Design Services for a New Lexington Police Canine Facility

Request for Proposal No. 16-2018

Scope of Work

The City of Lexington is seeking proposals from qualified firms to provide complete Architectural/Engineering services for the design and construction of a New Lexington Police Canine Facility.

1. **Project Summary Narrative (Project Vision)**
   The existing Lexington Police Canine Facility is located at 1313 Old Frankfort Pike. The security-alarmed facility houses the City of Lexington's Canine Officers, office space & lockers for Officer Canine Trainers, secured training aides, tack gear & training storage, a veterinarian & dog wash area, food storage for the dogs, and 12 inside/outside kennels. The approximately 2 ½ acre property is enclosed with a 6 foot tall fence topped with angled barbed wire, a grass yard containing a training field area, a separate training course that meets USPCA standards, the Canine Officer cemetery, and two out buildings for janitorial storage and lawn maintenance equipment and storage.

   The existing Lexington Police Canine Facility is already outgrown, and with the addition of new Canine Officers in the near future, there will be a need for even more kennels and space for training & care of the Canine Officers. The space for the Officer Canine Trainers in the existing facility is lacking storage, adequate working area, and amenities to suit the Officer's needs. A replacement facility is intended to be built on property already owned by the City of Lexington, located at 867 Byrd Thurman Drive, near Waste Management off from Old Frankfort Pike. See **Attachment D** for the Site Criteria Plan.

   The award of this Request for Proposal shall include complete Architectural/Engineering services from Design Development through Construction Documents and Construction Administration Services. Included in this RFP are Criteria Documents including an Extended Program of Spaces & Minimum Design Requirements **(Attachment B)**, a Floor Layout Criteria Plan **(Attachment C)**, and a Site Criteria Plan (**Attachment D)**. The consultant shall be responsible for additional programing, additional schematic design investigation, code review, and/or additional information not included in **Attachments B through D** deemed necessary to begin Design Development Documents.

   It is the intent that the New Lexington Police Canine Facility will meet or exceed the existing facility functionality and amenities. In addition to the criteria outlined in this RFP, the facility will be based on input provided from the Lexington Police Department's Canine Section. The current layout, configuration, and adjacencies of spaces shown in the Criteria Documents (**Attachment B through D**) have been review and approved by the Lexington Police Department Canine Section at the programming and schematic design level. However, the design team may rework and propose alternative configurations meeting the minimum requirements included in this RFP.

The facility will be designed and constructed to last a minimum of 20 years. The structure and configuration of the building shall allow for future expansion.

The HVAC for the building should be designed to meet energy performance guidelines without compromising the comfort of the building occupants. The system must be accessible for maintenance and repair. Mechanical systems should be engineered for long term operating efficiency, energy costs, and maintenance costs. An overall mechanical systems evaluation must be made available to the project team before a final decision on the mechanical system is made. The architect/engineer should ensure the mechanical systems can be serviced and maintained by locally available trades-people.

General Requirements

a. **Council Presentations**
    i. The Consultant must be available for Council Work Sessions and/or Council Meetings to make presentations, answer design questions, and provide change order information as necessary.
b. **Testing, Adjusting, and Balancing, (TAB)**
    i. The Owner will be responsible for providing TAB service. The consultant will be responsible for assisting the Owner, and coordinating TAB services with the Contractor.
c. **Design Schedule:**
    i. See **Attachment H** for the design schedule. The Consultant shall review the design schedule and submit a strategy of reaching millstone dates. Any proposed deviations to the attached schedule should be identified in the proposal.
d. **Surveys**
    i. Site Survey and Report
        1. The site survey is included in the RFP – **See Attachment E**. The Consultant will be responsible for verifying site dimensions on the proposed site.
    ii. Geotechnical Report – **See Attachment F.**

2. **Design Development**
    a. **Design Development Phase**
        i. The Consultant shall prepare Design Development documents for the Owner's Approval. The Design Development documents shall illustrate and describe the development of Criteria Documents (**Attachments B through D**) and shall consist of drawings and other documents including plans, sections, elevations, typical construction details, and diagrammatic layouts of building systems to fix and describe the size and character of the Project as to Civil, Structural, Architectural, Mechanical, Plumbing, and Electrical systems, and such other elements as may be appropriate. The Design Development documents shall also include outline specifications that identify major materials and systems and establish in general their quality levels.
        ii. The Consultant shall provide the Owner with a completed Project Design and supporting documents that effectively address the Owner requirements outlined in the Project Vision and Criteria Documents (**Attachments B through D**).
        iii. The consultant shall provide a revised program of spaces, and a probable cost estimate.
        iv. Ongoing and continual input from the Owner shall be actively sought throughout the design process.
        v. Refer to **Attachment H** for Schedule & Submission Dates.

b. Design Development Deliverables: (Three hardcopies and one electronic copy to be provided as indicated below)

i. Consultant shall provide Design Development drawings in 24”x36” format, and shall include at a minimum.

1. Site Plan
2. Site Utility Plan
3. Architectural Floor Plans and Elevations
4. Building Sections
5. Major Wall Sections
6. Typical Construction Details
7. Structural Plans
8. Mechanical, Electrical, and Plumbing, Plans

ii. Consultant shall provide Design Development documents in standard text document size 8 ½”x11” bound format, and will include at a minimum:

1. Design Development outline specifications including materials / equipment / fixtures data sheets and other studies, calculations and evaluations as appropriate
2. Design Development Probable Cost Estimate to ensure alignment with the project budget.

c. Value engineering

i. Value Engineering shall be performed at the end of Design Development.

d. Approval to Proceed

i. The Consultant shall not proceed with the next Phase of Work until probable cost are aligned with the Owner’s budget, and approved by the Owner. Authorization to commence with Construction Documents will be by letter from the Owner after approval of Design Development documents. Any work performed by the Consultant without this written authorization will be at the Consultant’s risk.

3. Construction Documents

a. Construction Documents

i. The Consultant shall prepare construction documents for the Owner’s approval. The construction documents shall illustrate and describe the further development of the approved Design Development documents and shall consist of drawings and specifications setting forth in detail the quality levels of materials and systems and other requirements for the construction of the work. These documents must be sufficient for obtaining final construction pricing, and detailed enough to minimize potential future change orders.

ii. Upon receiving approval, the Consultant will take the construction documents through the Plan Review process in Building Inspection to obtain any required building permits. The Consultant will complete any revisions or additions of information that are deemed necessary as a result of this review.

b. Third-party Cost Estimate

i. To ensure alignment with any existing project budget and timeline, a third-party estimator shall prepare a final cost estimate. The third party estimate shall be submitted during the Construction Document Submission (**See Attachment H**).

c. Value Engineering

i. Value engineering shall be performed throughout the process and at completion of the Construction Documents.

d. Ready-to-Advertise

i. Consultant to prepare "ready to advertise" corrected construction documents, including drawings and specifications incorporating comments from the Construction Documents Final Review (**See Attachment H**).

e. Construction Documents Deliverables: (Three hardcopies and one electronic copy to be provided as indicated below)

i. Consultant shall provide Construction Documents that include at a minimum:

1. 100% Construction Document drawings in 24"x36" bound format, and shall include a cover sheet, site survey, original geotechnical survey, and all necessary civil, landscape, structural, architectural, mechanical, plumbing, electrical communications, and other drawings as necessary to completely describe and detail the project.
2. 100% Construction Document Specifications submitted on bound 8 ½"x11" double-sided hardcopy.
3. Construction Documents Cost Estimate, which must be prepared by a certified third-party estimator, to ensure alignment with any existing project budget and timeline. If applicable, prevailing wage rates will be paid for the construction of this project. The Consultant is responsible for obtaining the current information from the Kentucky Labor Cabinet, and shall incorporate them into the cost estimate.
4. One additional set of ready-to-advertise drawings are to be submitted unbound on 24"x36" paper.
5. One additional set of ready-to-advertise unbound specification masters on 8 ½"x11" one-sided paper.

f. Approval to Proceed

i. The Consultant shall not proceed with the next Phase of Work until cost estimates are aligned with the Owner's budget and approved by the Owner. Authorization to commence with Bidding and Construction Administration work will be by letter from the Owner after approval of Construction Documents. Any work performed by the Consultant without this written authorization will be at the Consultant's risk.

4. Construction Administration

a. Bidding/Construction Administration/Punch List/Close Out

i. **Bidding**

1. The Consultant shall assist the Owner in bid documents preparation as required, produce a list of items for unit pricing for bid submission, prepare alternate bid scopes as required, and establish a list of prospective contractors. The Consultant shall be responsible for printing the number of sets determined by the appropriate City of Lexington representative and the Design Team. Following the Owner's approval of the Construction Documents, the Consultant shall assist the Owner in (1) obtaining either competitive bids or negotiated proposals; (2) confirming responsiveness of bids or proposals; (3) facilitating pre-bid and pre-construction meetings; (4) respond to questions and supply additional information as required via the addenda process; (5) process substitution requests; (6) determining the successful bid or proposal; if any; and (7) awarding and preparing contracts for construction.

ii. **Construction Administration**

1. The Consultant shall act in the capacity of an agent of the Owner by leading and producing minutes for construction progress meetings and pre-installation conferences, producing field observation reports, reviewing submittals, responding to Requests for Information, producing Supplemental Instructions and/or Proposal for Change Request documents, reviewing pay applications in comparison to work in place, and overseeing construction for quality and to ensure conformity to construction drawings, specifications, and standards

b. Testing, Adjusting, and Balancing, (TAB)

i. The Consultant shall coordinate TAB services, review TAB reports, & payment applications, and perform Construction Administration services for the TAB scope of work.

c. Punch Lists, Inspections, and Close Out

i. To ensure that all construction work is complete, the Consultant shall perform the following steps:

1. Ensure that all items are completed in accordance with plans, specifications, and applicable Codes.
2. Conduct a punch list walk through with the appropriate City of Lexington representative to create a formal punch list. The end user may be asked to participate in this process.
3. Coordinates closure of RFI's and Change Orders; completion of as-builts; transmission of warranties, approved Operations & Maintenance Manuals (O&M's), extra stock, special tools, and spare parts; and provide per the Specifications and other Division 1 General Requirements. This information will be compiled per the Project Close Out requirements.

d. Construction Administration Deliverables

i. The Consultant shall provide the Owner with a completed Project that complies with building design, standards, specifications, strategies, concepts, efficiencies and requirements outlined in all Design Phases above. The Project timeline and budget shall be of the utmost priority throughout Construction Administration of the Project and shall be strictly adhered to unless otherwise approved by the appropriate City of Lexington representative.

ii. The Consultant will coordinate training for Owner of all the major building systems and equipment that are part of the project.

iii. The Consultant will coordinate the distribution of O&M Manuals for all major building systems and equipment.

iv. The Consultant shall prepare accurate record drawings that reflect project improvements "as-built" in the field.

v. The Consultant shall provide an electronic version (AutoCAD, pdf, etc.) of all project documents including but not limited to construction plans and specifications at the conclusion of the Project.

Design Services for a New Lexington Police Canine Facility

Request for Proposal No. 16-2018

Form of Proposal

Consultant:

_____

Address: _____

_____

General

a. The undersigned Consultant, having read and examined the specifications and associated documents for the above designated work, affirms agreement to complete all work in accordance with the contract documents.

b. The selected Successful Consultant (SC) shall verify all mentioned requirements in these contract documents. The SC shall confirm in writing any discrepancies found within one week of being informed of successful proposal.

c. The undersigned agrees that this proposal constitutes a firm offer to the City of Lexington which cannot be withdrawn for one hundred twenty (120) calendar days from and after the stated closing time, or until a contract is fully executed by the City of Lexington and a third party, whichever occurs earlier.

d. The Consultant shall include Technical Information as required herein.

2. Submittal Requirements: Interested firms are encouraged to submit their qualifications, which will include the information below. Failure to comply with this requirement may lead in disqualification of the Consultant's proposal:

a. Signed cover letter stating interest in the project. The cover letter should indicate the proposer's willingness to enter into an agreement with the City of Lexington (see sample agreement **Attachment A**). An officer of the company who has authority to commit their firm to the proposed project must sign the letter.

b. Additional company information to be provided shall include company history, key management members, major accomplishments, inter-company or third party alliances or partnerships, and any major pending litigation and facts of the case(s).

c. Narrative on how customer satisfaction is tracked.

d. Copies of written continuing education/professional training program and quality control/quality assurance program.

e. Provide the current number of employees and employee types.

f. Statement of general firm qualifications and capacity that should include firm location, where the work will be performed, and the firm's background and demonstrated ability to perform the required services for this project.

g. Project Team list including sub consultants indicating key professionals that will be specifically assigned to work on each discipline and phase of the project. Identify project manager. Detailed resumes for the key professionals and project manager should be included with the proposal. Describe team members' educational background, related experience, experience in providing like services to governmental entities, and individual references within such entities. Describe how the team has worked together on similar projects in the past.

h. Summary of firm's recent (5 year) experience in similar/representative projects including construction costs and references.

i. Conflict of Interest Statement clearly stating the proposer has no conflicts of interest in providing professional services on the project.

j. A narrative of design approach, preliminary design concepts, approach to project inclusive of proposed work scope, and related considerations.

k. Ability to meet required deadlines (**See Attachment H**). Demonstrate integration of this project into the firm's present workload through current and projected staff workload data.

l. References: names and contact information of previous clients on similar projects within the past five (5) years with a description of the type of project completed on schedule and on budget. A minimum of three references is required.

3. Proposals are limited to 20 single-sided pages not including the required City of Lexington documents. Proposals in excess of 20 pages may not be considered.

4. Respondents are responsible for all costs associated with the preparation of materials in response to this RFP. The City of Lexington assumes no responsibility for such costs. The City of Lexington reserves the right to waive any formality in the submitted statements of qualifications, to reject any and all statements of qualifications or to re-advertise for additional statements of qualifications.

5. **Work Plan:** Consultant shall provide a plan to complete the work described herein in submitted proposal within the 20 page submittal limit. Included in work plan shall be:

   a. A checklist of what specific deliverables will be provided at each design phase and/or milestone and the team member that will provide the deliverable.

   b. A specific budget and schedule (**See Attachment H**) to complete services described herein.

   c. An explanation of the communication/documentation and collaboration plan.

   d. An explanation of the approach that will be used to assure quality and well coordinated documents between all disciplines through the design process.

   e. An explanation of the team Quality Control Program throughout all phases of design and through construction administration.

6. Lump Sum Pricing

a. All Lump Sum Pricing shall include all direct labor and supervision necessary to complete the item in a manner that meets or exceeds the customer's satisfaction. It shall also include the labor payroll costs, overhead (such as unemployment taxes, general liability insurance, rent, utilities, phones, supplies, administrative salaries, F.I.C.A. sick and vacations, etc. disposal fees tool allowance, equipment, materials, profit and all other costs used on the job.

b. Provide Firm Lump Sum Cost for providing the City of Lexington with services as noted in these specifications.

