

Scope of Work for Architectural Services 4318 Gallatin Street: the Arcade

Introduction and Overview

The City of Hyattsville requests Farrell McGlynn to provide a cost estimate and project proposal for the all professional Architectural / Engineering (A/E) services necessary to prepare:

- three (3) schematic design options for the proposed program for 4318 Gallatin Street, the Arcade, as outlined elsewhere attached to this scope of work; one of the three schematic design options will examine a reversal of the previously planned location of the stage area from the eastern end of the assembly area to the western end;
- Written review-to-date and development of Basis of Design documentation for inclusion in the construct document package;
- A formal feasibility assessment to determine the viability of LEED certification for the Arcade build-out, as an option;
- A water infiltration abatement plan to be devised for the lower level;
- Design development drawings (50%) for the selected schematic design;
- A construction cost estimate based upon the design development drawings (said estimate to be updated midway during the design for the progress on board meeting);
- An updated code analysis-based upon the revised proposed use or use options and selected schematic design: and the Architect's further space planning to determine any and all fire protection requirements, exiting requirements, and additional load requirements for the building;
- 95% construction documents ready for final review by City of Hyattsville and its agents and the necessary communications and documentation to complete desired and required revisions
- Dimensioned, final 100% construction documents, construction schedules, and specifications necessary for the completed build-out of the Arcade at 4318 Gallatin Street;
- A construction cost estimate based upon the final construction documents, construction schedules, specifications necessary for the completed build-out of the Arcade at 4318 Gallatin Street;
- Upon completed build-out, updated construction drawings reflecting field changes and change orders to serve as the future facility As-Built drawings and supporting CADD files in a mutually agreed upon format to fit the City of Hyattsville's access needs

The completeness of the plans and specifications will support and enable:

- A Progress on Board meeting at the Architect's office midway between completed design development and completion of the construction documents with the City's Construction Manager and other City representatives, with presentation of a mid-design revision of the construction cost estimate

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- Periodic informed decision-making by the City of Hyattsville and its agents regarding overall project budget to shape the degree of build-out, material quality and component selection based upon the provided cost estimates
- The development (by others) of Bid Documents to be issued for the completed construction of the Arcade consistent with the approved usage program for the facility
- Storm water and construction permit review and approval by Prince George's County DER and DPW&T
- Accurate zoning compliance and use & occupancy review by Maryland National Capital Park & Planning Commission, upon submission of the construction documents
- If feasible, LEED certification of the project by an independent Commissioning Agent (CxA), and if not feasible, the participation of a Commissioning Agent throughout the design, construction, and start-up of the Arcade's operations

General requirements

The A/E shall be responsible for the professional quality, technical accuracy, and the coordination of the engineering and design work; construction documents shall be signed and "sealed" by the responsible registered professional architect(s) and engineer(s)

The A/E shall coordinate with the appropriate public utility companies and commissions to prepare connection designs according to the applicable guidelines. Submissions shall be prepared (and revised and resubmitted, if necessary) for securing approvals, class of service, permits, and service hook-ups

The work shall comply with all applicable City of Hyattsville, Prince George's County, State of Maryland, federal codes and regulations; and applicable utility provider, construction industry and ASHRAE standards, requirements, and guidelines.

The work shall conform with the *"to be established"* project budget and scope, once finalized, throughout planning, design, and construction.

The A/E shall make site visits, attend meetings, produce meeting minutes, make presentations, utilize the services of consultants, and submit required deliverables as necessary to execute specific parts of the work described herein and in the Contract and the Scope of Work for the project. The A/E will be available to perform optional construction phase services at the agreed upon rate, if so requested by the City of Hyattsville.

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The design team will provide for a Progress on Board meeting at the Architect's office midway between completed design development and completion of the construction documents with the City's Construction Manager and other City representatives

Specific Project Issues

The following design options for the "*performance space*" should be prepared for estimate as part of this design package:

Performance Stage

- Use of fixed performance stage as the means of providing a platform for performances
- Use of breakdown performance staging to provide for a range of performance options and incorporating the necessary storage for sufficient staging materials (the three (3) schematic design alternatives can be cued off of these basic alternative set ups)

Acoustics

- Acoustical engineering and implementation costs to plan for three ranked degrees of attaining optimized sound conditions for musical and stage performances on the assembly level while minimizing vibration transfer and sound transmission from mechanical systems and other parts of the facility

Cable TV Studio

- Comprehensive cable/video broadcast design and integration services

Sound, Lighting Systems

- Theater design consulting to provide guidance for provisioning the sound and lighting systems and their control mechanisms for the Arcade's performance functions

Addressing Owner's Goals and Directives

The City of Hyattsville's Owner's Program Requirements (OPR) document provides for a systematic approach to articulating the project goals for the Arcade's restoration and rehabilitation. It describes an approach to developing a high efficiency/low energy building solution for the future facility. Building programming information is assembled and described, but specific design issues relating to the previous design development phase are also to be addressed within this scope of work by reference to specific design elements the City of Hyattsville wishes addressed in all three (3) schematic approaches.

