

May 16, 2024

Joel T. Jones, MPA
Project Manager
Durham County Engineering and Environmental Services
201 East Main Street, Fifth Floor
Durham, North Carolina 27701
jtjones@dconc.gov

RE: Durham Emergency Operations and Backup 911 Center

Dear Joel:

O'Brien Atkins Associates is pleased to present this fee proposal for providing professional architecture and engineering services for the new Durham Emergency Operations and Backup 911 Center. Our proposal has been organized into the following sections:

1. Project Scope
2. Proposed Scope of Services
3. Deliverables
4. Proposed Schedule
5. Proposed Team
6. Clarifications
7. Proposed Fees
8. Invoicing and Payment

1. Scope of Project

Durham County plans on creating a new Durham Emergency Operations and Backup 911 Center at a site off Broad Street in Durham just south of the intersection with Stadium Drive. The site is shared with a project this is currently under construction as a 41,000 GSF Single Story Youth Home.

The goal of this project is to consolidate three Durham entities with shared operations in at one facility. The three entities include Durham County (Emergency Operations and Emergency Management), City of Durham (Backup 911 Center), and Durham Sheriff Office (Sheriff Call Center). Through our early programming efforts, each entity will roughly occupy the following space in the new building:

Durham County (Emergency Operations & Emergency Management):	25,000 GSF
City of Durham (Backup 911 Center):	10,000 GSF
Durham Sheriff Office (Sheriff Call Center):	3,100 GSF
Total:	38,100 GSF

In addition to the programmatic requirement, additional objectives have been defined by the client for this project that include the following:

- LEED Gold v4.1 Certification

In the Advanced Planning Phase, there was discussion on security and blast mitigation measures associated with the building. This current proposal does not include the effort for integrating those elements. Our understanding is that a security consultant will perform this assessment for the County, then the County will define the scope from the consultant’s recommendations. At that point an additional service scope and fee will be developed.

See Exhibit H – Advanced Planning Report for a detailed breakdown of the scope.

2. Proposed Scope of Services

The proposed Scope of Services includes tasks for Schematic Design (Item 3.3) through Final Completion phase (Item 3.8) of this project as identified in the **Exhibit G – Durham County Draft Design Agreement.** In addition to these tasks identified, the following additional tasks are provided in this proposal:

Basic Services not Defined in Prime Agreement Document:

1. Low Voltage Security Design (Card Readers and Cameras)

Specialty Consultants Services:

1. Audio-Visual Design and Engineering
2. Kitchen Equipment Design
3. Mission Critical Design

Supplemental Services:

1. LEED Gold v4.1 Certification
2. Furniture, Fixtures, and Equipment (FF&E) Design, Procurement, and Installation Administration Services

Construction Administration services have been estimated for a construction duration of **up to 18-months.**

See attached for detailed scope definitions for the following consultants:

1. **Exhibit B** – Civil Engineering
2. **Exhibit C** – Mechanical, Electrical, Plumbing and Fire Protection Engineering
3. **Exhibit D** – Low Voltage, Security, and Audio-Visual Design
4. **Exhibit E** – Kitchen Design
5. **Exhibit F** – Mission Critical Consultation

FF&E Services are described below:

- Develop a space plan and present recommended furniture layouts to Client
- Develop preliminary black-and-white box 3D views with generic furniture
- Develop furniture basis of design specs for bid and present to Client
- Receive owner approval on furniture specs for bid
- Develop RFP for furniture bid to be distributed to no more than three (3) dealers
- Issue bid documents (including CAD drawings) and manage the bid process including RFI’s, clarifications, and addendums
- Create bid comparison document and review with Client
- Up to three (3) dealer showroom visits
- Attend up to six (6) meetings to select furniture finishes
- Review selected Dealer’s purchase order and any revisions required
- Receive PO from Client and place furniture orders

- Import final furniture CAD plans into OBA Revit drawings
- Coordinate final furniture layouts with Electrical/IT/AV
- Post FF&E install, OBA will attend up to two (2) furniture walk-throughs with Client and Dealer to oversee the development of a punch list by Dealer

3. Deliverables

The deliverables for this phase include the items identified in the **Exhibit G – Durham County Draft Design Agreement Sections 3.3.1 through 3.8.13**. In addition to these items, the following deliverables will be provided:

1. Low Voltage Security Design Documents (Card Readers and Cameras)
2. Audio Visual Design Documents
3. Kitchen Equipment Design Documents
4. EOC/ECC Migration Plan – see **Exhibit F**

4. Proposed Schedule

<u>Phase</u>	<u>Duration</u>
Schematic Design	12 wks
Design Development	18 wks
Construction Documents	26 wks
Bidding + Permitting	4 wks
Estimated Construction Duration	15 mos
Estimated Close-out Duration	2 mos

5. Proposed Team

Role	Name	Firm
Principal-in-Charge	Kevin Montgomery	O'Brien Atkins
Architectural Project Manager	Steven Harris	O'Brien Atkins
Architectural Project Designer	Josh Brady	O'Brien Atkins
Landscape Architect	Jay Smith	O'Brien Atkins
Civil Engineer	Steve Miller	CLH**
Structural Engineer	Mike Simpson	MMSA**
Cost Estimator	Kaye Smith	Palacio**

MEP Partner-in-Charge	Paul Kitchens	Newcomb & Boyd
Mechanical Engineer and Project Manager	Reade Daniel	Newcomb Boyd
Plumbing and Fire Protection Engineer	Vernon Taliaferro	Hammond Engineering
Electrical Engineer	Zach Pakulniewicz	Newcomb Boyd
LEED Certification Facilitator	Danna Richey	Newcomb Boyd
Audio Visual Engineer	Jim Gillis	J&A Engineering**
Low Voltage and Security Engineering	Jorge Gomez	J&A Engineering**
Kitchen Designer	Kris Morphis	Ricca Design Studios

** - HUB qualified consultant

6. Clarifications

1. A Traffic Impact Assessment is not included in the scope of the work. In reviewing the project with the AHJ during early design phases, this may be required to get planning approval. If so, this work will be an additional service that will be submitted for approval.
2. Off-site Traffic Improvements that may be identified in the Traffic Impact Assessment are excluded from this scope of work.
3. Geotechnical Engineering, Environmental Engineering, and Surveying are excluded from this scope of work. It is assumed that the owner will directly contract these services. The design team will assist the owner in defining the scope of work for these consultants.
4. This scope assumes the existing public water and sewer mains adjacent to the site have adequate capacity to serve the new building. Replacement or extension of new public mains outside the limits of the project site are not included in this scope. Also excluded is the design of booster pumps or water storage tanks that may be needed to compensate for inadequate public utility capacities.
5. We will indicate the general routing of other utilities, such as gas, electrical (to transformers), telecom, etc., on the Site Utility Plan for coordination purposes but the design of such elements is not included in this scope of services and is typically provided by the utility service provider.
6. Any site retaining walls that may be required are excluded from this scope of work. When the scope is defined, the design will be provided by the Owner’s Geotechnical Engineer.
7. FF&E design and selection is excluded from the scope of services.
8. Commissioning of any building systems (Mechanical, Electrical, Audio Visual, etc.) is excluded from this proposal.
9. Fees associated with jurisdictional approvals and permitting are not included in this scope of work. We will notify you of any fees once they are determined.
10. This scope of work includes the assumption that there may be (4) early drawing packages. If the contractor recommends additional early packages, additional fees may be required.
11. Any revisions to drawings and specification due to owner scope changes or value engineering after final signed and sealed drawings are issued may require additional compensation.

12. If the contractor requested drawing revisions to be tracked before 100% Construction Documents are issued, an additional fee may be required to compensate.
13. Any third parties which assign additional tasks to the design team that are not included in Prime Agreement or defined in this proposal may require additional compensation to complete requested tasks.
14. The conforming of the drawing set after signed and sealed drawings are issued is not included in this scope of work. At the request of the contractor (and not in excess of 2 times during the construction phase), the designer will issue drawing and specification indexes that will note the latest drawings and specification sections.
15. Fire Hydrant Testing is not included in the scope of work.
16. Security Consulting beyond card reader and camera design and engineering is not included in the scope of work.
17. Construction Administration is based on an estimated 12 to 18 months of construction. Extension of this schedule may require additional fees to cover additional site visits and construction administration hours.
18. Scope associated with blast mitigation of the building structure and envelope is not included in this scope of work
19. See Exhibit B for Civil Engineering Clarifications and Exclusions
20. See Exhibit C for Mechanical, Electrical, Plumbing, Fire Protection Engineering Clarifications and Exclusions
21. See Exhibit D for Low Voltage, Security, and Audio-Visual Engineering Clarifications and Exclusions
22. See Exhibit E for Kitchen Designer Clarifications and Exclusions
23. See Exhibit F for Mission Control Clarifications and Exclusions
24. FF&E Service Clarifications:
 - a. Development of 3D views, axons or renderings of final furniture selections are excluded
 - b. Coordination and review of furniture mockups are the responsibility of the dealer
 - c. Dealer is responsible for creating and maintaining a product log of procurements, as well as managing and overseeing the shipping, delivery and install of all FF&E Items
 - d. Dealer is responsible for documenting any deficiencies, developing a punch list and overseeing the resolution of any punch items

7. Proposed Fees

O'Brien Atkins to provide the proposed services for the scope of work within the proposed schedule for the lump sum fee of **\$4,820,510.00 (FOUR MILLION EIGHT HUNDRED TWENTY THOUSAND FIVE HUNDRED AND TEN DOLLARS)**.

Direct Reimbursables as defined in the Section 4.1.6 of the contract are included in the fee provided above.

See **Exhibit A** for fee breakdown.

8. Invoicing and Payments

Invoices will be sent monthly based on percentage of phase completed.

Closing

O'Brien Atkins appreciates the opportunity to continue our relationship with Durham County/City on this project and looks forward to successfully delivering this exciting project.