Design Development Cost (Total of Services Below) **$**_____

Design Development:
(percentage of construction costs) _____%

Construction Documents Cost (Total of Services Below) **$**_____

Construction Documents:
(percentage of construction costs) _____%

Construction Administration Cost (Total Services Below) **$**_____

Bidding Assistance: $_____

Construction Administration: $_____

Punch List, Inspections, & Close Out: $_____

(percentage of construction costs) _____%

Total Architectural/ Engineering Services **$**_____

7. Unit Pricing

a. The City of Lexington reserves the right to increase or decrease frequencies of unit cost i.e., each task and / or services under this agreement. If Additional Services are requested, the base contract may be increased and/or decreased on the basis of these proposed unit rates. No price adjustments will be made, unless mutually agreed to in advance or as a result of temporary conditions (defined as 30 days or less from the date of the last invoice).

b. All Unit Pricing Hourly Rates shall include all direct labor, any supervision required, labor payroll costs, overhead (such as unemployment taxes, general liability insurance, rent, utilities, phones, supplies, administrative salaries, F.I.C.A. sick and vacations, etc.) disposal fees tool allowance, equipment, materials, profit and all other costs used on the job. Include Unit Pricing Hourly Rates for the Consultant contracted with the City of Lexington and all Sub-Consultants contracted with the Consultant.

Title/Skill Level	Hourly Rate
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR

c. Additional Services may require procurement beyond the base contract. Procurement shall comply with the specifications set forth herein. The Consultant markup over the invoiced price shall be _____%

d. Reimbursables will be based on actual costs.

8. Selection Criteria

a. Proposals shall contain the appropriate information necessary to evaluate based on these criteria. A committee composed of government employees as well as representatives of relevant user groups will evaluate the proposals.

	Total Points
Professional qualifications and experience of the team with the type of service required.	20
Capacity of the team to perform the work, within the time limitations. Illustrated by the current volume of work in progress.	15
Demonstrated understanding of the requirements of the project.	15
Past experience with designing Animal Care Facilities.	10
Past record and performance on contracts with the City of Lexington, other governmental agencies, and private industry with respect to such factors as cost control, quality of work, and ability to meet schedule requirements.	5
Degree of local employment to be provided by the person or firm in the performance of the contract by the person or firm.	5
Fees	30
Final Technical Score	100

Attachment A: SAMPLE Consultant Services Agreement

CONSULTANT SERVICES AGREEMENT

THIS IS AN AGREEMENT made as of _____, 2018 between the LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT (**OWNER**) and (**CONSULTANT**). **OWNER** intends to proceed with architectural/engineering design services as described in the attached Request for Proposal document. The services are to include the preparation of Schematic Design plans and specifications, with the option to proceed through design to Construction Documents and Construction Administration for the construction of the Replacement Lexington Police Canine Facility as contemplated in the **OWNER**'s Request for Proposal No. 16-2018. The services are hereinafter referred to as the Project.

OWNER and **CONSULTANT** in consideration of their mutual covenants herein agree in respect of the performance of professional architectural/engineering services by **CONSULTANT** and the payment for those services by **OWNER** as set forth below.

CONSULTANT was selected by **OWNER** based upon its response to the Request for Proposal No. 16-2018.

CONSULTANT shall provide professional consulting services for **OWNER** in all phases of the Project to which this Agreement applies, serve as **OWNER'S** professional architectural and engineering representative for the Project as set forth below and shall give professional consultation and advice to **OWNER** during the performance of services hereunder.

SECTION 1 - BASIC SERVICES OF CONSULTANT

CONSULTANT shall perform professional services as hereinafter stated, which include customary architectural and engineering incidental thereto.

The following documents are incorporated by reference herein as if fully stated and are attached hereto as exhibits: RFP No. 16-2018. (**Exhibit "A"**), and Consultant's Response dated XXXXXXX XX, 2018 (**Exhibit "B"**).

To the extent there is conflict among their provisions, the provisions of this Agreement shall take precedence, followed by the provisions of Request for Proposal No. 16-2018. (**Exhibit "A"**).

After written authorization to proceed with the Evaluation and Recommendation Phase, **CONSULTANT** shall:

1. Notify the **OWNER** in writing of its authorized representative who shall act as Project Manager and liaison representative between the **CONSULTANT** and the **OWNER**.

2. On the basis of "Selection Criteria" in the "Request for Proposal", attached in **Exhibit "A"**, conduct field surveys and gather other necessary data or information, prepare an evaluation and recommendation document consisting of design options and cost estimates as well as all required deliverables listed in the Request for Proposal. See **Exhibit "A"** for complete listing of all deliverables.

This Agreement (consisting of pages 1 to 10 inclusive), together with the Exhibits and schedules identified above constitutes the entire Agreement between **OWNER** and **CONSULTANT** and supersedes all prior written or oral understandings. This Agreement and said Exhibits and schedules may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

The General Condition provisions of RFP No. 16-2018 are incorporated herein by reference as if fully stated.

SECTION 2 - ADDITIONAL SERVICES BY CONSULTANT

2.1. The **OWNER** may desire to have the **CONSULTANT** perform work or render services in connection with this Project other than provided by **Exhibit "A"** of this Agreement. Such work shall be considered as "Additional Services", subject to a change order, supplemental to this Agreement, setting forth the character and scope thereof and the compensation therefore. Work under such change order shall not proceed until the **OWNER** gives written authorization. Should the **OWNER** find it desirable to have previously satisfactorily completed and accepted plans or parts thereof revised, the **CONSULTANT** shall make such revisions as directed, in writing, by the **OWNER**. This work shall be considered as "Additional Services" and shall be paid as such.

2.2. All "Additional Services" is subject to prior written authorization of **OWNER** and necessary appropriations made by the Urban County Council.

SECTION 3 - OWNER'S RESPONSIBILITIES

OWNER shall:

3.1. Provide criteria and information as to **OWNER'S** requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations.

3.2. Assist **CONSULTANT** by placing at his disposal available information pertinent to the Project.

3.3. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by **CONSULTANT**, and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of **CONSULTANT**.

3.4. Designate in writing a person to act as **OWNER'S** representative with respect to the services to be rendered under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define **OWNER'S** policies and decisions with respect to materials, equipment, elements and systems pertinent to **CONSULTANT'S** services.

3.5. Give written notice to **CONSULTANT** whenever **OWNER** observes or otherwise becomes aware of any development that affects the scope or timing of **CONSULTANT'S** services, or any defect in the work of Contractor(s).

3.6. Furnish or direct **CONSULTANT** to provide, necessary Additional Services as stipulated in Section Two (2) of this Agreement or other services as required.

SECTION 4 - PERIOD OF SERVICES

4.1. See **Exhibit "H"** for the project timeline/schedule.

4.2. The provisions of this Section Four (4) and the various rates of compensation for **CONSULTANT'S** services provided for elsewhere in this Agreement have been agreed to in anticipation of the orderly and continuous progress of the Project through completion.

If delays result by reason of acts of the **OWNER** or approving agencies or other causes, which are beyond the control of the **CONSULTANT**, an extension of time for such delay will be considered. If delays occur, the **CONSULTANT** shall within 14 days from the date of the delay apply in writing to the **OWNER** for an extension of time for such reasonable period as may be mutually agreed upon between the parties, and if approved, the Project schedule shall be revised to reflect the extension. Such extension of time to the completion date shall in no way be construed to operate as a waiver on the part of the **OWNER** of any of its rights in the Agreement. Section 6.5, under DISPUTES, of this Agreement, shall apply in the event the parties cannot mutually agree upon an extension of time.

In the event that the overall delay resulting from the above described causes is sufficient to prevent complete performance of the Agreement within two (2) months of the time specified therein, the Agreement fee or fees shall be subject to reconsideration and possible adjustment. Section 6.5 of this Agreement shall apply in the event the parties cannot mutually agree upon an adjustment of fee.

SECTION 5 - PAYMENTS TO CONSULTANT

5.1 Methods of Payment for Services of CONSULTANT

5.1.1 For Basic Services.

Lump Sum Pricing

All Lump Sum Pricing shall include all direct labor and supervision necessary to complete the item in a manner that meets or exceeds the customer's satisfaction. It shall also include the labor payroll costs, overhead (such as unemployment taxes, general liability insurance, rent, utilities, phones, supplies, administrative salaries, F.I.C.A. sick and vacations, etc. disposal fees tool allowance, equipment, materials, profit and all other costs used on the job. The negotiated cost of services is represented in the Form of Proposal, and a sample is below.

Design Development Cost (Total of Services Below) **$**_____

Design Development:
(percentage of construction costs) _____%

Construction Documents Cost (Total of Services Below) **$**_____

Construction Documents:
(percentage of construction costs) _____%

Construction Administration Cost (Total Services Below) **$**_____

Bidding Assistance: $_____

Construction Administration: $_____

Punch List, Inspections, & Close Out: $_____

(percentage of construction costs) _____%

Total Architectural/ Engineering Services **$**_____

5.1.2. For Additional Services

"Additional Services" shall be paid for by the **OWNER** on the basis of unit pricing, the amount of which shall be determined by negotiation. In the event the **OWNER** and the **CONSULTANT** are unable to agree upon the amount of payment for "Additional Services", then the amount of such payment shall be determined as set forth in Section 6.5, "DISPUTES" of this Agreement.

Unit Pricing

The City of Lexington reserves the right to increase or decrease frequencies of unit cost i.e., each task and / or services under this agreement. If Additional Services are requested, the base contract may be increased and/or decreased on the basis of these proposed unit rates. No price adjustments will be made, unless mutually agreed to in advance through the Change Order process to the contract, or as a result of temporary conditions (defined as 30 days or less from the date of the last invoice).

All Unit Pricing Hourly Rates shall include all direct labor, any supervision required, labor payroll costs, overhead (such as unemployment taxes, general liability insurance, rent, utilities, phones, supplies, administrative salaries, F.I.C.A. sick and vacations, etc.) disposal fees tool allowance, equipment, materials, profit and all other costs used on the job.

Include Unit Pricing Hourly Rates for the Consultant contracted with the City of Lexington and all Sub-Consultants contracted with the Consultant.

Title/Skill Level	Hourly Rate
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR
_____	_____$/HR

Additional Services may require procurement beyond the base contract. Procurement shall comply with the specifications set forth herein. The **CONSULTANT** markup over the invoiced price shall be _____%

Reimbursables will be based on actual costs.

5.2. Times of Payment.

5.2.1. **CONSULTANT** shall submit a schedule of values subject to approval by the **OWNER** prior to starting work. The approved schedule of values will be the basis for monthly statements for Basic Services and Additional Services rendered. The Statements will be based upon **CONSULTANT'S** estimate of the proportion of the total services actually completed at the time of billing and are subject to approval by the **OWNER**. **OWNER** shall pay **CONSULTANT'S** monthly statements within thirty (30) days of receipt.

5.3. Other Provisions Concerning Payments.

5.3.1. In the event the Agreement is terminated by the **OWNER** without fault on the part of the **CONSULTANT**, the **CONSULTANT** shall be paid for the work performed or services rendered an amount bearing the same ratio to the total Agreement fee as the amount of work completed or partially completed and delivered to the **OWNER** is to the total amount of work provided for herein, as determined by mutual agreement between the **OWNER** and the **CONSULTANT**.

5.3.2. In the event the services of the **CONSULTANT** are terminated by the **OWNER** for fault on the part of the **CONSULTANT**, the **CONSULTANT** shall be paid reasonable value of the work performed or services rendered and delivered, and the amount to be paid shall be determined by the **OWNER**.

5.3.3. In the event the **CONSULTANT** shall terminate the Agreement because of gross delays caused by the **OWNER**, the **CONSULTANT** shall be paid as set forth in Section 5.3.1. above.

SECTION 6 – ADDITIONAL GENERAL CONSIDERATIONS

6.1. Termination

6.1.1. The obligation to provide further services under this Agreement may be terminated by either party upon ten (10) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof through no fault of the terminating party, provided the non-terminating party fails to cure such default within the ten (10) day period.

6.1.2. The **OWNER** reserves the right to terminate the Agreement for any reason at any time upon seven (7) days written notice to the **CONSULTANT**.

6.2. Ownership and Reuse of Documents.

All documents, including Drawings and Specifications, prepared by the **CONSULTANT** pursuant to this Agreement shall be delivered to and become the property of the **OWNER**. The **OWNER** shall have the right to reuse same without restriction or limitation, but without liability or legal exposure to **CONSULTANT**.

6.3. Legal Responsibilities and Legal Relations.

6.3.1. The **CONSULTANT** shall familiarize himself with and shall at all times comply with all federal, state and local laws, ordinances, and regulations which in any manner affect the services of this Agreement.

6.3.2. In performing the services hereunder, the **CONSULTANT** and its **CONSULTANTS**, employees, agents and representatives shall not be deemed or construed to be employees of **OWNER** in any manner whatsoever. Except as otherwise provided in this Agreement, the **CONSULTANT** shall be acting as an

independent contractor. The **CONSULTANT** shall not hold itself out as, nor claim to be, an officer or employee of **OWNER** by reason hereof and shall not make any claim, demand or application to or for any right or privilege applicable to an officer or employee of **OWNER**. The **CONSULTANT** shall be solely responsible for any claims for wages or compensation by **CONSULTANT'S** employees, agents and representatives, including **CONSULTANTS**, and shall save and hold **OWNER** harmless therefrom.

6.3.3. The parties hereto agree that causes of actions between the parties shall be governed by applicable provisions of the Kentucky Revised Statues.

6.4. Successors and Assigns.

6.4.1. CONSULTANT binds itself and his partners, successors, executors, administrators, assigns and legal representatives to this Agreement in respect to all covenants, agreements and obligations of this Agreement. **CONSULTANT** shall not assign any interest, obligation or benefit in this Agreement. **CONSULTANT** shall not assign any interest, obligation or benefit in this Agreement nor transfer any interest in the same, whether by assignment or novation, without prior written consent of **OWNER**.

6.4.2. The **CONSULTANT** shall not subcontract more than fifty percent (50%) of the work, based upon dollar value, to be provided under this Agreement. The **CONSULTANT** shall obtain written approval prior to subletting or assigning any services contained in this Agreement, and consent to sublet or assign any part of this Agreement shall not be construed to relieve the **CONSULTANT** of any responsibility for compliance with the provisions of this Agreement.

6.4.3. Nothing herein shall be construed to give any rights or benefits hereunder to anyone other than **OWNER** and **CONSULTANT**.

6.5. Disputes.

Except as otherwise provided in this Agreement, any dispute concerning the amount of payment due the **CONSULTANT** or any dispute concerning any question of fact of any act to be performed under this Agreement, which is not disposed of by agreement between the Urban County Division of Central Purchasing and the **CONSULTANT**, shall be submitted to the Commissioner, Department of General Services, City of Lexington for review. The decision of the Commissioner as to the determination of such dispute shall be final and conclusive unless determined by a court of competent jurisdiction to have been fraudulent, capricious, arbitrary or so grossly erroneous as necessarily to imply bad faith. Pending a final decision of a dispute hereunder, the **CONSULTANT** shall proceed diligently with the performance of the Agreement in accordance with the directions of the **OWNER**.

6.6. Accuracy of CONSULTANT'S Work.

The **CONSULTANT** shall be required to perform this Agreement in accordance with the degree of ordinary and reasonable skill and care usually exercised by professional architects and engineers prevailing at the time, place and under similar conditions as the services hereunder are rendered.

The **CONSULTANT** shall be responsible for the accuracy of all work, even though Drawings and Specifications have been accepted by the **OWNER**, and shall make any necessary revisions or corrections resulting from errors and/or omissions on the part of the **CONSULTANT**, without additional compensation. By submission of reports, soils and subsurface information, quantities estimates, calculations and Drawings and Specifications to the **OWNER**, the **CONSULTANT** has made a statement that, to the best of its belief and knowledge, the information is accurate. Failure on the part of **CONSULTANT** to provide the expected level of accuracy may be grounds for the **OWNER** to disqualify **CONSULTANT** from consideration for future **CONSULTANT** service agreements.

