D'APPOLONIA PROPOSAL

PART 1

RESPONSE TO SCOPE

701 RODI ROAD, FLOOR 2 PITTSBURGH, PENNSYLVANIA 15235-4559 (412) 856-9440 FAX (412) 856-9535

July 12, 2024

Project No. 244248

City of Pittsburgh 414 Grant Street Pittsburgh, Pennsylvania 15219 Attn.: Mr. Joshua Lamonde, Sourcing Specialist

SUBJ: Proposal (Revision 0) – Response to Scope Request for Proposal 2024-RFP-164 Design and Site Improvements for Cowley Goettman Rec Center City of Pittsburgh, Allegheny County, Pennsylvania

Dear Mr. Lamonde:

D'Appolonia Engineering Division of Ground Technology, Inc. (D'Appolonia) appreciates the opportunity to submit this proposal to provide Engineering Services to the City of Pittsburgh (CITY) Department of Public Works (DPW) for design of the Cowley Goettman Recreation Center and associated site improvements. This Response to Scope is being submitted in response to a request from the City of Pittsburgh Office of Management and Budget (OMB) dated May 24, 2024, issued on behalf of the City of Pittsburgh DPW. D'Appolonia's Cost Proposal, Equal Opportunity Review Commission (EORC) forms, and Authorized Signatory are submitted separately, as requested in the RFP. This document provides our qualifications, understanding of the project requirements, our project approach and plan of work.

QUALIFICATIONS

Our proposed design team consists of **D'Appolonia**, along with subconsultants **AE7**, **Auros Group** (WBE), **BrightTree Studios** (SDVBE), **Claitman Engineering Associates**, and **Pashek+MTR** (WBE). Our proposed project team organization chart is presented in Attachment 1. Resumes for key project staff are attached to this proposal.

D'Appolonia, a Small Business Enterprise with more than 65 years of experience with civil and geotechnical design in the Pittsburgh area, will be responsible for overall direction and management of the project; civil engineering; coordination between the CITY and all subconsultants; review, assembly and submission of all project documents; and budget and cost control.

D'Appolonia's principal in charge for our on-call contract is Edward Voytko, P.E. Since joining D'Appolonia in 1977, Mr. Voytko has been involved in and responsible for numerous major civil and geotechnical engineering studies, evaluations, and designs. His areas of specialization include soil and rock slopes, structure foundations and retaining walls, dams and reservoirs, transportation facilities,

recreational facilities and site improvement and development. He has acted as project manager on oncall civil and geotechnical engineering services contracts for the City of Pittsburgh Departments of Public Works (DPW), Mobility and Infrastructure (DOMI) and Permits & Licenses (PLI); and the Allegheny County Department of Public Works for more than 35 years, and has also acted as an expert for litigation, arbitration, and mediation in cases involving foundation settlement, slope failures, retaining wall failures, expansive slag and pyritic shales, mine subsidence, slope failures and construction claims. Mr. Voytko was previously the project manager for remediation of a landslide on the slope bordering the north side of the Cowley Goettman site and was D'Appolonia's Principal-in-Charge for D'Appolonia's recent data collection and feasibility level studies of the site.

D'Appolonia's efforts will be managed by Adam McCullough, P.E., a Principal Engineer at D'Appolonia with 20 years with experience managing multi-disciplinary civil and geotechnical design projects involving structures, site development, and stormwater control. Mr. McCullough has completed the National Green Infrastructure Certification Program and maintains a LEED Green Associate credential. Mr. McCullough has extensive experience managing and coordinating teams of civil, structural, geotechnical, and MEP engineers, architects, landscape architects, topographic/property surveyors, utility locating subconsultants, and geotechnical exploration and testing subcontractors in developing and completing designs for community and recreational facilities and site stormwater and public access improvements. Most recently, he has been involved in coordinating these activities on the following projects:

- Coordination of the design and construction of the new Bob O'Connor Golf Course Clubhouse and related site improvements in Schenley Park.
- Planning and design of site improvements in conjunction with construction of the new tennis court bubble at Mellon Park.
- Development of the new Robert E. Williams E. Williams community center and playground in Schenley Heights.
- Rehabilitation and reconstruction of the historic Highland Park Pedestrian Tunnel and related improvements to Reservoir Drive and park pathways in Highland Park.

Mr. McCullough has also planned, coordinated and managed the historical data gathering, topographic survey, geotechnical exploration, Phase I Environmental Assessment and utility locating efforts, and developed preliminary site development concepts for the Cowley Goettman site in coordination with DPW personnel.

Given D'Appolonia's technical and project management experience and particular experience with the Cowley Goettman site, including the significant geotechnical issues that must be addressed, we have the capabilities and experience to effectively and efficiently move into and manage the next phase of the Cowley Goettman site improvements. Mr. McCullough will be assisted by other D'Appolonia technical staff as needed based on technical needs and schedule requirements. D'Appolonia's engineering staff has extensive experience in the evaluation, design, and rehabilitation of structure foundations, earth retaining structures, site grading, and the evaluation and design of stormwater drainage improvements including numerous projects for the City of Pittsburgh and Allegheny County over the past 40 years.

To support our civil and geotechnical design efforts in completing the required planning and design, we have included on our team the following firms:

- **AE7** to provide architectural design services
- AES to provide structural engineering design services
- Claitman Engineering Associates to provide MEP/FR Engineering and Commissioning
- <u>SDVBE firm's</u>:
 - BrightTree Studios to provide data and security design services
- WBE firm's:
 - Auros Group to provide building sustainability, building commissioning, and cost estimating services
 - **Pashek+MTR** to provide landscape architecture services.

We believe that these firms bring not only diversity, but excellent technical capabilities and experience to our team.

Resumes for expected participating key personnel from D'Appolonia and each of our subconsultants and project profiles describing representative projects for each firm are attached.

PROJECT APPROACH AND PLAN

PROJECT APPROACH AND SCOPE OF SERVICES

D'Appolonia will complete the project within five main phases. A description of D'Appolonia's services performed under each task is as follows:

PHASE 1 – Programing and Conceptual Design (4 Weeks)

Scope of services in Phase 1 includes the following:

- Kick-off meeting with DPW Project Manager to confirm project goals
- Up to three design review meetings with client to review options (MSTeams)
- Meeting with PWSA (MSTeams)
- Development of three conceptual design options.

PHASE 2 – Schematic Design (8 Weeks)

Scope of services in Phase 2 includes the following:

- Preparation of one schematic design based on the three (3) conceptual plan options for the redevelopment of the park space and proposed facility improvements based on the findings from Phase 1.
- Coordination meeting(s) with DPW Project Manager prior to community meetings and during Schematic Design
- Complete Schematic Design
- Prepare application for Pre-Application process to Department of City Planning
- Prepare materials, as needed, to support DPW's application process to the Public Art and Civic Design Commission for Preliminary Review

PHASE 3 – Design Development (4 Weeks)

Scope of services in Phase 3 includes the following:

- Continue coordination meeting(s) with DPW Project Manager
- Complete Design Development
- Three progress meetings with DPW Project Manager to review progress

PHASE 4 – Construction Documents (10 Weeks)

Scope of services in Phase 4 includes the following:

- Continue coordination meeting(s) with DPW Project Manager
- Coordination with outside vendors for the needs and installation of specialized equipment as dictated by the program
- Prepare Construction Documents, Technical Specifications, and Bid Documents
- Review submissions must be made to the DPW Project Manager and any other reviewing authorities, as needed.
- Update cost estimate for Construction Documents
- Prepare materials, as needed, to support DPW's application process to the Public Art and Civic Design Commission for Hearing and Action
- Submission of Permits:
 - OnestopPGH DOMI Permit Curb Cut Permit
 - OnestopPGH PLI Permit Building Permit
 - o OnestopPGH PLI Permit Demolition Permit
 - o OnestopPGH PLI Permit Mechanical Permit
 - o OnestopPGH PLI Permit Sign Permit
 - OnestopPGH PLI Permit Stormwater Permit
 - PWSA Tap-in Application
 - o ACCD Non-Permitted E&SC Plan to ACCD

Phase 5 – Construction Administration Services (8 Months)

Scope of services in Phase 5 includes the following:

- Attend pre-bid meeting
- Respond to questions during bidding
- Attend pre-construction meeting
- Attend bi-weekly construction meetings
- Respond to questions (RFI's), review submittals, and shop drawings
- Review the contractors punch list(s) for substantial completion

Specific scopes of services for each of our proposed subconsultants are described in the attached subconsultant proposals.

REQUIRED INPUT

In preparing this proposal, D'Appolonia is requesting input on the following items to complete the scope of work described above:

- Permission to access properties (both public and private);
- Any additional background information that may be relevant for the project, including but not limited to:
 - Existing conditions mapping, if available;
 - Mapping for previous development of the site;
 - Mapping of existing site utilities, if available;
 - Photographs of past construction work on the site;
 - Aerial/drone photographs of the site, if available.

ASSUMPTIONS/LIMITATIONS

In preparing this proposal, D'Appolonia is making the following assumptions;

- The CITY will provide any records available regarding past site development
- Assuming that total site disturbance is less than 1 acre
- Assuming that an NPDES PAG-02 permit in not required
- Assuming that the City will allow consultant team to work with preapproved spray park and playground vendors

Services excluded from the scope of work are as follows:

- Environmental Engineering
- Specialty athletic field design consulting
- Retaining wall design
- Phase I ESA (Already Completed)
- Topographic Survey (Already Completed)

- Cultural Resources Studies or Investigations
- LEED and Sustainable Sites
- Scheduling and coordination of public meetings
- Public art
- Construction Monitoring
- Construction Surveying/As-built Surveying/As-built drawings
- Post construction monitoring of stormwater

ESTIMATED BUDGET, EORC COMMITMENTS AND CONDITIONS OF SERVICE

Our estimated budget and EORC Commitment forms are provided separately, consistent with the instructions in the RFP. The estimated budget for the scope of services, as described therein, is provided for budgetary purposes only and is based on our understanding of the project and scope of services. Work beyond the indicated scope and/or budget will not be performed without prior written approval by the City.

The proposed Scope of Work will be performed on a time and materials basis. If awarded the project, our services will be provided under a new Professional Services Agreement with the City of Pittsburgh.

CLOSING

D'Appolonia appreciates the opportunity to submit this proposal. If you feel that aspects of the proposal do not fully meet your needs, we welcome the opportunity to meet and discuss the proposal. Should you have any questions or the need for clarification, please feel free to contact us at (800) 856-9440.

Respectfully Submitted, D'Appolonia Engineering Division of Ground Technology, Inc.

adam & Mc Cullough

Adam J. McCullough, P.E., LEED Green Associate Principal Engineer

Edward P. Voytko, P.E. Senior Principal Engineer



ATTACHMENTS

ATTACHMENT 1 - PROJECT TEAM ORGANIZATIONAL CHART

City of Pittsburgh Department of Public Works DAPPOLONIA D'Appolonia, Engineering Division of Ground Technology, Inc. 701 Rodi Road, Floor 2 Pittsburgh, PA 15235-4559 PRINCIPAL-IN-CHARGE PROJECT MANAGER Edward P. Voytko, P.E. Adam J. McCullough, P.E. **SUBCONTRACTORS / SUBCONSULTANTS** Services: Architect / RACP Consultant **C**27 AE7 **Key Personnel:** Principal-In-Charge: Teresa Bucco, AIA 2840 Liberty Avenue, Suite 403 Project Manager: Patrick Rakszawski, AIA Pittsburgh, PA 15222 Services: Structural Engineering AES AES **Key Personnel:** 11 Stanwix Street, Suite 150 Robert S. Bertocchi, P.E., Senior Project Engineer Patrick J. Allen, P.E., Senior Project Engineer Pittsburgh, PA 15222 Services: Building Sustainability/Commissioning & Cost Estimating AUROS Key Personnel: Auros Group (WBE) Craig E. Stevenson, President / Co-Founder 243 East Main Street Beth A. Eckenrode, Co-Founder Matt Bowers, Director of Building Science Carnegie, PA 15106 Services: Data and Security BrightTree BrightTree Studios (SDVBE) **Key Personnel:** 301 Brush Creek Road David Vargo, CTS-D, CTS-I Warrendale, PA 15086 Services: MEP/FP Engineering & Commissioning CLAITMAN **Key Personnel:** Todd Chamberlain, President, Project Manager Claitman Engineering Associates 700 Blaw Avenue, Suite 300 **Rick Sabol, P.E., Vice President, Electrical Engineer** John Fehrenbach, P.E., Mechanical Engineer Pittsburgh, PA 15238 Services: Landscape Architecture PASHEK 🔀 MTR Pashek+MTR (WBE) Key Personnel: 619 East Ohio Street Sara Thompson, RLA, SITES AP Eric Brightman, RLA Pittsburgh, PA 15212

RESUMES

RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT						
Edward D. Voutha D.E. Role in		Role in	this Contract:	YEARS EXPERIENCE		ERIENCE
Ed	ward P. Voytko, P.E.	Geotec	hnical & QA/QC Review	46 Total	46 with	D'Appolonia
D'APPOLONIA (Pittsburgh, PA)						
Edu	Education: M.S./Geotechnical Engineering/2002 Registration: PA, IN, OH, TX, WV, MI/ Professional Engineer B.S./Civil Engineering/1977					
OT	HER PROFESSIONAL QUALIFICATIO	NS:				
Vai	rious publications related to slope sta	bilizatior	i, retention and ground in	nprovement	, including <i>I</i>	AASHTO and
Me	mbor Design Specifications for Retainment of	of State	Dam Safety Officials (ASD)	SO). ADSC.	Deep Found	ations Institute
(DI	FI), US Society on Dams	0100000			soop round	
	REPF	RESENTAT	IVE PROJECTS AND SPECIFIC	CROLE		
					YEAR COM	PLETED
	City of Pittsburgh Open-End Geotechnical Engineering Services		Profes	sional	Construction:	
	(Pittsburgh, PA)			Service	<u>s: 2024</u>	Ongoing
	Principal-in-Charge of 5-year agreen	nents with chnical i	City of Pittsburgh Depart	ments of Pu	blic Works (tsdesigns	DPW) and Mobility
a.	engineering; development of work p	lans, bu	dget estimates; coordinati	ion/review o	f project ex	ecution and report
	preparation. Performed technical re	eviews o	f 150+ projects involving	geotechnic	al issues (i.e. unstable/failed
	retaining walls & soil/rock slopes, f	oundatio	n settlement, embankmer	nt dam/slop	e seepage,	mine subsidence,
	related litigation support to Pittsburg	n Law De	partment Total, engineer	ing fees: \$2	.500.000 ap	prox.
			, v		YEAR COM	PLETED
	Allegheny County Open-End Geot	echnical	Engineering Services	Profes	sional	Construction:
	(Allegheny County, PA)			Service	s: 2024	Ongoing
b.	Principal-in-Charge for muti task order 5-year contract, including project development and technical review;					
	preparation of geotechnical and strue	ctural des	signs and right-of-way bac	quisition pla	ins for rock	slope and roadway
	embankment stabilization and repai	r, mine s	ubsidence mitigation and	stream relo	ocation; dan	n inspections; dam
	break analysis and preparation of en	nergency	action plans for county-ov	vned dams; es: \$2 850 (and coordin	ation/management
	YEAR COMPLETED					PLETED
	PennDOT Bridge Quality Assuran	ce Divisi	on (BQAD)	Profes	sional	Construction:
	5 Yr. Open-End Agreement E00098	3 (Lewist	own Narrows, PA)	Service	s: 2006	2006
C.	Project Manager for a 5-yr open-end agreement (2001-2006) to evaluate of bridge foundation problems, & earth					
	retaining structure and soil-structure interaction systems. Directed development of design procedures for micropile					
	on steep marginally stable slopes. Total engineering fees: \$100,000 approx.					
					YEAR COM	PLETED
	PennDOT (BQAD) 5 Yr. Open-End	Agreem	ent E00976 – Tioga	Profes	sional	Construction:
d	River Bridge, (Tioga County, PA)			Service	s: 2008	2009
-u.	Project Manager of a 5-yr open-end agreement (2006-2011) to evaluate bridge foundation, earth retaining structure					
	unexpected bridge abutment settlement issues at the Tioga River bridge. Total engineering fees: \$116,000 approx.					
			YEAR COMPLETED			
	John Sisson Motors Site Developm	nent		Profes	sional	Construction:
	(Washington, PA)		Service	s: 2016	2016	
	Principal-in-Charge for civil and ge	otechnic	al engineering for develo	opment of a	a 4.5 acre	site to expand an
e.	automobile dealership over an existing stream valley. The development included a 30,000 SF showroom and					
	parking lot, stream mitigation, and rain gardens. D'Appolonia performed a geotechnical exploration at the site					
	prepared site development designs, plans and specifications, and provided construction management and quality					
	control. Total engineering fees: \$270,000.					

RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT					
Ad	am J. McCullough, P.E.,	Role in Contract:		YEAR	S EXPERIENCE
LEI	ED Green Associate	Project Manager – Civil Engineering		20 Total 20 with D'Appolonia	
D'APPOLONIA (Pittsburgh, PA)					
Education: M.S./Civil Engineering/2009 Registration PA, B.S./Civil Engineering/2004 LEED Green Assu			MD, NY, OF ociate, NGI(I, SC, WV/Prof	essional Engineer
OT	HER PROFESSIONAL QUALIFICATIO	DNS:	, , , , , , , , , , , , , , , , , , , ,		•
Me	mberships: ASDSO, USSD; Training: (GNSS Surveying			
Cer	tifications: National Green Infrastruc	cture Certification Program (N	IGICP), 201	.9.	
	R	ELEVANT PROJECTS AND SPECI	FIC ROLE		
				YEAR COM	IPLETED
	Bob O'Connor Golf Course Clubhouse		Professional Services: Constructio		Construction:
	(Pittsburgh, Allegheny County, PA)		201	6-2023	2018-2021
a.	Project Manager for a multidisciplin	nary sub-consultant team for	the desig	n services rela	ated to the proposed
	clubhouse and learning center locate	ed at the Bob O'Connor golf control at the Bob O'Connor golf control at the section with grades	ourse in Sc choical po	henley Park in	the City of Pittsburgh.
	construction administration and co	onstruction monitoring Co	ordination v	with architect	landscape architect
	structural and MEP engineers.	energenergen energenergen eret		areniteet,	andooupo aronnoon,
				YEAR COM	IPLETED
	Muleshoe Reservoir Dam Rehabilitation		Professio	nal Services:	Construction:
	(Hollidaysburg, PA)		2	013	2014
b.	Permitting and design for the dan	n rehabilitation, including fla	ttening em	bankment slop	bes, spillway and sill
	reinforced concrete cantilever and	rock anchored spillway walls	and spillwa	av sill. Assiste	d in completion of 86
	sheet drawing package that included	E&SC plans, instrumentation	n plans, stru	uctural drawing	s and details.
				YEAR COM	IPLETED
	Highland Park Pedestrian Tunne	l Project	Professio	YEAR COM nal Services:	IPLETED Construction:
	Highland Park Pedestrian Tunnel (Allegheny County, PA)	l Project	Professio 202	YEAR COM nal Services: 0-2023	IPLETED Construction: 2022-2023
	Highland Park Pedestrian Tunne (Allegheny County, PA) Project Manager. Restoration of hist Drive pedestrian improvements inclu	l Project oric pedestrian tunnel and ass	Professio 202 sociated site	YEAR COM nal Services: 0-2023 e work. Work	IPLETED Construction: 2022-2023 included Reservoir
C.	Highland Park Pedestrian Tunnel (Allegheny County, PA) Project Manager. Restoration of hist Drive pedestrian improvements inclu Stormwater improvements to protect	l Project oric pedestrian tunnel and ass iding protected lanes, pedesti t tunnel from stormwater. Ma	Professio 202 sociated site ian pathwa intenance a	YEAR COM nal Services: 0-2023 e work. Work ys and sidewa and Protection	IPLETED Construction: 2022-2023 included Reservoir Iks, and fencing. of Traffic Plan (MPT)
C.	Highland Park Pedestrian Tunnel (Allegheny County, PA) Project Manager. Restoration of hist Drive pedestrian improvements inclu Stormwater improvements to protect for the road closure of Reservoir Drive	l Project oric pedestrian tunnel and ass iding protected lanes, pedestr t tunnel from stormwater. Ma ve. Performed surveying, utili	Professio 202 sociated situ ian pathwa intenance a ty location,	YEAR COM nal Services: 0-2023 e work. Work i ys and sidewa and Protection and CCTV of s	IPLETED Construction: 2022-2023 included Reservoir Iks, and fencing. of Traffic Plan (MPT) stormsewers.
c.	Highland Park Pedestrian Tunnel (Allegheny County, PA) Project Manager. Restoration of hist Drive pedestrian improvements inclu Stormwater improvements to protect for the road closure of Reservoir Driv Associated permitting and coordinat	l Project oric pedestrian tunnel and ass iding protected lanes, pedestri t tunnel from stormwater. Ma ve. Performed surveying, utili ion with stakeholders includin	Professio 202 sociated situ ian pathwa intenance a ty location, g the Pittsb	YEAR COM nal Services: 0-2023 e work. Work ys and sidewa and Protection and CCTV of s urgh Water an	IPLETED Construction: 2022-2023 included Reservoir Iks, and fencing. of Traffic Plan (MPT) stormsewers. d Sewer Authority
c.	Highland Park Pedestrian Tunnel (Allegheny County, PA) Project Manager. Restoration of hist Drive pedestrian improvements inclu Stormwater improvements to protect for the road closure of Reservoir Driv Associated permitting and coordinat (PWSA), Pennsylvania Historical an Performed construction administration	I Project oric pedestrian tunnel and ass uding protected lanes, pedestri t tunnel from stormwater. Ma ve. Performed surveying, utili ion with stakeholders includin d Museum Commission (PHM	Professio 202 sociated site ian pathwa intenance a ty location, g the Pittsb IC) and the	YEAR COM nal Services: 0-2023 e work. Work i ys and sidewa and Protection and CCTV of s urgh Water an Pittsburgh Pal	IPLETED Construction: 2022-2023 included Reservoir Iks, and fencing. of Traffic Plan (MPT) stormsewers. d Sewer Authority rks Conservancy.
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Relevant Project Experience:

- Brighton Heights Senior Center, Pittsburgh, PA
- City of Pittsburgh Police Substation, Pittsburgh, PA
- SouthSide Works Town Center, Pittsburgh, PA
- Highmark's Fifth Avenue Place Corporate Hub Renovation, Pittsburgh, PA
- PNC Bank Wood Street Collection Renovations, Pittsburgh, PA



Relevant Project Experience:

- City of Pittsburgh Burgwin Rec Center, Pittsburgh, PA
- Brighton Heights Senior Center, Pittsburgh, PA
- City of Pittsburgh Office Renovations, Pittsburgh, PA
- City of Pittsburgh East Liberty Fire and Police Station Renovations, Pittsburgh, PA
- City of Pittsburgh Northside EMS, Pittsburgh, PA
- Glen Hazel Community Center, Pittsburgh, PA

Teresa Bucco, AIA

Project Director & Principal-in-Charge

Teresa is a Principal and leads our design studio in a collaborative design process to create engaging, interactive places. Her depth of experience to a broad range of projects and her work with owners and construction teams influence the development of projects that both inspire and meet the client's core needs. Among her strengths, she brings her collaborative style to work with clients to understand their needs, develop their program, and apply it to the planning stages of a project.

Teresa understands the importance of maximum utilization of space, consolidating when needed, and growth as it applies. Her knowledge of the design and documentation process allows her to assist the client to establish early on priorities and goals that set the stage for an overall understanding of their planning needs.



Patrick Rakszawski

Project Manager & Project Architect

Architect and Project Manager who brings experience on a diverse range of infrastructure, civic, commercial, higher ed, and healthcare projects. He champions an integrated team approach to problem-solving, particularly focusing on the vision and goals of the client. He focuses on telling a story through his designs, connecting creativity with technical details through hand sketches, 3D modeling, and technical drawings.

Patrick has also worked and collaborated on many projects with the City of Pittsburgh and understands what is needed for a successful project completion.





Relevant Project Experience:

- City of Pittsburgh Burgwin Rec Center, Pittsburgh, PA
- City of Pittsburgh Police Substation, Pittsburgh, PA
- City of Pittsburgh Lincoln Place Firehouse & Medic Station, Pittsburgh, PA
- City of Pittsburgh Office Renovations, Pittsburgh, PA
- Glen Hazel Community Center, Pittsburgh, PA
- PNC Bank Wood Street Collection Renovations, Pittsburgh, PA



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- City of Pittsburgh Office Renovations, Pittsburgh, PA
- City of Pittsburgh East Liberty Fire and Police Station Renovations, Pittsburgh, PA
- City of Pittsburgh Northside EMS, Pittsburgh, PA
- City of Pittsburgh Lincoln Place Firehouse & Medic Station, Pittsburgh, PA
- City of Pittsburgh Police Substation, Pittsburgh, PA

Issac Wimer, WELL AP

Architectural Designer

Isaac is a graduate architect with a passion for urban design and development. His experience includes conceptual and graphic design for civic, science and technology, residential, and master planning projects. He is passionate about developing ecological urban solutions that encourage thoughtfulness and communal engagement. Isaac has experience working on projects similar in scope and has collaborated on projects with government agencies. This experience is something he will bring to the City of Pittsburgh project.

Today, he is inspired by the intersection between architecture, ecology, and community and the opportunities possible through interdisciplinary urban collaboration.



Rheanna Abel, NCIDQ, WELL AP

Interior Designer

Rheanna is an Interior Designer who is passionate about advancing human health and wellness in buildings and communities around the world. She carefully considers how every detail in a space impacts the users. This results in highly functional designs that are visually appealing and provide comfort. With versatile strengths, Rheanna is equally capable in 3D modeling and rendering technology; working with the client and their user groups to match their organizational goals to the appropriate design choices as well as being an analytical leader with effective skill in design methods, concepts, attention to detail, and execution.



ROBERT S. BERTOCCHI PE

SENIOR PROJECT ENGINEER

ANTIC ENGINEERING

PVICES



PERSONAL ______ ______ SUMMARY

Mr. Bertocchi's expertise ranges across many industry sectors. His clients are diverse, including the United States Army, K-12 school districts, the United States Corps of Engineers, private residential developers, museums, and major universities. His projects involve new construction, surveys and assessments, adaptive reuse, and historical restoration work among other services. His experience positions him to be able to identify efficient system solutions for a wide range of building issues, and to address the design team's questions and concerns quickly and concisely. Mr. Bertocchi maintains his team's focus on the project's key structural issues, supporting their dedication to the client's project goals from schematic design to Construction Documents and all the way to close-out.

REFERENCES

Dan Lipinski Project Manager Allegheny Construction Group 412.221.0500 dlipinski@acginc.com

Gregg Perelman

Founding Partner & CEO Walnut Capital 412.683.3810 gperelman@walcap.com

EDUCATION

Bachelor of Science, Civil & Environmental Engineering University of Pittsburgh, 1997 Master of Science, Engineering University of Illinois, 1998

PROFESSIONAL REGISTRATIONS

Licensed Professional Engineer in: Maryland, Michigan, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia

PROFESSIONAL MEMBERSHIPS

American Institute of Steel Construction (AISC)

EXPERIENCE

Mr. Bertocchi began consulting on structures in 1998. He has since served on a wide variety of projects including facility studies, new designs, renovations and rehabilitations, additions, and historic preservations.

Mr. Bertocchi has provided structural design services for multiple large-scale projects, including multi-story buildings, school additions, and hotels. His most notable works include the design of a 5-level, post-tensioned concrete infill structure used to renovate H. H. Richardson's Allegheny County Jail into court facilities; the design and construction review of the 14-story, concrete framed Heritage IV Center in Annandale, Virginia; the design and construction review of the steel-framed Southpointe Town Center mixed-use development buildings in Cecil Township, Pennsylvania; and the design and construction review of the steel-framed Children's Hospital of Pittsburgh Medical Office Building in South Fayette Township, Pennsylvania.

Mr. Bertocchi supervises projects, schedules design meetings and tasks, coordinates with other A/E/C consultants, communicates with clientele, and leads progress meetings on a daily basis.

FEATURED PROJECTS

Cathedral Preparatory School Alterations and Addition | Erie, PA

A new 3-story addition was constructed on the West 10th Street elevation, serving as the school's new front entrance. The addition spans approximately 34,500 sq. ft. Adjacent to an existing steel-framed and masonry-bearing building, the project involved removing and replacing existing floors, stairs, and bearing walls. Additionally, new lintels will be incorporated for the building's openings. The goal is to enhance functionality and aesthetics, providing a modern and welcoming entrance for students, staff, and visitors.

North Fayette Township Community Center | Oakdale, PA

The Community Center for North Fayette Township, is a three-story facility that serves the area with a gymnasium, fitness center, and running track. The building also houses community classrooms, meeting, and event banquet spaces. Outdoor patio areas also provide additional gathering area for the banquet spaces.

Arnold Palmer Learning Ctr. - Bob O'Connor Golf Course | Pittsburgh, PA

The Arnold Palmer Learning Center was an approximately 15,000 sq. ft. new facility that replaced the former clubhouse at the Bob O'Connor Golf Course in Schenley Park. The three-story steel framed building houses the course clubhouse and pro-shop, as well as facilities for the First Tee Pittsburgh. The upper level includes exterior patio space and group event rooms.



PATRICK J. ALLEN

SENIOR PROJECT ENGINEER



PERSONAL SUMMARY

Allen's engineering expertise Mr. industries, having spans many providing structural solutions for hundreds of projects across the east coast. He has completed work on a wide variety of concrete structures involving conventionally reinforced, post-tensioned, prestressed, and precast concrete structural systems. He is adept at providing solutions both for new construction as well as for repairs. In addition to concrete design, Mr. Allen regularly applies his extensive knowledge for facade reviews and structural inspections. He has established himself as the up-andcoming concrete expert at AES with his affinity for concrete design, and currently serves as a member of the Board of Directors for the Pittsburgh Chapter of the International Concrete Repair Institute.

REFERENCES

Greg Heddaeus Principal/Vice-President **Carl Walker Construction** 412.490.2924

John Fratto

President & CEO **CPS** Construction 412.824.2900 jfratto@cpsconstructiongroup.com

EDUCATION

Bachelor Architectural Engineering Pennsylvania State University, 2013 Master of Architectural Engineering Pennsylvania State University, 2013



PROFESSIONAL REGISTRATIONS

Licensed Professional Engineer in: Pennsylvania

PROFESSIONAL MEMBERSHIPS

International Concrete Repair Institute (ICRI) American Institute of Steel Construction (AISC)

EXPERIENCE

Mr. Allen has been consulting on structures since 2013. He has since served on a wide variety of projects including concrete rehabilitation, new construction, adaptive reuse, unmanned aerial surveying, façade rehabilitation, and structural condition surveys and assessments. His repertoire includes medical, commercial, K-12 and higher education, multi-family residences, retail, hospitality, data centers, public use, and public and private parking facilities.

His most notable projects include the adaptive reuse of the 70,000 sq. ft. Station Square Freight House in Pittsburgh, Pennsylvania; the design, rehabilitation, and repair of nearly a dozen garages for a single client over the past three years; the design and construction of the 15,000 sq. ft. Bob O'Connor Clubhouse in Pittsburgh, Pennsylvania; and the conversion of a parking facility into two data centers at Nova Place in Pittsburgh, Pennsylvania.

His daily responsibilities include client communications, gravity and lateral analysis and design, structural modeling, detailing, creating project specifications and general notes, site visits, field surveys, attending design meetings, and construction management.

FEATURED PROJECTS

ALCOSAN Laboratory Building *Pittsburgh, PA*

The 54,000-square-foot Environmental Compliance Facility was meticulously planned, designed, and developed to support the Allegheny County Sanitary Authority's (ALCOSAN) climate resilience initiatives and to revolutionize their laboratory operations. This project involved the planning and design of three distinct facility types: a testing laboratory, office space, and a parking garage. These efforts contribute to ALCOSAN's ambitious \$2 billion Clean Water Plan.

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Arnold Palmer Learning Ctr. - Bob O'Connor Golf Course | Pittsburgh, PA

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aespj.com





AUROS Group

243 East Main Street • Carnegie, PA 15106 • 412.491.8851

Craig E. Stevenson, MBA, MS-MIS, CPHD/C, CPHC, LFA, LEED AP, WELL Faculty, WELL AP, RESET AP, Fitwel Ambassador, EcoDistricts AP, DBIA

President & Co-Founder, craig.stevenson@aurosgroup.com Author

- The Power of Existing Buildings—Save Money, Improve Health, and Reduce Environmental Impacts. Winner of 2022 Academy of Management's Organization & Natural Environment Award.
- ASTM Selected Technical Papers: "Project Case Studies and the Lessons they Teach about Whole Building Envelope Air Leakage Testing"

Qualifications

- MBA and Master of Science in Management of Information Systems, Graduate School of Business, Duquesne University, Pittsburgh, PA
- BS in Business Administration, Duquesne University, Pittsburgh, PA
 Passive House Institute (PHI), Certified Passive House
- Passive House Institute (PHI), Certified Passive House Designer/Consultant (CPHD/C)
- Passive House Institute U.S. (PHIUS), Certified Passive House Consultant (CPHC)
- International Living Future Institute, Living Future Accreditation LFA
- U.S. Green Building Council, LEED AP BD+C
- International WELL Building Institute, WELL Faculty and WELL AP
- Regenerative Ecological Social & Economic Targets, RESET AP
- Centers for Active Design, Fitwel Ambassador
- EcoDistricts Accredited Professional (AP)
- Design-Build Institute of America (DBIA), Designated Design-Build Professional

Organizations

- Passive House Network, Board Chair
- Passive House Western Pennsylvania, Co-Founding Member & Vice President
- AIA+2030 COTE Committee on the Environment, Committee Member

Craig E. Stevenson co-created AUROS360 and co-founded AUROS Group in 2017 and is currently President.