Sincerely,
OBRIEN ATKINS ASSOCIATES, PA



Steven Harris, AIA, LEED AP, GGP, Fitwel Ambassador
Principal and Project Manager

cc: John L. Atkins III, FAIA, LEED AP
Kevin G. Montgomery, FAIA, LEED AP BD+C
Rita T. Whitfield
Alyssa Holland

Attachments:

- Exhibit A – Fee Breakdown
- Exhibit B – Civil Engineering Proposal
- Exhibit C – Mechanical, Electrical, Plumbing, Fire Protection Engineering Proposal
- Exhibit D – Low Voltage, Security, and Audio-Visual Design Proposal
- Exhibit E – Kitchen Design Proposal
- Exhibit F – Mission Critical Design Proposal
- Exhibit G – Draft Durham County Contract
- Exhibit H – Advanced Planning Report

EXHIBIT A - FEE BREAKDOWN

WMBE	Discipline	Firm	Fee by Phase			Bid	CA	Post Completion	Estimated Travel and Printing Expenses	Total Fee by Discipline	% of basic services fee
			Schematic Design	Design Dev.	Const. Doc's.						
	Basic Services										
	Project Administration	O'Brien/Atkins Assoc.	\$ 57,570.00	\$ 95,950.00	\$ 115,140.00	\$ 19,190.00	\$ 76,760.00	\$ 19,190.00	included in fee	\$ 383,800.00	9.6%
	Architecture	O'Brien/Atkins Assoc.	\$ 271,786.00	\$ 486,310.00	\$ 543,572.00	\$ 107,262.00	\$ 729,048.00	\$ 107,262.00	included in fee	\$ 2,245,240.00	56.0%
	MEP Engineering	Newcomb Boyd	\$ 120,000.00	\$ 200,000.00	\$ 240,000.00	\$ 40,000.00	\$ 160,000.00	\$ 40,000.00	included in fee	\$ 800,000.00	19.9%
X	Low Voltage and Security Engineering	J+A	\$ 2,900.00	\$ 16,320.00	\$ 15,480.00	\$ 950.00	\$ 9,120.00		\$ 12,000.00	\$ 56,770.00	1.4%
X	Structural Engineering	MMSA	\$ 30,600.00	\$ 40,800.00	\$ 81,600.00	\$ 5,100.00	\$ 45,900.00		included in fee	\$ 204,000.00	5.1%
X	Civil Engineering	CLH	\$ 20,400.00	\$ 27,200.00	\$ 40,800.00	\$ 6,800.00	\$ 34,000.00	\$ 6,800.00	included in fee	\$ 136,000.00	3.4%
	Landscape Architecture	O'Brien/Atkins Assoc.	\$ 12,120.00	\$ 20,200.00	\$ 24,240.00	\$ 4,040.00	\$ 16,160.00	\$ 4,040.00	included in fee	\$ 80,800.00	2.0%
X	Cost Estimating	Palacio	\$ 31,500.00	\$ 52,750.00	\$ 21,500.00				included in fee	\$ 105,750.00	2.6%
	Sub-Total Basic Services		\$ 546,876.00	\$ 939,530.00	\$ 1,082,332.00	\$ 183,342.00	\$ 1,070,988.00	\$ 177,292.00	\$ 12,000.00	\$ 4,012,360.00	100.00%
	% of basic services fee (including predesign)		13.2%	22.7%	26.2%	4.4%	25.9%	4.3%			
	Specialty Consultants										
X	Audio Visual Engineering	J+A	\$ 3,800.00	\$ 18,770.00	\$ 19,875.00	\$ 1,240.00	\$ 10,585.00		included in fee	\$ 54,270.00	
	Mission Critical	Mission Critical	\$ 26,950.00	\$ 53,900.00	\$ 66,150.00	\$ 19,600.00	\$ 78,400.00		included in fee	\$ 245,000.00	
	EOC/ECC Migration Planning				\$255,000				included in fee	\$ 255,000.00	
	Kitchen Consultant	Ricca Design Studios	\$ 3,860.00	\$ 5,400.00	\$ 3,860.00	\$ 780.00	\$ 1,550.00	\$ 780.00	included in fee	\$ 16,230.00	
	Manage/Coord Subconsultants	O'Brien/Atkins Assoc.	\$ 3,461.00	\$ 7,807.00	\$ 34,488.50	\$ 2,162.00	\$ 9,053.50	\$ 78.00		\$ 57,060.00	
	Sub-Total Specialty Consultants		\$ 38,071.00	\$ 85,877.00	\$ 379,373.50	\$ 23,782.00	\$ 99,588.50	\$ 858.00	\$ -	\$ 627,550.00	
	Supplemental Services										
	LEED Certification (Target v4.1 Gold)	Multiple Firms			\$ 116,000.00				included in fee	\$ 116,000.00	
	FF&E	O'Brien/Atkins Assoc.			\$ 53,000.00				included in fee	\$ 53,000.00	
	Manage/Coord Subconsultants	O'Brien/Atkins Assoc.	\$ -	\$ -	\$ 11,600.00	\$ -	\$ -	\$ -		\$ 11,600.00	
	Sub-Total Supplemental Services		\$ -	\$ -	\$ 180,600.00	\$ -	\$ -	\$ -	\$ -	\$ 180,600.00	
	Total All Services		\$ 584,947.00	\$ 1,025,407.00	\$ 1,642,305.50	\$ 207,124.00	\$ 1,170,576.50	\$ 178,150.00	\$ 12,000.00	\$ 4,820,510.00	

WMBE Summary	Value	Base Fee Total	%	Durham Goals
White Female	\$ 136,000.00	\$ 4,012,360.00	3.4%	11.0%
Black American	\$ 204,000.00	\$ 4,012,360.00	5.1%	9.8%
Hispanic American	\$ 216,790.00	\$ 4,012,360.00	5.4%	1.8%
American Indian	\$ -	\$ 4,012,360.00	0.0%	0.75%
Asian American	\$ -	\$ 4,012,360.00	0.0%	3.0%
Total	\$ 556,790.00	\$ 4,012,360.00	13.9%	26.4%

EXHIBIT B – CIVIL PROPOSAL

CLH design, p.a.

400 Regency Forest Drive, Suite 120
Cary, North Carolina 27518
P: 919.319.6716
www.clhdesignpa.com



Letter of Proposal

Date: April 29, 2024
To: Steven Harris, AIA – O'Brien|Atkins
From: Steven J. Miller, PE – CLH Design, PA
Re: PROPOSAL FOR PROFESSIONAL DESIGN SERVICES
DURHAM COUNTY EOC & BACKUP 911 CENTER
DURHAM, NC

Dear Steven:

We are pleased to provide you with this proposal for civil design, permitting and construction administration services for the proposed Durham County Emergency Operations Center & Backup 911 Center adjacent to the new Durham County Youth Home on Broad Street in Durham, NC.

Based on our understanding of the project scope we propose the scope of services and fees outlined below. We understand that the facility will include a 40,000-sf building and parking lots to accommodate 115 vehicles.

In general, CLH will provide civil engineering services to complement the site layout, grading and landscape design services being provided by O'Brien Atkins. CLH's design scope will be limited to improvements within the property boundary. Extension of public utilities, road improvements, turn-lanes or other off-site improvements are not included in this scope.

A more detailed scope of CLH's proposed services is listed below

Scope of Services

1. Schematic Design Phase - Perform design and develop the following schematic design level plans base on a site layout and grading design developed by OBA:
 - Storm Drainage Plan - This service includes the schematic design of closed pipe and open channel storm drainage system components based on a site grading plan to be developed by O'Brien Atkins.
 - Stormwater Management Plan - This service includes the schematic design of constructed surface stormwater control measures (SCMs) to meet applicable Stormwater regulations of the City of Durham.
 - On-Site Utility Plans (Water & Sewer) - This service includes the design of domestic water, fire protection, and sanitary sewer service lines from the building to existing public mains located immediately adjacent to the site.

Note: This scope assumes the existing public water and sewer mains adjacent to the site have adequate capacity to serve the new building. Replacement or extension of new public mains outside the limits of the project site are not included in this scope. Also excluded is the design

of booster pumps or water storage tanks that may be needed to compensate for inadequate public utility capacities.

- **LEED – Perform initial evaluation of possible LEED credits pertaining to Construction Activity Pollution Prevention and Rainwater Management and offer initial thoughts on the effort expected for obtaining specific credits.**

2. Design Development Phase – Advance the civil design through the design development phase and prepare the following documents for Site Plan Submittal to the City of Durham:

- Storm Drainage Plans.
- Stormwater Management Plans & Stormwater Impact Analysis - This service includes detailed design of constructed surface stormwater control measures (SCMs) and a Stormwater Impact Analysis with engineered calculations for attachment to the Site Plan Submittal to City of Durham.
- On-Site Utility Plans (Water & Sewer).

Note: CLH will indicate the general routing of other utilities, such as gas, electrical, telecom, etc., on the Site Utility Plan for coordination purposes but the design of such elements are not included in this scope of services and are typically provided by the utility service provider or the project MEP engineers.