6.7. Security Clause.

The **CONSULTANT** certifies that he shall not at any time release or divulge any information concerning the services covered by this Agreement to any person or any public or private organization except the **OWNER** without prior approval of the **OWNER**.

6.8. Access to Records.

The **CONSULTANTS** and his sub-**CONSULTANTS** shall maintain all books, documents, papers, and accounting records, and make such materials available at their respective offices at all reasonable times during the contract period and for three (3) years from the date of final payment under the contract for inspection by the **OWNER**, and copies thereof shall be furnished if requested. Failure to maintain such records for three (3) years after the date of final payment may be grounds for the **OWNER** to disqualify the **CONSULTANT** from consideration for future **CONSULTANT** service agreements.

6.9. Required Risk Management Provisions.

The Risk Management Provisions of RFP No. 16-2018 are incorporated herein by reference as if fully stated. Copies of the required Certificates of Insurance shall be provided to **OWNER** as required therein.

SECTION 7 - EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this service agreement, the **CONSULTANT** agrees as follows:

7.1. The **CONSULTANT** will not discriminate against any employee or application for employment because of race, color, religion, national origin, sex, age or handicap.

The **CONSULTANT** will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, national origin, sex, age or handicap. Such action shall include, but not be limited to the following: employment upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeships. The **CONSULTANT** agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this non-discrimination clause.

7.2 The **CONSULTANT** will, in all solicitations or advertisements for employees placed by or on behalf of the **CONSULTANT**, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, sex, age (between forty and seventy), or handicap.

SECTION 8 - SPECIAL PROVISIONS

8.1. This Agreement is subject to the following provisions.

8.1.2. Pursuant to subparagraph 3.4 of this Agreement, **OWNER** has assigned the appropriate City of Lexington employee (the "**OWNER'S** Agent"), as the authorized agent of **OWNER**, to monitor, direct and review the performance of work of the **CONSULTANT**. Documents, data, reports and all matters associated with carrying out this Agreement shall be addressed to the **OWNER'S** Agent or their designee. Questions by the **CONSULTANT** regarding interpretations of the terms, provisions and requirements under this Agreement shall be addressed to the **OWNER'S** Agent or their designee. The **CONSULTANT** shall look only to the **OWNER'S** Agent or their designee for direction in its performance under this Agreement; no other direction shall be binding upon **OWNER**. **OWNER** shall respond to written requests by **CONSULTANT** within thirty (30) days.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

OWNER:	**CONSULTANT:**
_____	_____
_____	_____
_____	_____

Attachment B
Lexington Police Canine (K-9) Facility
Program of Spaces & Minimum Requirements
May 2018

Project Scope: A new facility for the Lexington Police Canine Unit Office of Operations and the kennel housing of canine officers.
Proposed Site: 687 Byrd Thurman Way, Lexington KY 40510

Owner's Project Team

Lead PM: Chris Litton
Gen. PM: Mark Arnold
MEP PM: James Bush, Louis Weckerling
Division Liaison PM: Richard Curtis

Program of Spaces

A. Office (Private) 115 SF – Power, data, phone, & cable to accommodate multiple furniture arrangements minimum of two major walls), Sealed concrete floors, 4" rubber base, painted gypsum at stud partition, suspended 2'x2' acoustic tile ceiling at 9'-0" A.F.F.
B. Work Room 233 SF – Minimum of Seven Work/ Computer Stations, printer and copy machine. Power, data, phone, & cable at minimum of each work station), space for body camera charging stations (locate above 3'-4" A.F.F. to allow for future base cabinets below - provide wood blocking in partition. Sealed concrete floors, 4" rubber base, painted gypsum at stud partition, suspended 2'x2' acoustic tile ceiling at 9'-0" A.F.F.
C. Conference/ Break Room 204 SF – Kitchenette (standard wall & base cabinets, kitchen sink – no disposal (casework and fixtures to be included), power & counter space for microwave & coffee maker). Power, data, phone, & cable for smart TV. (Microwave, coffee maker, smart TV – N.I.C.) Provide power, data, phone and cable at all walls and at conference room table (conference room table – N.I.C.). Sealed concrete floors, 4" rubber base, painted gypsum at stud partition, suspended 2'x2' acoustic tile ceiling at 9'-0" A.F.F.
D. Mechanical & Electrical 143 SF- Spaces may be combined or separate, provide code and maintenance clearances for all equipment, piping, and panels. Outdoor concrete mechanical pad for outdoor units. Sealed concrete floors, 4" rubber base, painted gypsum at stud partition, painted gypsum at suspended gypsum ceiling (9'-0" A.F.F), or exposed deck (paint) with walls sealed to underside of deck.

E. Data 36 SF – Exhaust/ conditioning for excess heat generated by data equipment; refer. Sealed concrete floors, 4" rubber base, painted gypsum at stud partition, painted suspended gypsum ceiling at 9'-0" A.F.F, or exposed deck (paint) with walls sealed to underside of deck.

F. Veterinarian 157 SF –Large stainless steel dog wash with access to three sides, floor drain, storage shelving for wash materials, blocking at partitions for veterinary supply storage, power, data, phone, & cable to accommodate multiple furniture arrangements. Sealed Concrete Floors, 4" Rubber Base, Painted mold and moisture resistant gypsum at stud partitions (provide epoxy paint at plumbing walls & wet areas, suspended 2'x2' vinyl covered acoustic tile with aluminum grid ceiling at 9'-0" A.F.F.

G. Drug 40 SF – blocking at partitions for owner provided/ contractor installed drug vault. Sealed concrete floors, 4" rubber base, painted gypsum at stud partition, painted 8" CMU, painted suspended gypsum ceiling at 9'-0" A.F.F, or exposed deck (paint) with walls sealed to underside of deck.

H. Unisex Toilet/ Shower 209 SF – ADA compliant, Unisex toilet/ locker area, minimum of two lavatories, space for minimum of four full height vented heavy duty lockers (lockers - N.I.C,) full size washer and dryer hookups (washer & dryer – N.I.C.), Minimum of two manual flush valve toilet fixtures (American Standard or Kohler fixtures & trim). Toilet walls and doors shall be heavy duty, full height without gaps, and lockable to allow for complete privacy. Floor drain at dry-off area at shower, and another floor drain located centrally in the toilet/ wash area. Owner to provide and install the following toilet accessories: toilet paper dispensers, paper towel dispenser, soap dispensers, disposable toilet seat cover, and trash cans. Contractor is responsible for all other toilet accessories including but not limited to stainless steel grab bars, stainless steel towel/ coat hooks, stainless steel framed mirrors, stainless steel surface mounted sanitary napkin disposal, etc.). Sealed concrete floors, 4" rubber base, epoxy painted mold and moisture resistant gypsum, suspended 2'x2' vinyl covered acoustic tile ceiling with aluminum grid at 9'-0" A.F.F., epoxy painted suspended mold and moisture resistant gypsum board ceiling at shower room at 9'-0" A.F.F., laminate counter tops/ skirt and stainless steel sinks.

I. Utility 30 SF – Include floor mop sink, wall mounted mop/broom rack with storage shelf, floor drain. Sealed concrete floors, 4" rubber base, painted mold and moisture resistant gypsum at stud partitions, Painted mold and moisture resistant suspended gypsum ceiling at 9'-0" A.F.F, or exposed deck (paint) with walls sealed to underside of deck.

J. Kennel Utility 38 SF – Large utility sink, blocking at partitions for storage. Sealed concrete floors, 4" rubber base, painted mold and moisture resistant gypsum at stud partitions, painted 8" CMU partition, painted mold and moisture resistant suspended gypsum ceiling at 9'-0" A.F.F, or exposed deck (paint) with walls sealed to underside of deck.

K. Corridor/ Administrative Circulation: 258 SF -- Provide service loop in ceiling for wireless

access point in a central location of the main corridor. Sealed concrete floors, 4" rubber base, painted gypsum at stud partition, suspended 2'x2' acoustic tile ceiling at 9'-0" A.F.F.

L. Food Storage 75 SF – Sealed concrete floors, 4" rubber base, painted mold and moisture resistant gypsum at stud partitions, Painted mold and moisture resistant suspended gypsum ceiling at 9'-0" A.F.F.

M. Kennel 2,047 SF (Base Bid) – Twenty individual kennels (4'-0" x 9'-0" inside face of wall to inside face of wall), constructed of a minimum of 6" wide CMU to 6'-8" above finish floor, each kennel will have a caged top (maintain 6'-8" head clearance), a caged front enclosure with a single door facing the exterior wall, and a single opaque door located at the opposite end of the individual kennel. Provide trench drains at each opening of individual kennels. Wall between Kennel Area and Administration Area to be 1-hour rated wall constructed of a minimum 8" CMU sealed to deck (sand or foam filled cores where not grouted) with weather strips around doors, seal all penetrations to prevent sound transfer, and provide epoxy paint or coating with a permeance rating of 0.1 perm or less on kennel side of the wall (full height and width of wall). Kennel alternate shall include a Training Area with a 30'-0" diameter clear unobstructed circle of floor space, and a 10'x10' insulated overhead roll-up door. The training area shall also have concrete locker bases for a minimum of twelve lockers (15"W x 12"D x 72"H Heavy Duty Ventilated Lockers – N.I.C.) Upper windows at kennel area are 4'-0" wide by 2'-0" high, located at a minimum of 6'-0" from A.F.F to bottom of window jamb with 1" insulated translucent glass. Kennel gates and kennel doors to be stainless steel, or galvanized metal, all CMU to have epoxy paint. Sealed Concrete Floors, 4" rubber base, exposed painted structure.

Minimum Requirements

Civil:

A. Refer to owner's attached site criteria drawing for intent.

B. Land Survey and Geotechnical Report provided by Owner (**See Attachments E & F**)

C. Utilities shown on criteria drawings are for reference only.

D. Provide 13'-0"x14'-0" concrete pad to be used for a future outbuilding (Outbuilding is N.I.C.) Coordinate with Owner for location and verify size.

E. Locate/ detail concrete mechanical pad for outside equipment as necessary for mechanical design. Size pad per equipment sizes and clearances. Slope pad for proper drainage. Equipment to be arranged to allow maintenance access. Refer to structural and mechanical sections of this document.

F. A 12'-0" wide gravel access drive from service area to rear of building shall be included as an alternate. Access drive should connect to an exterior door near food storage, to the rear of the building, and to the 13'-0"x14'-0" concrete pad for future outbuilding.

Structural:

A. The design intent is for a pre-fabricated metal building. However, other construction types and/or structural systems may be proposed by the Design Team through value engineering, but must be approved by Owner. Structural system(s) shall be based on Owner's requirements as outlined, per attached criteria drawings, building typology & function, constructability, durability, cost, fabrication time, project intent, and all applicable codes and regulations.

B. All concrete foundations, slabs, aprons & sidewalks shall be per ACI and test at 4,000 psi @ 28 days unless otherwise noted.

C. Slab on grade to be trowel finished & sidewalk/aprons to be broom finished.

D. Slab on grade joints to be saw cut and 12 ½' centers +/- and filled with polyuria joint filler.

E. Allocate funds within budget for independent concrete testing on foundation, floor slabs and exterior concrete.

F. Pipe bollards are required at exterior of overhead doors. See alternates for overhead door locations – locate pipe bollards on civil, show details.

G. Foundation designs shall consider the following:

   a. Building loading per current codes and standards broken down by load case.
   b. Door locations (show slab detail with thermal break)
   c. Locations of interior walls.
   d. Anchor bolt design (sizes, spacing, and load reactions), if applicable.
   e. Recess anchor bolts and plates at slab, where applicable.
   f. Location of plumbing and electrical penetrations in the floor slab and foundation wall.
   g. Location of electrical service
   h. Location of building waste piping
   i. Location of HVAC unit(s)

Architectural:

A. Refer to owner's attached floor plans (criteria drawings) for intent.

B. Loose Furniture is shown for reference only in Owner's criteria drawing. (Loose Furniture – N.I.C unless otherwise noted).

C. Building layout and structure shall allow for future expansion (building addition) of the Kennel Area to allow for additional individual kennels.

D. Provide wood blocking at stud partitions where casework, lockers, and all other wall mounted items are shown including items that are N.I.C. Heights and locations to be coordinated with owner.

E. Vertical blinds at all exterior windows for Administrative Area, and interior windows at Conference/ Break Room.

F. Door Hardware Manufacturer: BEST – no substitutions. 45H Series Mortise Locks, Precision Panic, 626 finish – satin chromium plated (brass base material), Owner to install 7 pin R series cores. Lever handles shall be provided as required per ADA. Provide electric strikes at all exterior swing doors.

G. Design Team is responsible for initial color schemes unless noted otherwise and should provide color boards with actual material samples to the Owner for approval. Selected by Owner Items shall be from the manufacturer's full range of colors.

H. Finishes – Minimum Guidelines:

a. Administrative Areas (Unless Otherwise Noted): Sealed Concrete Floors, 4" Rubber Base, Painted Gypsum or CMU Partitions, Suspended Ceiling (2'x2' Acoustic Tile)

b. Mechanical & Electrical Rooms: Sealed Concrete Floors, 4" Rubber Base, Painted Gypsum or CMU Partitions, exposed deck (paint).

c. Veterinarian: Sealed Concrete Floors, 4" Rubber Base, Mold and Moisture Resistant Gypsum or CMU Partitions with Mold and Moisture Resistant Finishes (examples: epoxy paints, moisture resistant coatings, ceramic tile, etc.), Suspended Ceiling (2'x2' Vinyl Covered Acoustic Tile with Aluminum Grid).

d. Drug: Sealed Concrete Floors, 4" Rubber Base, Painted Gypsum or CMU Partitions, Painted Gypsum Board Ceiling.

e. Toilet/ Shower: Sealed Concrete Floors, 4" Rubber Base, Mold and Moisture Resistant Gypsum or CMU Partitions with Mold and Moisture Resistant Finishes (examples: epoxy paints, moisture resistant coatings, ceramic tile, etc.), Suspended Ceiling (2'x2' Vinyl Covered Acoustic Tile with Aluminum Grid, and/ or Painted Mold and Moisture Resistant gypsum board), laminate counter tops/ skirt.

f. Utility Rooms: Sealed Concrete Floors, 4" Rubber Base, Painted Mold and Moisture Resistant Gypsum or CMU Partitions, Painted Mold and Moisture resistant Gypsum Board Ceiling or Exposed Deck if walls extend & seal to deck (Paint).

g. Corridor/ Administrative Circulation: Sealed Concrete Floors, 4" Rubber Base, Painted Gypsum or CMU Partitions, Suspended Ceiling (2'x2' Acoustic Tile).

h. Food Storage: Sealed Concrete Floors, 4" Rubber Base, Painted Gypsum or CMU Partitions, Painted Gypsum Board Ceiling or Exposed Deck if walls extend & seal to deck (Paint).

i. Kennel Area (Unless Noted Otherwise): Minimum 6" CMU walls at individual Kennels, exterior walls to have CMU up to 32" above the finished floor, kennel gates and kennel doors to be stainless steel, or galvanized metal, all CMU to have epoxy paint or other coating to resist moisture, mold, mildew, and corrosion from urine, feces, and cleaners up to 32" above finished floor. Sealed Concrete Floors, exposed deck (paint), Painted Mold and Moisture Resistant Gypsum, CMU, or Metal Liner Panel above the 32" CMU walls

around perimeter. Other materials to be evaluated on durability, chew resistance, and corrosion resistance to urine, feces, and cleaners.