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- The architect should address the City's desire to load all the proposed assembly level lobby-accessed functions depicted in the design development drawings dated 5.16.08, such as the janitor's closet and trash room to the west side of the building at this level; distribute storage closet 113's storage capacity to elsewhere in the building; and shift the north side entry and new stair tower (stair 2) to enable a wider lobby space than currently depicted.
- Increase the lower level women's bathroom seating capacity
- Determine the need for communication demarks
- Design a solution to address the owner's concern regarding thermal bridging at all extant through wall steel lintels
- Code requirements allowing, eliminate the need for a rear areaway; stand alone door and stairwell; and retaining wall re-construction. Resolve the north side's lower level natural light access and extant window conditions through an alternate window well design solution

Initial Information

This Agreement is based on the following information and assumptions.

- A. For project continuity, Owner's Agent and liaison with the Architect for purposes of the project's administration is to be the Hyattsville Community Development Corporation
- B. A commissioning agent will be working on behalf of the City of Hyattsville in conjunction with the architect's design team.
- C. The City's adopted Sustainability Policy will provide guidance and inform the design team's basis of design
- D. A mechanism for timely municipal decision-making will be established as part of the contract agreement

Project Parameters

The objective of this project is ... reference the City's OPR

The physical parameters for the project are ... the existing site conditions of the Arcade at 4318 Gallatin Street

The Owner's program is ... reference the City's OPR

The financial parameters are as follows ...

Amount of the Owner's overall budget for the Project, including the Architect's compensation, is: TBD

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Amount of the Owner's overall budget for the Project, excluding the Architect's compensation, is: TBD

The time parameters of the project are ... specifics TBD, a facility opening date in early 2013 is desirable

The proposed procurement and project delivery method is ... negotiated procurement for continuing architectural services. The project will be conducted as a design/bid/build project with a design team working with an at-agency construction manager driving the project, a general contractor delivering construction, and an independent commissioning agent providing systems design verification / validation, and documentation; installation verification / validation and review; and systems operations benchmarking and training.

Other project parameters are ... construction of the Arcade is predicated on the future availability and budgeting of municipal and grant derived funds

Basis of Design

Provide written review to date and development of basis of design documentation as part of the construction document package

Schematic Design Documents

The Architect shall prepare schematic design documents to illustrate the general scope of the design alternative and the relationship between project components. Drawings shall be schematic in character, based on the programmatic and conceptual requirements developed in the OPR and as directed by the Construction Manager. The documents shall include outline specifications for the main systems. The Schematic Design submission shall consist of drawings and sketches, a narrative report that addresses major site and building systems, gross and net area calculations.

Construction Documents

The Architect shall provide remaining Construction Documents based on the selected Schematic Drawing, approved Design Development Documents, revised programming, and updated budget for the Cost of the Work. The Construction Documents shall set forth in detail the requirements for construction of the Project. The Construction Documents shall include Drawings and Specifications that establish in detail the quality levels of materials and systems required for the Project

Estimating

When the project requirements have been sufficiently identified, the Architect shall prepare an updated estimate of the Cost of the Work. This estimate may be based on current area, volume or similar conceptual estimating techniques. As the design process progresses to the midway

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point the Architect shall update and refine the preliminary estimate of the Cost of the Work for the progress on board meeting. As the design process progresses through to the end of the preparation of the Construction Documents, The Architect shall advise the Owner of any adjustments to previous estimates of the Cost of the Work indicated by changes in Project requirements or general market conditions. If at any time the Architect's estimate of the Cost of the Work exceeds the Owner's budget, the Architect shall make appropriate recommendations to the Owner to adjust the Project's size, quality or budget, and the Owner shall cooperate with the Architect in making such judgments

Furniture, Furnishings, and Equipment (FF&E)

The Architect shall provide design of various furniture, furnishings, and special equipment items, which may include but is not limited to:

- Preparation of plans and specifications, "color" boards indicating finish materials, fabrics and colors, cost estimates, collection of vendors;
- Design of custom, or special furniture, furnishings, and equipment for lobby, conference, retail, gallery, and other areas; selection of furniture finishes, colors, and fabrics. Examples include, but are not limited to: information desks, performance space seating;
- Selection of furniture systems, furniture items, and other products;
- Selection of specialized equipment for the cable television facility, performance space, storage, and audio-visual needs
- Design of project signage, interior and/or exterior, for room identification, building identification and directory, directional signage, special plaques, accessible signage, and others