- Erosion & Sediment Control Plans.
- Storm Drainage, Erosion Control and Site Utility (Water & Sewer) Construction Details
- Technical Specifications for Erosion Control and Site Water, Sanitary Sewer and Storm Drainage systems.
- Permitting:
 - It is our understanding that the City of Durham Site Plan submittal process will be handled by O'Brien Atkins.
 - CLH will provide the necessary engineered plans, calculations and documents to O'Brien Atkins for inclusion in their submittal to the City. CLH will provide responses and plan revisions in response to City comments pertaining to utilities and storm drainage.
 - Note: Wetland, stream and/or buffer impact permitting is not included in this scope of services.
- **LEED – Continue more detailed evaluation of possible LEED credits pertaining to Construction Activity Pollution Prevention and Rainwater Management and offer refined recommendations on pursuit of specific credits.**

3. Construction Document Phase – Advance the civil design through the CD phase and prepare the following documents for Construction Drawing Submittal to the City of Durham & NCDEQ for erosion and sediment control plan review:

- Storm Drainage Plans.
- Stormwater Management Plans & Stormwater Impact Analysis.
- On-Site Utility Plans (Water & Sewer).
- Erosion & Sediment Control Plans.
- Storm Drainage, Erosion Control and Site Utility (Water & Sewer) Construction Details

- Technical Specifications for Erosion Control and Site Water, Sanitary Sewer and Storm Drainage systems.
 - LEED – Provide documentation pertaining to Construction Activity Pollution Prevention and Rainwater Management credits.
 - Design of specialized systems that substantially exceed the stormwater management requirements of the underlying zoning, such as rainwater reuse systems, to meet some LEED credits may require additional services and fees.
 - Permitting: Following Site Plan approval, CLH will process, submit and track the following:
 - Water, sewer and stormwater plans through the City of Durham Construction Drawing approval process. The design and permitting of any public road improvements are not included in this scope. It is assumed that such design, if necessary, will be provided by Davenport Engineering.
 - Erosion and sediment control plan approval through NCDEQ.
4. Bid Phase
- Attend Pre-Bid meeting.
 - Answer bidder questions and issue related bulletin drawings via addenda.
 - Assist in the evaluation of Bids.
5. Construction Phase
- Review the Contractor’s product submittals and shop drawings for compliance with the Construction Documents.
 - Visit the construction site, on average once every three weeks to attend pre-bid, pre-construction, or construction related meetings; to observe construction activities during utility, storm drainage and erosion control operations; and to perform punch list inspections. Site visits are assumed to one visit every three weeks (on average) over an 18-month construction duration. (We will not charge for any meetings resulting from errors or omissions on our part).
 - Review Contractor payment requests and provide recommendations.
6. Post-Construction Phase
- Provide Record Drawings based on Contractor mark-ups or as-built surveys. The performance of as-built surveying is excluded from this Scope of Services.
 - Develop and submit project Utility and Stormwater Record Drawings to the City of Durham based on as-built surveys provided by the Contractor.
 - Provide Engineering Certifications of completed water, sewer and stormwater management improvements as required by the City of Durham.
 - Participate in an 11-month walk-through inspection if necessary.

Professional Services in addition to those listed above may be provide at a negotiated lump sum additional fee.

Fees

Basic Lump Sum Services & Fees		
Service	Ref. Scope No.	Fee
Schematic Design Phase	1	\$20,400
Design Development Phase	2	\$27,200
Construction Document Phase	3	\$40,800
Bid Phase	4	\$6,800
Construction Phase	5	\$34,000
Post Construction Phase	6	\$6,800
Total		\$136,000

Standard Hourly Rates	
Principal Engineer / Landscape Architect	\$175
Project Engineer / Landscape Architect	\$150
Project Designer	\$100
Construction Observation / Administration	\$100
Professional Consultants	110% of Fee
Additional Construction Phase Site Visits (each)	\$600

The following expenses are considered reimbursable and are not included in the above fees.

- Permitting fees
- Fire hydrant flow test fees

Excluded Services

The following services, in addition to others indicated above, are excluded from the proposed Scope of Services:

- | | |
|--|--|
| <ul style="list-style-type: none"> ▪ Building Demolition and Asbestos Abatement Design or Permitting ▪ Construction Materials and Compaction Testing ▪ Easement Negotiations ▪ Envir. Assessments or Impact Statements ▪ Flood Studies ▪ Gas / Fuel Facility Design ▪ Geotechnical Analysis ▪ Irrigation Design or Specifications ▪ Landscape and Hardscape Design ▪ LEED Design and Documentation ▪ Monumental Signage Design ▪ Off-Site Utility Extension Design ▪ Public Hearings | <ul style="list-style-type: none"> ▪ Public Road Improvement Design ▪ Rainwater Reuse Design ▪ Rendered Images ▪ Retaining Wall/Structural Design ▪ Rezoning, Special Use or Variance Applications ▪ Separate Bid Packaging ▪ Stream Buffer Impact Permitting ▪ Surveying/Easement Mapping & Exhibits ▪ Termite Control Design ▪ Traffic Control Plans ▪ Traffic Studies ▪ Wetland and Stream Buffer Delineation ▪ All other services not specifically included or reasonably inferred from this proposal |
|--|--|

EXHIBIT C – MEPFP PROPOSAL



5425 Page Road
Suite 215
Durham, North Carolina 27703-7009
T 919 783-7812

Paul J. Kitchens, PE, LEED AP
Partner
Direct 919-783-8965
pkitchens@newcomb-boyd.com

May 14, 2024

O'Brien Atkins
5001 S. Miami Boulevard
Durham, North Carolina 27703

Re: Durham EOC and 911 Backup Center
Durham, North Carolina

We offer to provide professional services of design, construction documents, and contract administration as set forth below.

A. Definition of the scope of the Project:

1. This Project consists of a new construction building that will contain program space for an emergency operation center, a backup 911 center, and offices for the emergency management division. The total gross square area for the Project is approximately 39,500 sqft.
 - a. The construction budget is \$40,000,000.
 - b. The Project will contain designated critical operations areas as defined by NFPA 70-2020.
 - c. The project will strive for LEED v4 Gold certification.
 - d. The project is not expected to comply with NFPA 1225. Were such a requirement in place, the items stated herein may need to be added to our scope, and as such we have provided an additional fee line item.
2. Disciplines and systems included in the services defined in Paragraph B are:
 - a. Basic engineering services, including:
 - 1) Heating, ventilating, and air conditioning.
 - 2) Electrical distribution systems.
 - 3) Emergency and uninterruptible power systems.
 - 4) Fire alarm system.

- 5) Lightning protection system consisting of performance specifications and selected details.
 - 6) Lighting, as follows:
 - a) Site lighting.
 - b) Basic and uniform lighting systems.
 - 7) Plumbing and fire protection is included in this proposal but will be performed by our sub-consultant Hammond Engineering. We have attached their proposal and included provisions for their fee in our fee distribution herein. Fire protection will consist of performance specifications, selected risers and details, and a clean agent extinguishing system for server spaces.
 - 8) Noise and vibration control of new mechanical and electrical equipment.
- b. Sustainability/LEED services, including:
- 1) Manage and administer the LEED v4 certification process.
 - 2) Develop LEED Certification Plan and assist client stakeholders with interpretation of LEED v4 credits and documentation requirements.
 - 3) Complete documentation and calculations for MEP related credits.
 - 4) Review documents for LEED compliance at SD, DD, and CD phases.
 - 5) Review and submit LEED v4 certification application.
- c. Energy Modeling:
- 1) Mechanical Life Cycle Cost Analysis:
 - a) Perform schematic phase energy modeling designed to evaluate and inform decisions related to heating and cooling systems. Incorporate contractor provided capital costs with energy cost analysis into a Life Cycle Cost Analysis for evaluation and system selection by owner.

- 2) LEED Energy Model:
 - a) Develop the LEED energy model in support of the LEED Minimum Energy Performance prerequisite and Optimize Energy Performance credit related to project pursuit of LEED Gold. This will include energy modeling designed to evaluate and inform decisions related to building orientation, massing, envelope performance, exterior shading, and lighting.
- d. NFPA 1225:
 - 1) Review of a risk assessment prepared by others that complies with NFPA 1600 per 12.2.2 to determine if additional system changes are necessary.
 - 2) Coordination of backup water and sanitary systems per 12.4.9. We anticipate that this may include water storage within the building as a part of our scope, an exterior well by others, and/or a septic tank, depending on coordination with the AHJ and outcomes of the risk assessment.
 - 3) Compliance with NFPA 90A and 90B as referenced by 12.5.1, which are otherwise not required by the North Carolina Mechanical Code.
 - 4) Intake coordination per section 12.5.1.3.
 - 5) Backup HVAC system per 12.5.1.5.
- e. Specialty services, including:
 - 1) Architectural Acoustics: sound isolation and room acoustics including acoustical finishes for meeting and conferencing spaces, enclosed or open office(s), and call center areas. Design goals shall be taken from owner's requirements or following the goals of LEED v4 IEQ Acoustics.
 - 2) Architectural Acoustics LEED Documentation: Documentation and support to show compliance with LEED v4 requirements.
3. Outside utilities:
 - a. Water, sanitary, and rainwater piping will be terminated 5' outside the building for continuation by the civil engineer.
 - b. Relocation of existing utilities caused by the new building will be by the civil engineer.

- c. Electrical service will be extended to the transformer.
4. Related services not covered in our scope:
 - a. Detailed construction cost estimating.
 - b. Preparation of separate documents indicating architectural life safety, and fire protection features of the Project not designed by us, or incorporation of such information in our sprinkler and fire alarm documents.
 - c. Landscape irrigation design.
 - d. Roof scupper design.
 - e. Fountain design.
 - f. Food service, and laundry equipment design.
 - g. Foundation or underslab drainage system design.
 - h. Design of floor-, roof-, or ground-mounted structural supports for equipment, or concrete structures required for manholes and cooling tower basins.
 - i. Assistance in obtaining construction or equipment operating permits.
 - j. Structured cabling, local area networks, telephony, or active network systems.
5. The project delivery process will be through a construction manager, agency at-risk basis, with a single construction document packages and phased construction.
6. The project team will include a construction manager and commissioning authority.
7. The project team will not include a specialty lighting designer.
8. You expressly understand, and you agree to notify the Owner in writing, that we are not employed to identify, design the removal or prevention of, or remove pollutants (including, but not limited to, any solid, liquid, gaseous or thermal irritant or contaminant). If the premises or surrounding environment is found to include any pollutants, the Owner may agree to assume the responsibility to identify, establish criteria for, design the removal or prevention of, and remove such pollutants, but in any event this responsibility shall not be ours.
9. Evaluations of the Owner's budget for the Project, the preliminary estimate of the cost of the work, and updated estimates of the cost of the work prepared by us represent our judgment as design professionals familiar with the construction industry. It is recognized, however, that we have no control over the cost of labor, materials or equipment, over the contractor's methods of determining bid prices,

or over competitive bidding, market or negotiating conditions. Accordingly, we cannot and do not warrant or represent that bids or negotiated prices will not vary from the Owner's budget for the Project or from any estimate of the cost of the work or evaluation prepared or agreed to by us.