j. All gypsum board products (walls and/or ceilings) to be minimum 5/8" thick.

k. Ceiling Panels 2'-0" x 2'-0", minimum NRC of .75, grid and panel color: white. Manufacturers: USG, Armstrong, CertainTeed, or Approved Equal

I. Exterior Construction - Minimum Guidelines:

a. Gutters and downspouts shall be included at all sidewalls and shall be seamless metal gutter with matching downspouts. Provide splash-blocks at all downspouts to drain water away from building unless tied into storm system.

b. Provide steel doors and steel knock down frames unless noted otherwise. Paint all steel doors and frames. Exterior doors to be insulated and pre-primed with a rust inhibitive coating as specified in ANSI A 250, (Paint). Doors in wall dividing the Kennel Area from the Administrative Area to be insulated and pre-primed with a rust inhibitive coating as specified in ANSI A 250, (Paint). Provide exterior doors with low infiltration weather stripping and sealants for weather protection. Thresholds shall have offset to stop water infiltration while maintaining accessibility compliance. Hollow metal doors, frames, and related construction in exterior walls, Kennel Area, Restrooms, and Veterinarian Area, shall be factory primed with a rust inhibitive coating as specified in ANSI A 250. Manufacturer's primer shall be compatible with field finish coating system. Mullions to be removable by key at double doors.

c. Overhead doors shall be a minimum of 10'-0" wide x 10'-0" high, furnished with minimum 24 gage thermal insulated panels, full perimeter weather-stripping, and manual door operation. Doors shall be capable of withstanding the design wind loading and still operate normally. Coating material shall be hot-dipped galvanized with a factory powder-coat painted finish (Owner to select color from manufacturer's full color range).

d. Hollow Metal Framed Windows or Storefront Entrances & Windows: If Exterior Aluminum Storefront: non-operable, thermally broken. Aluminum Widow Manufacturers: Kawneer, YKK AP, or Approved Equal. If Hollow Metal Frames: non- operable, pre-primed with a rust inhibitive coating as specified in ANSI A 250, (Paint).

e. Exterior glazing shall be tempered insulating glazing, Low-E, Maximum Solar Heat Gain Coefficient .30, and Minimum Transmission of Visible Light 40%. Clerestory/ windows providing light only (no views) may use a different glazing options or translucent glass with Owner's review & approval.

f. Wood used at exterior walls or roof to be pressure treated wood.

J. Interior Construction - Minimum Guidelines:

a. Signage style to be coordinated with Owner. Locations, size, colors, materials, room names, and numbering system shall be approved by Owner and shall conform to signage

ordinance to be provided by Owner. Signage shall be provided and installed by the Contractor.

b. Interior steel doors and windows: provide steel knock down frames, galvanized for areas exposed to moisture, paint, provide weather stripping and sealants for acoustics around doors/windows separating the Kennel Area from the Administration Area. Metal doors, windows, frames and related construction shall be factory primed and shall be compatible with field finish coating system.

c. Interior glazing to be ¼" clear tempered glass.

H. Painting - Minimum Guidelines:

a. Primers and finish-coat materials shall be compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

b. Design /Build Contractor shall provide manufacturer's best-quality paint material of the various coating types that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

c. All finish paint colors and sheen shall be approved by Owner in advance.

d. Gypsum board surfaces shall be primed and then finish painted with two coats of egg-shell acrylic enamel.

e. Interior ferrous metal surfaces shall be primed and then finish painted with two coats of semi-gloss alkyd-enamel.

f. Paint or stain shall not be applied over UL, FMG, or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

g. Exterior ferrous metal surfaces shall be primed with rust inhibiting primer and then finish painted with two coats of semi-gloss alkyd-enamel.

I. Casework - Minimum Guidelines:

a. Wall and base cabinets shall be of the same construction and appearance, with solid ends and frame fronts. All ends, bottoms, backs, and partitions shall be plywood. Cabinet doors and drawer fronts shall be either medium density particleboard or medium density fiberboard core with like materials both faces. Construction of cabinets shall be by mortise & tenon, dovetail, or dowel and glue joints. Laminate finish for all exposed surfaces – Laminate colors to be approved by owner.

b. Wall and base cabinets shall be constructed to meet store quality grade as defined in AWI Quality Standards.

c. Cabinet hardware shall include two self-closing hinges for each door and two side-mounted metal drawer slides for each drawer and pulls for all doors and drawers as follows. All cabinet hardware exposed to view shall be ANSI/BHMA 156.9, Grade 1, and

comply with the following requirements:

d. Concealed Euro-Style, back mounted hinges with opening to 165 degrees and a self-closing feature at less than 90 degrees, drawer slides with a static rating capacity of 100 lbs. (444N), and drawer catches with self-closing hardware.

Plumbing

A. Materials, equipment, fixtures, and other appurtenances shall comply with applicable Underwriters Laboratories, (UL) Inc., American National Standards Institute, Inc., and National Electrical Manufacturer's Association standards or applicable standards of a similar independent testing organization. All materials shall be new, and shall bear the label of Underwriters Laboratories whenever standards have been established and label service is normally and regularly furnished by the agency. All equipment provided shall be listed and labeled suitable for the specified purpose, environment, and application and installed in accordance with manufacturer's instructions.

B. Plumbing fixtures shall be provided in accordance with the IBC, IPC, and as specified.

C. All sinks, fixtures, associated accessories, and proper fixture support shall be supplied and install by Contractor.

D. Plumbing fixtures shall meet all requirements for the ADA (Americans with Disabilities Act).

E. Water closets (American Standard or Kohler fixtures and trim) shall be standard floor mounted manual flush valve type (Sloan Royal Flush Valves, Sloan Crown, or Zurn Sloan Clone), white vitreous china, floor-mounted, siphon jet, 1.5 gallons per flush, standard manual flush valve type with white solid plastic front seat.

F. Service sink faucets – Moen model #8230, or Delta equal.

G. Lavatory sink – Moen model #8413 finishes to match counter tops with grid drains, or Delta equal.

H. Break room kitchen type faucet – Moen model #8710, or Delta equal.

I. Shower shall be ADA type, handicap shower valve shall be Moen model #8346, or Delta equal.

J. Regular shower heads and valves – Moen model #8375, or Delta equal.

K. No galvanized water pipe in or outside buildings.

L. Provide backflow preventer on domestic water system,

M. Watts #9 reduced pressure backflow preventers for high hazard use.

N. Provide air chambers or shock absorbers at plumbing fixtures.

O. Valves shall be provided at water supplies to fixtures and to provide ease of maintenance as required in the IPC. Provide shutoff valves on utilities outside building and isolation valves inside buildings at each fixture.

P. Valves shall be single domestic manufacturer. Valves 2-inches and smaller shall have screws or solder ends. Valves larger than 2-inches shall have flanged ends.

   a. No Gate valves preferred, Ball Valves preferred.

b. Check valves 2 inches and smaller shall be rated Class 125 SWP<5 degree T- pattern swing check type, meeting MSS SP80. ASTM B-62 bronze body. Brass, Bronze or TFE disc with stainless steel disc pins. Brass disc pins are not acceptable. Check valves 2-2 Yz inches and larger shall be Class 125 SWP, ASTM A126 Class B cast iron body, bronze trim, swing check meeting MSS SP71.

c. Globe valves 2 inches and smaller shall be Class 150 SWP, valves meeting MSS SP80 ASTM B-62 bronze body. B-62 bronze stem with union bonnet. TFE seating on disc. Handwheel shall be malleable iron. Aluminum or die cast handwheel are not acceptable. ASTMA126 Globe valves 2-2 1/z inches and larger shall be Class 125 SWP, Class B cast iron body, bronze trim meeting MSS SP85.

d. Butterfly valves shall be tapped lug body style, meeting MSS SP67. Body to be ASTM.

e. A126 Class B cast iron, stems must be two piece, Type 416 or Type 316 stainless steel and positively retained with lock plate or gear removed. Disc to be ASTM B-148 aluminum bronze, with integral disc/stem connection. Waterway shall be free of all pins or bolts. Seats and seals shall be field replaceable EPDM cartridge type suitable for temporary deadened service to the rate pressure of the valve with the downstream flange removed. Valves shall be bi-directional. Valves12 inches and smaller shall be rated 200 WOG, 14 inches and larger 150 WOG. Butterfly valves 6 inches and smaller shall have lock lever handles with minimum of 10 locking positions. Valves 8 inches and larger shall have a weatherproof worm gear ASTM A126. Class B cast iron actuator with iron handwheel. Aluminum gear boxes will not be accepted.

f. Ball valves 3 inches and smaller shall be rated 150 SWP, 600 WOG meeting WWV 35C Type II, Class A, Style 3. Valves shall be two pieces treaded ASTM B0584 bronze body, smooth bore, solid or tunnel drilled, large port, stainless steel ball providing laminar flow. Seats and seals shall be reinforced Teflon. Stem shall be of blowout-proof design with threaded adjustable packing follower. Packing shall be retained under full working pressure with handle or handle nut removed. Brass valves shall not be accepted.

g. Sweat or threaded valves are preferred, flanged valves only as necessary.

Q. Saddle taps are not allowed.

R. Keyed freeze-proof angle type, copper alloy hose bibs with vacuum breaker shall be provide along building exterior at a minimum of each of the major North, East, South, and West elevations.

S. Use Lochinvar Energy Saver Residential Electric hot water generation equipment with 8 year Warranty , or equivalent.

T. Use Teledyne or 96% thermal efficiency hot water generation equipment, or equivalent A.O. Smith Legend. Lochinvar New Generation also acceptable.

U. All restrooms, shower areas, and wet areas to have a floor drain to protect the building from valve failure and to improve housekeeping maintenance. Make trap primers accessible for repair.

V. Schedule 40 PVC pipe. Provide Orion chemical resistant pipe, or Enfield (no glass or duriron) pipe only as required.

W. Trench Drain Design to be approved by owner based on durability, carrion resistance, maintenance, K-9 health & safety, and cost. Design Team may propose either a pre-fabricated trench drain system or a cast –in-place concrete system. Owner to approve trench drain system.

X. All tap fees and permit fees shall be included in the documents as the contractor's expense and responsibility.

Y. Specific maintenance data, video taped training, and complete 0 & M manuals for all equipment shall be incorporated and delivered as part of the project close out requirements.

HVAC

A. Include complete design, installation, and startup of an overall HVAC system to meet or exceed the requirements of the Kentucky Building Code.

B. Units and thermostats for interior administration spaces and kennel area shall be separate. Thermostats shall provide 7 day programming with at least 4 time periods per day.

C. Supply, exhaust, and outside air shall be ducted for all spaces, i.e., not taken through ceiling plenums, shafts, mechanical equipment rooms, corridors, or furred spaces.

D. Exhaust/return grilles shall be located away from supply air diffusers in a manner that creates uniform, low velocity airflow across the space.

E. Exhaust/return grilles shall NOT be located at floor level, to reduce exposure to hair and debris when spray cleaning kennels.

F. Heating/cooling/moisture loads shall be designed using the 0.4% weather design conditions for Lexington KY per ASHRAE Handbook of Fundamentals.

G. Heating and air conditioning is required for the administration area.

   a. Heating and air conditioning shall be provided by a packaged air-source heat pump systems or split heat pump systems with dual- or multi-staged cooling and electric resistance supplemental heat.
   b. The system shall meet or exceed the efficiency levels in Table 5-8.
   c. Indoor design conditions shall be 70F db / 50% RH.

H. Heating and air conditioning required for the kennel area:

   a. Heating and air conditioning shall be provided by a packaged air-source heat pump systems or split heat pump systems with dual- or multi-stage cooling and electric resistance supplemental heat.
   b. The system shall meet or exceed the efficiency levels in Table 5-8.
   c. The system shall maintain space conditions above 55F db (heating) and below 75F db / 70% RH (cooling).
   d. The system shall maintain a space temperature no less than 55F db.

e. Supplies or returns shall not be located at floor level, to reduce exposure to hair and debris when spray cleaning the kennels.

Table 5-8 Constant-Volume Heat Pump Efficiency Levels*

Primary Space Heating and Cooling			
Size Category, Air-Source Heat Pump	**Cooling Efficiency**	**Heating Efficiency**	
<65,000 Btu/h	15.0 SEER 12.0 EER	9.0 HSPF	
65,000 – 135,000 Btu/h	11.5 EER 12.8 IEER	47°F db/43°F wb outdoor air	3.4 COP
		17°F db/15°F wb outdoor air	2.4 COP
135,000 – 240,000 Btu/h	11.5 EER 12.3 IEER	47°F db/43°F wb outdoor air	3.2 COP
		17°F db/15°F wb outdoor air	2.1 COP
≥240,000 Btu/h	10.5EER 11.3 IEER	47°F db/43°F wb outdoor air	3.2 COP
		17°F db/15°F wb outdoor air	2.1 COP

* SEER = seasonal energy efficiency ratio, EER = energy efficiency ratio, IEER = integrated energy efficiency ratio, HSPF = heating seasonal performance factor, db = dry bulb, wb = wet bulb, COP = coefficient of performance.

I. Air circulation in the kennel area shall be designed to distribute 100 CFM through each holding pen/ individual kennel.

J. Outdoor air ventilation for the kennel area shall be provided by an exhaust-air energy recovery device. The device shall:

   a. Have a total effectiveness no less than 70%,

   b. Provide outdoor air equal to or greater than 2 volumetric air changes per hour, and

   c. Include factory designed, 4” filter racks on both sides of the wheel.

K. The kennel area shall be slightly negative (exhaust) relative to the administration space to minimize the transfer of odors.

L. Amana Heat Pump ASZC18 with matching Amana Variable Speed Air Handler and Amana ComfortNet Communications Controls; 18 Seer Minimum; or Equal. HVAC materials, equipment, fixtures, and other appurtenances shall comply with applicable Underwriters Laboratories, (UL) Inc., American National Standards Institute, Inc., and National Electrical Manufacturer’s Association standards or applicable standards of a similar independent testing organization. All materials shall be new, and shall bear the label of Underwriters Laboratories whenever standards have been established and label service is normally and regularly furnished by the agency. All equipment provided shall be listed and labeled suitable for the specified purpose, environment, and application and installed in accordance with manufacturer’s recommendations. All insulation shall be asbestos free.

M. Specific maintenance data, video taped training, and complete 0 & M manuals for all equipment shall be incorporated and delivered as part of the project close out requirements.

Communications Wiring

A. Computer cables shall utilize Ethernet 568-B standard.
B. Cat6 cables to be used for all Data
    a. Cable shall be BLUE in color.
    b. Design/ Building Team is responsible for providing and installing cable, and shall use Gray Bar, Anixter, CDW-G, or Approved Equal.
C. Network jacks shall be PANDUIT brand, and BLUE in color.
D. Cat6 Patch Panels in the wire closets shall be PANDUIT brand punched down to 568-B standard.
    a. Contractor is responsible for providing and installing jacks and panels, and shall use Gray Bar, Anixter, CDW-G, or Approved Equal.
    b. A Two post or four post rack shall be used in wire closet/ data room. The rack shall hold Ethernet switches and patch panels.
    c. Ethernet switches shall be Extreme brand with lifetime warranty and PoE+. Model number to be verified by Owner's IT.
E. 1000VA UPS (APC or equivalent) in wire closet/ data room for network switches. UPS shall be installed at the bottom of the rack.
F. Phone cables shall utilize Ethernet 568-B standard.
G. Cat6 cables shall be used for all phones.
    a. Cable shall be GRAY in color.
    b. Contractor is responsible for providing and installing cable, and shall use Gray Bar, Anixter, CDW-G, or Approved Equal.
    c. Phone jacks shall be PANDUIT brand, and GRAY in color.
    d. 120V power will be needed in the wire closet/ data room.
H. Service loop (blue) shall be terminated and left in the ceiling (noted on diagram) to be used later for wireless access point. WAP will be provided by Police IT.