Requests for Information

The Architect shall review properly prepared, timely requests by the Contractor for additional information about the Contract Documents. A properly prepared request for additional information about the Contract Documents shall be in a form prepared or approved by the Architect and shall include a detailed written statement that indicates the specific Drawings or Specifications in need of clarification and the nature of the clarification requested

Supplemental Drawings

If deemed appropriate by the Architect, the Architect shall on the Owner's behalf prepare, Reproduce, and distribute supplemental Drawings and Specifications in response to requests for information by the Contractor

Site Visits and Assessment

The Architect, as a representative of the Owner, shall visit the site at intervals appropriate to the stage of the Contractor's operations, or as otherwise agreed by the Owner and the Architect to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner

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against defects and deficiencies in the Work, and (3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Construction Documents

The Arcade: 4318 Gallatin Street, City of Hyattsville

Owner's Project Requirements (OPR)

Overview

This document is designed to systematically and clearly communicate the expectations of the City of Hyattsville to our design team, contractors, and our commissioning agent, (regardless of whether LEED certification is feasible for this project or not), to help them understand what they are tasked with achieving with the development of 4318 Gallatin Street, the Arcade. Additionally, the OPR provides a mechanism by which designers can respond to, and describe how they are meeting the City's requirements (The Basis of Design), or refining them. The document includes initial requirements and as the design progresses and refines, additional information will be added to the OPR as needed until the establishment of the project's price ceiling, and beyond if necessary. Hyattsville CDC will maintain the OPR for the owner in coordination with the commissioning agent and modify and disseminate it as directed by the City.

Owner's Project and Performance Requirements: General Objectives and Functional Requirements

Objectives

City of Hyattsville's objective is to provide a quality community-serving building that:

- 1) Activates the street front
- 2) Houses dedicated public meeting and staff training spaces;
- 3) Combines a flexible-use public assembly area with performance hosting capacity (both to be supported by, presentation, recording and control mechanisms);
- 4) Enables cable television and internet livestreaming:

The City wishes to achieve these objectives by applying sustainable development principles in a practical, well planned and cost effective manner that will meet:

- The City of Hyattsville's need to fulfill its overall mission
- The Arcade's operational and maintenance needs, featuring an easily maintainable and secure facility that has low utility and maintenance costs
- Excellent indoor environmental quality requirements that facilitate all users' and occupants' productivity by providing a comfortable environment

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while avoiding design attributes connected to poor HVAC system performance, poor space utilization, poor acoustical qualities, inconsistent interior architectural style, and low durability of finishes.

- The City of Hyattsville's desire to minimize environmental impacts; comply with its adopted Sustainability Policy; and to establish the feasibility including estimated cost of achieving a LEED Certification for the building; as the development of the project goes forward from this date.

The City of Hyattsville wants a building that will truly be sustainable with features including water efficient plumbing and rain gardens, energy efficient HVAC and lighting systems, the addition of a green or reflective roof envelope as becomes feasible, as well as the ability to harness on-site energy production and move towards becoming a "net zero building".

The project involves the further renovation of a 13,000 square foot, 2-story composite commercial building currently owned, and partially rehabbed to stable shell status, but not occupied or in use yet by the City of Hyattsville. The project, only partially programmed to date, has been previously estimated, dependent upon fit out, to cost between \$ 1.5 – 2.5 million to complete. The remaining design work is anticipated to take six months; final construction permitting is anticipated to be an additional four – six months, concurrent with bid development and the RFP process; the renovation portion will take approximately 9 – 12 months to complete, with a projected move-in date anticipated for two months subsequent to completion, approximately late summer 2013, if design services are secured around July 1, 2011. The project will be conducted as a design/bid/build project with an A/E design team, City Project Manager (PM), AV TV Consultant selected by the City, an at-agency construction manager (CM), a general contractor, and an independent commissioning agent providing systems design review and documentation at design phase, construction phase, and operation phase;

The facility will feature many different resources that expand the City's event hosting, destination-making, and functional capacity. On the ground floor at the Gallatin Street entrance the building will feature at-grade, accessible, storefront tenancy space intended to serve as a non-profit organization's offices (ATHA Inc.) and from which ATHA Inc. will operate a regional Heritage Tourism Visitor's

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Center that also houses Hyattsville historical interpretive displays (all to be developed independently of the construction of this facility).