B. Design services we will render include the following:

1. Cooperate with you in determining the proper share of the construction budget to be allocated to our systems.
2. Verify that the new mechanical and electrical systems meet the requirements of the local energy code.
3. Deliverables: deliverables will be provided as generally described below. The schematic design and design development packages will be utilized for budgetary pricing and Owner review.
 - a. Schematics:
 - 1) A written narrative description of our systems planned for the Project addressing basic system types, including major equipment capacities, based on historical data for similar projects.
 - 2) Information regarding sizes and locations of equipment rooms and chases, for you to incorporate into your drawings. We do not anticipate providing drawings for this phase.
 - 3) Block load calculations.
 - 4) Preliminary mechanical plans showing major equipment locations and single-line duct routing.
 - 5) Preliminary electrical single-lines.
 - b. Design development:
 - 1) A preliminary set of full specifications.
 - 2) Drawings indicating major equipment locations and capacities, based on preliminary block load estimates, and the general arrangement and conceptual depictions of the systems, for the purposes of defining the overall scope, budget and approach for the project.
 - c. Construction documents: one set of construction documents, conforming to your format requirements and covering our systems. One early package is anticipated as needed for major equipment such as chillers, main switchgear, and generator.

- d. A Basis of Design document for use by the commissioning authority.
 - e. One electronic copy of our BIM model at the end of the Project.
4. Furnish information needed for coordination with architectural, structural and other disciplines.
 5. Prepare documents, calculations, and energy modeling studies for the LEED certification process.
 6. Assist in issuing additional instructions and drawings as may be necessary to interpret our construction documents during the bidding and construction period.
 7. Basic Building Information Modeling (BIM) services:
 - a. Our BIM model will be produced using Autodesk Revit, which will be utilized solely for the purpose of generating two-dimensional Construction Documents. Per the format outlined in AIA G202-2013, different systems and components will be modeled at varying levels of development (LOD) based on our discretion. Prior to the first model transfer, we will send you a letter explaining our general approach, level of development, and recommendations for project workflow.
 - b. Our BIM modeling effort excludes the following:
 - 1) Interference checking. We will produce a design that is coordinated to the extent required to confirm that the systems are constructable; however, no formal interference checking process is included.
 - 2) Incorporation of additional information into our BIM model, or performing more detailed coordination beyond that which is required to produce two-dimensional Construction Documents.
 - 3) Updating our BIM model based on a contractor's BIM model.
- C. Limited services we will render include the following:
1. Owner's Minimum Requirements:
 - a. Work with you and the Owner to develop the program, criteria, and description of systems. The results of this phase will be a report, with selected single-line drawings and performance specifications defining the scope of the Project and the Owner's minimum requirements, suitable to be given to design/build contractors for competitive bidding.

D. Contract administration services we will render include the following:

1. Review submittals required by our construction documents only for general conformance with the design concept and general compliance with the information given in the construction documents. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities or for substantiating instructions for installation or performance of equipment or systems designed by the contractor, all of which remain the responsibility of the contractor to the extent required by the construction documents. Our review shall not constitute approval of safety precautions or, unless otherwise specifically stated by us, of construction means, methods, techniques, sequences or procedures.
 - a. Our review of the operation and maintenance documentation package is only to determine whether or not the specified items are included. Detailed review and analysis shall be considered a change in services.
 - b. Reviews include a maximum of 2 reviews per submittal.
2. Respond to requests for information submitted by the contractor. We have a recommended procedure and form that we can furnish you to assist you in this effort.
3. Make 45 visits to the site at intervals appropriate to the stage of construction to attend prebid and preconstruction meetings, attend construction meetings, or to become generally familiar with the progress and quality of the work and to determine, in general, if the work is being performed in a manner indicating that the work when completed will be in accordance with our construction documents. We will endeavor to guard against apparent defects and deficiencies in the permanent work constructed by the contractor but do not guarantee the performance of the contractor. We will not be responsible for construction means, methods, techniques, sequences or procedures, time of performance, or for any safety precautions in connection with the work. We will not be responsible for the contractor's failure to execute the work in accordance with the construction contract.
4. Limited review of the contractor's applications for payment.
5. Modification of construction drawings based on contractor's as-built drawings indicating major changes made during construction.

E. Instruments of service:

1. Drawings, specifications, and other documents, including those in electronic form, are instruments of service and shall remain our property whether the Project for which they are made is executed or not. The Owner shall be permitted to retain copies, including reproducible copies, of instruments of service for information and reference in connection with the Owner's use and occupancy of the Project. The instruments of service shall not be used by the Owner on other projects, for

additions to this Project, or for completion of this Project by others, except by agreement in writing and with appropriate compensation to us. Submission or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of our rights.

- F. Changes in services not included in our fee, but available for additional compensation, include:
1. Programming.
 2. Changes in the Project scope, including but not limited to, size, cost, quality, complexity, or schedule.
 3. Services to obtain water flow and static pressure tests.
 4. Detailed studies and analyses, or design services, for:
 - a. Nonstandard or nontypical building systems
 - b. Electrical system overcurrent protective device coordination.
 - c. Fuel Analyses
 - d. Utility source, rate or rebate analyses.
 5. Detailed value engineering studies and/or revisions.
 6. Redesign due to changes, after the design development phase, in codes, laws, or regulations, or the applicable edition dates, by the authorities having jurisdiction.
 7. Revisions to construction documents previously approved by the Owner.
 8. Design services related to future facilities, systems and equipment which are not intended to be constructed as part of this Project.
 9. Enhanced BIM services, including:
 - a. Interference checking. Should a formal interference checking process be desired, further discussions will be needed to clarify the responsible parties and required level of detail.
 - b. BIM model development beyond that which is required to produce two-dimensional Construction Documents.
 - c. Inclusion of imbedded equipment information.

10. Programming, design, construction documents, and contract administration services, as requested, for the following specialty disciplines:
 - a. Communications systems - structured cabling systems, distributed antenna systems, and telephone systems, local area networks, wireless local area networks (Wi-Fi type), computers, and community access television (CATV) or satellite master antenna television (SMATV) systems.
 - b. Security -
 - 1) Security consultation including vulnerability assessment, site and facility hardening, and staffing and post locations and duties.
 - 2) Security systems, including video surveillance, electronic keypad or coded card access control, intrusion detection, duress monitoring, metal detection and X-ray screening, and intercom systems.
 - c. Specialty lighting and daylighting - daylighting, special architectural lighting features or architectural elements used directly or indirectly as light sources (including cove lighting), art lighting, theatrical lighting, lighting control systems, areas utilizing lighting to provide both feature and ambient lighting, custom luminaires, and on-site focus of adjustable luminaires at completion of the Project.
 - d. Sound reinforcement - sound reinforcement and sound masking systems.
 - e. Audio-visual - audio-visual systems, including video projection, video recording and playback, multimedia presentation, television distribution systems, control systems, and audio systems.
11. Services to accommodate a change in the project delivery process, including:
 - a. A change in the project delivery method from design/bid/build to a guaranteed maximum price based on early release documents.
 - b. Documents for pricing, contractor selection, or negotiation of contractor guarantee maximum price for other than those defined above as deliverables for schematics, design development, and construction documents.
 - c. Redesign or contractor negotiations due to budget problems after the guaranteed maximum price has been established and accepted by the Owner.
12. Services to accommodate the contractor's schedule or performance, including:
 - a. Preparation of documents or information regarding the installation of sleeves.

- b. Review of submittals after the second review.
 - c. Evaluation of substitutions proposed after the award of the contract for construction.
 - d. Time spent resolving the contractor's field coordination problems if shop drawings and coordination drawings were not independently prepared and fully developed.
 - e. Trips to locations other than the site to expedite submittal preparation and/or review.
 13. Review of contractor's cost proposals for work covered by Owner-initiated change orders.
 14. Additional visits to the site to witness tests or attend commissioning meetings.
- G. You will provide us with complete information concerning the Project requirements for our services and shall:
 1. Furnish:
 - a. Criteria, constraints and definitions applicable to this Project, including the Owner's project requirements.
 - b. A list of codes, including edition dates and local ordinances, supplements and revisions applicable to this Project. We will prepare an initial code list to assist you in this effort.
 - c. The information necessary for the design team to prepare an Owner's Project Requirements (OPR) documenting the following. It is understood that OBA and N&B will prepare the official documentation of this direction.
 - 1) Key project requirements.
 - 2) General Project description.
 - 3) Objectives.
 - 4) Functional uses.
 - 5) Occupancy requirements.
 - 6) Budget considerations and limitations.
 - 7) Performance criteria.
 - 8) OPR revision history.

- d. A land survey of the site giving, as applicable, complete data pertaining to available service and utility lines, both public and private, above and below grade, including inverts and depths.
- e. A water flow test was made on hydrants near the site to indicate static water pressure, fire flow rate available above normal consumption, and the residual (flowing) pressure during fire flow.
- f. A 24-hour static pressure test record made on the water supply mains to the Project.
- g. Detailed layouts showing type and locations of mechanical, plumbing, and electrical connections, and tabulations giving size and loads of new and existing equipment designated, specified, or furnished by others for incorporation into the Project.
- h. As-built drawings of the areas to be renovated and the existing systems serving those areas.
- i. An electronic BIM model of architectural floor plans in a mutually acceptable format. The BIM model shall be accompanied by the architectural sheet in portable document format (PDF). Updated BIM model and PDFs shall be furnished as architectural changes are made and these changes shall be identified.
- j. Design and construction standards that we are to follow in the preparation of construction documents.
- k. The preferred billing cycle, billing contact, and other pertinent details we should observe to help you expedite payment.
- l. One sets of architectural, structural, interior and other progress prints as they are needed. Electronic copies are acceptable.
- m. One complete set of construction documents including addenda and change orders as they are issued. Electronic copies are acceptable.

The above items shall be furnished at no expense to us and we shall be entitled to rely upon the accuracy thereof.

- 2. Inform us of special requirements of the Project that will affect our services.
- 3. Consult with us regarding proposed changes which may affect our services, as early as feasible upon consideration of the change.

H. You agree to pay for our services as follows:

1. For services, including expenses:

<u>MEPF</u>	<u>Sustainability/LEED</u>	<u>Energy Modeling</u>
\$800,000	\$38,000	\$30,000

Note the above numbers include fees for our subconsultant, Hammond Engineering.