Mr. Stevenson graduated from Duquesne University with a bachelor's degree of Science in Business Administration with majors in Marketing and Management and a minor in Computer Science. He went on to earn a Master of Business Administration and Master of Science in Management of Information Systems from Duquesne University Graduate School of Business.

Mr. Stevenson's strengths are in the identification and implementation of innovative construction software, projectdelivery methods, construction estimating and project management, and building performance specifically related to energy efficiency and indoor environmental quality. Craig has experience and expertise in multiple construction delivery methods including Construction Management–Agency and At-Risk, Design/Build, General Contracting, Program Management, and Integrated Project Delivery. Craig is an expert in construction estimating for both conceptual and designed projects.

Based in Pittsburgh,

Based in Pittsburgh, Craig is certified as a Certified Passive House Designer/Consultant with PHI and PHIUS, Living Future Accreditation with International Living Future Institute, LEED AP BD+C with US Green Building Council, WELL Faculty and WELL AP with International WELL Building Institute, RESET AP with Regenerative Ecological Social & Economic Targets, Centers for Active Design Fitwel Ambassador, EcoDistricts Accredited Professional (AP), Designated Design-Build Professional[™] Accreditation and USACE Construction Quality Management for Contractors Certification.

Mr. Stevenson served on the City of Pittsburgh's p4 Performance Measures Committee and co-authored the drafting of the Energy metric for the p4 Performance Measures. Craig was an early stakeholder with the City of Pittsburgh's Benchmarking and Disclosure Policy. Craig is also Committee Member with the AIA+2030 Committee on the Environment. Craig serves on the Board of Directors for the North American Passive House Network and Passive House Western Pennsylvania organization.

Through AUROS360, Craig teaches building owners how to define performance goals during planning, make informed decisions during design and construction and then track actual performance against goals in real time once buildings are operational. AUROS360 is the first system of its kind that balances sustainability goals with first costs and long-term operating costs. Craig has successfully negotiated and guided many construction projects over the last 28 years.





AUROS Group 243 East Main Street, Carnegie, PA 15106

412.506.6777 Beth.eckenrode@aurosgroup.com

Beth A. Eckenrode, AUROS Group Co-Founder

Professional Qualifications

- Master of Business Administration (MBA), Northwestern University, Kellogg School of Management
- Bachelor of Science, Industrial Engineering (BSIE), University of Wisconsin, Madison
- Author, <u>Power of Existing Buildings (et al</u>), 2019. Winner of 2022 Academy of Management ONE award.
- Holder of two US patents in building performance, 2021
- Regenerative Ecological Social & Economic Targets, RESET Air Accredited Professional (AP)
- RESET Air Accredited Auditor
- Centers for Active Design, Fitwel Ambassador
- Certified Green Globes Professional
- One Click LCA, Carbon Life Cycle Assessment Specialist

Most Recent Previous Experience

- H.J. Heinz Company, Chief Strategy Officer, VP Foodservice & General Manager
- NOVA Chemicals, VP and General Manager \$1 billion global, styrene monomer business, \$800 million specialty polyethylene business, VP Investor Relations.

Professional & Volunteer Organizations

٠	Passive House Network (NAPHN), Strategic Advisor	present
٠	Urban Land Institute (ULI), Pittsburgh Programming Committee Chair	present
٠	Trimauxil & A3 Health Co-Founder	2016-2021
•	School Director, Chartiers Valley School Board	2020-2021
•	Beadling Soccer Club, Board Secretary	2015-2021
•	Jefferson Award for Outstanding Contribution, Community Service	2011
•	Chartiers Valley Taskforce for Academic Excellence, Founding Member	2009-2014
•	Pittsburgh Executive Women's Network, Founding Member	2009-2017
٠	Make A Wish, Greater Pennsylvania & Southern West Virginia, Board Chair	2004-2011

Biography

Beth Eckenrode co-founded AUROS Group in 2016. Beth is a collaborative leader with a track record of delivering business results in a broad range of operating roles, functions, industries, and business environments. Beth's accomplished in the fields of strategy, general management, marketing, business development and executive development. Beth's career reflects a deep commitment to finding the most impactful ways for organizations to succeed while solving important problems in our communities and enhancing the resilience of our planet.

Beth's entrepreneurial passion was the impetus for creating AUROS360, as she recognized the opportunity to use technology to provide building owners the evidence necessary to confidently invest in sustainability. AUROS360 is the first system of its kind to use patented technology to connect energy and indoor environmental goals set during design to real-time performance in operations. Island Press published the book, The Power of Existing Buildings: Save Money, Improve Health and Reduce Environmental Impacts, at the end of 2019 (authors: Eckenrode, Sroufe, Stevenson) based on the technologies and experience of the AUROS Group. Beth is also published in the e-book, *Reslience Matters: Reimagining the Future in a Tumultuous Year*, which is a compilation of noteworthy articles published during 2020 by Island Press's Urban Resilience Project.





Matt Bowers, AUROS Group

Director of Building Science

AUROS Group

243 East Main Street, Carnegie, PA 15106 412.506.6777 Matthew.Bowers@aurosgroup.com

Professional Qualifications

- BS, Mechanical Engineering Technology, Rochester Institute of Technology, Summa Cum Laude
- Naval Nuclear Propulsion Training, U.S. Navy
- Certified Passive House Designer (CPHD)
- Passive House Certifier (Passive House Institute, PHI)
- Certified Passive House Tradesperson (PHI)
- HERS Rater
- BPI Envelope Professional
- Author, Details Calculated, Thermal Bridge Catalog
- Instructor, Certified Passive House Designer & Tradesperson Training, Passive House Network (PHN)
- Building Science Lecturer, Rochester Institute of Technology, Wayne County BOCES

Most Recent Previous Experience

•	Rochester Passive House, President	2017-2023
•	Home Energy Consultant	2009-2017
•	Student, Rochester Institute of Technology	2007-2010
•	United States Navy, 2 nd Class Nuclear Machinist Mate	2001-2007

Professional & Volunteer Organizations

•	CertiPHiers Cooperative	2019- present
٠	New York Passive House	2015- present
٠	Rochester Home Buildings Association	2017- present
٠	ASHRAE	2011- present
٠	American Legion	2007- present
٠	Phi Kappa Phi Honor Society	2009- present

Biography

Throughout a distinguished career based on service, Matt Bowers uniquely and authentically integrates his engineering skills with a passion to alleviate the consequences of global warming in the built environment. Matt brings to AUROS Group over 20 years of hands-on experience modeling, simulating and optimizing building performance to reduce energy consumption to the lowest levels possible. Matt is considered an expert in Passive House design, thermal bridge modeling, air infiltration and exfiltration testing and the requirements necessary to certify to many building performance standards.

Matt served in the United States Navy for six (6) years as a Naval Nuclear Engineer, serving in Operation Enduring Freedom and Operation Iraqi Freedom. After his service Matt graduated with a Bachelor of Science degree in Mechanical Engineering Technology from Rochester Institute of Technology (RIT) with Highest Honors. Matt has a deep resume of passive design and project executions for both new and existing buildings.



EDUCATION B.A. Communications, University of Maryland 2002

CERTIFICATIONS

AVIXA Certified Technology Specialist – Design, Installation (CTS–D, CTS–I) Crestron Digital Media Engineer

(DMC-E)



PRINCIPAL PROJECT ROLE: PRINCIPAL-IN-CHARGE, TECHNOLOGY

DAVID'S ROLE

Working closely with the owner and architect, David will produce a high-level design and programming package, coordinate designs, and communicate with team members to ensure all programmatic requirements and visions are met in the design.

EXPERIENCE

City of Pittsburgh Warrington Recreation Center City of Pittsburgh East Liberty Police & Fire Station City of Pittsburgh North Side Public Safety Facility City of Pittsburgh Robert E. Williams Memorial Park Lake Hiawatha New Library Lower Hill Development Curtain Call Loysville Youth Development Center Zimmerman-Bingaman Cottage Pennsylvania National Guard Ft. Indiantown Gap Auditorium Pennsylvania National Guard Ft. Indiantown Gap Youth Challenge Facility

IDEAS AND INVOLVEMENT

- 2023 "Transforming Education With Cutting-edge Technology: Designing For Twin Metaversity Campuses," BrightTree Studios
- 2018 "IoT: Construction Modernization and a Business Revolution," IoT For All
- 2017 "Innovation Spaces: The New Design of Work," Brookings Institution, contributions on pages 13, 44-45, 49, 51 "Sports, Technology, and the New College Campus," AVTechnology









Todd A. Chamberlain

March 2024

President/Project Manager

Education:	 1985 Pennsylvania State University, ASAS, Architectural Engineering 1987 Youngstown State University, BSAS, Structural Engineering 1993 Certification in Total Quality Management for Engineering Firms 2000 Certification in Contract Review and Revisions
Affiliations:	Lawrence Hickory Municipal Authority – Board President American Society of Heating, Refrigeration and Air Conditioning Engineers Lawrence County Amateur Hockey League - President
Work History:	Todd has over 35 years of experience as a designer and project manager. His experience includes projects with clients ranging from institutional and commercial to industrial

mechanical projects including HVAC, plumbing and fire protection.

Recent Work Experience:

Penn State University – Behrend Campus – Athletic Facility

Project Manager for new 70,000 sq. ft. multi-purpose building with gymnasium, natatorium, locker/shower. Complete HVAC, plumbing and fire protection design.

projects. Responsibilities include project management, design, and administration of

University of Pittsburgh at Greensburg - Chambers Hall - Athletic Facility

Project Manager for the retrofit of HVAC/Plumbing, Fire Protection, and Electrical systems in the Cafeteria and Gymnasium building.

Seton Hill College – Administration Building

In charge of complete mechanical renovation of a 100 year old historic landmark, administration building. Addition of air conditioning and heating plant including plumbing and fire protection for 90,000 sq. ft. building.

Gannon University – Recreation Center – Pool

Project manager for the renovation of the natatorium fire protection, lighting and heating/dehumidification and pool heating for an existing division II pool facility.

Todd A. Chamberlain

Page 2

Westminster College – Campus Center

Designer and Project Manager for a complete HVAC plumbing and fire protection design of a 70,000 sq. ft. new student union center building. Also including mechanical renovation of 100 year old administration wing.

University of Pittsburgh – Thackeray Hall

Project Manager for complete replacement of HVAC/Plumbing, Fire Protection, and Electrical systems in 40,000 sq. ft. classroom / office building.

University of Pittsburgh – Victoria Hall Chiller Plant

Designer/Project Manager for a 1,500 ton chiller plant replacement including water cooled chillers and cooling towers for existing classroom/office building.

University of Pittsburgh – Salk Hall Laboratories

Designer/Project Manager for a suite of classroom laboratories, including make up air and lab hoods.

University of Pittsburgh – McCormick Hall

Project Manager for complete replacement of HVAC/Plumbing, Fire Protection, and Electrical systems. Designer of HVAC/Plumbing and Fire Protection portions. 10 story, 100 year old dormitory building.

University of Pittsburgh - Victoria Hall

Designer/Project Manager for existing classroom/laboratory/office building. Designed ventilation for computer rooms, laboratories and classrooms, main steam reducing station with hot water convertors and exhaust systems.

University of Pittsburgh – Posvar Hall Archeology Laboratories

Designer/Project Manager for a suite of classroom laboratories, including make-up air and lab hoods with dedicated exhaust

University of Pittsburgh - Posvar Hall

Project Manager for complete replacement of HVAC/Plumbing, Fire Protection, and Electrical systems in 40,000 sq. ft. Auditorium and classroom building.

Penn State University – Forker Lab

Designer/Project Manager for classroom building at Penn State Shenango. Renovations included Biology and Chemistry Labs with hoods and specialized exhaust systems.

Penn State University at Behrend – Generator Replacements

Designer/Project Manager for classroom building at Penn State Behrend. Design the replacement of emergency power systems in several buildings.

Todd A. Chamberlain

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Federal Reserve Bank of Cleveland – Pittsburgh Branch

Designed and managed a 7,000 sq. ft. conference center room project. Part of an on call professional design contract team for continuing services. This project incorporated an historic space converted to a new use with air conditioning and steam to hot water conversion for a heating plant.

Pittsburgh Public Schools – Prospect School

Project Manager of a 50,000 sq. ft. of selective upgrades to HVAC in classrooms and administration areas.

Plum High School

Designer and Project Manager of total mechanical renovations and significant additions, including 650 ton multiple chiller plant and central heating plant. Complete replacement of all air side unit ventilators and air handling equipment including natatorium, locker rooms, gymnasiums and administration areas.

Woodland Hills High School

Project Manager or a substantial mechanical renovations to existing school plus substantial additions including gymnasium, renovated steam heating system and added air conditioning to administration areas.



HVAC-Electrical-Tele/Data-Plumbing-Fire Protection

June, 2024

Rick Sabol, P.E.

Principal, Electrical Engineer

Licensure:	Registered Professional Engineer – Pennsylvania No. PE089816, West Virginia, Maryland, New Jersey, Delaware, Washington D.C., Virginia
Education:	The Pennsylvania State University, 1992 Bachelor of Science in Electrical Engineering
	Point Park College, 1999 Bachelor of Science Secondary Mathematics Education
Work History:	Rick has over 29 years of experience as a project engineer including design for commercial, government, healthcare, and educational facilities. Responsibilities include design of power distribution systems, emergency systems, lighting and controls, fire alarm, site utilities, and communications systems.

Rick had over 3 years of experience as a project manager for a large telecommunications firm. Responsible for providing lead project management in support of sales and strategic products for numerous customers. Duties included coordinating implementation activities among the branch sales team, customer, third party vendors, order entry, provisioning, CPE, test and activation centers, managed services, and several other internal groups.

Recent Work Experience:

Commercial Facilities:

Arsenal Pavilion in Arsenal Park

Project manager for the construction of a new pavilion with restrooms and new lighting in Arsenal Park. Coordinated with the utility company for a new electric service into the building. Designed the power distribution to all equipment and devices. Provided new LED lighting and controls for thee pavilion and surrounding park area.

Commercial Facilities (Cont'd):

Allegheny Court House at One Waterfront Place

Lighting and Electrical design for the fit out of the entire first floor of Waterfront Place office building for an Allegheny County court facility and office spaces. Project included new power and lighting design for approximately 20,000 square feet of space. New data and security systems were installed throughout.

J Poli, Inc. - Truck Repair Facility

Served as project manager for the construction of a new 10,000 square foot PEMB building on Streets Run Road. The building contained 4 high truck bays, office space, restrooms and locker facilities. A new 400 amp 480v service was provided to the building and a new step down transformer installed for 120v power.

Heinz North American Headquarters – Heinz 57 Center, Pittsburgh, PA

Lighting Design and Construction Administration for the relocated North American Headquarters of Heinz. Project consisted of seven floors in the historic former Gimbels Department Store building. Space types included open offices, CEO suite, training and conference center, and test kitchen.

Educational Facilities:

Armstrong School District

Lead Electrical Design Engineer for a new \$55 Million, 270,000 square-foot Junior-Senior High School building. Design responsibilities included a 5000 ampere, 480/277 volt, 3-phase system; power distribution throughout the facility; lighting design with automatic lighting controls; theatrical/stage lighting for the auditorium and band rooms; site lighting; addressable fire alarm system with voice evacuation; audio/visual design for classrooms, labs, auditorium, lunch rooms, and conference rooms; telecommunications systems including MDF rooms and IDF rooms; PA system; clock system, and sound systems.

Fox Chapel High School

Lead Electrical Design Engineer for a \$36 Million renovation project at Fox Chapel Area High School. Design responsibilities included replacing the existing 1600 ampere, 120/208 volt main switchboard with new, including new feeders to downstream branch panelboards; redesign of numerous feeders from the existing 4000 ampere, 480/277 volt switchboard; LED lighting and programmable lighting controls; theatrical/stage lighting for the auditorium; site lighting;

Educational Facilities (Cont'd):

telecommunication design including outlets and wiring; intercom and paging system; auditorium and gymnasium sound systems; replaced the existing 70 kW emergency generator with new, as well as redesign feeders from a separate 180 kW generator.

University of Pittsburgh – Thackeray Hall

Project Manager for complete replacement of HVAC/Plumbing, Fire Protection, and Electrical systems in 40,000 sq. ft. classroom / office building.

University of Pittsburgh – Pittsburgh, PA

Redesign of the existing electrical systems within the ceiling area of Victoria Hall including lighting, fire alarm, and miscellaneous systems. A new lighting layout was created for 31,000 sq. ft. with automatic lighting controls.

