosse Ile Runway 4-22 Reconstruction

C&S was the proud recipient of the 2024 Michigan Concrete Association's Award of Excellence for the design of the Taxiway Y South Phase 2 project at Detroit Metro Airport. The project was led by Aaron Aljets, who is being proposed as project manager for this contract.

Section G Fiscal Responsibility

Cost management involves not only the construction costs of a project, but the design costs as well. In both cases, an accurate scope is an extremely important starting point. Controlling the total project cost requires controlling the scope of work over the duration of the project and completing accurate cost estimates during each phase of design. It also includes controlling our internal costs so our team does not overrun approved not-to-exceed fees. Our team will proactively monitor cost during construction as well, to keep the total project cost in line with BTL budgets.

We develop construction estimates in the same manner as a contractor bidding a project would. Our team understands the complexity of various sizes of airports, regional market factors such as the shortage of skilled trades and materials, and the local contractors. Our engineering team's responsibility for developing the estimates will be involved in the design process so they are intimately familiar with the intent of the design, phasing constraints, and changes made between submittals. The table below illustrates C&S recent cost estimate track record for similar projects. It is important to note that the current construction market conditions have been heavily influenced by pandemic-related issues impacting material supply chains and availability of contractors.

Our team will work closely with City of Battle Creek and the local contractors to develop realistic estimates from beginning to end to ensure such market changes are understood and projects can be built. We will use our extensive Michigan airport bid results database, as well as MDOT cost data, to develop realistic and comprehensive estimates that are in sync with the construction schedules and phasing to provide accurate budget information.

Our team will prepare budgetary cost estimates before design even begins and develop quantities and unit prices at each phase of design. We intend to show what the differences are from 30, 60, 90 and bid documents, so BTL can understand and follow the progression of the work. We will provide costs for construction phasing alternatives throughout design, so that BTL can understand how the aircraft movements, contractor schedule, and cost all tie together. We plan to coordinate closely with BTL and all stakeholders to find the best balance between cost and schedule possible.

C&S is committed to meeting BTL expectations for superior quality by providing design documents with minimal errors and discrepancies. C&S's clear and concise documents will prevent bidders from making assumptions and leave no room for interpretation. This will lead to bids that are more competitive, reduce change orders, and keep the total construction cost under the bid amount.

Project	C&S Estimate	Low Bid	Variance	% Difference
DTW Taxiway Y North and South Reconstruction	$74,700,000	$79,600,000	$(4,900,000)	-6.56%
AKR Concrete Panel Replacement	$406,815	$376,957	$29,857	7.34%
77G Taxilane	$922,700	$645,919	$276,781	30%
PCW Apron Expansion	$9,216,100	$6,372,885	$2,843,215	30.85%

Section H

Regulatory Knowledge

Knowledge & Familiarity with MDOT and FAA

MDOT Experience

C&S has significant experience working with the MDOT Office of Aeronautics. C&S is currently the on-call engineering consultant for more than ten airports in Michigan and we have completed several other projects at airports across the state. We interact with MDOT staff daily and know who to contact for specific issues such as planning, design, funding, land, environmental, and construction. We support our clients on issues such as acquiring maximum funding on eligible projects and resolving technical project issues. In addition, Kelly Jost, your principal-in-charge, worked for the MDOT Office of Aeronautics prior to coming to C&S.

Michigan is a block grant state, which means MDOT takes on the responsibility of administering Airport Improvement Program (AIP), Bipartisan Infrastructure Law (BIL), and other grants at non-primary airports. The state receives a "block" of money for AIP and gets to determine how that money is spent. The FAA will help administer grants that have discretionary money involved, but a sponsor contract through MDOT will still be required. This sponsor contract breaks down the costs of the project into federal share, state share, and local share. It shows specific project costs such as consultant design, MDOT admin fees, and construction cost.

All sponsor contracts for airport projects in Michigan are approved through the Michigan Aeronautics Commission (MAC) if federal or state funding is involved. The commission meets every other month, and it is important to get cost information to your MDOT project manager typically three to four weeks in advance of the MAC meeting, so that it is placed on the agenda. Costs typically need to be based on bids for construction or an approved contract amount for design. Since the MAC only meets every other month, the deadlines become very important to follow. If a meeting is missed, it can put a project behind by two additional months.