Further into the interior, the ground floor will feature community meeting space and a dedicated staff training/mini-conference facility designed with built-in presentation and projection capacity. The municipal and public meeting functions on this level will be served by a small support room where the preparatory, clerical and print media needs of the programmed activities can be met. Storage space for stage materials, chairs and tables for the upper level's performance and assembly functions will also be provided for on this level. It is anticipated that the dedicated staff training space and the community meeting space will each be on the order of 800-1000 square feet in area and include its own storage within the spaces.

Access to the City of Hyattsville's meeting and training spaces on the ground floor will be achieved by means of the building's main lobby entrance at the southwest corner of the building. Building users will be oriented to the building's functions through the design elements and features of the main entrance lobby. Further collection and gathering/receiving space off the lobby stairway and elevator at ground level will enable arriving users of this level to comfortably navigate their way to their final destination.

On the main level, the low-roofed Gallatin Street-facing space will remain an open, flexible use area with the built-in capacity to serve as:

- 1) A passageway from the lobby into the main space
- 2) A coat-check and ticket collection area
- 3) An intermission /refreshment lobby when the main space is used for performances
- 4) A service area for catered events
- 5) A sub-gathering area when the main space is used as a public assembly, lecture or conference space
- 6) An extension of the conference, training or meeting room functions into the main level of the building
- 7) A support space for performance staging, as necessary.

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The main level's main space will serve as an assembly area for public meetings such as lectures, debates, presentations, City Council Meetings, and would have the capacity to host other gatherings. Through the use of quality breakdown staging and modular sprung flooring, the City will be able to host a 200 plus seated audience for musical, dance, film, theater, and other artistic performances and readings. The interior design, building hardware, and appurtenances will enable the safe, convenient setup of seating, tables, staging, and other support materials throughout the building from the lower-level storage to the main assembly area.

The facility will feature the infrastructure for a theater grade lighting grid and light board; audio recording controls; theater grade sound board; acoustic-quality enhancing design elements, and sound dampening HVAC features that optimize the assembly space's capability to stage performances with minimal acoustic interference and distortion. The facility will also feature video recording, broadcast and livestreaming capacity for cable television of performances, meetings, and events staged in the main space.

The mezzanine level will serve as the location of the facility's cable broadcast and livestreaming studio and its primary lighting, sound, and video recording control boards. The mezzanine level will be designed to incorporate a hands-on teaching/learning operating environment for the effective mentoring and training of future cable television operators and theater tech support as well as the effective delivery of broadcast, livestreaming, and performance support. Public access to the mezzanine level will be minimized and achieved only through the use of the building's elevator or its north side stairway (fire code permitting).

Design, operating systems, and construction materials selected for the project should be based on long term serviceability and aimed to minimize maintenance requirements. Indigenous and adapted plant species shall be selected to minimize watering, fertilization, and pest management requirements wherever landscaping is required.

The overall facility shall be served by an electrical infrastructure (telecommunication, electricity, intercom, CCTV, etc.) that is capable of meeting the current and future wiring and power requirements for the main assembly and

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performance space, cable TV facility, presentation technology, common areas, training and meeting rooms. For example, training and meeting rooms used for A/V presentations shall include the ability to dim/turn off the lighting around a projector screen for presentations; and a lighting mode to satisfy general occupancy requirements. The electrical and mechanical systems shall be designed to permit the easy rearrangement of meeting space without adding or tearing down existing systems to accommodate the occupant's needs.

The City seeks for the design team to determine the practicality and need for separate server rooms on each level; and similarly, the feasibility and advantages of providing a duct bank back to 4310 Gallatin Street should be addressed by the design team; as should demark planning for telecommunication cable routing, which should ensure avoidance of electro-magnetic fields generated by other operating systems in the facility.

The design of the electrical system for the building shall divide into separate panels lighting, plug, HVAC, and process to provide for sub-metering of utilities serving mechanical equipment, plug loads and the lighting system by functional area, HVAC system type, and floor (i.e. performance area, AV Cable TV area, 1st floor meeting rooms, and the ATHA/Visitor's Center). Monitoring shall also be compatible with the selected or planned for building automation system (BAS) to allow remote monitoring of all systems and environments. This integration will be cohesive enough to allow use of a web monitoring service to monitor key building systems, energy usage, preventative maintenance, schedule 24/7, and distribute necessary aspects of this information to staff, outside service providers, via web & automatic prompt e-mails.