Pittsburgh Public Schools - Pittsburgh, PA

Created due diligence reports for twenty-eight elementary schools within the Pittsburgh Public School system. Duties included surveying both the interior and exterior of each building and reporting all deficiencies and cost estimates for needed repairs to the school board.

Cincinnati State Technical and Community College – Cincinnati, OH

Designed the power distribution for a 206,000 sq. ft. building for the Cincinnati State Technical and Community College, including technical classrooms, commercial kitchens, auditorium, common areas, computer rooms, and media rooms.

Carnegie Library – Pittsburgh, PA

Lighting and electrical design for the relocation of the Carnegie Library. Responsible for the design of the power, lighting, fire alarm, and communications systems.

Pennsylvania Culinary Institute – Pittsburgh, PA

Lighting and power design for the renovation of the Culinary Institute. Responsible for the design of the power, lighting, fire alarm, and communications systems.

Pittsburgh Public Schools, Carmalt PreK-8 – Pittsburgh, PA

Redesigned the power distribution to sixty-four unit ventilators and fan coil units. Provided updated construction documents to the contractor with coordination schedule for demolition, installation and refeeding of new units.

Educational Facilities (Cont'd):

Alderson-Broaddus College – Philippi, WV

Designed the power distribution, lighting, fire alarm, and telecommunications systems for a 41,000 sq. ft. building on campus, including multi-purpose rooms, student activities center, fitness room, dining hall, commercial kitchen, bookstore, group study room, and learning commons.

Carnegie Mellon – Software Engineering Institute – Computer Room A200 & A100 Server Rooms, 2017-2018

Lead electrical designer for renovation project at the Software Engineering Institute to provide grounding to all server racks and switches within the data center. Provided power to CRAC units, as well as power distribution throughout the data center.

Carnegie Mellon – Software Engineering Institute – Kitchen / Café HVAC Upgrades, 2017-2018

Lead electrical designer to provide power to a new HVAC unit at the Software Engineering Institute. Designed new LED lighting and controls as well as added fire alarm devices throughout the various areas.

Carnegie Mellon – Scaife Hall B20-B6A Laboratory Renovation, 2014-2015

Lead electrical designer for redistribution of power throughout the renovated lab space within Scaife Hall. Provided new LED lighting and controls. Renovation work included relocation of various laboratory equipment, hoods and exhaust systems for the new lab.

Carnegie Mellon – 5170 Margaret Morrison Renovation, 2014-2017

Lead electrical designer for power distribution, lighting, fire alarm, and telecommunications at 5170 Margaret Morrison for renovations of existing facility converted to dormitory use. Rework included replacement of existing electrical service, new panelboards and circuiting, connections to mechanical equipment, and a new fire alarm system throughout the building.



John Fehrenbach, P.E.

Mechanical Engineer

March 2024

Licensure:	Registered Professional Engineer –	Pennsylvania No. PE080836
	-	West Virginia 20260
		North Carolina 044687

- **Education:** Grove City College, BSME, 2002 Bachelor of Science in Mechanical Engineering, Concentration in Thermal Sciences
- **Work History:** John has over 20 years experience in HVAC system design and project management. He has worked for design consulting MEP firms and design/build firms with experience in HVAC design for higher-education, K-12, retail, commercial offices, laboratories, and military facilities. John has acted as lead engineer on many projects, as well as department head of the mechanical design department with a previous employer.

Recent Work Experience:

Carnegie Mellon – Software Engineering Institute – Computer Room Air Conditioning Unit Design – A200 & A100 Server Rooms, 2017-2018 Engineer of Record / lead designer for HVAC upgrade project at the Software Engineering

Institute to replace existing CRACU-1, apply balancing valves, and apply new controls.

Carnegie Mellon – Software Engineering Institute – Kitchen / Café HVAC Upgrades, 2017-2018

Engineer of Record / lead designer for HVAC upgrade project at the Software Engineering Institute to design new cooling system for the Café and Kitchen spaces. Apply new air handling unit, ductwork, piping, controls.

Carnegie Mellon – Scaife Hall B20-B6A Laboratory Renovation, 2014-2015

Engineer of Record / lead designer for HVAC upgrade project at Scaife Hall for a laboratory supporting the mechanical engineering department. Renovation work included relocation of various laboratory hoods and exhaust systems as well as rework to makeup-air systems to support new and existing exhaust requirements for the new lab.

Carnegie Mellon – 5170 Margaret Morrison Renovation, 2014-2017

Engineer of Record / lead designer for HVAC, plumbing, and fire protection at 5170 Margaret Morrison for renovations of existing facility converted to dormitory use. Rework included replacement of existing boiler system, rework to hot water system piping, rework of bathrooms, fixtures, waste & vent piping, domestic hot water and cold water piping.

University of Pittsburgh – Thomas Boulevard – Archives Building, 2017-2018

Engineer of Record / lead designer for HVAC design of new chilled water plant and boiler plant at the Archives Building. Included new condenser boilers for the hot water system and Smardt chillers for the chilled water system. Included desiccant dehumidification to maintain dry conditions for book storage / archives.

University of Pittsburgh - Robert-Shaw Hall, 2013-2014

Engineer of Record / lead designer for HVAC renovation of Robert Shaw dormitory. Included new design to implement 50/50 pumping scheme to support new four-pipe fan coil system for the building. Designed to replace existing chiller and boilers.

CSE Corporation – Headquarters Building & Manufacturing Facility, 2014

Engineer of Record, lead HVAC designer for a manufacturing facility based out of Export, PA. CSE designs & manufactures safety products used by mine workers. Facility included office space, data rooms, and manufacturing spaces requiring tight environmental tolerances for temperature and humidity.

West Greene Elementary School (2013-2014)

Engineer of Record, lead HVAC designer for new elementary school building in Greene County. Included four-pipe fan coils, modular chiller with heat recovery, condensing boilers, air-to-air heat recovery dedicated outside air unit.

Verizon – Equipment Renovations & HVAC Upgrades (2013-present)

Engineer of Record / lead designer for HVAC upgrade projects for multiple Verizon teledata equipment facilities between 2013 - present. Projects include application of new cooling equipment and integrating with existing facilities & data center infrastructure. Variety of cooling systems applied at these facilities including packaged direct expansion systems, split systems, Liebert self-contained units, chilled water systems, and heat recovery modular chiller systems.

National Wetlands Research Center, United States Geological Survey, 2011-2012

Engineer of Record, lead HVAC designer and project manager for a complete building renovation of HVAC systems for the National Wetlands Research Center based out of Lafayette, LA. Complete replacement of a 400 ton water cooled chilled water plant including chillers, cooling towers, pumps, and accessories. Complete replacement of air-side equipment including laboratory 100% makeup air units, modular AHUs for offices, VAV boxes, ductwork, piping and diffusers. System upgrades is projected to help save the facility an average of 40%-50% on energy consumption on a yearly basis.

Precision Measurement Equipment Laboratory Energy Conservation Study & Systems Application (2010-2012)

Performed Level III audits for ten (10) separate PMEL facilities in various regions of the country. Reported on all energy consumers of the facility including building envelope, lighting, HVAC, etc. Performed energy modeling for each facility and made recommendations for alternative systems designs to reduce energy costs. Implemented five substantial design concepts with an anticipated average savings of 30-35% for each building. Implemented low-temperature desiccant system with packaged heat recovery using condenser heat for desiccant regeneration. Helped reduce natural gas consumption for each building by an average of 50%.

Parkland Elementary School (2008-2009)

HVAC designer supporting new building construction for Parkland Elementary School. Design features included ground source heat pump system (approx. 200 tons cooling), hybrid cooling tower, condensing boilers for loop tempering, and indoor heat pumps for each classroom.



June, 2024

Jason J.J. Decheck, P.E., LEED AP

Director of Electrical Engineering

- Licensure: Registered Professional Engineer Pennsylvania No. PE062428, Ohio, Michigan, Maryland, Virginia, West Virginia, North Carolina, Kentucky, Tennessee, Arkansas, Georgia, Texas, Rhode Island
- **Education:** The Pennsylvania State University, 1997 Bachelor of Architectural Engineering
- **Work History:** With over 28 years of experience as a project engineer, Jason has led electrical designs for commercial, industrial, healthcare, educational and infrastructure projects. Jason's technical expertise includes design of power distribution systems, emergency systems, lighting and controls, fire alarm, site utilities, and communications systems.

His role at Claitman Engineering is a team leader for projects with numerous staff members of all engineering disciplines, and is responsible for quality control on projects, with an emphasis on design accuracy and consistency. Over his career, projects have ranged in size and complexity, including multi-million square feet projects with aggressive time schedules and complexities in the industrial and high tech manufacturing marketplace.

Recent Work Experience:

(*) Completed while at another firm.

Higher Education Facilities:

Carnegie Mellon University/Mellon Institute – CMU/PITT Neuroscience Institute, Pittsburgh, PA (*)

Design of the electrical infrastructure for a 3-Tesla MRI Scanner in the basement of Mellon institute. Project also included offices, and animal holding rooms.

Carnegie Mellon University – Tepper School of Business, Pittsburgh, PA (*) Lighting, power, telecommunications and audio-visual system integration for various classroom and auditorium upgrades. The projects included teleconferencing equipment, video presentation equipment and dimming controls integration with the audio-visual equipment.

Indiana University of Pennsylvania Stright Hall Data Center, Indiana, PA (*)

Provided electrical engineering design for a modernization of the campus data center. Project included new N+1 UPS system, redundant electrical distribution from the building generator, and upgrades to the HVAC system. Project was designed to keep the data center operational with a minimal outage.

Duquesne University Rockwell Hall Generator Replacement, Pittsburgh, PA (*)

Provided electrical engineering design of a new emergency generator system, fire pump and related infrastructure throughout the high rise building.

University of Pittsburgh - Campus Security Upgrades, Pittsburgh, Pennsylvania

Provided electrical engineering design for security head end room installations in various buildings across the campus.

University of Pittsburgh - English Department Conference Center -Cathedral of Learning, Pittsburgh, Pennsylvania

Provided electrical engineering design for a new conference center and offices on the 5th floor of the Cathedral of Learning.

The Pennsylvania State University Beaver Campus - Michael Baker Building, Beaver, Pennsylvania (*)

Renovation of the Michael Baker Building to house offices, general science classrooms, laboratory facilities for chemistry, physics, computer engineering, and an art studio. The 26,000-square-foot facility included electrical infrastructure replacements, along with new lighting, power and systems components

University of Pittsburgh Life Science Complex Annex, Pittsburgh, PA (*)

Electrical, lighting and special systems design for a four-story addition to the Life Sciences Complex. The facility included three floors of bioscience and neuroscience laboratory spaces and one vivarium floor. The electrical design included laboratory power, both normal and emergency, as well as a Vivarium Lighting Control System for automated control and monitoring of all animal holding rooms.

Miami University of Ohio School of Engineering and Applied Sciences, Oxford, OH (*)

Electrical, lighting and special systems design for a three-story engineering and classroom building, with an underground three-floor parking garage. Electrical system included power distribution from the campus 13 kV network with a new unit substation, and associated distribution. Lighting design included indirect lighting in the classrooms, and laboratories, and pre-set wireless dimming control in all classrooms.

Healthcare:

UPMC Arnold Palmer Cancer Center, Latrobe, Pennsylvania (*)

Lead Electrical Engineer for a replacement linear accelerator project at an existing cancer center. Project included modernization of the second of two linear accelerators in an existing facility.

Veteran's Affairs Medical Center, Erie - Pennsylvania Emergency Power Study / Power Quality Study, Erie, Pennsylvania (*)

Lead Electrical Engineer for a new emergency power distribution system, which included the proposed design of a new 2000kW N+1 emergency generator plant to supply emergency power to the existing hospital building. As part of the emergency power system design, an extensive survey of the existing emergency power system was required, to reconfigure to the branch distribution to comply with NFPA 99 requirements. The project included an extensive power quality study to determine the source of a persistent voltage sag issue at the main utility service. The power quality study results were used to determine a course of action to reduce the voltage sag implications on the facility. Project Budget was estimated at \$4 million.

Manufacturing/Research:

Beta Technologies – South Burlington, Vermont (*)

Provided electrical engineering design services for a new electric aircraft manufacturing facility. Project was targeting a net-zero energy usage for the building, excluding the manufacturing process. Project included multiple 15kV electrical services and main-tie-main switchgear with dry-type transformers for redundancy. Project included EV charging distribution for employee cars and airplanes at the manufacturing plant.

Form Energy – Form Factory 1 – Weirton, West Virginia (*)

Provided electrical engineering design services for a new utility battery manufacturer. Project included design and construction in less than 18 months for a 400,000 gross square foot facility. The electrical distribution system included a 25kV distribution system with ten 4000A switchboards located throughout the facility for a facility where the manufacturing process was being developed in parallel with the building design. Project included energy efficient LED high bay lighting for manufacturing, EV charging distribution for employees, and an extensive cable tray network for power and telecommunications cabling.

Sara Thompson, RLA, SITES AP

Principal sthompson@pashekmtr.com

PROFESSIONAL EXPERIENCE

Since joining the firm in 2004, Sara's work has focused on community revitalization along with sustainable design. She has worked on a wide range of scales and project types, including urban planning and design, community planning, sustainable site design, green infrastructure, school campus planning and design, streetscape design, active transportation planning and design, and park planning and design

She focuses on developing creative solutions that respond to the historical, cultural, and environmental context of each particular community or site while incorporating sound planning and design principles and sustainable site solutions.

Sara has established Pashek + MTR as a leader in sustainability. She has worked hard to bring the firm's commitment to improving the world around us into the everyday functions of the office. Under her leadership, the firm has won the Sustainable Pittsburgh Challenge two years in a row. She has served as a panelist and a speaker at several sustainability workshops.

In addition, Sara is the Secretary of the Board of Directors of Grow Pittsburgh, a non-profit whose mission is to teach people how to grow food and promote the benefits that gardens bring to our neighborhoods. She is also on the Trail Management Committee of Trail Pittsburgh.

SELECTED PROJECTS

- Mount Washington Business District Plan
- Morningside Business District Plan
- Colwell Connections
- North Gallatin Ave Elm Street Plan
- Spring Garden & East Deutschtown Growth Project
- Retooling Jeanette
- Wightman Park
- Lothrop Hall, University of Pittsburgh
- 5522 Baum Boulevard, Friendship
- Shiloh Street Gateway, Mount Washington
- David L. Lawrence Convention Center Green Roof
- Mario Lemieux Blood Cancer Center Healing Garden, UPMC Shadyside
- UPMC Shadyside Living Wall
- Borland Garden, East Liberty
- Dr. Venson Serenity Park, Beltzhover
- Murray Avenue Improvements, Post Office Square Park
- Community College of Beaver County Campus Transformation Project



EDUCATION

- 2003 Bachelor of Landscape Architecture: State University of New York College of Environmental Science and Forestry
- 2004 Master of Science in Landscape Architecture: State University of New York College of Environmental Science and Forestry

LICENSURE & CERTIFICATIONS

Registered Landscape Architect in Pennsylvania (# LA-002902) and Maryland (#3909)

Member, American Society of Landscape Architects

LEED Green Associate

AWARDS

- Honor Award, David L. Lawrence Convention Center Green Roof, ASLA PA-DE Chapter, 2014
- Silver Award in Acute Care, UPMC Mario Lemieux Center for Blood Cancers Healing Garden Terrace, ASLA and Vendome Group, in conjunction with the Center for Health Design and the Society of the Advancement of Gerontological Environments, 2013
- Notable Award, Expanding the Cultural District; an Interactive Intergenerational Cultural Arts Park, Cleveland Competition Intergenerational Interplay, 2008



<mark>SITES</mark> AP

Eric R. Brightman, RLA

Landscape Architect ebrightman@pashekmtr.com

PROFESSIONAL EXPERIENCE

Prior to moving to Pittsburgh, Eric honed his design and project management skills through his work with public and private landscapes in the New York City area. His understanding of materials, historic landscapes, playground safety, accessibility, water features, custom detailing, and construction administration for high profile public projects enriches Pashek+MTR's practice.

Eric's twenty years of landscape architecture practice include five years as a project manager for the Planning, Design, & Construction team at the Central Park Conservancy (CPC) as well as ten years with Michael Van Valkenburg Associates (MVVA). While at CPC, he played a fundamental role in the documentation and management of projects ranging from rehabilitation of historic landscapes to complex multi-million dollar renovations of iconic Central Park playgrounds, totaling nearly \$18 million in Park improvements during his tenure. His experience successfully enhancing the beauty, safety and function of these beloved public spaces is an asset to our clients.

Shortly after starting at Pashek+MTR, Eric immediately jumped right in with construction observation at Wightman Park, a 2 acre park complete with green infrastructure and loaded with play elements and site amenities. Continued contributions include leading the design and consultant coordination towards development of construction documents for Southside Park, Arsenal Park, and Enright Park, all for the City of Pittsburgh.