The C&S approach to the block grant program is to provide guidance to our clients on the timelines and make sure they do not miss any important dates. We make it a point to attend every MAC meeting to stay in tune with any changes and to connect with MDOT staff. We communicate regularly with the MDOT project managers and the FAA program managers. We also attend Michigan Airport Programming (MAP) meetings with our clients and provide support on the AeroPM program that the state uses to track project information, justification, estimates, and sketches.

FAA Experience

C&S has a thorough understanding of FAA regulations, standards, policies, and procedures. We have specialized staff working 100% of their time on airport projects. With over five decades of project experience that includes more than 2,500 airport projects of all types. C&S's airport engineering professionals tackle routine and complex issues associated with airport projects every day. They interpret information contained in FAA ACs, orders, federal aviation regulations, and other published documents, including the FAA Reauthorization Act of 2024 that was recently signed into law. We apply the regulations and policies to solve airport design issues and secure maximum federal funding for airport sponsors.

C&S is well known and respected by FAA officials from the Detroit ADO office to the regional and headquarters offices in Chicago and Washington. ***Similarly to MDOT, we interact with the FAA daily as well, supporting our clients on all different issues and sharing information that we receive.***

Our interaction occurs at all levels of the FAA organization, from the assigned airport engineer at the ADO to the administrators at the regional and national levels.

Our team's knowledge of FAA and airport criteria goes far beyond having a reference library of ACs and standards. Team members work with these criteria on a wide variety of projects under various circumstances. They understand where, when, and why to apply the criteria and try to improve on them where appropriate. We are also very familiar with and often reference the AIP handbook (Order 5100.38D) to understand eligibility of project costs using federal funding.

Having a core group of aviation professionals is essential to having and maintaining a working knowledge of FAA criteria and airport operational requirements. Our knowledge of FAA regulations is demonstrated in the volume and type of aviation work performed by our team members.

Bipartisan Infrastructure Law (BIL)

Congress passed the Bipartisan Infrastructure Law, more commonly referred to as the BIL funding, in November 2021 with updates having been made since. C&S took charge of getting information and passing it along to our clients. ***We made it our goal to inform clients of the additional funding coming to the airports over the next five years.***

We hosted knowledge transfer meetings with MDOT to help prepare them for the release of funding. We advocate on our client's behalf and support the maintenance and growth at their airports by keeping them informed of upcoming funding. We have updated ACIPs for all our clients to show the use of BIL funding, and work to ensure that funding is not lost due to deadlines not being met. We understand there are differences between BIL-AIG (Airport Improvement Grant) and BIL-ATP (Airport Terminal Program) funding, along with supplemental funding. It is important to note the grant application process for this funding is on a slightly different timeline, and it doesn't follow all the same rules as your typical AIP grant funding. The eligibility has been expanded to include projects like hangars and fuel, for example. In addition, if the funding is not used by a certain date, it goes back to the FAA and will be redistributed through supplemental grants. C&S will watch these deadlines, and work with BTL and the funding agencies to ensure that grants are obligated by the due dates.

Important Steps to Secure Funding

- BTL | C&S ACIP Programming Meeting
- BTL | C&S ACIP Submittal to MDOT AERO
- Planning meeting with MDOT AERO
- Get bids or finalize agreements
- IFE as needed
- Submit information for final application
- Get on Michigan Aeronautics Commission (MAC) agenda
- Coordiate with Zach Bormet, MDOT AERO PM
- Update AERO PM as needed
- Sign sponsor contract
- Perform work

Section

Innovation

BTL needs a partner that can provide innovative solutions and ideas, that can think about the future of aviation, and that can provide value-added advice and services. Some of the items that differentiate the C&S team and harness our clients' value are highlighted below.

Land Use + Economics

C&S's Land Use + Economics team brings a specialized and strategic focus to the intersection of airport land use planning and economic analysis, equipping our clients to make informed choices so that short-term decisions support long-term goals. We've worked with airports including Phoenix Sky Harbor International, Raleigh-Durham International, Gerald R. Ford International, Orlando International, and Cuyahoga County Airport with real estate development strategy and advisory services. We understand that Battle Creek Unlimited (BCU) helps new and growing companies to build their businesses, and that creating economic opportunity and growth around the airport is a focus area.