Fire Protection

A. Provide and install fire extinguishers, smoke detectors, fire alarm system, horn/strobe, exiting, and all other life safety devices.
B. Building will be non- sprinklered, unless otherwise mandatory by code.

Electrical & Lighting

A. Contractor shall provide an interior electrical system consisting of service entrance wiring and equipment, distribution and lighting panel boards, conduits, feeder and branch circuits, lighting receptacles, including accessories and devices as necessary and required for a complete and usable system.
B. Materials, equipment, fixtures, and other appurtenances shall comply with applicable Underwriters

Laboratories, (UL) Inc., American National Standards Institute, Inc., and National Electrical Manufacturer's Association standards or applicable standards of a similar independent testing organization. All materials shall be new, and shall bear the label of Underwriters Laboratories whenever standards have been established and label service is normally and regularly furnished by the agency. All equipment provided shall be listed and labeled suitable for the specified purpose, environment, and application and installed in accordance with manufacturer's recommendations.

C. The main electrical service panel shall be rated at a minimum of 400 amps 3 phase service, unless otherwise approved by Owner.

D. Basis of Design: Square D (Schneider Electric) NQ Panelboard Interior, 400A, 42-Circuit, Copper Bussing. Approved Equal or Substitutions to be approved by Owner.

E. All wiring shall be 12 gauge copper in conduit. General purpose receptacles and branch circuit wiring and devices shall be in accordance with NEC. Devices shall be full 20-amp rated commercial grade.

F. Electrical & Data shall be installed to allow Owner flexibility in furniture layout and building use. Power and Date shall be provide throughout the administrative and kennel areas. Provide covers for GFI outlet/ receptacle in Kennel and Veterinarian Areas as these spaces may be hosed down with water.

G. Lighting Design Criteria

   a. IES Guidelines for average foot-candles shall be met for each space. The contractor should base design on fixtures currently available on the Owner's price contract, See RFP List of Attachments. Where it is unclear which IES category a space should be rated, the following shall be utilized:
      - Veterinary Area = Emergency Room
      - Drug Storage, Data, Food Storage = Stores
      - Electrical/Mechanical Rooms all = Stores.
      - Kennel as noted below.
   b. Emergency and exterior lighting per code. Building exterior and parking lot to be lit for safe use of the facility.
   c. Lighting in the Conference and Break Areas should be controlled by a dimmer for flexible use.
   d. Lighting in kennels area may be provided by natural or artificial light, or both. Whether lighting is provided by natural or artificial light, or both, the following standards shall be met:
      - There shall be ample lighting by natural or artificial means to provide sufficient illumination to allow routine inspection of the kennel, housing facility and primary enclosures and observation of the dogs at any time and to assure proper cleaning

and good housekeeping practices and for the well-being of the dogs.

- Lighting shall be uniformly diffused throughout the kennel and housing facility where a dog is housed, kept or present, including primary enclosures.
- No areas within the primary enclosures shall have an illumination level below 10 foot-candles.
- All areas of the kennel and housing facility in which a dog is housed, kept or present, including primary enclosures, shall be provided a regular diurnal cycle through natural or artificial light, or both.
- The lighting range provided during the 12-hour light period of the diurnal cycle shall be 40 to 60 foot candles or 430—650 lux, in all areas and rooms of the kennel and kennel housing facility, including primary enclosures, where a dog is housed, kept or present.
- Primary enclosures and other areas of the kennel and kennel housing facility in which a dog is housed, kept or present shall be placed or located in a manner that protects each dog from exposure to excessive light.
- Artificial light. The artificial lighting shall be provided by full spectrum lighting.

e. Lighting in the kennel shall be switched left, right, and center as applicable.

H. Owner to supply “New in Box” fixtures from the attached Owner’s Lighting Catalog **(Attachment G)** to the Contractor to be installed by the Contractor. Fixtures not selected from the Owner’s Lighting Catalog **(Attachment G)** shall be provided and installed by the Contractor. The Design Team is responsible for preparing an itemizing a list of fixtures and quantities to be ordered by the Owner from the Owner’s Lighting Catalog. The Contractor shall allow the Owner a minimum of ninety (90) days from lighting approval to provide fixtures. Design Team to include line item on probably construction cost estimate for funds allocated for Owner provided light fixtures.

I. All Lighting fixtures to be LED.

J. Emergency lighting shall be provided per code.

K. Grounding of building per NEC.

ALTERNATES

A. Add Alternate #1: Increase Kennel area by approximately 908 SF including additional Civil & MEP requirements to allow for a training area. Provide 10'x10' overhead roll-up insulated door, egress door, and additional upper windows. Training area shall accommodate a 30'-0" clear diameter unobstructed circle of floor space. See Criteria Drawings.

B. Add Alternate #2: Provide 12'-0" wide gravel access drive from service area to rear of building. Access drive shall connect an exterior door near food storage to allow for stocking the food storage room, shall connect to the double doors of the base building (or overhead door if alternates are selected), and shall connect to a 13'-0"x14'-0" concrete pad (concrete pad for future out building – Out Building is N.I.C.).

C. Add Alternate #3: Provide 500 S.F. of Epoxy Flooring with minimum 4" turned-up base in lieu of minimum floor finish and base outlined in the Technical Requirements. Located of Alternate Epoxy flooring to be at toilet/shower area, vet area, and/or areas selected by Owner.

02 POLICE CANINE – FLOOR PLAN (BASE BID WITH ALTERNATE)
SCALE: 1/8" = 1'-0"

ADMIN: 1,737 SF
KENNEL: 2,955 SF
TOTAL: 4,692 SF

01 POLICE CANINE – FLOOR PLAN (BASE BID)
SCALE: 1/8" = 1'-0"

ADMIN: 1,737 SF
KENNEL: 2,047 SF
TOTAL: 3,784 SF

www.lexingtonky.gov
LEXINGTON
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
DIVISION OF GENERAL SERVICES
200 EAST MAIN STREET, LEXINGTON, KY 40507
PHONE: (859) 258-3900
FAX: (859) 258-3909

Criteria Drawing – Not for Construction

A New:
Police Canine Facility
Lexington Police Department
Lexington, KY

Floor Plan

Attachment C

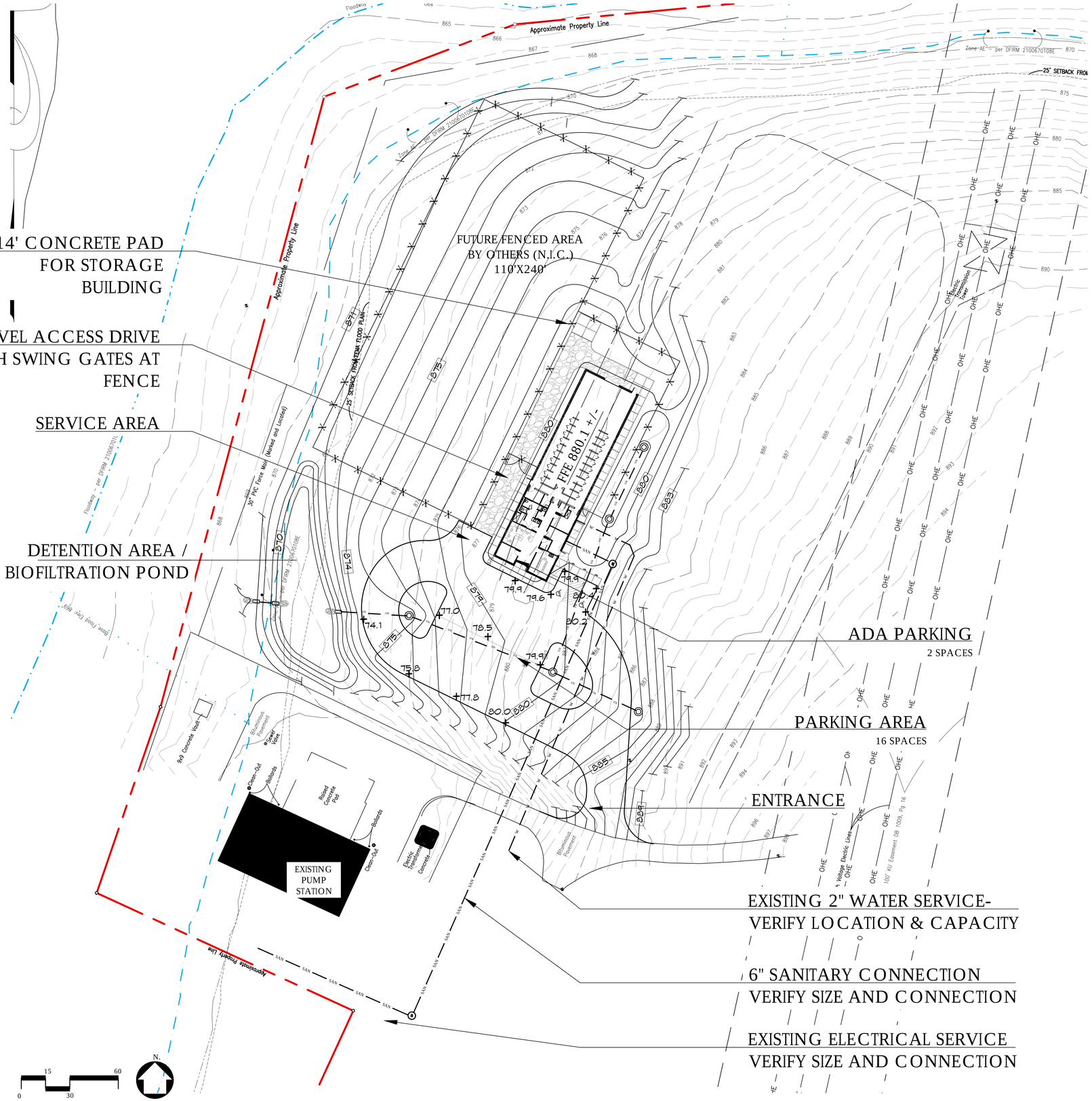
DATE:
MAY 10, 2018

DRAWN BY BY:
CHRIS LITTON

CHECKED BY:
– –

APPROVED BY:
– –

SHEET NO:
A1-1



element design
landscape architecture+civil engineering+planning
366 south broadway
lexington, ky 40508
p. 859.389.6533
f. 859.389.6534
www.element-site.com

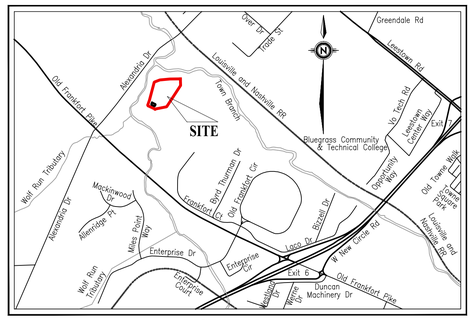
LFUCG Canine Facility

688 Byrd Thurman Road
Lexington, Kentucky 40511

Lexington - Fayette Urban County Government

Date: July 24,2017
Drawn by: RAF / LDP
Checked by: RAF
Revision:
Revision:
Revision:
Revision:

Attachment D



VICINITY MAP
Scale 1" = 1500'

ZONING REQUIREMENTS

I-1 (LIGHT INDUSTRIAL ZONE)

MINIMUM LOT SIZE	NO LIMITATION
MINIMUM LOT FRONTAGE	NO LIMITATION
MINIMUM FRONT YARD	20'
MINIMUM EACH SIDE YARD	NO LIMITATION
MINIMUM REAR YARD	NO LIMITATION
MINIMUM USEABLE OPEN SPACE	NO LIMITATION
MINIMUM LOT COVERAGE	NO LIMITATION
MAXIMUM HEIGHT OF BUILDING	75', EXCEPT WHEN A SIDE OR REAR YARD ABUTS A PROFESSIONAL OFFICE OR RESIDENTIAL ZONE, THEN A 3:1 HEIGHT TO YARD RATIO.

LEGEND

- CORNER NOT RECOVERED
- FOUND MONUMENT AS NOTED
- CONTROL POINT / BENCHMARK
- ELECTRIC BOX (EB)
- CLEAN OUT (c/o)
- CHAIN LINK FENCE
- BOARD FENCE
- OHE — OHE — OVERHEAD ELECTRIC
- 871.3 SPOT ELEVATION

ORIGIN OF BEARINGS & COORDINATES

THE BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON KENTUCKY STATE PLANE GRID NORTH, KENTUCKY STATE PLANE NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD 83). PARTICULARLY, THE BEARINGS AND COORDINATES ARE BASED ON THE PLAT OF "TOWN BRANCH INDUSTRIAL PARK", PLAT CABINET "N", SLIDE 513, FAYETTE COUNTY CLERK.

ORIGIN OF ELEVATIONS

THE ELEVATIONS SHOWN HEREON ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. PARTICULARLY, THE ELEVATIONS ARE BASED ON A GNSS SURVEY UTILIZING A TRIMBLE R6 GNSS RECEIVER AND THE KYTC VRS SYSTEM.

METHOD OF SURVEY

THIS GROUND SURVEY WAS PREPARED USING A TRIMBLE S-6 ROBOTIC TOTAL STATION. THE STATE PLANE COORDINATES SHOWN WERE DERIVED FROM A REAL-TIME (VIA CELLULAR COMMUNICATION) OBSERVATION UTILIZING A TRIMBLE R6 GNSS RECEIVER AND THE KYTC VRS SYSTEM.

CERTIFICATE OF ACCURACY

THE SURVEY SHOWN HEREON WAS MADE BY ACCURATE FIELD MEASUREMENTS BY METHOD OF RANDOM TRAVERSE WITH A HORIZONTAL CLOSURE RATIO OF 1 : 168,274.

F.E.M.A. FLOOD HAZARD AREA

BASED ON AN INSPECTION OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S MAP NUMBER 21006701O8E WITH A DATE OF REVISION OF MARCH 3, 2014 FOR COMMUNITY NUMBER 210067 IN LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, STATE OF KENTUCKY, WHICH IS THE CURRENT FLOOD INSURANCE RATE MAP (FIRM) FOR THE COMMUNITY IN WHICH THE SUBJECT PROPERTY LIES. THE PROPERTY LIES IN ZONE "AE" (SHADED), DESIGNATED AS AREAS OF 1% CHANCE OF ANNUAL FLOOD.

UTILITY PROVIDERS

NATURAL GAS
COLUMBIA GAS
2001 MERCER ROAD, LEXINGTON, KY
BRYAN SLONE
(859) 288-0253

ELECTRIC
KENTUCKY UTILITIES
500 STONE ROAD, LEXINGTON, KY
RICHARD COMPTON
(859) 367-4309

WATER
KENTUCKY AMERICAN WATER COMPANY
2300 RICHMOND ROAD, LEXINGTON, KY
GREG TOMCO
(859) 268-6362

WASTE WATER
LFUCG DIVISION OF WATER QUALITY
125 LISLE INDUSTRIAL AVENUE
SUITE 180
LEXINGTON, KY 40511
(859) 425-2400

STATE ROADS
TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DISTRICT OFFICE NO. 7
763 NEW CIRCLE ROAD NW
LEXINGTON, KENTUCKY

TELEPHONE
WINDSTREAM
130 W. NEW CIRCLE RD, LEXINGTON, KY
DARRIN BUSKIRK
1-888-483-6888

CABLE
SPECTRUM
2544 PALUMBO DRIVE, LEXINGTON, KY
(859) 514-1400

The new look for Digging Safely in Kentucky
Kentucky 811
Call 811 Before You Dig.