2. For specific changes in services, including expenses.

Mechanical Systems LCCA	\$5,000
Architectural Acoustics	\$10,800
Acoustic LEED Documentation	\$3,000
NFPA 1225	\$50,000 – 75,000

Fee for NFPA 1225 to be finalized once the scope deliniation for various components between N&B and other consultatnts is determined following the risk analysis and conversation with the AHJ.

3. The fee shall be prorated as shown in the attached tables.

4. Changes in services shall be negotiated on a mutually acceptable basis.

5. 2024 hourly rates:

Partner/Principal	\$310
Director	290
Lead Engineer or Designer	240
Senior Engineers	210
Engineers	140
IT Professionals	140
Administrative	110

Rates shall be adjusted annually in accordance with our normal salary review practices.

6. The fee excludes any applicable sales taxes.

7. Should the Project or this Agreement be terminated, we shall be paid for all services performed as of the date of termination at the same rate as for services not included in the fee, total amount not to exceed the full fee for services if the Project or Agreement was completed.

8. The fee and terms set forth herein may be escalated and/or revised if the services covered by this Agreement have not been completed within 36 months of the date hereof.
 9. Payment for all categories of services rendered under this Agreement shall be made on a monthly basis concurrent with the progress of the design and as invoiced by us.
 10. Payment for all categories of services rendered under this Agreement shall be made on the same basis and at the same time you are paid by your client. You shall invoice the Owner for our services on a monthly basis and shall pay us within 30 days of receipt of same from the Owner.
 - a. Before signing this Agreement, you will review the scope of services, fees, and terms and conditions with the Owner and shall obtain their approval of this Agreement. We shall be entitled to rely on the Owner's approval of this Agreement in any subsequent action regarding collection of fees.
 - b. You shall use your best efforts to collect all amounts due to us.
 - c. We shall have a right to review all communications between you and the Owner pertaining to invoices for, and collection of, our fees.
 - d. This provision does not relieve you of your duty to pay for our services to the extent that the Owner's nonpayment of our fee is a result of actions or problems other than our own.
- I. Miscellaneous provisions:
1. All publicity where credits are given shall include the name Newcomb & Boyd, LLP Consulting Engineering Group as mechanical and electrical consulting engineers and Hammond Engineering as plumbing and fire protection consulting engineers.
 2. You will allow us to access, at no cost, two photographic images of the completed project for our marketing purposes. We will pay for the actual lab cost of the images.
 3. This Agreement may be terminated by either party upon not less than 7 days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.
 4. You shall notify us in writing within 10 days of receiving each invoice if there are any objections to the invoice. We shall work with you to resolve the disputed matter within 30 days of its being called to our attention. If resolution is not attained within 30 days, either party may terminate this Agreement in accordance with the terms herein.
 5. This Agreement is valid only if signed and returned within 30 days of the date hereof.

6. No deductions shall be made from our compensation without our written consent.
7. Your failure to make payments to us in accordance with this Agreement shall be considered substantial nonperformance and cause for suspension of services. When this occurs, we may, upon 7 days' written notice to you, suspend performance of services under this Agreement. Unless payment in full is received by us within 7 days of the date of the notice, the suspension shall take effect without further notice. In the event of a suspension of services, we shall have no liability to you, the Owner, or the contractor for delay or damage caused because of such suspension of services.
8. It is expressly understood by all parties that we will strive to prepare construction documents within industry accepted standards of due care. It is further understood that there is the potential for minor errors and omissions in these documents. Accordingly, a contingency budget will be set aside to cover the direct and indirect cost impact of such errors and omissions. Furthermore, it is agreed that this contingency will be allocated throughout the construction period so that items discovered near completion will also be covered. As such, our liability for such errors and omissions is limited to providing services as required to provide clarifications, additional information, or preparing new or revising existing documents to assist in correcting minor errors or omissions. Accordingly, all parties agree that we shall not be liable for any initial or subsequent labor or material costs resulting from such an error or omission.
9. Each party agrees to bind himself, his successors, executors, administrators, and assigns to the other party of the Agreement and to the successors, executors, administrators and assigns of such other party in respect to all of the covenants of the Agreement. Neither party shall assign, sublet or transfer its interest in this Agreement, or in any claims or causes of actions against either party arising out of this Project without the written consent of the other.

We appreciate this opportunity. If the above meets with your approval, please sign this letter, return a copy for our files, and keep the original for your records. When accepted, this document will form the basis of our Agreement.

Yours very truly,

NEWCOMB & BOYD, LLP



Paul J. Kitchens, PE, LEED AP

Date: May 14, 2024

O'BRIEN ATKINS

Accepted By _____

Date: _____

		SD	DD	CD	Bid	CA	Close
	Total	15%	25%	30%	5%	20%	5%
MEPF	800,000	120,000	200,000	240,000	40,000	160,000	40,000
Sustainability/LEED	38,000	5,700	9,500	11,400	1,900	7,600	1,900
		25%	25%	50%			
Energy Modeling	30,000	7,500	7,500	15,000			
Arch Acoustics	10,800	2,700	2,700	5,400			
Acoustics LEED	3,000	750	750	1,500			
		100%					
Mechanical LCCA	5,000	5,000					

EXHIBIT C - LOW VOLTAGE, SECURITY + AUDIO VISUAL PROPOSAL



April 26, 2024

STEVEN HARRIS | AIA, LEED AP, GGP, Fitwel Ambassador
Principal | Project Manager
O'Brien Atkins
P.O. Box 12037
Research Triangle Park, NC 27709

Subject: ***Audio Visual, Telecom Infrastructure, Security Engineering Design & Construction Administration Services for the new Durham County EOC and Back-Up 911 Call Center Project***

REVISED 4-26-2024.

Dear Steven,

Thank you for the opportunity to revise this proposal for audio visual, telecom infrastructure, and security engineering design & construction administration services. We have reviewed the additional project information and are excited about this opportunity. We are technically able to meet all requirements of the project schedule and project scope. Please review this proposal and let us know if you would like to discuss any of the items mentioned.

SCOPE OF PROJECT

In addition to reviewing information about the project provided to us by your office, we have made some assumptions, outlined below, to share with you our basis in arriving at the estimated fee. As we understand it, the project consists of the following:

J&A Engineering, LLC shall provide low voltage engineering services for the new Durham County EOC and backup 911 Backup Center project. The increased scope of this facility now includes:

ROOMS ~38,500 square feet

- City of Durham 911 Call Center.
- Sheriff's communications division.
- EOC.
- Joint Information Center (JIC).
- Training rooms.
- Conference rooms and briefing rooms.
- Phase site development and drives.

The low voltage services that will be provided by J&A Engineering are as follows.

The **Audio-Visual systems** that will be designed for the project include the following spaces and

elements:

ROOMS

- Emergency Operations Center-EOC
 - 911 Call center
 - Sheriff's department 911
 - Conference rooms
 - Classrooms
 - Dining/Training
 - AV Control Room
 - Digital signage as needed
-
- Large format video wall and/or an array of large-format flat panel displays. All displays shall be sized in consideration of optimum viewing at last row seating distance from the screen and available ceiling height at the screens mounting location.
 - A/V Connector Plates with HDMI inputs to allow personnel to interface personal media hardware with the AV system. Connector plates shall be designed with audio inputs to accompany video inputs.
 - Video switching to support multiple displays and multiple video sources. Sources may include multiple computers or servers for display of security camera images or data files.
 - Integration with relevant emergency management systems and servers.
 - AV Control Systems – Will be developed through the design process, with close attention to owner Standards.
 - Conference Rooms: The project will require meeting space for staff, managers, and executives. Conference Rooms shall include flat panel displays that will present content from a variety of sources including laptop computers. Wireless video presentation devices are recommended for conference room use. The expectation is for full video and audio conferencing with an emphasis on flexibility with the various conference platforms.

The **Security Systems** that will be fully designed for the project include:

- Card-based and/or biometric-based access control systems into the EOC entry doors, select staff areas, or higher security spaces, as directed by the Design Team. The design will incorporate any previously developed owner electronic security standards.
- Video Surveillance Cameras, distributed throughout the interior and exterior of the project building. The design will incorporate any previously developed owner electronic security standards.
- Design of an Emergency Operation Center equipped with security surveillance display monitors, card/key badging stations, electronic security administrative workstations,

emergency communication masters, etc.

- Design of video surveillance command center for police department
- Design of security communication systems including intercom communication systems.

The **Telecom Infrastructure** Scope of Work shall include the following:

- Design of all Voice & Data Infrastructure Systems.
- Design of all Wireless Data Infrastructure Systems. J&A Engineering shall locate Wi-Fi access points per wireless networking standards with the expectation that actual heat mapping will be conducted by the owner's designated contractor.
- Design of structured cabling system throughout the new 911 call center space.
- Design of telecommunication grounding system.
- J&A Engineering shall be responsible for coordination with all owners provided network equipment.

PROJECT PHASES

PHASE I SCHEMATIC DESIGN PHASE

1. Attend preliminary planning meeting with the project Design Team to define the parameters of the new low voltage systems.
2. Initial coordination with engineering team members. Specific topics shall include initial power requirements and conduit placement.
3. Coordination with the design team for compliance with existing County standards and requirements.

PHASE II DESIGN DEVELOPMENT PHASE (1 site visit / 2 designers)

1. Staff conference calls with the appropriate decision makers and architects to define the parameters of the new low voltage systems.
2. Conduct further coordination with the engineering team members. Specific topics to include system power requirements, and raceway/conduit requirements.
3. Develop and provide preliminary equipment lists for proposed telecom, security, & audio-visual systems, as detailed in the systems narrative.
4. Respond & provide answers to client questions and inquiries on schematic design narratives.
5. Coordinate with engineering team members. This includes working with the design team to coordinate low voltage system grounding, conduit and cable tray routing, and site conduit routing. Other coordination issues typically include developing heat loads and power load information for the mechanical and electrical design team and detailing telecom requirements for the security, telecom, and audio-visual systems.
6. Coordinate with the architect in the development of the design and construction schedule.