Framework |

The vision for Destination Sunport entails diverse opportunities for businesses to incubate and expand within a supportive, collaborative environment leveraging synergies among resident companies.

Available Incentives |

- Eligible for New Market Tax Credits
- No development impact fees
- No property taxes on land and buildings owned by the City of Albuquerque Aviation Department
- Built-to-suit, third-party financing, simple land leases, deferred lease payments, and gross revenue payments (as opposed to lease payments) are negotiable
- Eligible for Foreign Trade Zone designation

Unique Funding Opportunities and Grant Administration Support

Preparation is key in securing and utilizing available funding for projects. We understand that many projects will be paid for with federal and state funding, and there are processes that need to be followed to capture those funds. Documents need to be prepared including but not limited to financial plans, grant applications, cost estimates, purpose and need descriptions, and exhibits. C&S adds value to the BTL team by keeping in touch with requirements for funding, deadlines for applications and different programs available. An example of two set-aside programs are the Zero Emission Vehicle (ZEV) and Voluntary Airport Low Emission (VALE) programs for airports. C&S has developed 28 successful applications for projects including electric charging infrastructure, pre-conditioned air (PCA), gate power, and hydrant fueling. C&S has secured over $97 million in VALE funding for our clients, including most recently a $10.6 million grant for a geothermal project at Louisville Muhammad Ali International Airport (SDF). There are multiple supplemental funding and competitive funding opportunities through the FAA as well. C&S will help to keep track of these and put your airport in the best position possible to be selected for additional funds.

Innovation & Technology

Development and activation of the AAM ecosystem will take innovative, out-of-the-box thinking The transportation network on the ground and in the air, accessibility, community needs, public perception, land use and policy issues, noise, and site infrastructure and other factors all play a part in successfully implementing the AAM ecosystem. This ecosystem requires harnessing existing technologies, developing new technologies, and resolving issues that could affect the implementation of the system as a whole.

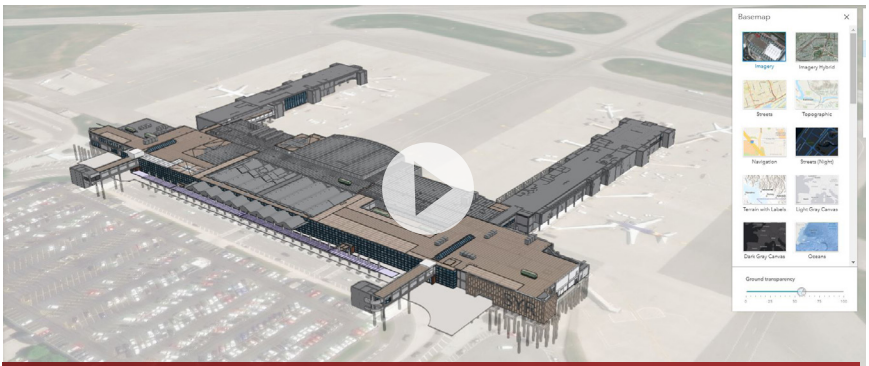
Innovation and new industry initiatives drive the C&S team. This includes opportunities we have been involved in at one of seven FAA UAS test sites where we have participated in engineering, and planning/environmental initiatives such as developing towers for a beyond visual line of sight corridor, designing a Skydome (only indoor UAS testing facility in the country), and planning/environmental documents to accommodate additional landside development areas for new initiatives as the market dictates (such as AAM manufacturing facilities, R&D facilities, heliport).

E-Construction Technology

At C&S we pride ourselves on utilizing state-of-the-art tools to assist our clients with their biggest challenges. In line with this philosophy, our construction management strategy features a suite of tools that allow us to proactively coordinate with all team members. All project related documentation will be hosted on Doc Express, a web-based document management system. The benefit to BTL is all correspondence, construction documents, meeting agendas/minutes, requests for information, material submittals, pay applications, progress photos, and material test reports can be accessed by project team members at any time. In addition, we have the ability to use Bluebeam Revu software viewed on a tablet instead of using paper plans. This will help expedite the distribution of document changes and enhance sustainability. Bluebeam is also used for quality control reviews for design, allowing multiple reviewers at once and more efficiency. Our daily reports are prepared with Appia, a cloud-based daily construction report software. This system allows us to track quantities daily and provide you with real-time project budget information.