Project Schedule and Budget

The building's design/bid/build allowable budget is \$ TBD million; the renovation portion of the project has a current project budget of \$ TBD million, with an additional \$ TBD for owner contingency, design fees, FF&E and swing space costs. The cost estimate will be reviewed and updated by the PM/CM in consultation with the Architect at each milestone in the design process to confirm adherence to the project scope and budget. The project schedule (Table 1), outlines the current schedule and is expected to be adhered to throughout the project. The

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project's construction is scheduled for completion in 9-12 months from notice to proceed and the facility will be occupied on a date TBD,

All potential delays or lags shall be coordinated with the City of Hyattsville or its agents.

Table 1: Schedule

Date	Description
7/1/2011 or Notice to Proceed (NTP)	(A/E) Schematic Design Phase Begin
7/14/2011 or 2 wks from NTP	(A/E) Feasibility Assessment of LEED Certification Begin
TBD (A/E)	(A/E) Schematic Design Phase Complete
TBD (A/E)	(A/E) Feasibility of LEED Certification Complete
TBD (CM) 2 wks from LEED determination	(CM) Commence/Omit Commissioning Authority (CA) Input
TBD (CA)	(CA) Design checklists developed and distributed
TBD (A/E)	(A/E) Design Development Phase Complete
TBD (A/E)	(CM,OO, A/E) Progress on Board Review
TBD (A/E)	(A/E) Construction Documents (CDs) Complete
TBD (CM) 2 wks from CDs completion	(CM) Permit Review Begin
TBD (CM) 2 wks from CDs completion	(CM) Bid Documents Complete
TBD (CM) 10 wks from CDs completion	(CM) Bid & Negotiate Construction Contract
TBD (CM) 11 wks from CDs completion	(CM) Pre-construction meeting
TBD (CM) 14-18 wks from CDs completion	(CM) Permit Review Complete
TBD (CM) 15-19 wks from CDs completion	(CM) TPIP App. Complete, Notice to Proceed granted to GC
TBD (CM) 16-20 wks from CDs completion	(GC) Construction Work Commencement

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TBD (CM) 16-20 wks from CDs completion	(CM) Begin construction site visits/inspections
TBD (CA) 16-20 wks from CDs completion	(CA) Construction checklists developed and distributed
TBD (GC) 9-12 months from NTP	(CM) Construction punch-list Complete
TBD (GC) 9-12 months from NTP	(GC) Construction Work Complete
TBD	<i>(CA, OO) Start-up and initial checkout plans</i>
TBD	<i>(CA, OO) Start-up and initial checkout executed</i>
TBD	<i>(CA, OO) Testing and Balancing (TAB)</i>
TBD	<i>(CA) Function performance tests</i>
TBD	<i>(A/E, CA) O&M documentation review and verification</i>
TBD	<i>(CA, OO) Training and training verification</i>
TBD	<i>(CA) Final Commissioning Report</i>

All scheduling is subject to adjustment as new information and funding affect or change the specific deliverables and project outcomes. Consultation amongst the Design Team Commissioning Agent, Project Manager, Owner or Owner's Agent will be conducted at bi-weekly intervals.

Commissioning Process Scope and Budget

To be determined based upon the feasibility assessment for LEED certification.

The Commissioning Agent (Cx) will assist the City of Hyattsville and the Construction Manager on a limited basis with refining the Owner's Project Requirements by helping clarify certain functional requirements, expectations of how the building will be used and operated, sustainability/LEED goals, measurable performance criteria, budgets, schedules, success criteria, and supporting information. The OPR forms the basis from which all design, construction, acceptance, and operational performance evaluations are made

Design phase commissioning will review the mechanical system, electrical system, fire alarm and sprinklers, security system, and sound system design for compliance with the OPR. The commissioning authority will provide:

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- Design phase commissioning report
- Commissioning plan
- Commissioning specifications to the designers incorporating commissioning and operator training requirements into the project
- Specific design and construction checklists to be used by the construction manager and the design team during the delivery of the project
- Specific functional testing procedures for testing commissioned systems to verify system performance and functionality in accordance with contract documents.

Mechanical Design Phase Commissioning

The review of the mechanical drawings and specifications will concentrate on design, efficiency, humidity and odor control, safety, and the ability to provide occupant comfort. The commissioning agent will assess the ability of the HVAC system to control airflow (and thus pollutants) throughout the building.

Evaluations shall be made on equipment sizing and selection, placement of fresh air inlets, filtration, adequacy of the make-up air system to pressurize the building envelopes and their interstitial spaces, balance between make-up air and building exhaust—both internally and externally, environmental and energy management controls, equipment layout, and start-up procedures.

Electrical Design Phase Commissioning

The review of electrical drawings and specifications will concentrate on adequacy and distribution of electrical power, lighting efficiency, illumination levels, and compliance with life safety requirements. The commissioning agent will review panel schedules and single-line drawings, interior and exterior lighting layouts, and electrical life safety drawings.