Eric has also been a contributing team member for the Cleveland Museum of Natural History, Rodef Shalom Congregation, Round Hill Park, and Hartwood Acres.

SELECTED PROJECTS

Parks and Recreation

- Hartwood Acres Park, Indiana Township, PA
- Round Hill Park, Elizabeth, PA
- McCahill Park, Borough of Fox Chapel, PA
- Enright Park, City of Pittsburgh, PA
- Arsenal Park, City of Pittsburgh, PA
- Wightman Park, City of Pittsburgh, PA
- South Side Park, City of Pittsburgh, PA
- Spring Hill Park, City of Pittsburgh, PA
- East 72nd Street Playground New York, NY
- East 67th Street Playground New York, NY
- Grand Army Plaza North New York, NY

Museums and Cultural Institutions

- Cleveland Museum of Natural History, Cleveland, OH
- Pittsburgh Botanic Garden, Pittsburgh, PA



EDUCATION

2003 Bachelor of Science in Landscape Architecture: The Ohio State University, Columbus, OH

LICENSURE

Registered Landscape Architect in New York (#002380) and Pennsylvania (LA003453)

CERTIFICATION

National Green Infrastructure Certification Program (NGICP) Issued June 2023



PROJECT PROFILES
BOB O'CONNOR GOLF COURSE CLUBHOUSE PITTSBURGH, PA

PROJECT TYPE

- Project Management
- Site Civil
- Geotechnical Consulting/Exploration
- Hydrologic and Hydraulic Modelling
- Stormwater Systems and Site Grading Design

CLIENT

First Tee of Pittsburgh (Tenant) The City of Pittsburgh

OWNER

The City of Pittsburgh

YEAR COMPLETED

Professional Services – 2017 through 2023

PROJECT DESCRIPTION

D'Appolonia is the Prime Consultant for a

multidisciplinary sub-consultant team for the design services related to the proposed Clubhouse located at the Bob O'Connor golf course in Schenley Park in the City of Pittsburgh. D'Appolonia has assembled a project team with technical personnel to perform the required architectural, landscape architecture, and engineering services.

Work performed includes a topographic survey of the project area, Phase I Environmental Site Assessment, geotechnical exploration and infiltration testing. Work also included project team and stakeholder workshops and meetings, community engagement which included two community meetings.

The project consists of an approximate 15,300 square foot new construction building that includes a golf learning center, clubhouse with pro shop, offices, program space, and storage for First Tee of Pittsburgh. Portions of the existing parking lot were reconfigured to accommodate the new building layout and to improve both vehicular and pedestrian circulation and meet ADA requirements. Site work included, but is not limited to parking, signage, implementation of an onsite storm water management system, grading, and evaluation of, repairs or upgrades to existing overhead and underground utilities (water, sewer, gas, telephone, electric, etc.). Green Infrastructure, permeable pavers, and stormwater storage are utilized in the parking lot to treat and convey stormwater with the goal being to reduce contributing flows to the combined sewer overflows at the outfall on the Monongahela River.



Image of existing building and site.



Aerial Image of completed project. (Photo by Nepho's Drone)



Completed Building, June 22,2021 (Photo by Nepho's Drone)

D^{*}APPOLONIA Tradition of Understanding. Quality Solutions.

HIGHLAND PARK PEDESTRIAN TUNNEL PITTSBURGH, PA

PROJECT TYPE

- Project Management
- Site Civil
- Surveying
- Geotechnical Consulting/Exploration
- Hydrologic and Hydraulic Modelling
- Roadway Design and Site Grading Design
- Construction Monitoring / Testing

CLIENT

The City of Pittsburgh DPW

OWNER

The City of Pittsburgh DPW

YEAR COMPLETED

Professional Services – 2020 through 2023

PROJECT DESCRIPTION

D'Appolonia is the Prime Consultant for a multidisciplinary sub-consultant team for the design services related to the Restoration of historic pedestrian tunnel and associated site work. Work included Reservoir Drive pedestrian improvements including protected lanes, pedestrian pathways and sidewalks, and fencing. Stormwater improvements to protect tunnel from stormwater. Maintenance and Protection of Traffic Plan (MPT) for the road closure of Reservoir Drive. Performed surveying, utility location, and CCTV of storm sewers.

Associated permitting and coordination with stakeholders including the Pittsburgh Water and Sewer Authority (PWSA), Pennsylvania Historical and Museum Commission (PHMC) and the Pittsburgh Parks Conservancy. Performed construction administration, construction monitoring, and preparation of as-built drawings. Ribbon cutting and road opening was November 15, 2023.



North Side of Tunnel [pre-construction]. (Photo by D'Appolonia)



North Side of Tunnel [post construction]. (Photo by D'Appolonia)



South Side of Tunnel [post construction], ribbon cutting Nov. 15, 2023. (Photo by D'Appolonia)

D'APPOLONIA Tradition of Understanding. Quality Solutions.

SCHENLEY HEIGHTS PAVILION AT ROBERT E. WILIAMS MEMORIAL PARK PITTSBURGH, PA

PROJECT TYPE

- Project Management
- Site Civil
- Surveying
- Erosion and Sedimentation Control Design
- Hydrologic and Hydraulic Modelling
- Playground Layout and Site Grading Design
- Renderings

CLIENT

The City of Pittsburgh DPW

OWNER

The City of Pittsburgh DPW

YEAR COMPLETED

Professional Services - 2020 through 2024

PROJECT DESCRIPTION

D'Appolonia is the site civil engineer for the design services related to a new community building and playground at the park. Part of a multi-disciplined team including Renaissance 3 Architects (Architect), Moore Design Associates (Landscape architect), GeoMechanics (Geotechnical Engineer), and Claitman Engineering Associates (MEP Engineer). Construction is planned for 2024.



Rendering of proposed site, (Rendering by D'Appolonia)



Rendering of proposed site, (Rendering by D'Appolonia)

Robert E. Williams Memorial Park [pre-construction], (Photo by D'Appolonia)





SISSON MOTORS FACILITY EXPANSION WASHINGTON COUNTY, PA

PROJECT TYPE

- Geotechnical Consulting/Exploration
- Pyritic Shale Expansion Mitigation
- Hydrologic and Hydraulic Modelling
- Stormwater System and Site Grading Design
- Construction Monitoring & Management

D'APPOLONIA FEES

\$800,000 (Engineering)

CLIENT

John Sisson Motors, Inc.

OWNER

John Sisson Motors, Inc.

YEAR COMPLETED

Professional Services – 2018

PROJECT DESCRIPTION

D'Appolonia provided geotechnical engineering, site development and stormwater system design, permitting and construction management and monitoring services for a 30,000 square-foot building addition and 3-acre parking lot addition to an existing car dealership in Washington County. The project was complicated by difficult geotechnical conditions, constrained site boundaries and prior development with uncontrolled fill and a pre-existing partial stream enclosure along with extensive local, state and federal permitting issues.

Adverse geotechnical conditions that hampered site development included the presence of as much as 20 feet of existing random fill, highly plastic residual clay soil, solutioned limestone and weak erodible claystone bedrock, sulfide bearing carbonaceous shale prone to volume expansion, groundwater seepage from thin coal seams and an adjacent soil slope prone to instability.

D'Appolonia performed a detailed exploration and testing program including test borings, field infiltration testing and extensive laboratory soil and rock testing to characterize the site conditions. Efforts to address the geotechnical concerns included development of recommendations for drilled shaft building foundations to bypass compressible soil and weak or solutioned bedrock; design of an earth embankment incorporating an aggregate toe key for stability and staged construction to minimize post-construction settlement and related surface drainage impacts; and recommendations for measures to treat pyritic to avert volume expansion and acidic groundwater seepage beneath structures.



Drilled Shaft and Grade Beam Construction for Building Foundations

D'Appolonia also designed the site grading and storm water management facilities, including a subsurface modular stormwater storage system, and a 160-foot long extension to an existing 60-inch diameter stream enclosure through the site. D'Appolonia was responsible for all related hydrologic and hydraulic analyses and preparation of the municipal grading permit, Joint PADEP/USACE Permit for the stream enclosure, NPDES Permit for the postconstruction stormwater facilities and construction erosion and sediment control plan and county ES&C permit.

As part of the stormwater control plan and stream enclosure design and permitting requirements, D'Appolonia and our subconsultants also developed plans for incorporation of rain gardens and environmental improvements to restore a degraded stream channel downstream of the project site. The restoration measures included channel realignment, establishment of a riparian corridor, bank stabilization, habitat improvements and invasive species removal.

D'Appolonia provided full-time construction monitoring and assistance with project management through completion of the site grading, stormwater control facility installation construction, building foundation and floor subgrade preparation and site paving. Our personnel were responsible for the review and approval of drilled shaft excavations, identification of pyritic shale exposures and oversight of shale surface treatment, identification of groundwater seepage problems and recommendations for interception and drainage of seeps, oversight of floor slab and pavement subgrade preparation, and review and recommending measures to address slope instability.





CITY OF PITTSBURGH EAST LIBERTY FIRE AND POLICE STATION



Project Size: 27,000 sq.ft.

The East Liberty station is a 1929 Art-Deco, three-story masonry building with a full basement, approximately 27,000 sq.ft. in size. Historically, the facility housed both Police and Fire stations. While the Fire Station still operates from the building, Police was relocated due to issues with the aging facility. The renovation will bring Fire and Police stations back under one roof and enable them to have a stronger relationship with the community they serve.

Fire Station 8 will retain its existing exterior masonry walls originally constructed in the late 1920s. Keeping the existing materiality will maintain both the character of the building and the local neighborhood. All windows, doors and horizontal penetrations will be replaced with high-performance, net-zero ready and in some instances blast-resistant units that reference the original design and modulation of the original window openings. In some instances, existing historically relevant window trim and applied finishes will be preserved as possible and reutilized as a piece of the renovation. Maintaining the character of the building is key in door and window product selection.

The renovation is the City of Pittsburgh's pilot project for the newly enacted law that requires all City buildings to meet Net Zero Energy ready capabilities through meeting Passive House standards.

PROJECT INFORMATION CLIENT City of Pittsburgh PROJECT LOCATION Pittsburgh, PA PROJECT SERVICE DATES est. completion 10/2025 CLIENT CONTACT POINT OF CONTACT Claire Mastroberardino POINT OF CONTACT TELEPHONE NUMBER (412) 255-8911



OVERALL FLOOR PLAN - LEVEL 01

CITY OF PITTSBURGH BURGWIN RECREATION CENTER RENOVATION



MEN'S RESTROOM ELEVATION - EAST

Project Size: 6,000 sq.ft.

The City of Pittsburgh has asked AE7 to provide A/E services to renovate the Burgwin Pool Building – located at 328 Mansion Street, Pittsburgh, PA 15207. The existing building is a 2-story masonry structure functioning as an assembly multipurpose first floor with a second-floor apartment converted to office use and partial basement used primarily for utility and equipment storage. All floors of the building total approximately 6,000 sq ft. The ground floor public restrooms currently service the adjacent splash park, basketball courts, and baseball fields. The goal of the renovation is to better accommodate community use that provides a venue for after school programs and other rentable activities to utilize the interior spaces.

The project focuses primarily on upgrading the main floor. The existing shower rooms will be replaced with ADA accessible restrooms accessed from the exterior and interior. The toilet fixture count will be based on the first floor and basement occupancies. A small warming kitchen will replace a former restroom and serve the multi-purpose room. A private office will replace the remaining existing restroom adjacent to the game room. The remaining spaces on the main floor will receive minor finishes, millwork, and furniture upgrades. The second-floor space is limited to office furniture specifications; the City of Pittsburgh will self-perform finish grades and repairs. The basement will receive new flooring and finishes to allow for equipment storage and fitness activities. No exterior work is anticipated.

PROJECT INFORMATION CLIENT City of Pittsburgh PROJECT LOCATION Pittsburgh, PA PROJECT SERVICE DATES est. completion 02/2026 CLIENT CONTACT POINT OF CONTACT Matthew Butter POINT OF CONTACT TELEPHONE NUMBER (412) 841-0548





BRIGHTON HEIGHTS SENIOR CENTER



CRU CO MARINO SPOI CRU CO MARINO SPOI DE COMMUNITY CENTE DOCODE COMPUNITY CENTE COMPUN Project Size: 20,000 sq.ft.

This thoughtful renovation expands an active living center from a basement space into three floors that occupy a stately historic structure. Located in Pittsburgh's Brighton Heights neighborhood, this new design optimizes window openings, raises ceilings, and expands interior rooms, making every space bright with daylight and adaptable for multiple uses. Our team worked with the center to create a plan that allows for all three of the building's stories to be fully accessible, offering new amenities and mobility throughout. Flexible community spaces host technology classes and evening dances and accommodate intergenerational activities. A craft studio, social kitchen, and multiple large exercise rooms offer new opportunities for healthy activity and hobbies.

An expanded roof allows for an indoor pickleball court, surrounded in translucent panels to flood the interior with diffuse daylight; a variety of indoor/outdoor spaces bring in fresh air and connect seniors to the neighborhood's ample green space. Every aspect of the design prioritizes accessibility for all seniors, regardless of mobility. The building is sustainably designed and Passive House-ready, ensuring that its service to the community can grow for generations to come.

PROJECT INFORMATION CLIENT City of Pittsburgh PROJECT LOCATION Pittsburgh, PA PROJECT SERVICE DATES est. completion 05/2025 CLIENT CONTACT POINT OF CONTACT Cas Pellegrini POINT OF CONTACT TELEPHONE NUMBER (412) 255-2649



CITY OF PITTSBURGH OFFICE RENOVATIONS







Project Size: 36,000 sq.ft.

The new offices for the City of Pittsburgh will unite its multiple departments under one roof. Relocating from outdated buildings and disjointed locations, the new office will enhance internal collaboration as well as improve the quality of services to the public.

A One-Stop-Shop on the ground floor will cater to the public applying for permits, licenses, and inspections. A 6,000 SF space will be technologically advanced and have a presence from every City department. A perforated backlit canopy at the center of the space will feature the map of the City and serve as a tribute to the 'hometown'. At the building entrance, a wall to ceiling double-height curtainwalls with a graphic dot pattern will create views of the Pittsburgh skyline and Pittsburgh hills, welcoming visitors on each side. Several murals from local artists will be painted on the walls throughout the ground floor.

The City will occupy 2 floors of office space and additional 2 large rooms for public meetings and hearings on the lower level. The office floors, 15,000 SF each, will house approximately 140 employees including 72 seats for inspectors, who spend most of their time in the field. The space will feature a mix of offices and private workstations, conference rooms (all sizes), receptions areas, kitchens, reference material library, and break rooms.

PROJECT INFORMATION CLIENT City of Pittsburgh PROJECT LOCATION Pittsburgh, PA PROJECT SERVICE DATES est. completion 07/2024 CLIENT CONTACT POINT OF CONTACT Felipe Palomo POINT OF CONTACT TELEPHONE NUMBER (412) 255-2668



HOUSING AUTHORITY OF THE CITY OF PITTSBURGH OFFICE RENOVATIONS



Project Size: 50,000 sq.ft.

The Housing Authority of the City of Pittsburgh (HACP), The City of Pittsburgh (City) and Pittsburgh Urban Redevelopment Authority (URA) have purchased an older, history-laden high-rise building previously owned by the Art Institute with an intent to relocate from current dated facilities and house their offices under one roof.

AE7 is designing a new modern office for HACP's staff that will help bring the organization into the 21st century. The new office will assist the staff in embracing technology, becoming more efficient, sustainable, and agile.

Working under a tight budget, our team is creating a full design for HACP's offices spanning over 3 levels as well as their public One-Stop-Shop on the ground floor. The One-Stop-Shop will be a technology-enabled space on the first floor that will welcome the public and reduce the wait and application time for those citizens in need of housing assistance.

Above the One Stop Shop, HACP's offices will occupy 3 floors, approx. 15,000 SF each, and feature a combination of private offices, collaboration space, and workstations. Other areas include reception spaces, executive offices, board room, conference and huddle rooms, as well as several break rooms.

PROJECT INFORMATION

CLIENT Housing Authority of the City of Pittsburgh

PROJECT LOCATION

Pittsburgh, PA

PROJECT SERVICE DATES Completed May 2023 CLIENT CONTACT POINT OF CONTACT Alexis Narotsky POINT OF CONTACT TELEPHONE NUMBER (412) 643-2762



OVERVIEW

Improvements to City neighborhood park

PROGRAM

Accessible pathway to park amenities, aquatic spray park replacing former public swimming pool, pavement games, play areas for ages 2-5 and 5-12, basketball court, additional lawn/green space, stormwater capture and rain gardens

SUSTAINABILITY

Green infrastructure, native plants, additional green space and trees, meadow planting

SERVICES

Master plan, phasing plan, cost estimating, renderings, construction documents and construction observation.