Asset Management

We understand the processes and approach needed for airports to consume and manage data for asset management if this is desired. ***C&S is currently working on a GIS data integration and management task for the Philadelphia International Airport.*** The C&S team takes an innovative approach in leveraging the CAD/BIM design to include data sets that are appropriate for integration with the GIS database. By integrating the BIM models and CAD data into GIS, your team can consume and access the data through multiple platforms. The GIS database can be used as the Common Data Environment (CDE) for the airport and offers connections to multiple applications. C&S has been utilizing Safe Software's FME Desktop as the revolutionary data integration tool for BIM/CAD to GIS. C&S uses FME in concert with Autodesk's Revit and AutoCAD to connect with ESRI's GIS database to integrate data from a BIM/CAD model to GIS or other data platforms. The team can leverage the integration of BIM/CAD to GIS for precise field data captures during the project



Please click on this video to see an example of C&S's asset management capabilities.

validation and construction phase. With the end product being used for an asset management platform, the C&S team will coordinate with your staff to set clear requirements at the beginning of the project to comprehend the airport's needs and provide an effective project deliverable.

Sustainability and Resilience

C&S is a national leader in aviation sustainability and resilience. Our work developing the country's first FAA-approved sustainable master plan helped inspire the FAA's sustainability planning pilot program. Since that time, C&S has worked with airports of all sizes across the country to integrate sustainability into airport planning, design and construction, and operations. ***We have several award-winning projects focused on improving an airport's sustainability goals aligned with their priorities and values with economic benefit.*** This includes ratings and accreditations for LEED, Envision, and Airport Carbon Accreditation.

IND Runway 5R-23L >> and Taxiway D

C&S recently led the sustainability and Envision administration efforts for the strengthening and enhancement of Runway 5R-23L and Taxiway D at Indianapolis International Airport. It is the first airfield project in the world to achieve Envision Platinum, the highest rating, and included innovative technologies such as carbon sequestering concrete. C&S is also the prime consultant developing IND's Sustainability Management Plan, the first such FAA-funded plan to fully integrate resilience considerations.


Click on the video above to learn how C&S is supporting airports like CVG to improve sustainability and resilience.

Section J Customer Focus

The C&S team has a culture that is based on putting your team first. For the BTL team, this means understanding the relationships between the City, BTL staff, and BCU. Everyday our team will focus on providing each key cog in the BTL team with what they need to support the overall goals to achieve success. For the City this will mean support with grants, compliance and other important grant assurance requirements. For BTL staff, this will mean support with FAA and MDOT conversations, development of items for BCU and the City leadership and grant and funding support. For BCU this will mean support and education on elements needed to keep in compliance with FAA rules. Similar to our work at RME, allowing growth to occur with the least amount of regulatory red tape.

With Kelly and Aaron, the C&S team will bring an unparalleled level of experience and understanding to the BTL team in helping to position BTL for the right conversation at the right time. The relationships built over nearly a combined 50 years will mean whether on the airfield talking with a contractor, in a city council meeting or at the FAA offices you will be prepared and know you have a true member of your team with your best interest at heart.

Approach	Benefit
C&S and the City collaboration on scope and understanding of needs	♦ Well defined project from the start ♦ Prevents scope creep ♦ Controls cost
Dedicated project manager	♦ Consistency in communication ♦ Quick response time
Regular workload/ resource planning meetings	♦ Ability to apply resources to projects as needed ♦ Can fast track projects as needed ♦ Keep projects on schedule
Sharing information with BTL Team	♦ Upcoming and current grant opportunities shared in a timely manner ♦ Revisions to standards and regulations shared as they are put in place ♦ Industry trends discussed in real time

Customer Focus

Although various types of projects are considered in this work, viewing the projects holistically, in conjunction with other projects in the pipeline, is just as important. Our approach considers and understands that all the projects on an airfield are a puzzle piece to a bigger picture. It is important that we take into consideration what other projects and aspects of those projects are being affected by our work. BTL's responsibility to manage and organize so many projects at the same time can be challenging. The C&S team is here to not only accomplish the work, but also to bring BTL options, solutions, and recommendations to meet the demands of all your projects, and work seamlessly together with other project teams. We understand you need us to be more than a traditional engineering consultant. The C&S team will be trusted experts who will listen, provide ideas, and advise for any challenge that comes up.