Plumbing Design Phase Commissioning

The review of plumbing system drawings and specifications will concentrate on the design of potable water systems. The commissioning agent will review fixture selection, pumps and boiler/heater sizing.

Construction Phase Commissioning

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The commissioning authority will develop construction checklists and performance testing procedures to be used by the contractors to determine acceptance of the contractors work. The following systems will be commissioned:

Electrical	HVAC
<ol style="list-style-type: none"> 1. Exterior lighting control 2. Interior lighting control 3. Path of egress lighting 4. Occupancy sensors for lighting control 5. Multi-level switching 6. Electrical fixtures/devices/installation in hazardous locations 7. GFCI type receptacles 8. Photo Voltaic array (potential) 9. Security/CCTV 10. Intercom (if employed) 11. Others TBD 	<ol style="list-style-type: none"> 1. Air Conditioning systems 2. Heating systems 3. Air distribution systems 4. General exhaust systems 5. Building automation system, associated hardware, and interfaces 6. Make-up air systems variable frequency drives 7. Air handlers 8. DOASI (if employed) 9. Fire and smoke dampers 10. Testing, adjusting, and balancing work 11. Indoor air quality 12. Others TBD
Plumbing	Performance / Cable TV Systems
<ol style="list-style-type: none"> 1. Fixtures 2. Service water heating 3. Fire Sprinkler & alarm 4. Others TBD 	TBD

The commissioning agent will also facilitate the following tasks:

- Review final operation & maintenance (O&M) manuals prior to turn-over to owner for completeness and as required for system training.

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- Facilitate training sessions by coordinating a schedule with the construction team for conducting training in accordance with the training requirements.
- Prepare an Executive Summary of the results of the commissioning program and training session, as well as written documentation verifying that equipment testing is complete and equipment is operating as intended.

Project documentation requirements, including the Systems Manual

The Arcade project's documentation will be the repository of information on all aspects of this project's development. It shall be comprised of all legislative records, zoning and construction documents, all Change Orders, notes and photographic documentation of deviations from the construction design, the A/E design teams' Basis of Design, this OPR, all equipment owner's or operating manuals, all Material Data Sheets and any other materials employed in or related to the construction, design, operation or maintenance of the facility and any furniture fixtures or equipment to be housed and used within the Arcade, that will be gathered during the Design and Construction phases of the project.

The Systems Manual will be the repository of information on updates and corrections to systems and assemblies as they occur during the Occupancy and Operations phases. The Systems Manual expands the scope of the traditional operating and maintenance documentation to include the additional information gathered during the Commissioning Process and to provide a systems-based organization of information

Owner Directives

The incorporation of technical input from video, audio, acoustic, and broadcast designers/consultants early on in the design phase and prior to the development of the full mechanical systems can lead to more economically designed and executed systems and avoid costly change orders and major system reconfiguration. A team approach leads to effective outcomes.

Establishing appropriate Noise Criteria (NC) limits for the HVAC systems aligning with the major functions of the building is critical to this endeavor. Industry recommendations regarding assembly or concert halls, and broadcasting and recording facilities aim towards an NC rating of 25; with conference and training rooms aiming towards an NC rating of 30. The visitor's center on the lower level

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should function like a museum or library in terms of noise criteria, and aim for an NC rating at 35. These criteria will be assessed and verified or amended during the design phase.

A rain garden along the entire length of the building's flank at Church Street is contemplated as both a community amenity and a sustainability measure to improve stormwater management at the side of the building.

Given the level and profusion of potential water infiltration sources at the lower level, prior to completion of the schematic designs, a water infiltration abatement plan will be devised for the lower level to abate all external ground level water infiltration sources, and is to be conducted in coordination with and in advance of the completion of lower level floor slab/s.

Restrictions and limitations

None to date

User requirements

None to date

Occupancy requirements and schedules

To be determined

Training requirements for Owner's personnel

To be determined

Warranty requirements

To be determined

Benchmarking requirements

To be determined

Statistical (assumed probabilistic distribution of measured values) and quality tools that are to be used

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To be determined

Operation and maintenance criteria for the facility that reflect the Owner's expectations and capabilities and the realities of the facility type

To be determined

Equipment and system maintainability expectations, including limitations of operating and maintenance personnel

To be determined

Quality requirements of materials and construction

As per the City's Sustainability Policy: "...Use environmentally preferable products, such as those that are repaired, restored, recycled, reusable, recyclable, non-toxic, of low-embodied energy content, and/or renewable." And, "... design facilities for operational and maintenance efficiency, using materials noted for their longevity, robustness, and low toxicity." Further, "For all engineering, design, construction, deconstruction, maintenance, and operation of City of Hyattsville facilities, use the criteria laid out for LEED certification whenever possible. Integrate life-cycle and full-cost accounting in investment decisions regarding products, services, design, and construction projects affecting building systems, long-term energy, water, and other utility operating costs, equipment, landscaping, operations, and maintenance.