Arlington Park

City of Pittsburgh, PA

The City of Pittsburgh selected Pashek + MTR to re-think and redesign this park serving residents of Pittsburgh's Arlington neighborhood. The park contained dilapidated facilities, including a swimming pool and bathhouse which were closed in 2003. The focus of the first phase of park renovations replaces the swimming pool with an aquatic spray park

The spray park contains fourteen spray features in 4,900 square feet of wet play area, organized into three zones, 1) tot play zone, 2) family fun zone & 3) teen zone. The dry deck area includes umbrellas and tables for resting and viewing.









OVERVIEW

Planning and design of a historic park that respects the historical fabric while seamlessly integrating a new program and existing natural features with a focus on maintenance and sustainability

PROGRAM

Improved accessibility, playground, restroom building, picnic pavilion, spray water features, raingardens, and upgraded site furnishings

SERVICES

Master planning, community engagement, renderings, city approvals, city permitting, concept design, cost estimation, construction documents and construction administration

DATE

Playground: Completed Fall 2023 Restroom Building: Anticipated Summer 2024

CONSTRUCTION COST

Playground: \$1.8 million Restroom Building: \$1 million

REFERENCES

Andrea Ketzel - Senior Project Landscape Architect City of Pittsburgh Department of Public Works, 301 City-County Building 414 Grant Street, Pittsburgh, PA 15219 (412) 255-8852 andrea.ketzel@pittsburghpa.gov

Arsenal Park - Phase I Improvements

Lawrenceville Neighborhood - Pittsburgh, PA

Historic Arsenal Park is the largest and most central community park within the neighborhood of Lawrenceville and serves multiple neighborhoods. The park is and will be used by people of all ages and abilities, for everyday recreation, education programs, markets, and community events.

The overarching goal of the design is to respectfully integrate new facilities with restored historic structures, so park users may enjoy year-round recreational and educational use and universal access to ensure the park is a vital part of the community. The design includes:

- Accommodation for a future pedestrian connection between an adjacent school building and Arsenal Park
- Safe and accessible inviting community access at 40th Street and 39th Street
- New inclusive and imaginative playground for multiple age groups
- Picnic shelter/outdoor classroom with restroom
- Park amenities, including site furnishings, signage and lighting
- Integrated stormwater management

Through multiple engagements, using both virtual and in person platforms, Pashek+MTR was able to bring consensus to a large group including steering committees, advisory committees, and the public. We balanced the need of the community with the historical fabric for a space to be enjoyed by future generations.









OVERVIEW Improvements to City neighborhood park

PROGRAM

Accessible pathway to park amenities, aquatic spray park replacing former public swimming pool, and public art

SUSTAINABILITY

Green infrastructure, native plants, additional green space and trees

SERVICES

Master plan, phasing plan, cost estimating, renderings, construction documents and construction observation

Paulson Spray Park Pittsburgh, PA

The City of Pittsburgh selected us to re-think and redesign this park serving residents of Pittsburgh's Lincoln-Lemington neighborhood. The park contained dilapidated facilities, including a swimming pool and bathhouse which were closed in 2003. The focus of park renovations replaces the swimming pool with an aquatic spray park

The spray park contains fourteen spray features in 2,500 square feet of wet play area. The dry deck area includes umbrellas and tables for resting and viewing.

Another important City goal was to support public art at the park. Muralist Will Schlough was commissioned by the City to create a mural on the hardscape surface of the play area. Schlough's colorful underwater-themed mural and the spray features create an interactive and beautiful playspace. The project also involved restoration of Pipe Movement in Blue I which was originally designed and installed by Sister Josefa Filosky in 1980.

PASHEK 😹 MTR





OVERVIEW

Design of a two-acre neighborhood park that serves as a model for integrating recreation facilities with green stormwater infrastructure

PROGRAM

Inclusive play areas, picnic shelter, accessible walking paths, art, restrooms with adult changing table, basketball court, green stormwater infrastructure, boardwalk, multi-purpose field

SUSTAINABILITY

Off-street stormwater capture, rain gardens, underground water storage, native plantings, tree preservation, pervious paving, meadow and low mowing planting, low maintenance design, 95% of playground components are recyclable, PVC-free playground components

SERVICES

Master planning, community engagement, construction documents, bidding, construction observation, renderings

PUBLICATIONS

Swings and Swales, Landscape Architecture Magazine, December 2021

A Symbiotic Relationship, Parks and Rec Business Magazine, February 2023

AWARDS

PA/DE ASLA 2022 Merit Award PRPS 2023 Green and Sustainable Parks Award

Wightman Park Pittsburgh, PA

Wightman Park provides a model of how a master plan and design process can bring two agencies together to solve two problems; enhancing a park by providing a one-of-a-kind inclusive playground, picnic pavilion, multipurpose field, walking path, and half basketball court; and solving some of the surrounding neighborhood's stormwater issues by directing runoff from 30 acres of surrounding streets into green infrastructure facilities within the park.

The challenge was accommodating both the recreation and stormwater needs of the community within such a small footprint while also collaborating with two clients, the City of Pittsburgh Department of Public Works and the Pittsburgh Water and Sewer Authority. The result is a park where green stormwater infrastructure is truly layered and integrated within recreation, becoming part of the user's experience.

Pashek+MTR's design uses a stormwater rock cascade situated at the main entrance to carry runoff from surrounding streets into a rain garden situated in the middle of the park. Overflow from the rain garden passes into series of underground tanks beneath the ball field, basketball court, and playground for detention and infiltration.

Visitors are able to interact with green infrastructure features at every point including a boardwalk through the rain garden and pervious pathways. Interpretive signs and a viewing platform on top of the restroom encourage visitors to look at stormwater in a new way.



DESIGN / CONSTRUCTION TIMELINE:

11/30/2019 to present Construction is in progress CLIENT: Desmone Architects REFERENCE CONTACT: Angela Baehr – Project Architect Phone: 412.683.3230 Email: abaehr@desmone.com



Architectural Renderings



Claitman Engineering was hired by Desmone Architects to provide Mechanical, Plumbing, Fire Protection and Electrical engineering services for the renovations to the Buffalo Creek Nature Center located in Buffalo Township in Butler County. Their client for this project was the Audubon Society of Western Pennsylvania.

The project involved the renovations to an existing structure on the site to provide viewing as well as meeting and classroom spaces both indoor and outdoor. A new pavilion is to be constructed as a part of the renovations and a new parking lot for visitors.

The HVAC system selected for this building was a ductless split system which provided both heating and cooling and provided an energy efficient means to control the space since the facility would not be occupied for periods of time and also would not be fully occupied for many events. A new electrical service was installed to handle the increased demand for the HVAC systems and all new LED lighting and power systems installed throughout. New exterior LED lighting was installed for the parking lot as well as feature lighting for site elements. The existing building was served by an outdated and nonfunctioning well water system and as a part of the renovation a new pumping system and well was installed which meet the current water purification requirements of the state of Pennsylvania.



Design / Construction Timeline:

11/30/2001 to 11/1/2003 CLIENT:

RSH Architects

REFERENCE CONTACT:

David Noss – Project Architect Phone: 412.429.1555 Email: abaehr@desmone.com







Claitman Engineering was hired by RSH Architects to provide Mechanical, Plumbing, Fire Protection and Electrical engineering services for the erection of the Kingsley Community Center in Pittsburgh. PA. Their client for this project was the Ebony Development Company.

RSH Architects designed the facility to include an indoor 25 meter pool, full court gymnasium, a daycare center, a computer learning center, and lease spaces for various social service agencies. In 2007, the building was honored with the "Cool Space Award" as one of the best community spaces in the Pittsburgh Region..

The HVAC system selected for this building was a Rooftop Units with energy recovery which provided both heating and cooling and provided an energy efficient means to control the space since the facility would not be occupied for periods of time and also would not be fully occupied for many events. The electrical service was installed to handle the demand for the HVAC systems and all required other systems and lighting. Exterior LED lighting was installed for the parking lot as well as feature lighting for site elements.



SUBCONSULTANT PROPOSALS

ABOUT AE7

AE7 is a multi-disciplinary design firm built to be a global organization. Our practice transcends traditional borders, providing innovative approaches to evolving challenges. We succeed through structuring our practice differently through the principles we apply, the markets we reach, the cultures we intimately know, and the solutions we ultimately offer. This character informs a design approach largely unrestrained by conventional limitations. The breadth of knowledge we draw upon for services ranging from concept through construction is as diverse as our workforce, reflecting our collective transnational imagination. We operate as partners to our clients for each project, providing comprehensive services and flexible solutions that ensure development potential that exceeds expectations. Across the globe, AE7 is comprised of architects, interior designers, landscape architects, master planners, engineers (mechanical, electrical, plumbing, structural, civil), visualization specialists, and project managers who offer an unparalleled range of services.

Our culture emphasizes responsiveness, innovative solutions and collaboration. AE7 service offerings range from the inception and planning stages of the project through construction completion. We help clients bring the entire project vision to life, as well as, achieve individual milestones crucial to the success of their project.

While our global presence allows us to tap into diverse perspectives, our core values remain rooted in each local context. With our locations throughout the United States, we seamlessly blend global innovation with a local touch, creating designs that resonate deeply with the communities and surrounding areas they serve.

We take our commitment to responsible design a step further by intertwining sustainability with well-being. From LEED-certified structures to eco-conscious master plans, we ensure that our designs contribute to healthier communities and a more sustainable future.

Innovation is the heartbeat of our practice. By embracing emerging technologies, design trends, and interdisciplinary collaboration, we consistently push the boundaries of what is possible. Our collaborative approach ensures that our designs are enriched by diverse perspectives, resulting in environments that resonate deeply with their users.

OUR HISTORY & COMPANY STRUCTURE

AE7 was formed in 2009 by seven individuals specializing in Architecture, Engineering and Master Planning. Our firm leadership has over 30 years of continuous working experience together. We launched our firm in the adversity of 'The Great Recession' when most firms were shrinking in size AE7 began our growth journey across the globe to over 13 offices and 550+ design professionals strong. Our USA operations consist of 4 office locations including Atlanta, Cleveland, Jacksonville and Pittsburgh. The USA AE7 business is structured as one USA based Limited Liability Company (AE7, LLC) in the Commonwealth of Pennsylvania as this was our first office location in the USA. Note: The international AE7 offices are each structured legally within each of their own countries and there is no legal affiliation with the AE7 USA operations. These office locations include: Abu Dhabi, Amman, Bratislava, Cairo, Dubai, Düsseldorf, Kochi, Ras Al-Khaimah and Riyadh.

AE7, LLC has been established in the USA for 10 years. This entity is established in three of the original founders names; Jeffrey Wetzel, Haydar Hassan and Charles Fox.



AES ATLANTIC ENGINEERING SERVICES

Structural Engineering

AES provides structural engineering consulting services throughout US. Continuous interaction between designers and trained field observers allows for enhanced design economies, ensuring that design intent can be accurately translated and properly executed. Synergy, creativity, and timeliness are the principles that drive AES' philosophy, exemplified in more than 16,000 completed projects with gross construction value over \$17 billion. Completed projects have been as high as 30 stories with construction costs reaching \$450 million.



BRIGHTTREE STUDIOS (SDVOSB)

IT/AV, Security,

A leader of the innovative and collaborative technology movement specializing in AV, IT/telecom, security, and acoustics BrightTree Studios is constantly researching, building, and testing new technologies.

16 years of tailoring designs to clients' unique needs has allowed them to continue challenging the status quo of design. Projects like the revitalizations to the City of Pittsburgh's Warrington Recreation Center, East Liberty Police & Fire Station, Lincoln Place Fire and EMS, Robert E. Williams Memorial Park, Brighton Heights, and the brand-new North Side Public Safety Facility, as well as developing technology for the public art installation "Curtain Call" within the City of Pittsburgh's ongoing Lower Hill Development give their designers the opportunity to provide various state-of-the-art facilities for the City of Pittsburgh and its residents.

As regular collaborators with architects around the world, they know that transparency, inclusion, and ingenuity leads to tremendously built environments that inspire how people live, learn, work, and play. That's why they believe in collaboration, creativity, and challenging the status quo.

After all, innovation isn't just what they do; it's who they are.

Phase 1

PROGRAMMING & CONCEPT DESIGN (4 WEEKS)

Programming and Concept Design

AE7 will engage the City of Pittsburgh to outline the project goals, objectives, requirements, and constraints of the project, understand the design preferences and sustainability goals, and confirm timeline and schedule. We will conduct a programming session with the City representatives to understand the needs and requirements of the recreation center. We will confirm the building program, and create concept design schemes, working with the Civil Engineering team to evaluate how the building may be situated on the site. During the Concept Design Phase, we will explore three (3) design options. During the design phase, AE7 would like the client to express if they have any preference to materials, systems, products, (if known) that should be incorporated into the project.

Meetings: (4) Four meetings are allocated for this phase (in-person)

- (1) One Kick-off and Programming meeting with City of Pittsburgh and Parks representatives
- (3) Three Design review meetings with client to review options

Deliverables:

- Summary of program, goals, and objectives
- Project area summary and tabulations
- Visioning / benchmarking for architectural concept design basis
- Concept design ideas for materials and images to portray vision and design intent
- Concept Design Schemes (up to 3 options)
- Digital 100% Concept Design Presentation

Phase 2

SCHEMATIC DESIGN (8 WEEKS)

Schematic Design

AE7 will begin development and confirmation of the schematic design schemes, and will continue to explore the three design options. We will incorporate client comments from the Concept Design phase. We will continue to coordinate with the Civil Engineering team to confirm the best suited location for the building on the site. We will begin coordination with the consultant team and initiate discussions with applicable local authorities to express the design intent. Upon selection of one preferred scheme, we will prepare the schematic design submission. We will prepare a design presentation for the Pre-Application process for the Department of City Planning.

Meetings: (8) Eight meetings are allocated for this phase (virtual or in-person)

- (7) Seven Progress meetings to review the developed schematic design scheme options
- (1) One Present Final Schematic Design Option

Deliverables:

- Exterior concept design schemes with materials and 3D views of the building exterior for spatial understanding (up to 3 options)
- Schematic Design floor plans, elevations, and sections to demonstrate schematic design intent for selected option
- Exterior material palette in digital form (up to 2 options)
- Benchmarking images to portray design intent for interior design concept (up to 2 options)
- Preliminary life safety, code and building regulations
- Structural schematic design brief to define recommended systems and coordinate any needed geotechnical core boring locations with the civil engineer
- MEP schematic design brief to understand preferred systems and distribution
- Schematic Design Cost Estimate
- Digital 100% Schematic Design presentation

Phase 3

DESIGN DEVELOPMENT (4 WEEKS)

Design Development

AE7 will further develop the design from the schematic design phase upon client approval. Client comments will be incorporated. We will further coordinate with the consultant team to develop the drawings to complete the work. The consultant team will integrate any 'Value Engineering' that may need to be incorporated due to budgets during this phase. We will engage the client during regular design review meetings to obtain feedback and direction. We will work with the client on selection of furniture and fixtures, and incorporate the layouts into the drawings.

Meetings: (4) Four meetings are allocated for this phase (virtual or in-person)

- (3) Three progress meeting to review design progress
- (1) One Present Final Design Development

Deliverables:

- Design Development drawings including floor plans, RCP's, finish plans, elevations, sections, details.
- Furniture layout plans and preliminary furniture selections/specifications
- Updated exterior / interior material samples in digital material boards
- Preliminary specification outline
- Design Development structural framing plans, sections, details, and calculations
- Design Development MEP/FP floor plans, RCP's, and schedules
- Design Development Cost Estimate
- Digital 100% Design Development presentation

Phase 4

CONSTRUCTION DOCUMENTS (10 WEEKS)

Construction Documents

AE7 will finalize the design development documents and include the client's final comment into the drawing package. AE7 will further coordinate with the consultant team to complete the construction documents and collate the full set of documents for permits and public bidding purposes.

Meetings: (5) Five meetings are allocated for this phase (virtual or in-person)

(5) Five - Bi-weekly progress meetings to review and coordinate the construction documents.

Deliverables:

- Final floor plans, RCP's, finish plans, elevations, sections, details, and dimensions as needed
- Physical Material Samples
- 60% and 90% complete design package for City of Pittsburgh comments, digital copy, with comments incorporated into documents.
- Project specifications
- Final Construction Cost Estimate
- Coordinate consultant documents for PLI building permit submission
- Digital 100% Construction Document drawings for Public Bidding and Building Permit Submission

CITY BUILDING PERMIT SUBMISSION PROCESS

PHASE 5

BIDDING | CONSTRUCTION ADMINISTRATION

City Building Permit Submission Process

AE7 will prepare the architecture documents for submission to PLI (Permits, Licenses & Inspections) in order to receive a building permit. AE7 will coordinate with the MEP/FP engineers for them to submit their drawings to PLI for their associated permits as well. It should be noted that the Plumbing Sub-Contractor will be responsible for submitting the plumbing drawings to Allegheny County Health Department for their review / approval and the General Contractor will be responsible to submit the fire protection drawings to PLI once the fire protection shop drawings are prepared in the construction phase.