UNDERGROUND UTILITIES DISCLAIMER

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES..

GRAPHIC SCALE
30' 0 15' 30' 60' 120'
(IN FEET)
1 inch = 30' ft.

KENTUCKY STATE PLANE, GRID NORTH

Attachment E

Floodway - per DFIRM 21006701O8E
Base Flood Elev. 869'
5/8" Rebar w/ Orange Cap
N:208493.69
E:1552937.02
Z:866.92
Approximate Property Line
Test Pit
Surface = 868.4
Rock = 867.4
1/2" Rebar with Plastic Surveyor's Cap (found, PLS 3185)
8' Chain Link Fence
30" PVC Force Main (Marked and Located)
Zone AE - per DFIRM 21006701O8E
25' SETBACK FROM FEMA FLOOD PLAIN
5/8" Rebar w/ Orange Cap
N:208689.63
E:1553098.77
Z:863.03
9x9 Concrete Vault
Edge of Pavement
Bituminous Pavement
Sewer Valve
Clean-Out
Bollards
FFE 870.62
FFE 870.70
FFE 870.68
1-Story Metal Building
Raised Concrete Pad
689 Byrd Thurman Drive
Lexington-Fayette Urban County Government
Deed Book 2890, Page 385
Parcel 1
Plat Cabinet "N", Slide 513
Test Pit
Surface = 877.5
Rock = 874.5
Test Pit
Surface = 878.3
Rock = 874.3
4 Board Plank Fence
Test Pit
Surface = 987.5
Rock = 986.5
Test Pit
Surface = 880.8
Rock = 877.8
Test Pit
Surface = 881.7
Rock = 877.7
Exposed Rock
Concrete Curb
Electric Transformer
Concrete
8' Chain Link Fence
Gate
Test Pit
Surface = 884.8
Rock = 879.8
Mag-Nail
N:208132.44
E:1553132.39
Z:884.42
5/8" Rebar w/ Orange Cap
N:208212.27
E:1553174.21
Z:857.57
Test Pit
Surface = 888.6
Rock = 883.6
Test Pit
Surface = 890.4
Rock = 888.4
Test Pit
Surface = 989.2
Rock = 986.2
Mag-Nail
N:208153.12
E:1553266.03
Z:893.97
Overhead High Voltage Electric Lines
100' KU Easement DB 1009, Pg 16
Electric Transmission Tower
5/8" Rebar w/ Orange Cap
N:208868.45
E:1553400.96
Z:885.77
Base Flood Elev. 869'
Floodway - per DFIRM 21006701O8E
Zone AE - per DFIRM 21006701O8E
25' SETBACK FROM FEMA FLOOD PLAIN

LAND SURVEYOR'S CERTIFICATION

I HEREBY DO CERTIFY THAT THIS SURVEY WAS PREPARED BY ME OR UNDER MY DIRECTION; AND THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE LOCATIONS AND ELEVATIONS SHOWN ARE TRUE AND ACCURATE. THE GROUND SURVEY UPON WHICH THIS MAP IS BASED WAS CONCLUDED ON JULY 10, 2017. THIS IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED FOR LAND TRANSFER. THE PROPERTY LINES SHOWN HEREON ARE BASED ON MONUMENTS FOUND ON THIS PROPERTY AND ADJACENT PROPERTIES.

STATE OF KENTUCKY
KEVIN M. PHILLIPS
3350
LICENSED PROFESSIONAL LAND SURVEYOR

KEVIN M. PHILLIPS, PLS # 3350 — 7-18-2017 DATE

REVISION SUMMARY

REVISION NUMBER	REVISION DATE	

ENDRIS engineering
771 ENTERPRISE DRIVE
LEXINGTON, KY 40510
PH: 859 253-1425
800-613-9244
FAX: 859 233-1436
email: mail@endris.com
Land Surveys - Construction Layout - GPS

L.F.C.G. K9 FACILITY

TOPOGRAPHIC SURVEY OF PROPOSED
689 Byrd Thurman Drive
Lexington, Fayette County, Kentucky
Prepared For:
Lexington-Fayette Urban County Government

This plan does NOT represent a boundary survey but otherwise complies with 201 KAR 18:150

SURVEY COMPLETED July 18, 2017

JOB NUMBER	3840
DRAWING DATE	7/18/2017
DRAWING FILE	LFUCG Canine Facility
SCALE:	1" = 30'

0 30'

X:\3840 LFUCG Canine Facility\3840 LFUCG Canine Facility.dwg, 7/18/2017 2:23:24 PM, J.L. Endris Engineering, KMP

Geotechnical Engineers and Geologists

Geotechnical Engineering Exploration

Project:
Lexington Fayette Urban County Government
Canine Facility
Geotechnical Report
Lexington, Kentucky

Prepared for:
Lexington Fayette Urban County Government

September 22, 2017

September 22, 2017

Mark A. Arnold
Lexington Fayette Urban County Government
200 E. Main Street, 4th Floor
Lexington, KY 40504

RE: Report Geotechnical Exploration
LFUCG Canine Facility
Lexington, Kentucky
L.E. Gregg Project Number: 2017048

Mr. Arnold,

L.E. Gregg Associates is pleased to present our report for the geotechnical exploration performed at the above referenced site. The attached report presents a review of the project information provided to us, a description of the site and subsurface conditions encountered, as well as any foundation and earthwork recommendations for the proposed project. The field exploration for this investigation was performed on September 8th, 2017.

Unless prior arrangements are made, any remaining soil samples will be discarded shortly after the issue date of this report. Rock cores will be retained for a period of 12 months and then discarded.

We appreciate the opportunity to assist you on this project. If we can be of further service on this or other projects, please contact us.

Respectfully,

L.E. GREGG ASSOCIATES

Steven Mortimer, P.E.
Project Engineer

Jason Ainslie, P.E.
President

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 PURPOSE OF EXPLORATION

The purpose of this exploration was to determine the general subsurface conditions existing at the project sites through a program of controlled drilling, sampling, and testing; and to provide these findings to the design team in order to aid in the design and placement of the structure. The purpose and scope of services were based on discussions with Mark Arnold of Lexington Fayette Urban County Government (LFUCG) and outlined in L.E. Gregg proposal P17-069, dated August 10, 2017. More specifically, the objectives are:

1. Determine the textures, thicknesses, consistencies and general physical properties of the soil strata encountered at the boring locations, along with the depths to and elevations of the underlying bedrock surface beneath the proposed structure.

2. Determine the general geologic conditions existing at the site.

3. Determine the detailed characteristics of the underlying bedrock if rock is encountered at a depth where it may be considered an economical choice as the bearing medium.

4. Determine the existing surface and subsurface water conditions at the site and their relation to design, construction, and service of the proposed project.

2.0 PROJECT INFORMATION

2.1 BACKGROUND INFORMATION

Project information was provided in a request for proposal to L.E. Gregg Associates from Mark Arnold with the Lexington Fayette Urban County Government (LFUCG). The proposed project is for the construction of a new canine facility at 688 Byrd Thurman Drive.

2.2 SITE SURFACE CONDITIONS

The proposed site is located at 688 Byrd Thurman Drive, just to the north of an existing pump station. At the time of drilling, the site was covered with low to knee high grasses and old tree lined fences. The site generally slopes down to the northwest towards Wolf Run and Town Branch creeks with +/- 20 ft. of grade change across the entire site. In reviewing currently available historical aerial images, it appears that the area was part of a horse farm until sometime between 2010 and 2014 when the pump station was also constructed. Based on the current proposed grading plan with an anticipated Finished Floor Elevation (FFE) of 880.1 ft., the building pad will require minimal cut and fill.

2.3 SITE GEOLOGY

Geologic information was referenced from Geologic Map of the Lexington West Quadrangle, Fayette and Scott Counties, Kentucky, 1967. Materials underlying the site are classified as being part of the Grier Limestone Member of the Lexington Limestone and are of Middle Ordovician Age. The Grier Member is characterized by limestone and is very light gray to dark-gray, of irregular medium and coarse-grained limestone nodules in argillaceous limestone matrix. Some light-gray bioclastic limestone interbeds with shale throughout the member.

The karst potential in the vicinity of the site is classified as medium and is surrounded by very high-risk areas. There are no known sink holes on the subject property however there are a plethora of small to medium sized sink holes surrounding the subject site. It should also be noted that sinkholes are common in this region and that caverns can extend laterally and may be unobserved from the ground surface. There are no faults on the subject site. Groundwater information was referenced from the Kentucky Groundwater Data Repository Water Well and Spring Location Map, which indicated four (4) active wells and four (4) springs in the vicinity of the site, but none on the site itself. Average depth to groundwater based on the well data is approximately 28.9 feet.

2.4 LABORATORY TESTING

The recovered soil samples were transported to L.E. Gregg's laboratory. Natural moisture content determinations (ASTM D2216), Atterberg limits (ASTM D4318), sieve analysis (ASTM D422), and visual/manual classifications (ASTM D2488) were conducted in general accordance with the American Society of Testing and Materials (ASTM) practices and standards.

3.0 EXPLORATION FINDINGS

3.1 SUBSURFACE CONDITIONS

General

Field testing procedures were performed in general accordance with ASTM practices, procedures, and standards. The borings were advanced using 4 in. solid flight augers (SFA). Samples were recovered in the undisturbed material below the tip of the auger using the standard drive sample technique in accordance with ASTM D1586 or the thin walled tube sampling technique in accordance with ASTM D1587. A 2 in. O.D. (outside diameter) by 1 ⅜ in. I.D. (inside diameter) split-spoon sampler was driven a total of 18 in. with the number of blows of a 140 lb. hammer falling 30 in. recorded for each 6 in. of penetration. The sum of the blows for the final 12 in. of penetration is referred to as the Standard Penetration Test (SPT) result, also known as the N-value, or blow count, which is recorded in blows per foot (bpf). Split spoon samples are generally recovered at 0.0, 1.5, 4.0, 6.5, 9.0 ft., and at 5.0 ft. intervals thereafter. These intervals may be adjusted in the field if gravel, boulders, shot rock, asphalt, or concrete

surfaces are encountered. The boreholes were backfilled immediately with auger cuttings and/or granular material for safety considerations.

Soil Conditions

The geotechnical exploration consisted of six (6) soil test borings, labeled B-1 thru B-6. Boring B-3 thru B-6 were placed at the corners of the proposed structure and B-1 and B-2 were in site areas. The boring locations were located in the field by L.E. Gregg personnel and the elevations are based off of a proposed grading plan provided by the client.

The following subsurface descriptions are of a generalized nature in order to highlight the subsurface stratification features and material characteristics at the boring locations. The boring logs included in Appendix B of this report should be reviewed for specific information at each boring location. Information on actual subsurface conditions exists only at the specific boring locations and is relevant only to the time period that this exploration was performed. Variations may occur and should be expected at the site. All measurements listed below are approximate.

The subsurface conditions are described as follows:

Topsoil was encountered in every boring from the surface to a depth of 4-5 inches.

Natural Lean Clay (CL) materials were encountered in every boring, except B-6, from below the topsoil layer and extending to refusal or weathered rock depths. The lean clay generally contains organics and root fragments, is silty and/or sandy, and contains rock fragments. The color of the material varied from light to dark brown with black mineral deposits. The consistency of the material varies from firm to hard, is moist, with Standard Penetration Test (SPT) "N"-values ranging from 6 to 50+ bpf and natural moisture contents ranging from 21.4 to 31.3 percent.

Natural Fat Clay (CH) materials were encountered in boring B-6 from below the topsoil layer and extending to weathered rock depth. The fat clay generally contains organics and root fragments, is silty and/or sandy, and contains rock fragments. The color of the material varied from brown to dark brown with black mineral deposits. The consistency of the material varies from firm to stiff, is moist, with Standard Penetration Test (SPT) "N"-values ranging from 7 to 11 bpf and natural moisture contents ranging from 23.7 to 26.9 percent.

The results for the soil test borings are summarized in Table 1

Table 1 – Summary of Drilling Depths

Boring	Refusal Depth (ft.)	*Elevation (ft.)	Refusal Elevation (ft.)	Required Cut for FFE of 880.1 (ft.)	Required Fill for FFE of 880.1 (ft.)
B-1	5.0	882	877.0	NA	NA
B-2	4.8	883	878.2	NA	NA
B-3	3.5	881	877.5	0.9	NA
B-4	4.8	878	873.2	NA	2.1
B-5	4.5	878	873.5	NA	2.1
B-6	4.0	881	877.0	0.9	NA

**** Elevations are approximate and are based off of proposed grading plan provided by client.***

Laboratory Testing

Atterberg limits, and grain size analysis were performed on three samples. The laboratory testing results are listed below in Table 2.

Table 2 – Summary of Laboratory Results

Location	Atterberg Limits			Grain Size Analysis		
	LL	PL	PI	Gravel %	Sand %	Fines %
B-4, 1.5-3.0 ft.	48	26	22	0.4	4.0	95.6
B-5, bulk	39	25	14	0.1	2.8	97.1
B-6, 1.5-3.0 ft.	63	30	33	0.0	1.0	99.0

Rock Conditions

Refusal was met in all borings at depths ranging from 3.5-5.6 ft. Boring B-1 encountered refusal at 5.0 ft. and a core was obtained from 5.0-10.0 ft. Core water loss was experienced at approximately 5.6 ft. The core material is limestone, which is light to dark gray, very fine to medium grained with irregular medium and coarse-grained limestone nodules. It contains some light-gray bioclastic limestone interbedded with shale. The core had a recovery (REC) of 100% and a rock quality designation (RQD) of 34%, which indicates continuous bedrock of poor quality.

Water Conditions

Water was not encountered in any of the borings or at the surface at the time of drilling. Groundwater refers to any water that percolates through the soil and can refer to isolated or perched water pockets or water that occurs below the “water table”, which is a zone that remains saturated and water-bearing. The groundwater levels encountered during drilling may fluctuate significantly over time due to weather influences and should not be considered a true static groundwater level.

3.2 SEISMIC SITE CLASSIFICATION

The Kentucky Building Code (current edition), the USGS seismic design website, and ASCE 7-10 Chapter 20 were reviewed to determine the Seismic Site Classification for the site based on the following coordinates, 38.07179°N, 84.55331°W. Based on review of geologic data, previous experience with similar projects, and the subsurface conditions encountered during both field explorations, a **SEISMIC SITE CLASS "B"** would be recommended for any foundations bearing directly on rock or on soil that lies within 10 feet of the bedrock surface. A detailed report of the seismic data is included in Appendix D

Furthermore, using a Site Classification of **B**, we recommend the use of spectral response acceleration coefficients as follows:

0.2 second period: $\mathbf{S_S}$ = 0.185g and Soil Factor = 1.0

1.0 second period: $\mathbf{S_I}$ = 0.091g and Soil Factor = 1.0

The design spectral response acceleration factors are as follows:

$\mathbf{S_{DS}}$ = 0.123

$\mathbf{S_{DI}}$ = 0.061

4.0 GEOTECHNICAL RECOMMENDATIONS

4.1 GEOTECHNICAL CONSIDERATIONS

General

Based on the provided information, the subsurface conditions encountered, and past experience with similar projects, the site is suitable for the proposed development provided the following considerations are addressed. These considerations are briefly summarized below.