In addition, given the desire for quality presentation capability throughout the facility, and the desire for - cable livestreaming and recording capacity for the assembly and performing arts hosting functions: the design, material, and equipment choices for the facility must be made with an awareness of the acoustical performance of those elements and the acoustical impact of the operations and interactions of the selected equipment.

Allowable tolerance in facility system operations

(Yet to be defined)

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Energy efficiency and environmental sustainability goals

As per the City's Sustainability Policy:

"The essential principles of sustainable operation for the City of Hyattsville will address the following factors:

SITE – Minimize adverse environmental and transportation impacts when choosing locations for projects and when determining siting, footprint, and orientation of infrastructure within a plot.

ENERGY – Reduce energy use, increase efficiency of energy use, and minimize the City of Hyattsville's consumption of non-renewable sources of energy.

MATERIALS – Reduce consumption and waste by purchasing available, durable, reusable products and materials. Use environmentally preferable products, such as those that are repaired, restored, recycled, reusable, recyclable, non-toxic, of low-embodied energy content, and/or renewable.

WATER – Protect and conserve water supplies, minimize pollution that may degrade the water quality of local waterways, and improve stormwater management.

AIR – Minimize emissions of harmful air pollution, including greenhouse gas emissions.

OPERATIONS AND MAINTENANCE – Design facilities for operational and maintenance efficiency, using materials noted for their longevity, robustness, and low toxicity.

EDUCATION – Provide educational messages to City residents, businesses and employees on applicable sustainable practices to lower energy use ..."

"...Use environmentally preferable products, such as those that are repaired, restored, recycled, reusable, recyclable, non-toxic, of low-embodied energy content, and/or renewable." And, "... design facilities for operational and maintenance efficiency, using materials noted for their longevity, robustness, and low toxicity." Further, "For all engineering, design, construction, deconstruction, maintenance, and operation of City of Hyattsville facilities, use the criteria laid out for LEED certification whenever possible. Integrate life-cycle and full-cost accounting in investment decisions regarding products, services, design, and construction projects affecting building systems, long-term energy, water, and other utility operating costs, equipment, landscaping, operations, and maintenance."

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Owner's Project Requirements (OPR)

Community requirements

- Accessibility throughout the facility as regards to handicapped or disabled individuals
- Programmable meeting space for City Committees, Task Forces, and affiliated civic organizations and resident groups
- Comfortable seating for events and public meetings or other gatherings

Adaptability for future facility changes and expansion

Expansion of the building footprint is not anticipated. Additional enclosed areas could conceivably be added upon the low roof sections of the Gallatin and Church Street sides but is neither contemplated nor ruled out at the present time. Consideration should be given for the suitability of the facility to act as an emergency shelter in the event of power failures in the community.

Systems integration requirements, especially across disciplines

To be determined in conjunction with commissioning agent

Health, hygiene, and indoor environment requirements

Creation of good indoor environmental quality requires the coordination of many design parameters and construction activities, including acoustical quality, ventilation rates, materials used to construct the facility, installation sequence, location of makeup air intakes, external and internal pollutant generation, humidity, temperature, and other parameters that may affect occupant comfort. The following are the known activities that generate pollutants in/near the facility that impact the health, hygiene, and indoor environments of occupants:

Specifically:

- Whenever possible, non-toxic caulks, paints, adhesives, sealants and cleaning products shall be used. Paint surfaces that have frequent contacts must be durable and may require paints with higher VOC content. Materials with low or no VOC emissions are preferred for areas of less contact.
- Smoking or the use of smokeless tobacco will be prohibited during construction activities. Smoking will only be allowed outside of the building.
- Procedures during construction shall be implemented by the contractors to minimize construction-related contaminants in the building. These procedures

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include activities such as control of moisture, regular space-cleaning activities, and protection of delivered equipment and materials before and after material/equipment installation, start-up of HVAC systems.