Bidding and Construction Administration

The following services will be provided by AE7 during the biddng and the construction phase:

Bidding Meetings: (3) Three meetings are allocated for contractor bidding

- 1 Pre-bid meeting for perspective contractors (on-site)
- 1 Meeting for bid review with the client (virtual)

Deliverables: AE7 will assist with the following items during the bidding and award process

- Reply to contractor queries within a reasonable time period
- Assist client at pre-bid meeting
- Review bids

Construction Administration Meetings: (17) Seventeen Meetings are allocated for the Construction Administration phase of the project. We estimate bi-weekly meetings based on a construction duration of 8 months for the Recreation Structure. Progress meetings may be adjusted as necessary for the construction schedule to review the work during construction.

Responsibilities:

AE7 will work with the Clients representative throughout Construction Administration phase and our services will include the following:

- Will be owner's representative during construction until final certificate for payment is issued
- Will observe if the work is being performed in accordance with the construction documents
- Will keep the owner reasonably informed about the progress and quality of the portion of the work completed
- Will review and certify the amount due to the Contractor and will issue Certificate of Payment
- Will review / approve / or take other appropriate action in reviewing contractor's submittals such as shop drawings, product data and samples
- Will prepare Change Order and Construction Change Directives and authorize minor changes in work
- Will conduct inspections to determine the date of Substantial Completion and the date of Final Completion
- Will issue certificate of Substantial Completion.
- Will receive & forward to the owner written warranties and related documents required by Contract for the contractor.
- Will review and respond to request for information about the Contract Documents.
- Will assist with reviewing the Project Close Out after the project's substantial completion on remaining items from the Contractor's punch list.

ASSUMPTIONS & ADDITIONAL SERVICES

ASSUMPTIONS

- 1. Services not specifically listed in this proposal including testing, inspections, reports, are not included in this scope of work.
- 2. Builling permit / application fees are the responsibility of the owner.
- 3. Sign-off and approval of each phase of work is required prior to AE7 and our consultants beginning the following phase of work. Owner review time and approval is in addition to the time allocation noted for each design phase in this proposal.
- 4. Civil Engineering team will prepare Demolition Drawings for the existing building on site with guidance from the A/E team.
- 5. The City of Pittsburgh will take the lead for the application process for RACP funding. AE7 will support the City by providing our project Documentation in the format required for the RACP submission.

ADDITIONAL SERVICES

Additional Services are not included in the 'Scope of Services' of this proposal, however any of them can be provided by AE7 if requested by the client.

- 1. Municipality, Zoning, Historic review meetings and/or additional meetings not already specified in this proposal
- 2. Specialty Consultants such as: Kitchen Equipment planning, signage and wayfinding
- 3. Specialty casework design / detailing
- 4. LEED, WELL Building, or other building certifications
- 5. Photo Realistic Renderings, Renderings, Animations, not indicated in the scope of services
- 6. Owner directed changes which modify the basis of design after the design / CD phase has already been approved.
- 7. Value engineering after the completion of the Design Development phase.
- 8. Branding / wayfinding & signage / graphic design services
- 9. Additional time and scope for Construction Administration beyond the allocated duration indicated.
- 10. As-built or record drawings.



June 18, 2024

Mr. Adam J. McCullough D'Appolonia Engineering Divisions of Ground Technology, Inc. 701 Rodi Road, Floor 2 Pittsburgh, PA 15235-4559

Dear Adam,

We are excited to collaborate with D'Appolonia Engineering Divisions of Ground Technology, Inc. on our sustainability consulting and building science technologies in support of the Sustainability & Energy Consultant Services and Whole-Building Performance Modeling for the Cowley Goettman Recreation Center project located at 1200 Goettman Street, Pittsburgh, PA 15212. We feel that the City of Pittsburgh's focus on energy efficiency, heath, and occupant well-being aligns closely with our firm's mission.

Per our previous discussions, our team is structured to deliver high performance buildings, including the operational benefits of Passive House from conceptual design through operations without gaps in scope or coverage. To that end, our proposal focuses on the following capabilities for achieving the building performance measures for the Cowley Goettman Recreation Center project:

- Goal Setting and Owner's Project Requirements Report
- Whole-Building Performance Modeling (Iterative)
- Performance-Based Detail and Specification Development
- Control Estimating (Iterative)
- Building Envelope & HVAC Commissioning Services

In terms of sustainability program certifications, we believe the City of Pittsburgh will not wish to pursue any sustainability certifications. As a result, we excluded the costs for us to champion certifications. But we can offer those services at any time should the City of Pittsburgh decide to pursue any certifications.

Please let us know your thoughts and/or contact us with any questions.

Best regards,

Craig Stevenson

Craig E. Stevenson MBA, MS-MIS, CPHD/C, LFA, LEED AP, WELL Faculty, WELL AP, RESET AP, Fitwel Ambassador, EcoDistricts AP

AUROS Group President 412-506-6777 craig.stevenson@aurosgroup.com

1.0 GENERAL PROJECT SUMMARY

- Client Name: City of Pittsburgh via D'Appolonia Engineering
- Location: 1200 Goettman Street, Pittsburgh, PA 15212
- Project: New Recreation Center, Approximately 4,500 gsf
- Sustainability Goals: Net Zero or Net Zero Ready

2.0 AUROS360 SCOPE OF WORK

2.1 Discovery Charrette Facilitation

- Facilitate a Discovery Charrette and an Owner Sustainability Alignment Charrette.
 - The purpose of a Discovery charrette is to set and refine owner's goals and expectations regarding the three critical success factors of a project: first costs, long term operating costs, and building performance criteria.
 - The Discovery process is an initial step to identify, convene and align developers, key stakeholders, and project team members around the project's aspirational vision, goals, guiding principles, project boundaries and any identified building certification standards (i.e. Living Building Challenge, Passive House, WELL Building, RESET, Fitwel, LEED etc.). The Discovery process establishes a strong foundation for an integrated design process for the purpose of achieving optimal economic, environmental, and social impact. Content will be kept at a high level and is not intended to review programs in great depth.

2.2 Owner's Project Requirements (OPR) Report Development

- Develop the Owner's Project Requirements (OPR) document that defines the project goals using metrics. The OPR is a "living" document that is updated and revised throughout the design development cycle and circulated frequently to the entire project team. The OPR serves to align all stakeholder to key project metrics including, but not limited to:
 - o Indoor air and environmental quality performance-based metrics.
 - Energy performance-based metrics.
 - Potable water consumption and storm water management.
 - Building material health and embodied energy/carbon.
 - Building certification standards.

2.3 PHASE 1: Whole-Building Performance Building Modeling Feasibility Early Design/Schematic Development (Iterative)

- Generate designPH geometry model, or equivalent, in Sketchup based on cad files of current plans (floor plans, elevations, & sections) and proposed assemblies provided by the architect.
- Surface areas, enclosed volume, net volume, iCFA, and shading will be calculated in accordance with PHIUS+ or PHI methodologies.
- Import building geometry and shading from Sketchup/designPH into PHPP or equivalent.
- Add proposed enclosure assemblies, building components, mechanicals, etc. based on PHI protocols into PHPP or equivalent w/ integrated dashboard & graphical outputs.
- Evaluate the design in PHPP or equivalent and assess PHI compliance. Provide recommendations to bring project into PHI compliance and optimize the building enclosure, mechanical systems, and passive design strategies.
- Provide preliminary guidance on renewable energy systems to achieve PHI Classic, Plus, or Premium classes requirements, or PHIUS+ equivalents.
- AUROS will provide the originated files for the sustainable energy models, including the IES VE cabinet files, or equivalent.

2.4 PHASE 2: Whole-Building Performance Building Modeling Design Development/Construction Documents (Iterative)

- Update and refine energy model based on updated building geometry and model design alternatives as necessary to accommodate budget constraints and changes to project goals.
- Provide up to 8 2D heat transfer calculations to assess thermal bridging as required by PHI or PHIUS+ (CAD files provided by architecture team).
- Finalize building enclosure specifications in the energy model (thermal control layers, air control layers, thermal control layers, and water control layers).
- Collaborate with MEP team to finalize HVAC/lighting/plumbing specifications and input into energy model.
- Finalize renewable energy system options.
- Provide commissioning and measurement and verification guidance, as necessary, if contracted.
- AUROS will provide the originated files for the sustainable energy models, including the IES VE cabinet files, or equivalent.

2.5 Performance-Based Detail and Specification Development

- Performance related detail and specification development begins to set standards for the owner that can be further utilized for future new construction or renovation.
- AUROS Group will assist in the preparation of the project specifications in support of highperformance building stakeholder orientation, building commissioning quality-control qualityassurance field testing and inspection, and measurement and verification systems.
 - Measurement and Verification System will include a performance-based specification intended to be delivered using Design-Assist. If the project requires full design of the Measurement and Verification System, we can bring in Newcomb & Boyd into the team to design the Operational Technology systems and converged network. AUROS Group and Newcomb & Boyd have similar experience on other projects.
- AUROS Group will perform ongoing drawing detail and constructability analysis for construction thermal-bridges, vendor sourcing, and value-engineering.
- AUROS Group will attend design and construction progress meetings as appropriate.

2.6 Control Estimating (Iterative)

- AUROS Group will prepare a comprehensive budget estimate at the completion of each of the major design development phases identified below.
 - Planning/Schematic Design
 - Design Development
 - Construction Documents
- Estimate will be based on area, volume, and unit costs as applicable. For each phase, we will attend one (1) meeting prior to the budget estimate and one (1) meeting to present the budget estimate. The budget estimate will be prepared in-house and include a bound printed format.

2.7 Building Envelope & HVAC Commissioning Services

- Our services include the support of in-house certified PHI and PHIUS Certified Passive House Designers/Consultants (CPHD/C) and PHIUS+ Raters and Verifiers.
- Services include building envelope commissioning Quality-Control Quality-Assurance specifications development for the building envelope disciplines.
- Our project support services include the following active and passive-related commissioning services:
 - o Jobsite orientation for supervisors and tradespersons for envelope commissioning
 - Visual and photographic documentation
 - $\circ \quad \text{Air barrier pre-installation conference}$
 - Air infiltration/exfiltration (blower door testing) building envelope inspection & testing
 - Proposal includes two (2) blower doors and infrared (IR) tests

- Pre-construction and Final inspection
 - Pre-construction to set a baseline for construction
 - Final testing to verify alterations did not worsen performance
- Peer review construction documents and detail analysis
- o Review Energy Calculations during Design Development/Construction Documents
- Review HVAC System Equipment & Material submittals during Construction
- Commissioning Services during CA/CM and Post Construction Phases:
 - Systems to be determined
- Any additional time (20 hour budget) to commission systems that fail, will result in an adjustment to this Commissioning Services Quote
- On-site inspections will be held one (1) time per month on-site
- Attend verification and on-site inspections for manufacturer representative pre-startup, startup and operation checklists
- Virtual attendance at progress meetings
- The building commissioning Quality-Control Quality-Assurance specifications development and related commissioning services for all disciplines beyond building envelope, including operational technology and BAS systems, are excluded from this proposal.

4.0 TERMS AND CONDITIONS

- **4.1** Reimbursables: Exact amounts, unless otherwise indicated, to be paid to the AUROS Group by D'Appolonia Engineering upon AUROS Group's presentation to D'Appolonia Engineering of invoices or receipts:
 - 1. Travel other than between the AUROS Group's office, the project site, and project team Pittsburgh offices, at current U.S. Internal Revenue Service business mileage rate.
 - 2. Other similar direct project-related expenses only as approved by the Owner prior to the expenditure.
- 4.2 Exclusions:
 - 1. Sustainability program certifications are excluded from this offer.
 - 2. Smart building management systems (sBMS) including infrastructure, hardware and software are excluded from this offer.
- **4.3** Payment Schedule and Terms:
 - 1. AUROS Group will furnish monthly invoices based on progress of completed work via email.
 - 2. Full payment for each invoice is required within thirty (30) calendar days of the invoice date.
 - 3. AUROS Group reserves the right to withhold services to accounts that are not current.
 - 4. Quote is valid until July 31, 2024.

ACCEPTED BY:

Mr. Adam J. McCullough

D'Appolonia Engineering Divisions of Ground Technology, Inc.

Date:

AUROS Group Approach to Zero

Connecting building science to data science.

Delivers advanced performance in operations without paying a premium in the cost of construction.

AUROS Group supports building owners and developers to achieve ultra-low energy, zero carbon and healthy indoor air quality using technology, in the forms of Building Science + Data Science, to de-risk their investments.



The Natural Order of Sustainability

- ✓ Digital twinning to predict performance
- ✓ Operational Carbon:
 - Efficiency first (passive and active)
 Renewables last
- ✓ Embodied Carbon:
 - Reduce net carbon emitting materials
 - Increase net carbon sequestering materials
- ✓ Site EUI over Source EUI

Data Science

Access and control over building data

- Sustainability modeling & simulations to establish the building performance potential of new and existing buildings.
- ✓ Real time database and historian
- ✓ Open-integrated operating technologies
- ✓ Integrated dashboard



Answers the question: Did I Get What I Paid For?





243 East Main Street Carnegie, PA 15106

beth.eckenrode@aurosgroup.com

www.aurosgroup.com

As Simulated Performance Actual Performance



Company Overview

"High-performance buildings are key to achieving the UN's 2030 Agenda for Sustainable Development. Most of today's buildings will still be in use in 2050, and their energy performance must be managed. As shown in this timely book, the capability to meet the challenge exists today."

--SCOTT FOSTER, Director, Sustinable Energy, United Nations Economic Commission for Europe (UNECE)



AUROS Group, based in Pittsburgh, PA, is a pioneer in the delivery of Evidence-based Performance for the built environment. We believe that prescriptive based approaches to building sustainability, while helpful, are not enough to support building owner's and project teams. Project stakeholders expect buildings to operate as planned, while effectively returning on an owner's investment. Our flagship product, AUROS360, exists to drive building operations to Zero Energy, Zero Carbon and healthy indoor environmental quality for new construction and building renovations.

Our pledge, as we challenge old paradigms and inspire project stakeholders in the commercial building industry, is to ensure all partners and collaborators are enabled to do their best work using AUROS360 tools and technologies. A holistic, data-driven approach to building performance is the key to scaling aspirational sustainability goals for buildings, communities and cities.

Company Accomplishments

- Winner of 2022 Best Book, Academy of Management's Organization & Natural Environments Division. "The Power of Existing Buildings: Save Money, Improve Health and Reduce Environmental Impacts", published 2019 by Island Press. Authors: Beth Eckenrode, Craig Stevenson and Dr. Robert Sroufe.
- Two case studies in the World Green Building Council's (World GBC) Library, showing "the world's most cutting edge examples of sustainable buildings." There are only 50 case studies from the United States currently in the World GBC library.
- AIA National lecture, May 2020, "Unleashing the Economic & Sustainability Power of Existing Buildings."
- RE: BUILD Cincinnati, Keynote Speaker, "Power of Existing Buildings"
- Sustainability Project Pursuits: Passive House (23) RESET Air (12)

Green Globes (1)

Fitwel (2)

WELL Building (3) LEED (2) Enterprise Green Communities (3) EcoVillage (1)

- Frequent presenters at REALCOMM events, the largest intelligent building industry association in the world.
- Frequent contributors to PI World, OSIsoft's global conference of data aggregators. AUROS Group is one of the only presenters representing the built environment's transparent access and control over building performance data.
- North American Passive House Network board president, strategic advisor and member of planning committee of the largest Passive House conference in the country.
- Two USPTO patents for our integrated dashboard technology that brings together a building's trended data with digital twin simulations to show if a building is performing in operations as designed.



June 24, 2024

Mr. Patrick Rakszawski Senior Architect Ae7 2840 Liberty Avenue Suite 403 Pittsburgh, PA 15222

RE: City of Pittsburgh Cowley Goettman Recreation Center

Dear Patrick,

BrightTree Studios is pleased to share this fee proposal to provide professional audiovisual, telecommunications, security and acoustics design services for a 4,300 sq ft rec center.

Project Understanding

This fee proposal includes Planning & Programming, Schematic Design, Design Development, Construction Documents including AV Systems Design and Construction Administration including AV System Punch design services.

Assumptions:

- Any changes provided to BrightTree Studios will require 5 days to be incorporated into 100% DD or 100% CD Sets before release.
- The number of virtual and in-person meetings are listed below. Any additional meetings will require an additional fee.
- The fee proposal is valid for three months to the beginning of the design and then the duration of the project as long as there are not any significant project delays.
- If the project is put on hold for longer than six months, BrightTree Studios will require a reassessment of fee based on current hourly rate updates.

Scope of Work: Audiovisual Systems

Schematic Design:

- a. Design narrative and technical documents for use in SD estimate
- b. Submit technical data to design team, to inform their design
 - i. Data may include:

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1) Power requirements, data requirements for AV, heat load, weight, rack / Space requirements, AV furniture requirements,





dvargo@brighttreestudios.com

IT Jack counts, IT Patch panel counts, Network Switch port counts

c. 8 hours of virtual project calls with design team and/or owner.