J & A ENGINEERING, LLC

4994 Lower Roswell Rd. Suite 1 • Marietta, GA. • 30068

PHONE: 770-817-4220 • FAX: 770-234-6878

7. Develop a complete set of electronic low voltage system design drawings and specifications that document all system requirements. All floor plans, site plan, and large-scale drawings will be developed to scale. These drawings shall include equipment room layouts and space layouts.
8. Meet and review drawings with Owners over conference calls. Make revisions as required.

PHASE III CONSTRUCTION DOCUMENTS PHASE

1. Provide completed Construction Drawings (CD) and specifications for AV, telecom infrastructure, and Security Systems that are to be installed for the project. CD plans, diagrams, and specifications shall detail all the installation requirements for the low-voltage systems to be installed on the project.
2. Coordinate with engineering team members. This includes working with the design team to coordinate low-voltage system grounding, conduit, and cable tray routing. Other coordination issues typically include developing heat loads and power load information for the mechanical and electrical design team.
3. Update equipment lists for proposed low-voltage systems.
4. Review Construction Documents with the Design Team. Make revisions as necessary.

PHASE IV BIDDING/NEGOTIATIONS PHASE

1. Provide clarifications and interpretation of the construction documents and prepare addenda/amendments to the documents as approved by the client.
2. Assist in the evaluation of submitted bids from Low Voltage Contractors and make recommendations for the award of Low Voltage Contracts.

PHASE V CONSTRUCTION ADMINISTRATION - (3 site visits / 2 designers)

1. Review all submittals, shop drawings, and brochures, by low voltage contractors to verify compliance with the Low Voltage Contract Documents.
2. Review re-submittals of above requirements that have been returned for corrections until all have been ACCEPTED AS NOTED in compliance with the Contract Documents.
3. Three (3) for Security and Telecom as well as Three (3) for Audio Visual. All site visits shall be documented with a project report or construction observation report.
4. Review all close-out documents submitted by low voltage contractors to verify compliance with the Low Voltage Contract Documents.

COMPENSATION

Basic Services: For Basic Services as listed in the **Scope of Engineering Services**, we propose:

Telecom & Security Engineering Services:

Schematic Design:	\$ 2,900.00
Design Development	\$ 16,320.00
Construction Documents	\$ 15,480.00
Bidding and Negotiations:	\$ 950.00
<u>Construction Administration</u>	<u>\$ 9,120.00</u>
TELECOM & SECURITY TOTAL:	\$ 44,770.00

Audio Visual Engineering Services:

Schematic Design	\$ 3,800.00
Design Development	\$ 18,770.00
Construction Documents	\$ 19,875.00
Bidding and Negotiations:	\$ 1,240.00
<u>Construction Administration</u>	<u>\$ 10,585.00</u>
AUDIO VISUAL TOTAL:	\$ 54,270.00

TRAVEL EXPENSES (8 Trips): \$ 12,000.00

PROJECT TOTAL: **\$111,040.00**

Reimbursable Expenses:

Reimbursable expenses would include the following items:

- Plotting for milestone submittal purposes. One copy will be provided by J & A Engineering under this proposal. If multiple copies required, J & A Engineering, LLC will provide plot files to a printer of the Owner's choice.
- Courier and postal delivery services (includes shop drawing deliveries)
- Additional Trips, if required, can be provided at a cost of 1,500.00 per designer.

These reimbursable expenses will be invoiced at our direct cost.

Additional Services:

We will provide Additional Services at your written request. Additional Services can be compensated for on an hourly basis or negotiated fixed fee. Additional Services include the following:

- Revisions to the Project Scope after approval of this agreement.
- Redesign due to re-direction from the Owner after approval of final documents.

Hourly Rates:

Principal:	\$165.00/hour	Staff Junior Engineer:	\$135.00/hour
Staff Senior Engineer:	\$145.00/hour	Revit Designer:	\$105.00/hour

EXHIBIT E - FOOD SERVICE PROPOSAL

CULINARY DESIGN



CULINARY DESIGN - SCOPE OF WORK

Ricca Design Studios (Ricca) proposes to provide culinary design services for the Durham Emergency Operations Center project located in Durham, NC. Based on the information received via email from O'Brien Atkins on 4.1.24, Ricca understands the scope of work to include foodservice design for the Emergency Operations Center's kitchen and servery to provide meals for 50 people during an emergency event.

1.0 CULINARY DESIGN - SCOPE OF SERVICES

Ricca Design Studios will provide the following professional culinary design Scope of Services:

1.0.1 Program Confirmation

With the Client and design team, Ricca will review and/or clarify issued functional goals and objectives, design capacities, space allocations, culinary design briefs, overall operational approaches, schedules, and budget parameters. Ricca will also review preliminary architectural plans and make recommendations to refine and finalize current plans.

1.1 SCHEMATIC DESIGN PHASE

Upon completion of Program Confirmation, Ricca will prepare a schematic plan in digital form providing the location and identification of foodservice elements and equipment while showing critical adjacencies all in preliminary form indicating the flow of personnel and goods. Plans will then be amended as necessary to obtain final approval of the Client and design team.

1.1.1 Foodservice Guidelines for Architects and Engineers

Ricca will submit Foodservice Guidelines for Architects and Engineers for the design team's use in coordinating with foodservice equipment needs and for developing supporting building systems. These Guidelines are based on typical design considerations and best practices within the foodservice industry.

1.1.2 Preliminary Equipment Cost Estimate

Ricca will prepare and submit for approval, an order-of-magnitude foodservice equipment cost estimate. This will be based on the project's space program, schematic plan(s), industry-standard space allocation pricing, current pricing conditions, and our professional experience.

1.1.3 Preliminary Utility Loads

Based on the approved schematic design plan, Ricca will prepare bulk MEP utility loads by area for use by the design team's engineers in developing applicable major system utility requirements.

1.1.4 Schematic Design Submittal

Ricca will submit final schematic design documents - as noted above - to the Client for final approval before proceeding to the next phase.

1.2 DESIGN DEVELOPMENT PHASE

Upon written approval of the issued schematic design documents, Ricca will proceed with design development phase design, coordination, and documentation that includes the following:

CULINARY DESIGN



- 1.2.1 **Operator/End-User Equipment Selection and Review Charrette**
Upon request, Ricca will conduct a design charrette for a detailed examination of plans, sketches, and manufacturer brochures required to obtain final comments and adjustments by the design team.
- 1.2.2 **Foodservice Equipment Plans**
Ricca will generate scaled 1/8" (1:100) or 1/4" (1:50) equipment plans that provide the location and identification of all equipment and component systems. These plans will include adequate detail for recognition of equipment, as well as a coordinated schedule that will contain equipment item numbers, quantities, and descriptions. These progress drawings will be prepared in digital form and will show sufficient detail for review and approval by the Client, design team and governing agencies.
- 1.2.3 **Equipment Manufacturer Data Book**
Ricca will draft a foodservice equipment data book for review and final approval by the Client. Data sheets will be marked to include identification of manufacturer, model number, utility requirements and selected options/accessories. The approved data sheets will become the basis for next-phase written equipment specifications.
- 1.2.4 **Equipment Estimates of Probable Costs**
Ricca will provide an itemized estimate of probable costs for foodservice equipment reflecting the finalized design development equipment plans for approval by the Client.
- 1.2.5 **Itemized Utility Loads**
Ricca will develop itemized MEP utility loads/values reflecting the finalized design development equipment plans. These loads will be keyed to the equipment list, floor plans, and foodservice equipment brochures defining utility requirements for each piece of foodservice equipment.
- 1.2.6 **Exhaust Hood Requirements**
Ricca will provide preliminary exhaust hood locations, sizing and specifications to the project architects and engineers. Documents related to exhaust hoods are limited to 1) exhaust and supply duct connection sizes; 2) CFM requirements; and 3) static pressure. It is the responsibility of the assigned project engineers to design and document all building mechanical systems, including sequencing, supporting the exhaust hoods in a balanced and fully functional manner.
- 1.2.7 **Supplemental Drawings**
Ricca will provide preliminary supplemental drawings that detail engineered foodservice equipment systems such as a walk-in refrigeration box, and a refrigeration rack system (where appropriate) when specified as a part of the foodservice equipment package.
- 1.2.8 **Design Development Submittal**
Ricca will submit final design development documents -- as noted above -- to the Client for final approval before proceeding to the next phase.
- 1.3 **CONSTRUCTION DOCUMENTS PHASE**
Upon written approval of issued design development documents, Ricca will coordinate and prepare construction documentation for solicitation of valid foodservice equipment bids as follows:

CULINARY DESIGN



- 1.3.1 Final 1/4" (1:50) Scale Equipment Plans
Ricca will generate final 1/4" (1:50) scale equipment plans (based on dimensioned architectural, interior design and engineering plans provided to Ricca as background for work within its scope) identifying equipment and component systems approved for use on this project. These plans will include adequate detail for recognition of equipment, as well as a schedule that will include the item number, quantity, and a brief description.
- 1.3.2 Building Conditions Plans
Ricca will provide building conditions plans that identify building requirements to accommodate foodservice equipment, such as slab depressions, critical clearances, conduit, or sleeve locations, raised pads, unique load-bearing requirements, floor troughs and floor penetrations.
- 1.3.3 Plumbing/Electrical Connection Plans
Ricca will provide plumbing and electrical connection plans that identify size and connection points for water, gas, steam, drains, electrical and other utilities required for the foodservice equipment within our scope of work.
- 1.3.4 Exhaust Hood Requirements
Ricca will provide finalized exhaust hood locations, sizing and specifications to the project architects and engineers. Documents related to exhaust hoods are limited to 1) exhaust and supply duct connection sizes; 2) CFM requirements; and 3) static pressure. It is the responsibility of the assigned project engineers to design and document all building mechanical systems, including sequencing, supporting the exhaust hoods in a balanced and fully functional manner.
- 1.3.5 Specifications for Bid
Ricca will write specifications for bid covering all equipment to be installed within Consultant's scope of work to be included in the overall project bid set. These documents will include foodservice general conditions and comprehensive itemized descriptions for all equipment. NOTE: Ricca's specifications are written in typical CIS standard format with general conditions referencing current codes and industry standard processes.
- 1.3.6 Foodservice Equipment Elevations/Sections
Ricca will provide foodservice equipment elevations/sections at 1/2" (1:25) = 1'-0" (1:1) scale as required for Client review of all major areas. These elevations will include both manufactured and custom fabricated equipment items - excluding front-of-house decorative finishes/millwork - that is typically detailed by the assigned interior design professional.
- 1.3.7 Standard Fabrication Details
Ricca will generate standard fabrication details for use by the awarded Kitchen Equipment Contractor (KEC) for bidding and development of shop drawing submittals. These details are prepared for design-intent only and are not for use by the fabricator as shop and/or construction details.