Project Quality

As the need to expedite project schedules to meet funding and other deadlines has become more and more the norm in the industry, the challenge for airport owners has been the ability to dedicate the time to thoroughly review project documents. With the requirements to meet FAA compliance, and further internal and external

pressure to do more with less available funding, it is even more important for BTL's consultants to be deliberate in implementing sound project quality control plans and practices to maximize the available technical tools and deliver plans that exceed BTL's expectations.

Response Time	
Urgent field issues	Same day
Field issue solution	1–3 days
Meeting requests	Schedule within 1 day
Resource plan for simple tasks	Draft in 2 days, finalize in 1 week
Resource plan for complex tasks	Draft in 1 week, finalize in 2 weeks

All projects delivered for BTL will have a focus on the highest level of quality. Our robust quality control program will be led by our quality manager, Michael Holdwick. Mike's 15 years of experience in similar GA airports in the Great Lakes Region will benefit BTL by reducing change orders and construction issues. Mike will work hand in hand with our project manager, Aaron, to make sure quality control reviews are incorporated into our design schedule to allow for adequate time to complete a thorough review and properly address review comments prior to submittal to BTL. Peer reviews and constructability reviews are mandatory components of our QC process, which utilizes Bluebeam software to track comments made by each reviewer and monitor that corrections are made. BTL will also be invited to contribute to QC reviews with use of these tools allowing for a streamlined, collaborative review process. C&S will provide training for BTL staff, if needed, to get your team up to speed with our process. Similar approaches by our team at DTW, SAN and IND have yielded significant benefits for those owners, where they have in real time, via Bluebeam, been able to see our process and understand project status and elements needing to be addressed. This collaborative process enables proactive conflict resolution, reduces costs, and expedites completion of the projects during construction.

Response/Communication Plan

We know from our experience that on-call agreements have a variety of issues that arise. We have developed a Response Plan to ensure BTL has the right type of service when you need it. For this plan we have partnered with industry experts, some located in the greater Battle Creek area, to provide BTL with timely response. For example, for urgent field issues that demand immediate attention, Aaron or one of our qualified engineers will be available to head over from Livonia and will be at BTL within hours, if not minutes. Having these experts will benefit BTL to call on the C&S team and know we can be on-site immediately. For less pressing issues, we have laid out our response plan to provide solutions and resolution to issues in a timely manner. Aaron's approach is one where he is proactive and thoughtful. He will take the time to understand what each of your key staff needs, including how each will need different information and different communication approaches.

WHAT SETS C&S APART?

With our in-depth knowledge of your goals and Airport needs, we will continue to support and advocate for the growth and development of your Airport. From our experience as one of Michigan's premier aviation consultants over the last 20 years, C&S will:

- **Successfully acquire the appropriate funding through FAA and MDOT**
- **Advocate for your Airport with the FAA and MDOT**
- **Provide continued support for unity between Airport management and tenants**
- **Assist growth through navigating appropriate federal clearances for expansion opportunities**
- **Offer project guidance from initial development through to completion**
- **Ensure construction compliance through hands on involvement**

Required Forms

As requested in the RFP the following forms are included:

- Interview Availability Table
- Offer and Acceptance Form
- Disadvantages Business (DBE) Form

6.0 - INTERVIEW AVAILABILITY TABLE

SUBMIT WITH YOUR PROPOSAL: Interview times are blocked in the table below for companies that are shortlisted for interview. Please indicate your availability as either Preferred, Available, or Not Available. Companies not selected for interview will be notified, and the City's decision will be final.

Every effort will be made to give the preferred times.

Interviews, if held, will be held virtually. The City may determine that interviews are not necessary.