Infrastructure Design: Design Development & Construction Documents

- a. Detailed drawing package
 - i. Drawing set will include:
 - Symbols legend, notes, projection screen / flat panel schedule, floor plans, reflected ceiling plans, riser diagrams for back box / conduit design and connectivity, elevations and sections, details for specific mounting and infrastructure required from GC / EC
- b. Develop technical documents and drawing set to inform final space design
 i. Documents that will contribute to design include:
 - Site line study, space usage, clash detection, equipment plan, screen placement and sizes, viewing angle study, seating plans, ceiling height reviews, Lighting design review as it concerns AV
- c. Submit technical data to design team, to inform their design
 - i. Data may include:
 - Power requirements, data requirements for AV, heat load, weight, rack / Space requirements, AV furniture requirements, IT Jack counts, IT Patch panel counts, Network Switch port counts
- d. Recommendations for other disciplines
 - i. Data may include:
 - 1) Window treatment / shade control, equipment security, finishes, smart building interface w/ AV, lighting control interface requirements
- e. Provide specification
 - i. CSI format
 - ii. For inclusion in the master project specification
 - iii. Includes items that will be provided by GC / EC
 - 1) Projection screens, back boxes, floor boxes, conduit, equipment lifts
- f. 12 hours of virtual project calls with design team and/or owner

AV System Design & Bid Management:

- a. Provide Detailed System Design which includes:
 - i. Equipment list
 - 1) Equipment make, model and quantity
 - 2) Miscellaneous hardware allowances based on best practices
 - 3) Estimate of cable, connectors and labor
 - ii. Audio, video and control line drawings

301 Brush Creek Road Warrendale, PA 15086

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412.212.7515

- iii. Equipment installation location
- iv. Rack elevation drawings
- v. Functional description of each systems
- vi. Bidding terms and conditions
- vii. Specification for
 - 1) System performance requirements
 - 2) Warranty
 - 3) Training
 - 4) Documentation requirements

Construction Administration:

- a. Manage RFI's and functional requirements during construction
- b. Review shop drawings, and cut sheets for compliance with design
- c. Review reports and images
- d. Submit punch list
- e. Review punch list items
- f. Review as-built drawings
- g. 4 hours of virtual project calls with design team and/or owner.
- h. One trip included for onsite coordination meeting
 - i. Each trip is one project consultant onsite for four hours for CA review
 - ii. Trips will be combined with Telecom & Security for efficiency when applicable

AV System Administration and Final Punch:

- a. Manage RFI's and functional requirements as integrator builds system
- b. Review shop drawings, control panel GUI design, DSP program
- c. Walkthrough facility during system build to check for accuracy from AV integrator
- d. Submit punch list
- e. One trip included
 - i. Each trip is one project consultant onsite for four hours for AV systems punch
 - ii. Trips will be combined with Telecom & Security for efficiency when applicable

Scope of Work: Telecom

Schematic Design:

- a. Design narrative and technical documents for use in SD estimate
- b. Submit technical data to design team, to inform their design
 i. Data may include:





- Power requirements, cable tray type and estimated linear feet, MDF/IDF requirements, suggested # of Telecom Closets and sizes, fiber backbone requirements
- c. 8 hours of virtual project calls with design team and/or owner

Infrastructure Design:

- a. Detailed drawing package
 - i. Drawing set will include:
 - Symbols legend, notes, building riser diagrams, outlet locations, cable tray layout elevations and sections, details for specific mounting and infrastructure required from GC / EC, equipment rack elevations
- b. Provide drawings and recommendations regarding the Main Building Distribution Frame and Intermediate Distribution Frame.
 - i. Including;
 - 1) room quantities, size based on building size, layout, and anticipated levels of connectivity
 - 2) Lighting requirements, electrical requirements, HVAC requirements, security
- c. Coordinate copper, fiber and wireless backbone design
- d. Provide specification
 - i. CSI format
 - ii. For inclusion in the master project specification
 - iii. Includes grounding and bonding, identification methods, racks and cable management, backbone cabling, horizontal cabling, outlets, installation methods, testing and certification
- e. Submit coordination set
- f. Respond and manage RFI process during bidding period
- g. Provide bid review and final recommendations
- h. 12 hours of virtual project calls with design team and/or owner

Construction Administration:

- a. Walk-through facility during construction to check for accuracy from GC / EC and relay reports to owner and architect
- b. Manage RFI's and functional requirements during construction
- c. Review shop drawings, and cut sheets for compliance with design
- d. Submit punch list
- e. One trip included for onsite coordination meeting
 - i. Each trip is one project consultant onsite for four hours for CA review
 - ii. Trips will be combined with Audiovisual & Security for efficiency when applicable

Scope of Work: Video Surveillance / Access Control

Schematic Design:

- a. Design narrative and technical documents for use in SD estimate
- b. Submit technical data to design team, to inform their design
 - i. Data may include:
 - 1) Access Control Strategy, Access Control infrastructure requirements, video surveillance strategy, Camera and headend system description, Power requirements, structured cabling strategy
- c. 8 hours of virtual project calls with design team and/or owner

Infrastructure Design:

- a. Detailed drawing package
 - i. Drawing set will include:
 - Symbols legend, notes, building riser diagrams, camera types, camera locations, recording system recommendations, panel locations, electrical requirements, access door types, hardware details, network and electrical requirements to support security
- b. Provide specification
 - i. CSI format
 - ii. For inclusion in the master project specification
- c. Submit coordination set
- d. Review coordination set with owner & design team
- e. On-site meeting for pre-bid walkthrough
- f. Respond and manage RFI process during bidding period
- g. Provide bid review and final recommendations
- h. 12 hours of virtual project calls with design team and/or owner

Construction Administration:

- a. Walk-through facility during construction to check for accuracy from GC / EC and relay reports to owner and architect
- b. Manage RFI's and functional requirements during construction
- c. Review shop drawings, and cut sheets for compliance with design
- d. Rely on Electrical consultant to perform inspection
- e. Submit punch list
- f. One trip included for onsite coordination meeting
 - i. Each trip is one project consultant onsite for four hours for CA review



ii. Trips will be combined with Telecom & Audiovisual for efficiency when applicable

Scope of Work: Acoustics/Noise and Vibration Control

Schematic Design:

- a. Coordination meeting with the owner and architect to set the path for acoustic design
- b. Clarify and define acoustics, noise control, and vibration criteria for spaces throughout the facility to ensure design will meet code requirements, owner requirements, LEED requirements, design principles, and industry standards. Criteria based on room use and type to potentially include:
 - i. Room acoustics and reverberation time
 - ii. Sound isolation (STC and IIC)
 - iii. Confidentiality and speech privacy
 - iv. HVAC and building systems noise criteria (NC)
- c. Provide an acoustics concept narrative for assembly space, meeting rooms, lobby areas, restrooms, and mechanical equipment rooms:
 - i. Noise and vibration guidelines for interior MEP system noise and vibration control
 - ii. Sound isolation recommendations for wall partitions, floor-ceiling assemblies, and interior windows and doors. Conceptual recommendation for sound masking system sound levels.
 - iii. Acoustical finish recommendations for all spaces with noise reduction coefficients (NRC) of various acoustically absorptive products
- d. Provide drawing details and architectural markups as needed
- e. Zero onsite meetings included

Infrastructure Design: Design Development & Construction Documents

- a. Review and comment on design team drawings and specifications
 - i. Review wall types, floor-ceiling assembly construction and identify estimated STC, and IIC ratings. Recommend changes as necessary
 - ii. Review interior finish treatments and provide recommendations for reverberant noise build up
 - iii. Review architectural drawings and specifications including wall, floor, ceiling, door, window, and finish details
 - iv. Review MEP design drawings and equipment sound power levels to predict background noise levels and recommend mitigation as necessary.
- b. Develop detailed acoustics package and technical documents to include:

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- i. Narrative descriptions, conceptual sketches and details, analysis and calculations, detailed recommendations for room acoustics, sound isolation, and MEP noise and vibration control.
- ii. Acoustics and noise control recommendations and comments to be incorporated into the construction drawings and specifications by others (i.e., architect, interior designer, structural engineer, MEP engineer).
- c. Zero onsite meetings included

Construction Administration:

- a. Manage RFI's and functional requirements during construction
- b. Review shop drawings, and cut sheets for compliance with design
- c. Review as-built drawings
- d. Zero onsite meetings included

Limitations: Our Acoustics scope does <u>not</u> include exterior environmental noise review or consulting. Review of the exterior noise sources (i.e. pickleball, rooftop mechanical equipment) and predicted sound levels to adjacent residential properties can be provided as an additional service upon request.

David Vargo CTS-D, CTS-I Principal

& MNango





Acceptance Ae7	BrightTree Studios
Signature:	
Name:	David Vargo
Title:	Principal
Date:	6/24/2024





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dvargo@brighttreestudios.com



HVAC-Electrical-Tele/Data-Plumbing-Fire Protection

June 27, 2024

D'Appolonia Engineering 701 Rodi Road, Floor 2 Pittsburgh, PA 15235-4559

Attention: Adam McCullough, P.E.

Subject: Proposal for MEP & FP Design Services For the Cowley-Gottman Rec Center

Dear Mr. McCullough,

We offer this proposal for HVAC, Plumbing, Electrical and Fire Protection design services for Site Improvements and new Community Building at the Cowley-Gottman Rec Center, located in Pittsburgh, Pa.

This proposal is based on the description the Request For Proposal dated May 24th,2024 and subsequent emails.

Scope of Work will include design for the new Park Building; new spray park building to house spray park mechanical equipment and new pavilion.

Our scope of services shall include:

- Field investigation visits as required.
- Mechanical/Electrical/Plumbing/FP Construction drawings.
- Specifications.
- Mechanical and Electrical Comcheck.
- Review of all contractor submittals.
- Two site visits during construction
- Site visit for the purpose of a final punch lists.

Design Scope:

- The Mechanical scope includes the following:
 - Design of HVAC systems for the new park community building.
 - Design of pavilion and/or amphitheater mechanical needs.
 - Design of spray park equipment.
- The Electrical scope includes the following:
 - Design of new incoming electrical service. Coordinate requirements with the utility company.
 - Design of electrical system and power for the new building and spray park equipment.
 - Design of lighting and controls in various areas.
 - Design of fire alarm devices and coordinate with the fire protection system

Continued on the next page.

Proposal for MEP & FP Design Services For the Cowley-Gottman Rec Center June 27th, 2024 Page 2

Design Scope: (Continued)

- The Plumbing scope includes the following:
 - Design of plumbing for drinking fountain.
 - Design of plumbing systems to support the new community building.
 - Design of new plumbing fixtures for toilet rooms.
 - Re-use existing site utilities (San, Storm & Water).
- The Fire Protection scope includes the following:
 - Design of the Fire Service Entrance
 - Layout of required sprinkler heads per NFPA 13.

Electronic background drawings shall be provided by the Architect.

Exclusions:

- Identification and specification for removal of hazardous materials.
- Limit of scope is within 5' outside of building footprint.
- Securing of building permits and/or drawing approvals.
- Site drainage and storm retention design.
- Redesign due to value engineering after construction documents have been issued.
- Claitman Engineering designs to the latest Energy Efficiency Standards that are presently accepted as standard good practice. Consideration to energy usage and sustainability is part of the design process used by our firm. Electrical and Mechanical systems will be designed to the most efficient standards as practical for this project.
- If a LEED certification is desired, this can be accomplished for an additional fee.
- Fire Sprinkler design can be added for an additional fee.
- A stand-by/emergency generator is excluded but may be added for an additional fee.
- As-built drawings may be provided for an extra fee.

Continued on the next page.

Proposal for MEP & FP Design Services For the Cowley-Gottman Rec Center June 27th, 2024 Page 3

Should the project, or our participation in it, be terminated prior to its completion, then the fee due shall be based upon the billing milestones accomplished in the above schedule, plus hourly compensation for partially completed milestones.

Claitman Engineering is insured with Professional Liability Insurance and General Liability Insurance.

Requested visits to the job site to observe construction or attend job meetings, other than the ones described in our Scope of Services, shall be invoiced at our hourly rates.

If the above is acceptable, please sign and date in the space provided and return a signed, original copy to our office.

Claitman Engineering is insured with Professional Liability Insurance and General Liability Insurance.

Sincerely,

CLAITMAN ENGINEERING ASSOCIATES, INC.

Ron Wuenstel Executive Vice President

Accepted by:

Authorized Representative (date)

Printed Name and Title

PASHEK 🔀 MTR

June 24, 2024

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Via email: ajmccullough@dappolonia.com

RE: Cowley Goetmann Recreation Centre Site Improvements

Adam,

Thank you for inviting us to be a part of your team to provide landscape architecture services for the Cowley Goetmann Recreation Center Site Improvements. As requested we are submitting the following scope and fee to complete the work requested. Our scope and fee is based on completing similar work on other projects for the City of Pittsburgh Department of Public Works. We will develop the following drawings and documents related to site improvements:

- Conceptual Site Renderings
- Site Removals Plan
- Site Plan
- Site Layout Plan
- Grading Plan (grading of rain garden and drainage features by others)
- Planting Plan
- Construction Details (for site/landscape related features)
- Technical Specifications (for site/landscape related features)

${\sf Task}\, {\bf 1-Programming}$

- a. Conduct site visit to evaluate existing conditions
- b. Kick-off meeting with DPW Project Manager and Stakeholders to confirm project goals
- c. Complete site analysis of opportunities and constraints of the site.
- d. Attend up to 3 meetings during this task.

Task 2 – Conceptual and Schematic Design (30% Construction Documents)

a. Preparation of a minimum of three (3) conceptual plan options for the redevelopment of the park space based on the findings from Task 1 and the previous concept developed by the City.

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- b. Community Meeting #1: Provide materials and Concept Plans to the CITY for presentation to the public. Collect notes and detailed feedback amenity preferences, programming and needs for building.
- c. Consolidate findings from Community Meeting #1 into a Final Concept and update renderings to reflect changes.
- d. Community Meeting #2: Provide materials for Final Concept and refined design materials to CITY for presentation to the public.
- e. Complete Schematic Design (30% Construction Drawings).
- f. Prepare cost estimate based on Schematic Design (30% Construction Documents).
- g. Attend up to 4 meetings during this task.

Task 3 – Design Development

- a. Continue coordination meeting(s) with DPW Project Manager.
- b. Coordination with outside vendors for the needs and installation of specialized equipment as dictated by the program.
- c. Prepare Design Development (60%) and outline of Specifications.
- d. Review submissions must be made to the DPW Project Manager as needed.
- e. Update cost estimate for Design Development (60%) submission to DPW.
- f. Attend up to 5 meetings during this task.

Task 4 – Construction Documents & Specifications

- a. Continue coordination meeting(s) with DPW Project Manager.
- b. Prepare 90%, 100% Construction Documents, Specifications and Bid Documents.
- c. Review submissions must be made to the DPW Project Manager as needed.
- d. Update cost estimate for 90% and 100% Construction Documents submissions to DPW.
- e. Attend up to 5 meetings during this task.

Task 5 - Construction Administration

- a. Attend pre-bid meeting.
- b. Respond to questions during bidding.
- c. Prepare addenda, as necessary.
- d. Attend pre-construction meeting.
- e. Attend bi-weekly construction meetings up to 12 meetings.

- f. Respond to Requests for Information during construction.
- g. Review work designed by Pashek+ MTR for conformity to the contract documents.
- h. Prepare punch list for substantial completion on work designed by Pashek + MTR.

Work By Others

Our proposal assumes the following tasks will be completed by D'Appolonia Engineering or others retained on the project team.

- a. Boundary and topographic survey.
- b. Geotechnical testing.
- c. Stormwater infiltration testing.
- d. Erosion and Sedimentation Control.
- e. Post Construction Stormwater Management design, calculations, and submissions.
- f. NPDES Application and permit documentation, submission, recording, and permit closeout.
- g. Hydrant flow test.
- h. CCTV of existing sewer lines.
- i. Sewer flow monitoring.
- j. Permit fees.
- k. Retaining wall design and details.
- I. Environmental site and building assessment and remediation plan.
- m. Design of utilities, utility service coordination, design, tap-in plans, and jurisdictional agency submittals.
- n. City review and approval submissions, including One Stop, Planning, Zoning, DOMI, Public Art and Civic Design Commission, Registered Community Organization meetings, etc.
- o. Project Manual Front end documents.
- p. Record documents.

Assumptions in Preparing Our Proposal

- a. Sufficient water pressure and flow to the spray features will be available from PWSA water lines supplying the site and a booster pump will not be required.
- b. Redesign due to value engineering after construction documents have been issued.
- c. Traffic planning, analysis and modeling are not required.
- d. Hydraulic and hydrologic studies and permitting are not required.
- e. Archaeological investigations are not required.
- f. Wetland mapping or delineation is not required.