- Building materials should be stored in a weather-tight, clean area prior to unpacking for installation.
- Accumulation of water during construction should be avoided and any porous construction materials such as insulation should be protected from moisture.
- Dust in the construction area shall be suppressed with wetting agents or sweeping compounds. Dust shall be cleaned regularly using a damp rag, wet mop, or vacuum equipped with a high efficiency filter or wet scrubber
- Finishes that emit volatile organic compounds and other pollutants during curing shall be scheduled to minimize absorption by absorbent materials include ceiling tiles, carpets, insulation, gypsum products, and fabric-covered furnishings.
- The facility shall be positively pressurized. Outside air intakes shall not be accessible from grade.
- Outside Air Intakes shall be located at great enough distances so that recirculation of pollutants emitted from toilet exhausts, kitchen hoods, flue gas, and any other harmful or noxious emission are not mixed with outside air entering the HVAC system.

Acoustical requirements

It is expected that these requirements will be further refined in conjunction with the consulting sound engineer. The ensuing requirements are a starting point for further consideration and refinement. The design should consider steps to reduce road noise from building spaces facing Gallatin Street or exposed to US Route One. Noise levels could be mitigated by a variety of strategies, including the placement of exterior noise barriers. Acoustical treatment should be implemented in the design and construction of the performance space to enhance sound quality for performances, while minimizing echoes. Soundproofing strategies should be employed to prevent sound transmission to and from adjacent corridors, lobbies, and other spaces.

Sound transmission between conference and meeting rooms and exhibit space on the lower level with the door closed to adjacent spaces or corridors shall not exceed 30dB. Sound transmission from air terminal devices shall not exceed (Noise Criteria) NC 25 for the performance space; NC 30 for the training and

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conference/meeting rooms; and NC 35 for the Visitor's Center. Sound transmission for offices and conference rooms shall not exceed (Room Criteria) RC 25; sound transmission for the Visitors Center and exhibit area shall not exceed RC 30. Sound level for corridors and lobbies shall not exceed RC 40.

A suitable acoustic environment that allows ease of communication, limited intrusive noise (and resultant distraction) is required for the training and conference/meeting rooms and the Visitor's Center and exhibit area. Ambient sound levels within all conference rooms shall range from 25-35 NC or less, and RT (Reverberation Time) falls between 0.8 and 1.2 seconds at mid-frequencies. Amplified sound is available for the training and conference rooms.

Vibration requirements

Prevent occupants adjacent to HVAC equipment and corridors from sensing vibrations from structural deflection as a result of occupant traffic, and equipment operation

Seismic Requirements

Comply with local code requirements

Accessibility requirements

Comply with local code requirements and meet ADA requirements while demonstrating foresight and consideration in design for the special needs of the handicapped community. Systems requiring routine maintenance, such as HVAC and lighting grids shall be designed to provide adequate access and clearance for all maintenance tasks (ie filter access, sufficient space to remove/replace system components such as coils, fans, valves, etc). The high ceiling for the performance/assembly area may make the use of a scissor lift the most expedient maintenance method. Accommodation for the enclosed exterior storage of such a device would optimize interior space utilization.

Security requirements

The Construction Manager is to facilitate a consultation between the design team and the HPD for further specifications well in advance of Design Development

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completion The facility will require CCTV tied into the City of Hyattsville Police Department (HPD)'s camera monitoring system.

Aesthetics requirements

The facility should reflect a context-sensitive and eclectic style consistent with Hyattsville's Route One commercial architecture and evocative of its history: one that conveys a welcoming air and Hyattsville's participatory community values while enabling the architect's vision for an attractively streamline, easily maintained interior. Any original architectural features, or structural elements, of the building that can be retained in situ, without compromising the energy efficiency and long term performance of the building is desirable.

Constructability requirements

To be determined

Communication requirements

The City of Hyattsville's building automation system, training, conference, and presentation needs require robust internet access and wi-fi capability. The Arcade's computer facilities should be networked to the City's main servers at 4310 Gallatin Street in the most efficient, cost effective, secure manner available. ATHA Inc's office needs reliable internet access as well: and separate router access for these users should be maintained. Wireless networks shall be maintained to allow secure network access separate from public internet access. The City's Cable television network design should be integrated into the overall design from the earliest stages. Capacity for livestreaming of scheduled events and meetings, municipal broadcast production, and recording will be provided. Municipal digital media storage needs will be assessed and The Construction Manager is to facilitate a consultation between the design team and the Communications Manager for further specifications and camera locations well in advance of Design Development completion.

At appropriate intervals, cell phone signal strength within the facility should be reviewed for adequacy, and if compromised by any structures or interference, corrective action should be devised. An intercom or Clear-com communication

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system will enable direct, 2-way communication between the cable television and performance space control area and key or mobile locations.

Applicable codes and standards

Applicable Local, State, and National Building Codes

Others to be determined in conjunction with the commissioning agent upon the feasibility assessment for LEED certification

Prepared for the City of Hyattsville by the Hyattsville Community Development Corporation