Day	Date	Time	Indicate whether: Preferred Available Not available	List the email addresses only (no names or titles) of those at your company who should receive an interview invitation:
Monday	August 26	1:00pm – 2:30PM	Not available	Type **email addresses only** in this space, separated by a comma (i.e., no names or positions). Listing only emails separated by commas allows us to easily copy/paste into a meeting invitation.
Monday	August 26	2:30pm – 4:00pm	Not available	
Tuesday	August 27	10:30am -12:00pm	Not available	
Thursday	August 29	1:00pm – 2:30pm	Not available	
Tuesday	Sept 3	9:00am – 10:30am	Not available	
Wednesday	Sept 4	1:00pm – 2:30pm	Available	AAljets@cscos.com, KJost@cscos.com, GMcKee@cscos.com, BSchalmo@cscos.com
Friday	Sept 6	9:00am – 10:30am	Available	AAljets@cscos.com, KJost@cscos.com, GMcKee@cscos.com, BSchalmo@cscos.com
Friday	Sept 6	1:00pm – 2:30pm	Available	AAljets@cscos.com, KJost@cscos.com, GMcKee@cscos.com, BSchalmo@cscos.com
Friday	Sept 6	2:30pm - 4:00pm	Available	AAljets@cscos.com, KJost@cscos.com, GMcKee@cscos.com, BSchalmo@cscos.com
Thursday	Sept 12	9:00am – 10:30am	Available	AAljets@cscos.com, KJost@cscos.com, GMcKee@cscos.com, BSchalmo@cscos.com
Thursday	Sept 12	10:30am – 12:00pm	Available	AAljets@cscos.com, KJost@cscos.com, GMcKee@cscos.com, BSchalmo@cscos.com
Thursday	Sept 12	1:00pm – 2:30pm	Available	AAljets@cscos.com, KJost@cscos.com, GMcKee@cscos.com, BSchalmo@cscos.com
Thursday	Sept 12	2:30pm – 4:00pm	Available	AAljets@cscos.com, KJost@cscos.com, GMcKee@cscos.com, BSchalmo@cscos.com

If your company is not available at any of these times, email clhuff@battlecreekmi.gov right away, before proposals are due, and we'll see if we can schedule a different time.

7.0 - OFFER AND ACCEPTANCE FORM

TO THE CITY OF BATTLE CREEK:

We hereby offer and agree to furnish the materials, transportation or service in compliance with all terms, conditions, specifications, and amendments in the Request for Qualifications and any written exceptions in the offer. We understand that the items in this Request for Qualifications, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete and states that they have the authority to submit this proposal, which will result in a binding contract if accepted by the City of Battle Creek.

We acknowledge receipt of the following addendum(s): _____, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder, and that our firm is not debarred from doing business under the Federal Excluded Parties List System (epls.gov).

I, the Contractor or Contractor's legally authorized signer, further certify compliance with the City of Battle Creek Ordinance Chapter 214, Discrimination Prohibited. I further acknowledge and agree that the Contractor's violation of Chapter 214 shall be a material breach of this contract. In addition, Contractor acknowledges and agrees that it shall be liable for any costs or expenses incurred by the City in obtaining from other sources, the work and services to be rendered or performed or the goods or properties to be furnished or delivered to the City under the contract as a result of a material breach in the Contract for violations of Chapter 214.

C&S Engineers, Inc.
Company Name

38777 Six Mile Road, Suite 202
Address

Livonia, MI 48152
City State Zip

Kelly Jost
Signature of Person Authorized to Sign

Kelly Jost, PE
Printed Name

Service Group Manager
Title

For clarification of this offer, contact:

Name: Kelly Jost, PE

Phone: 734-793-4627

Fax: 734-206-7973

Email: kjost@cscos.com

ACCEPTANCE OF OFFER:

The Offer is hereby accepted.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Request for Qualifications, including all terms, conditions, specification, amendments, etc. and the Contractor's Offer as accepted by the City.

This contract shall henceforth be referred to as Contract No. **2025-018Q**. The Contractor has been cautioned not to commence any billable work or to provide any material or service under this contract until Contractor receives purchase order and/or a notice to proceed from the City of Battle Creek Purchasing Agent.

COUNTERSIGNED:

_____
City Manager Date

_____
Witness Signature

APPROVED AS TO FORM BY:

_____
City Attorney

_____
Date

ATTACHMENT A - DISADVANTAGED BUSINESS (DBE) FORM

I. YOUR FIRM'S BACKGROUND:

Is your firm an MBE (at least 51% minority ownership)? _____YES __X__NO

Is your firm a WBE (at least 51% woman ownership)? _____YES __X__NO

Are you subcontracting any part of this project? __X__YES _____NO