CULINARY DESIGN



- 1.3.8 Service Counter Detail Documentation
Based on detailed sketches, design direction and finish selection by the Architect or its assigned interior designer, Consultant will provide the following:
- 1.3.8.1 Service Counter Fabrication Details
Ricca will generate detailed plan drawings, sections, and elevations in digital form for reference-use in the construction of counters, cabinet work and other millwork details for the serving areas. These drawings are not intended to be used by the fabricator as shop drawings, but to convey design intent and coordination needs in relation to the foodservice equipment only. These drawings shall include coordinated references to interior-designer assigned finish materials, however millwork specifications and schedule of finishes shall be provided by the Architect or its interior designer.
- 1.3.9 Supplemental Drawings
Ricca will provide finalized supplemental drawings that detail engineered foodservice equipment systems such as walk-in refrigeration box and a refrigeration rack system (where appropriate) when specified as a part of the foodservice equipment.
- 1.3.10 Equipment Estimates of Probable Costs
Ricca will prepare an itemized estimate of probable costs for foodservice equipment reflecting the finalized construction document equipment plans for approval by the Client.
- 1.3.11 Regulatory Agency Reviews
Ricca will assist its Client and A/E team in their responsibility for preparing documents required for approval by health department/hygiene authorities having jurisdiction over the project. Such assistance will include copies of construction documents and clarification of any questions regarding equipment within its scope of work. As a result of the Client's submittal, any modifications to the foodservice equipment plans required by such authorities will be provided at no additional fee provided this submittal occurs prior to the assignment of contract to KEC.
- 1.4 BIDDING & NEGOTIATION PHASE
- 1.4.1 Addenda
Ricca will prepare and issue required addenda during contractor bidding that can include, but may not be limited to, supplementary drawings and/or specifications.
- 1.4.2 Bid Assistance and Review
Upon request, Ricca will submit a list of foodservice contractors/bidders for Client's use in bid issuance. Upon receipt of bids, Ricca will assist the Client in a line-item review of all foodservice equipment bids. Ricca will also review and respond to alternates submitted during bidding.
- 1.4.3 Post-Bid Services
After construction documents are completed and approved, any coordination with bidding sub-contractors is included in Basic Services. However, any post-bid document revisions resulting from equipment substitutions would be the responsibility of the KEC.

CULINARY DESIGN



- 1.5 CONSTRUCTION ADMINISTRATION PHASE
 Ricca will assist the Architect and provide the following services for the administration of the foodservice contract documents. For expanded on-site foodservice contract administration services, see additional services (3.0).
- 1.5.1.1 Service Counter Detail Submittal Review
 Review of submittals and shop drawings to verify conformance with design intent, specifications, and millwork details.
- 1.5.2 Shop Drawing Review
 Ricca will review contractor submittals within the scope of its work with the Client, Operator and awarded Kitchen Equipment Contractor in order-to validate conformance to the construction documents and design intent.
- 1.5.3 Requests for Information
 Ricca will review and respond to RFIs. This may include coordination and clarification of construction documents, submittals and/or field conditions. All requests for information regarding foodservice equipment and installation will be answered in a timely manner.
- 1.5.4 Site Inspections
 Ricca will conduct a site inspection after all areas within the foodservice scope of work have been roughed-in, walk-in boxes are installed, and exhaust canopies are hung as applicable. Ricca will conduct a preliminary, and then a final site inspection, where required after all areas within the scope of work are completed and are ready for occupation, following contractor certification of readiness. This will include an inspection of all foodservice equipment specified under Ricca’s construction documents, as well as a review of related architectural, mechanical, plumbing, and electrical work to determine that the installation is in accordance with Ricca’s construction documents and local health/hygiene codes. Ricca will prepare and issue a written site inspection report noting discrepancies and recommendations for remedy after each visit.
- 1.6 POST CONSTRUCTION/CLOSEOUT PHASE
- 1.6.1 Post-Construction Record Drawings
 Based on the General Contractor field redlines, Ricca will provide a final set of foodservice post-construction record drawings indicating all changes made to construction documents throughout the construction and installation phases. This includes all changes to equipment resulting from RFIs, change orders, Client directives and value management exercises.
- 2.0 BIM LEVEL OF DEVELOPMENT (LOD)
 Ricca Design Studios Revit documentation conforms with LOD 200-400 as defined by BIM Forum 2020, Section E1030.80 21-05 Foodservice Equipment, in the following manner:

CULINARY DESIGN



LOD 200 – Design Development

Foodservice equipment will be graphically represented within the model as a generic system, object, or assembly and are easily recognizable based on their function, size, and critical clearance requirements. No individual cost metric will be included in the Revit family, but rather will be provided in a file format separate from the model and coordinated to the tagged model. BIMXP design performance standards are not included in Foodservice documentation.

LOD 300 – Construction Documents

Foodservice equipment will be graphically represented within the Building Information Model as a specific system, object, or assembly accurate in terms of quantity, size, shape, critical clearances, location, and orientation. Utility requirements at the connection will be provided in text format. All pathway design between foodservice equipment, such as refrigeration piping, beverage systems, central CO2/oils, ductwork, or any other such equipment, is not included in Ricca plans and are the responsibility of the MEP engineers. Non-graphic information may also be attached to the Model Element at this level of development. The project origin is defined, and the element is located accurately with respect to the project origin. However, no individual cost metric will be included in the Revit family, but rather provided separately from the model as tagged. No serial numbers or asset management parameters will be included.

LOD 400 – Construction Documents– Supplementary Components

While not used for Fabrication Documents, Ricca will add to the project Building Information Model any detailing, fabrication, assembly, and/or field installation information that we deem necessary for the communication of design intent. The selected Kitchen Equipment Contractor is to provide full Fabrication Submittals based on actual construction techniques used by the vendor. No serial numbers or asset management parameters will be included.

3.0 FOODSERVICE OPTIONAL OR ADDITIONAL SERVICES

The following services are not included in Basic Services. However, Ricca is pleased to provide them if authorized and confirmed in writing by the Client, and they shall be paid for by the Client, in addition to the compensation for Basic Services.

3.0.1 Pre-Design As-Built Drawings

Ricca can produce a set of existing conditions "as-built" drawings prior to the commencement of design work.

3.0.2 Dimensioned Floor Penetrations

While typically provided by the KEC, Ricca can provide dimensioned sleeve penetration plans for conduit and waste piping from center line of structural steel drawings when requested.

CULINARY DESIGN



- 3.0.3 **Dimensioned Rough ins**
While typically provided by the KEC, Ricca can prepare 1/4" (1:50) scale drawings that include complete information on the scope of the construction documents, with references to equipment as provided by others. Please note, this service is for informational purposes only; the drawings are design drawings and not intended to be used in construction. They will be dimensioned for design intent for coordination for trades responsible for identifying final locations of exhaust hood duct collars, stubs, and floor and wall sleeves, for ventilation, plumbing, steam, electrical, refrigeration lines, and concrete base/curb dimensions, as required.
- 3.0.4 **Bid Process Management**
Ricca can provide management of the foodservice bid process on behalf of its Client. Ricca can prepare and distribute bid documents, including bidder instructions, to prospective foodservice dealer/installer; facilitate a pre-bid meeting; and issue, receive, and level bids for review by its Client. Ricca can also participate in negotiation and award of this project to the foodservice equipment dealer/installer.
- 3.0.5 **Construction Phase Revit Model Management**
Ricca can provide management and upkeep of the project's Revit model in regard-to foodservice equipment only during the construction phase. This effort includes coordination with architect, engineers and awarded kitchen equipment contractor to assure alignment between field installation and the Revit model.
- 3.0.6 **Revisions to Work Previously Approved**
Time spent on significant revisions to work previously approved; these revisions include work performed to accommodate cost reductions on the project which were previously approved.

COMPENSATION

4.0 BASIS FOR COMPENSATION

The Client shall compensate the Consultant for the scope of work and Scope of Services (Basic Services) provided in accordance with this paragraph 4.0 Basis for Compensation, and the other terms and conditions of this agreement, as follows:

4.1 FEE SCHEDULE FOR BASIC SERVICES

Compensation for the services listed in this proposal will be on a fixed fee basis for the previously indicated scope of work and Scope of Services, including reimbursable expenses and excluding service of any assigned sub-consultants, and will be invoiced monthly reflecting the work completed during that period. The fixed fee will be broken down as follows:

Foodservice Areas:

Schematic Design Phase	\$ 3,860.00
Design Development Phase	\$ 5,400.00
Construction Documents Phase	\$ 3,860.00
Bidding & Negotiation Phase	\$ 780.00
Contract Administration Phase	\$ 1,550.00
Post Construction/Closeout Phase	\$ 780.00
Total Foodservice Design Fee:	\$ 16,230.00

The above fees include the time associated with one (1) one-person meetings/trips from Ricca's Charlotte, NC and/or Denver, CO offices to the project site and/or Client offices during the CA Phase.

Note that there are numerous inputs that help us arrive at fees quoted beyond the area estimated to be designed. Our fee is calculated as a fixed fee. An after- the- fact conversion to an hourly not-to-exceed fee doesn't necessarily topset at this quoted fee. This proposal assumes a congruent, and not a phased by-area design, or phased document issuance process.

4.2 REIMBURSABLE EXPENSES

Reimbursable expenses are included in the above fees. Reimbursable expenses include, but are not limited to, items such as airfare, lodging, food, transportation, reproductions, mailings/postage, plot and delivery costs requested by the Client and required in the interest of this project.