Silty/Sandy Soils

Natural materials consisting of silty and/or sandy clays were encountered in each boring. These materials can be sensitive to changing moisture conditions and can degrade under repetitive loading and unloading. Heavy equipment traffic during construction can cause these materials to break down. Care will need to be taken to limit heavy construction traffic across the building pad and the contractor will need to consider changing moisture conditions during construction. The owner and contractor should consider seasonal weather patterns for construction scheduling.

High Plasticity Clays

The soils from borings B-6 are classified as fat clay materials. Atterberg limits testing was completed on a sample from B-6 which resulted in a liquid limit (LL) of 63 and a plasticity index (PI) of 33. Fat clays are known for their high plasticity characteristics and can be subject to high volume changes with fluctuations in moisture content and are also known to have strength loss

with increases in moisture content. The active zone for expansive clays in the region begins at the bearing elevation and can extend to refusal depths. With some exceptions, due to the weather patterns in the central Kentucky region, shrinking and swelling of bearing soils are not generally as severe as other regions since long periods of excessive wet or dry weather patterns typically do not occur. However, if foundation construction and/or site grading take place in the dryer summer and fall months, significant drying of the subgrade could occur after construction is complete in wetter months and become re-saturated causing heave. Conversely, moisture loss can contribute to settlement of soil supported foundations and/or slabs. If moisture fluctuations are not controlled, shrink and swell could continue throughout the life of a structure causing structural issues, increased stress, and/or advanced deterioration.

Organics and Root Material

The samples obtained during the field exploration contained a large amount of root material at depths of 18-48 in. In reviewing historical aerial images, it appears the property was part of horse farm at one time. Deleterious materials which may decay over time, causing subsidence at the surface

Shallow Bedrock

Auger refusal was encountered at depths of 3.5-5.6 ft. in all borings. Bedrock removal will be required based on final grading and building orientation. Rock removal may be rippable; however, hoe ramming may be required.

Ground Water or Free Water

Water was not encountered in any of the borings or on the ground surface at the time of drilling. The available geological information and past experience with similar projects indicates that it is possible that during construction ground water could be encountered. Ground water and/or free water encroaching upon construction excavations should be removed by placing a sump near the source of seepage and then pumping from the sump. Should heavy seepage or ponding of water occur, then L.E. Gregg should be contacted.

Site Drainage

Positive site drainage and adequate subgrade drainage are critical for performance of the proposed foundations and slabs. Large quantities of water should not be allowed to accumulate on the site. Surface water and roof drainage should be directed to drainage structures.

Karst Potential

Karst potential in the location of the site is classified as medium and is surrounded by very high-risk areas. There are no known sink holes on the subject property however there are a plethora of small to medium sized sink holes surrounding the subject site. Close attention should be

given during the construction process to identify possible karst features or surface movement. Adequate drainage to minimize water infiltration into the subsurface during and after construction should be provided to lessen the risk of damage due to karst activity during construction. It should be noted that sinkholes are common in this region and that caverns can extend laterally and may be unobserved from the ground surface. It should also be noted that the rock formations underlying the site are known for horizontal and vertical solution cavities that may go unnoticed for long periods of time. There is a potential for karst features such as solution channels, rock pinnacles, or sinkholes to be encountered during construction. Any significant solution features or dropouts encountered during construction will require remediation and will need to be evaluated on a case-by-case basis. A sinkhole could be repaired by excavating the material to find the throat, then lining the excavation with a filter fabric, and backfilling with crushed aggregate; however, L.E. Gregg should be contacted to provide specific recommendations for remediation of any encountered karst features.

4.2 FOUNDATIONS

The site is underlain by natural lean and fat clay materials with organics and root fragments at depths of 18-48 in. and shallow bedrock. Auger refusal was encountered at depths ranging from 3.5-5.0 ft. Due to the shallow bedrock depths encountered, organics present, and the proposed FFE of 880.1 ft., we are recommending typical spread foundations bearing directly on the underlying bedrock. Rock removal will be required to achieve bearing elevations. The foundations should bear on competent unweathered limestone and should be designed for a maximum allowable bearing capacity of **10,000 psf.**

Design Considerations

We recommend that continuous footings be a minimum of 24 in. wide and isolated spread footings be a minimum of 24 in. by 24 in. The minimum thickness of both continuous and spread footings should be 12 in. As an alternative to bearing on directly on bedrock, the foundation excavations may be trenched down to bedrock and backfilled with lean concrete to the bearing elevation. If this option is chosen, widen footing excavations by a minimum of 6 in. on each side and backfill the foundation excavation from bedrock to the bearing elevation with lean concrete.

Construction Considerations

Excavate foundations down to competent bedrock. L.E. Gregg should observe the bearing surface once foundation excavations have been completed. Please note that foundation excavations may need to be deepened if the weathered bedrock is observed to be unsuitable as a bearing surface.

In order to check the continuity of the bedrock, a 2 to 3 in. diameter air hole should be drilled in the footprint of each column location to a depth of five feet. The hole should then be “probed”

by a qualified geotechnical technician to check for any soft compressible seams, coal or other discontinuities. If this check indicates a discontinuous or compressible seam in the rock, the drilled hole should be excavated deeper. Significant deviations from the specified or anticipated conditions should be reported to the owner's representative and to the foundation designer.

All vegetation, topsoil, unsuitable fill soil (if required), loose rock fragments greater than 6 inches, construction debris, water, and other debris should be removed from the proposed construction areas before concrete placement. Any trench excavations should have adequate shoring and/or benching per OSHA requirements. The foundation support and/or foundation side walls should be protected from freezing weather, severe drying, and water ponding. Positive drainage should be provided to direct surface runoff away from excavations. The foundation elements should not be formed so that concrete completely fills the opened excavations.

4.3 SLAB ON GRADE

General

As previously mentioned, the samples obtained during the drilling exploration contained root fragments and organics. The building pad should be thoroughly proofrolled and areas that will not pass a proofroll should be undercut and replaced with engineered fill. Provided that a minimum of 4 inches of a crushed stone base is placed below the floor slab, a modulus of subgrade reaction, "K_{30}", value of 120 pounds per cubic inch (pci), is recommended for the design of ground supported floor slabs. It should be noted that the "K_{30}" modulus is based on a 30-inch diameter plate load. The floor slab should be fully ground supported and not structurally connected to any walls or foundations in order to reduce the possibility of cracking and displacement of the floor slab due to any differential settlement between it and the foundation. We recommend that a vapor barrier and a minimum of 4 inches of crushed stone be placed beneath the slab to act as a moisture block. The crushed stone or gravel should be kept moist, but not wet, immediately prior to slab concrete placement to minimize curling of the slab due to differential curing conditions between the top and bottom of the slab. These measures should help equalize loading and moisture conditions under the slab. Isolation joints should be provided between the slab and any columns or footing supported walls. Interior construction joints using dowels could be used to reduce any sharp vertical displacements.

4.4 SITE PREPARATION AND GRADING

All vegetation, topsoil, unsuitable fill soil (if required), loose rock fragments greater than 6 in., construction debris, and other debris should be removed from the proposed construction areas. After completion of stripping operations, we recommend that the subgrade be proofrolled with a fully-loaded, tandem-axle dump truck or other pneumatic-tired construction equipment of similar weight. The geotechnical engineer or their representative should observe proofrolling.

Areas judged to perform unsatisfactorily should be undercut and replaced with structural soil fill or remediated at the geotechnical engineer's recommendation.

4.5 FILL PLACEMENT

Material considered suitable for use as structural fill should be clean soil free of organics, trash, or other deleterious materials, and contain no rock fragments greater than 6 in. in any one dimension. Preferably, structural soil fill material should have a standard Proctor maximum dry density of 90 pounds per cubic foot (pcf) or greater and a plasticity index (PI) of 25 percent or less. All material to be used as structural fill should be tested by the geotechnical engineer to confirm that it meets the project requirements before being placed.

Structural fill should be placed in loose, horizontal lifts not exceeding 8 in. thick. Each lift should be compacted per Table 3 below and within the range of minus (-) 2 percent to plus (+) 2 percent of the optimum moisture content. Each lift should be tested by geotechnical personnel to confirm that the contractors' method is capable of achieving the project requirements before placing any subsequent lifts. Any areas which have become soft or frozen should be removed before additional structural fill is placed. One in place density test should be performed a minimum of every 5,000 ft^2 for each 8 in. lift. Adequate surface drainage should be provided during all site grading and fill placement operations.

Please note that compaction efforts can be difficult to achieve using conventional construction methods during wet weather.

Table 3 – Fill Placement (ASTM D 698)

Location	Maximum Dry Density (%)
Footings and Floor Slabs	98.0
Pavement Areas	95.0
Landscape Areas	85.0

4.6 FOUNDATION AND SITE DRAINAGE

To reduce the potential for undercut and construction induced sinkholes, water should not be allowed to collect in the foundation excavations, on floor slab areas, or on prepared subgrades of the construction area either during or after construction. Undercut or excavated areas should be sloped toward one corner to facilitate removal of any collected rainwater, subsurface water, or surface runoff. Positive site surface drainage should be provided to reduce infiltration of surface water around the perimeter of structures and beneath floor slabs. The grades should be sloped away from structures and surface drainage should be collected and discharged such that water infiltration is not permitted.

4.7 BELOW GRADE WALLS

The following parameters are recommended for below grade wall design and construction:

Soil Backfill

- Plasticity Index of the backfill material should be less than 25;
- Provide temporary bracing if the walls cannot accommodate construction phase stresses;
- Provide adequate drainage at the rear of the wall;
- Table 4 presents Equivalent Fluid Pressures (EFP), and Earth Pressure coefficients for active, at rest and passive conditions;

Table 4 – Soil Backfill

Condition	EFP (pcf)	Coefficients
Active	38	Ka = 0.36
At Rest	56	Ko = 0.53
Passive	291	Kp = 2.77

- The data presented in Table 4 are based on the following assumptions:
  - The backfill "on-site" material is classified as "CL" by the USCS;
  - Backfill material exhibits an angle of shear resistance of 28 degrees or greater;
  - Backfill material possibly exhibits a maximum dry density of 105.0 pcf or greater;
  - Retaining wall analysis assumes a level backfill slope;
  - Retaining wall analysis assumes that the wall will be designed as a vertical wall with respect to the retained soil;
  - Retaining wall analysis assumes the wall will be designed as a smooth wall with no friction.

Granular Backfill

- Provide temporary bracing if the wall cannot accommodate construction phase stresses;
- Table 5 presents conditions possibly exhibited by the backfill, earth pressure design parameters for Equivalent Fluid Pressures (EFP), and Earth Pressure coefficients;

Table 5 – Granular Backfill

Condition	EFP (pcf)	Coefficients
Active	30.0	Ka = 0.25
At Rest	50.0	Ko = 0.38

- The data presented in Table 5 is based on the following assumptions:
  - Retaining wall analysis assumes a level slope backfill;

- Retaining wall analysis assumes that the wall will be designed as a vertical wall with respect to the retained granular backfill;
- Retaining wall analysis assumes the wall will be designed as a smooth wall with no friction;
- The backfill material is classified as "GW" or "GP" by the USCS (No. 57 stone is preferred);
- Backfill material exhibits an angle of shear resistance of 38 degrees or greater.

4.8 LATERAL EARTH PRESSURES

The Kentucky Building Code (KBC), current edition, Table 1806.2, provides guidelines for allowable lateral pressure for use in foundation design. The following table summarizes the allowable lateral pressures.

Table 6 – Presumptive Load-Bearing Values (KBC/IBC Table 1806.2)

Type of Material	Vertical Foundation Pressure (psf)	Lateral Bearing Pressure (psf/ft below natural grade)	Lateral Sliding Resistance	
			Coefficient of friction[a]	Cohesion (psf)[b]
Crystalline bedrock	12,000	1,200	0.70	-
Sedimentary and foliated rock	4,000	400	0.35	-
Sandy gravel and/or gravel (GW and GP)	3,000	200	0.35	-
Sand, silty sand, clayey sand, silty gravel, and clayey gravel (SW, SP, SM, SC, GM, and GC)	2,000	150	0.25	-
Clay, sandy clay, silty clay, clayey silt, silt, and sandy silt (CL, ML, MH, and CH)	1,500	100	-	130

a. Coefficient to be multiplied by the dead load
b. Cohesion value to be multiplied by the contact area, as limited by Section 1806.3.2

The values for lateral bearing pressure located above in Table 6, may be adjusted when considering load combinations, including wind or earthquake loads as permitted by Section 1605.3.2 of the KYBC.

4.9 KARST REGION CONSTRUCTION RECOMMENDATIONS

The underlying rock units are highly susceptible to solutioning. Therefore, close attention should be given during the construction process to identify possible karst features or surface movement. Adequate drainage to minimize water infiltration into the subsurface during and after construction should be provided to lessen the risk of damage due to karst activity during construction. Any significant solution features or dropouts encountered during construction will

require remediation and will need to be evaluated on a case-by-case basis. Sinkholes could be repaired by excavating the material to find the throat; then lining the excavation with a filter fabric, and backfilling with crushed aggregate, however, L.E. Gregg should be contacted to provide specific recommendations for remediation of any encountered karst features.

5.0 BASIS FOR RECOMMENDATIONS

VARIATIONS

Since any general foundation or subsurface exploration can examine and report only that information which is obtained from the borings and samples taken there from, and since uniformity of subsurface conditions does not always exist, the following is recommended. If, during construction, any latent soil, bedrock, or water conditions are encountered that were not observed in the borings, contact L.E. Gregg so that the site may be inspected to identify any necessary modifications in the design or construction of the foundation.

OTHER INTERPRETATIONS

The conclusions and recommendations submitted in this report apply to the proposed project only. They are not applicable to on-site, subsequent construction, adjacent or nearby projects. In the event that conclusions or recommendations based on this report and relating to any other projects are made by others, such conclusions and recommendations are not the responsibility of L. E. Gregg Associates. The recommendations provided are based in part on project information provided to L.E. Gregg and only apply to the specific project and site discussed in this report. If the project information section in this report contains incorrect information or if additional information is available, the correct or additional information should be conveyed to L.E. Gregg for review.

It is recommended that this complete report be provided to the various design team members, the contractors and the project owner. Potential contractors should be informed of this report in the "instructions to bidders" section of the bid documents. The report should not be included or referenced in the actual contract documents.

STANDARD OF CARE

The services provided by L. E. Gregg Associates for this exploration have been performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances.