4.3 COMPENSATION FOR ADDITIONAL SERVICES

Should services beyond those listed under Basic Services be authorized in writing by the Client and agreed to by Consultant, they shall be paid for by Client in addition to amounts due for Basic Services compensation. Such compensation shall be computed either on a lump-sum basis or, on an hourly time charge basis using Consultant's standard current billing rates as listed below after approval of a proposal detailing the same:

Principal	\$300.00/hour
Director	\$200.00/hour
Project Manager	\$170.00/hour
Associate	\$140.00/hour

NOTE: Billing rates above are subject to a minimum 3% increase per year from date of contract approval.

4.4 PAYMENT TERMS

4.4.1 Billings

Ricca will submit invoices monthly for Basic Services, Additional Services and reimbursable expenses reflecting the work accomplished in the billing period.

EXHIBIT F – MISSION CRITICAL PROPOSAL

Mission Critical Partners, LLC (MCP) will assist O'Brien Atkins Associates, PA (OBA) with facility design services for the emergency operations center (EOC) and emergency communications center (ECC) of the County and City of Durham (County/City).

The systems to be supported by this design are essential to a purpose-built public safety facility. Standards and industry best practices that address the design of this type of facility include, but are not limited to:

Standards
<ul style="list-style-type: none">American National Standards Institute/Telecommunications Industry Association (ANSI/TIA)-862-C – <i>Structured Cabling Infrastructure Standard for Intelligent Building Systems</i>ANSI/TIA-942-B – <i>Telecommunications Infrastructure Standard for Data Centers</i>ANSI/TIA-568-D series – <i>Commercial Building Telecommunications Cabling Standard</i>Building Industry Consulting Service International (BICSI) – <i>Telecommunications Distribution Methods Manual (TDMM)</i>Motorola R56® “Standards and Guidelines for Communication Sites”National Fire Protection Association (NFPA) 1225, <i>Standard for Emergency Services Communications</i>

The following six phases compose MCP's scope of work.

Phase 1: Schematic Design

MCP will perform the following tasks during this schematic design (SD) phase, which will occur immediately following the advanced planning phase of the project.

- Participate in SD discussions with OBA and the County/City project team
- Participate in one on-site meeting and up to five virtual meetings
- Provide high-level EOC and dispatch technology recommendations in compliance with standards and industry best practices
- Offer general facility and building systems recommendations to assure compliance with standards and industry best practices
- Collaborate with the engineers of record (EORs) on the design team to successfully include specifics required for public safety facilities, including the needs of the collocated technology

The following activities will be included in the SD phase, specific to the EOC/ECC areas:

- Provide consultative support for the design team covering:
 - Structured cabling system (SCS) requirements
 - Grounding system requirements
 - Audiovisual (A/V) infrastructure requirements
 - ECC and EOC console furniture approach and layouts
 - MCP will work OBA to identify the best design for the ECC and EOC that will meet desired operational requirements
 - MCP will create different design ideas based on feedback

- Design will include two types of console furniture: corner or laterals, which can be focused on a single type or a blend of the two
- Final floor design drawings (not stamped) and narratives will be provided to OBA
- Input for data center design for EOC/ECC requirements
- Radio communications infrastructure requirements for EOC/ECC
- Peer review of drawings provided by the design team
- Gather relevant information:
 - Work with end user organization to develop recommendations regarding relocating, modifying, or replicating the required systems

System Support for EOC/ECC
<ul style="list-style-type: none"> • A/V functional requirements • EOC/ECC data, power, and cooling requirements • Review of technology systems • Network, wireless, telephone, and radio requirements



Phase 1 Deliverables:

- Provide SD-level systems design support to the design team during one on-site and up to five virtual meetings
- Provide furniture drawings with layout and narratives
- Provide SD-level peer review/markups of drawings and narratives provided by others on the design team

Phase 2: Design Development

With the information gathered during the SD tasks outlined above, MCP will:

- Work with the project team on two on-site design development (DD) design session and up to six virtual meetings
- Collaborate with the design team on developing SCS, electrical, grounding, A/V system, and other technology systems on the performance specifications for the required systems in the EOC/ECC
- Assist in the telecommunications system grounding, bonding, lightning protection, and surge/electrical protection in accordance with Motorola R56 and ANSI/TIA-607-D *Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises* standards for the EOC/ECC
- Refine and finalize the furniture layout for the ECC and EOC



Phase 2 Deliverable:

- Provide input and review the design team's diagrammatic DD drawings for the EOC/ECC that provide locations of:
 - Communications outlets
 - A/V devices
 - Access control and security cameras
 - Radio system infrastructure
 - Public safety software systems
 - Telecommunication systems
 - Indoor antenna system
 - Refined furniture plan

Phase 3: Construction Documents

MCP will review the construction documents (CDs) and specifications from data developed during the DD tasks. In addition, MCP will work with the project team on up to five CD design sessions.

Input will be provided for the facility's specifications, associated drawings, and supporting systems/equipment.

Specific items that will be considered include:

- Level of redundancy incorporated for mission-critical systems
- Horizontal distribution system with high-performance, unshielded twisted pair (UTP) copper cabling system, supporting voice, data, wireless, and video systems
- Horizontal coaxial system, supporting antennas and related broadband systems requirements, as required
- Backbone distribution system fiber optical cabling, supporting voice, data, security, radio, and local area network/wide area network (LAN/WAN) communications systems requirements
- Backbone distribution system copper cabling, supporting analog voice communications system requirements, as required
- A/V systems performance requirements
- Facility grounding review
- Bi-directional amplifier (BDA) antenna performance requirements for indoor radio and cell coverage
- Communications needs for the EOC/ECC



Phase 3 Deliverables:

- Provide up to five CD review meetings as specified by OBA
 - MCP's responsibilities include:
 - Collaborating with the mechanical, electrical and plumbing (MEP), low voltage, A/V engineers on the EOC/ECC technology requirements
 - Reviewing 60%, 90%, and 100% CD documents, including drawings and specifications
 - Providing input to the performance specifications
 - Furniture layout and narratives

Phase 4: Bidding Support

MCP will provide the following support during the bidding process:

- Answer vendor questions specific to MCP's scope of work
- Attend interviews as needed.



Phase 4 Deliverables:

- Provide clarification answers to vendors
- Attend interviews as needed

Phase 5: Construction Administration

Once the facility is under construction, the construction firm will require submittals, Requests for Information (RFIs), telecommunications, public safety-specific areas, and specialty furniture installation support. MCP will provide the following support during the construction process:

- Review construction submittals/RFIs
- Assist with console furniture selection and installation
- Assist with specialty grounding and infrastructure
- Attend monthly construction meetings and perform site walks



Phase 5 Deliverables:

- Support the submittal review, as needed
- Provide up to four detailed job-site reviews during construction
- Provide clarification answers to vendors

Phase 6: EOC/ECC Migration Planning

MCP will develop and implement an operations and technology migration strategy for the EOC/ECC area. The plan will address the implementation of any new systems and the move of existing systems (where appropriate) to attain full functionality with minimal impact upon operations.

The migration plan will:

- Incorporate human, technology, and operational factors to maintain delivery of service to the public and emergency providers
- Be presented in a logical sequential manner and include all strategies, steps, phases, timelines, dependencies, assumptions, risks, and outages
- Include other considerations to ensure the plan can be successfully implemented

It will start with the initial project plan and include the:

- Technology procurement schedule
- Overlay on the construction schedule for the new facility

MCP will work with OBA and the County/City team to determine the most accurate date possible for system installation based upon the facility readiness date. By establishing that date, MCP will work with the County to:

- Define the critical path for procurement or migration of systems including:
 - Scheduling procurement through available contract opportunities (state contracts, General Services Administration [GSA], etc.) versus competitive procurement through Request for Proposals (RFP) and bid releases through the County

MCP recognizes the unique scheduling requirements for each system and subsystem and will prepare the schedule to coincide with facility readiness and will limit the downtime of communications as much as possible.

The cooperation of the County's system providers will be a necessary component of this activity. MCP will develop the schedule and cutover plan for post-facility readiness. This schedule will include system and subsystem installation, testing, commissioning, acceptance, and training (user, administration, maintenance).

Prior to cutover:

- Systems and subsystems at the new site will be verified as operational with network connectivity in place.
- Staffing and scheduling of operational positions will be coordinated with the County/City representatives.
- Systems and network cutover will be coordinated with system vendors and the County/City stakeholders.

Individual task and subtask assignments will be captured and reviewed prior to cutover. This task, as with many others, requires an extraordinary commitment to communicating by and between MCP, the County/City team, the construction manager, individual vendors, contractors, maintenance staff, etc. MCP is familiar with these requirements and commits to performing to the satisfaction of the project.

Pricing

Professional services outlined in the above scope of work will be provided for a **fixed fee by phase**, including expenses, as identified in Table 1 below.

Table 1: Project Pricing

Phase	Fee
Phase 1: Schematic Design	\$26,950
Phase 2: Design Development	\$53,900
Phase 3: Construction Documents	\$66,150
Phase 4: Bidding Support	\$19,600
Phase 5: Construction Administration	\$78,400
Phase 6: EOC/ECC Migration Planning	\$255,000

Mission Critical Partners recognizes that it is responsible for costs related to travel, housing, transportation, communications devices, and computer equipment. Any additional services will be performed at MCP's then-current fee schedule. Prior to initiating any such additional work, MCP would require a formal letter of authorization from O'Brien Atkins Associates, PA, and the County and City of Durham.

An invoice shall be submitted each month and include the percentage of work completed relevant to the fee and shall be reviewed and paid within 30 days of receipt.

Based on the current MCP understanding of what is to be accomplished, the pricing identified above represents an estimate of the work anticipated to achieve project success. MCP's priority is for this project to be successful for the County and City of Durham.

Pricing Assumptions

- After 120 days from the submittal date, MCP reserves the right to revisit pricing and scope to address any potential changes that may have occurred since the submittal that could impact delivery.
- MCP respectfully reserves the right to move professional fees between phases and tasks, as needed, to complete the scope of work, as long as the total amount billed to OBA does not exceed the contract amount.
- MCP will not be providing any Professional Engineering stamped drawings or specifications. Drawings and specifications provided are for reference only and will need to be incorporated into the MEP drawing set by others.