Important Information about Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

ASFE
THE BEST PEOPLE ON EARTH

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IIGER06085.0MRP

KEY TO SYMBOLS AND DESCRIPTIONS

	**GW**	**Well graded gravels, little or no fines**
	**GP**	**Poorly graded gravels, little or no fines**
	**GM**	**Silty gravels, sand and silt mixtures**
	**GC**	**Clayey gravels, sand and clay mixtures**
	**SW**	**Well graded sand, little or no fines**
	**SP**	**Poorly graded sand, little or no fines**
	**SM**	**Silty sands, sand and silt mixtures**
	**SC**	**Clayey sands, sand and clay mixtures**
	**ML**	**Inorganic silts and very fine sands, rock flour, silty or clayey fine sands silts and with slight plasticity**
	**CL**	**Inorganic clays with low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays**
	**OL**	**Organic silts and organic silty clay of low plasticity**
	**MH**	**Inorganic silts, micaceous or diatomaceous fine sandy or silt soils, elastic silts**
	**CH**	**Inorganic clays of high plasticity, fat clays**
	**OH**	**Organic clays of medium to high plasticity, organic silts**
	**Topsoil**	**Usually top few inches of soil deposits and contains considerable amounts of organic matter**
	**Asphalt**	**Usually a black solid or semisolid mixture of bitumens mostly used in paving**
	**Fill**	**Soils that have been transported by man to their present location**
	**Limestone**	**Sedimentary rock consisting of predominantly of calcium carbonate**
	**Sandstone**	**Sedimentary rock consisting of sand with some cementitious material**
	**Siltstone**	**Fine grained rock of consolidated silt**
	**Shale**	**Fine grained sedimentary rock consisting of compacted clay, silt, or mud**
	**Coal**	**Natural black graphite like material formed from fossilized plants**
	**Limestone interbedded with Shale**	**Predominantly limestone interbedded with shale layers**
	**Weathered**	**Weathered rock**

CONSISTANCY AND RELATIVE DENSITY CORRELATED WITH STANDARD PENETRATION TEST (SPT)			
SILT AND CLAY		**SAND AND GRAVEL**	
Relative Density	**Blows Per Foot (BPF)**	**Relative Density**	**Blows Per Foot (BPF)**
Very Soft	0 to 1	Very Loose	0 to 4
Soft	2 to 4	Loose	5 to 10
Firm	5 to 8	Firm	11 to 20
Stiff	9 to 15	Very Firm	21 to 30
Very Stiff	16 to 30	Dense	31 to 50

ROCK PROPERTIES	
RELATIVE HARDNESS OF ROCK	
Very Soft	Can be scratched by fingernail
Soft	May be broken by fingers
Medium	Corner and edges may be broken by fingers
Moderately Hard	Moderate blow of hammer required to break sample
Hard	Hard blow of hammer required to break sample
Very Hard	Several hard blows of hammer required to break sample

Rock Continuity (REC)		**Rock Quality Designation (RQD)**	
Core Recovery (%)	Description	RQD (%)	Classification
0 – 40	Incompetent	<25	Very Poor
40 – 70	Competent	25 – 50	Poor
70 – 90	Fairly Continuous	50 – 75	Fair
90 – 100	Continuous	75 – 90	Good
		90 – 100	Very Good

Estimated Moisture Condition Relative to Optimum	
Dry	Under 5% of Optimum
Slightly Moist	Minus 2% of Optimum
Moist	± 2% of Optimum
Very Moist	Plus 2% of Optimum
Wet	Over 5% of Optimum

Misc. and Soil Sampler Symbols			
N	Blows Per Foot (BPF)		Undisturbed Sample
% W	Percent Water		Standard Penetration Test (SPT)
RQD	Rock Quality Designation		Boring Location
REC	Rock Core Recovery		Water Table while Drilling
CLA	Classification of Combined Samples		Water Table after Drilling
	Rock Core (RC)		Bulk Sample (BK)

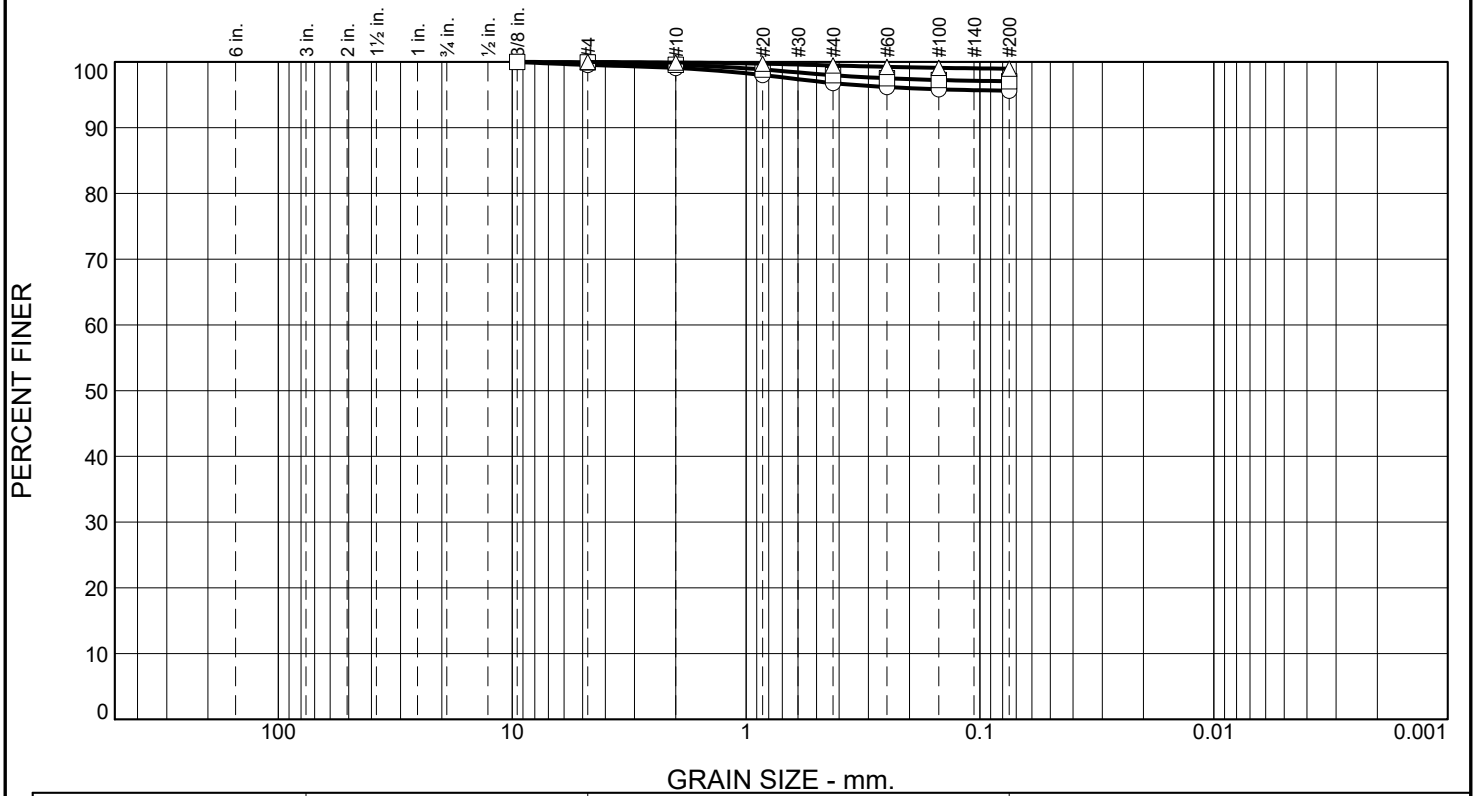
LE Gregg ASSOCIATES

Geotechnical, Environmental & Materials Engineering
Since 1957

APPENDIX A

Summary of Laboratory and Drilling Data

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.4	0.5	2.3	1.2	95.6	
□	0.0	0.0	0.1	0.3	1.6	0.9	97.1	
△	0.0	0.0	0.0	0.1	0.4	0.5	99.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_u
○	48	26								
□	39	25								
△	63	30								

Material Description	USCS	AASHTO
○ Lean Clay (CL)	CL	A-7-6(24)
□ Lean Clay (CL)	CL	A-6(15)
△ Fat Clay (CH)	CH	A-7-5(39)

Project No. 2017048 **Client:** Lexington Fayette Urban County Government

Project: LFUCG Canine Facility

○ **Location:** B-4 **Depth:** 1.5-3.0 **Sample Number:** 20887

□ **Location:** B-5 Bulk **Sample Number:** 20871

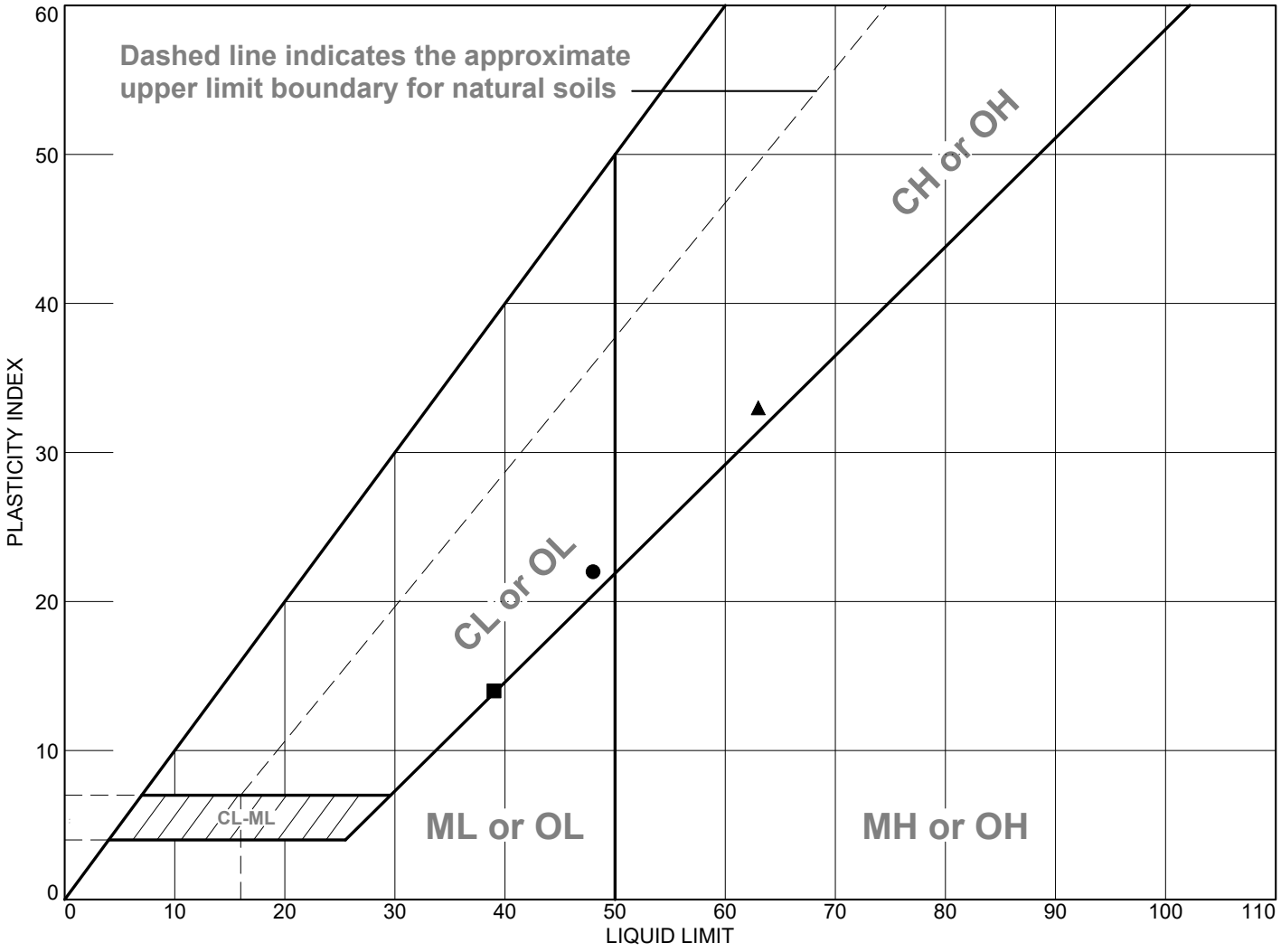
△ **Location:** B-6 **Depth:** 1.5-3.0 **Sample Number:** 20888

Remarks:

L.E. Gregg Associates, Inc.
2456 Fortune Dr, Ste 155, Lexington, KY 40509
Phone: 859-252-7558

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Lean Clay (CL)	48	26	22	96.8	95.6	CL
■	Lean Clay (CL)	39	25	14	98.0	97.1	CL
▲	Fat Clay (CH)	63	30	33	99.5	99.0	CH

Project No. 2017048 **Client:** Lexington Fayette Urban County Government

Project: LFUCG Canine Facility

● **Location:** B-4 **Depth:** 1.5-3.0 **Sample Number:** 20887

■ **Location:** B-5 Bulk **Sample Number:** 20871

▲ **Location:** B-6 **Depth:** 1.5-3.0 **Sample Number:** 20888

Remarks:

L.E. Gregg Associates, Inc.
2456 Fortune Dr, Ste 155, Lexington, KY 40509
Phone: 859-252-7558

Figure

APPENDIX B

Logs of Borings

PROJECT: LFUCG Canine Facility **PROJECT NO.:** 2017048

CLIENT: Lexington Fayette Urban County Government **DATE:** 9/8/17

LOCATION: LFUCG Canine Facility **ELEVATION:** 882

DRILLER: Danny Anderson **LOGGED BY:** SEM

DRILLING METHOD: 4" SFA

DEPTH TO WATER> INITIAL: ▽ dry **AFTER 24 HOURS:** ▽ _____ **CAVING>** C _____

BORING No. B-1

ELEVATION (feet)	DEPTH (feet)	Description	Soil and Sampler Symbols, Blows	Sample No.	TEST RESULTS: Plastic Limit ⊢⊣ Liquid Limit; Water Content - ●; Penetration - ▨ (10 20 30 40 50)	NM	PL	LL	N	Undrained Shear Strength (tsf/psf)
882	0	Topsoil (0.0-0.4)	4							
		Lean clay, silty, root fragments and trace organics, rock fragments, light brown, hard, moist	25	1		23.4			42	
			17							
		Weathered rock	50/3	2		1.2			50+	
877	5	Auger refusal at 5.0 ft. Begin core recovery. Limestone, light to dark gray, very fine to medium grained with irregular medium and coarse-grained limestone nodules. Some light-gray bioclastic limestone interbedded with shale. Core water loss at 5.6 ft.	REC= 100% RQD= 34%							
872	10	End core recovery at 10.0 ft.								
867	15									
862	20									
857	25									
852	30									
847	35									

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

PROJECT: LFUCG Canine Facility **PROJECT NO.:** 2017048

CLIENT: Lexington Fayette Urban County Government **DATE:** 9/8/17

LOCATION: LFUCG Canine Facility **ELEVATION:** 883

DRILLER: Danny Anderson **LOGGED BY:** SEM

DRILLING METHOD: 4" SFA

DEPTH TO WATER> INITIAL: ▽ dry **AFTER 24 HOURS:** ▼ _____ **CAVING>** C _____

BORING No. B-2

ELEVATION (feet)	DEPTH (feet)	Description	Soil and Sampler Symbols, Blows	Sample No.	TEST RESULTS: Plastic Limit ⊢⊣ Liquid Limit; Water Content - •; Penetration - ▨ (10 20 30 40 50)	NM	PL	LL	N	Undrained Shear Strength (tsf/psf)
883	0	Topsoil (0.0-0.4)								
		Lean clay, silty, sandy, root fragments and trace organics, rock fragments, brown with black mineral deposits, firm to stiff, moist	3 4 4	1		27.5			8	
			6 6 6	2		28.2			12	
878	5	Lean clay, silty, sandy, brown with black mineral deposits, weathered rock fragments, moist	50/2	3		31.3			50+	
		Auger refusal at 4.8 ft.								
873	10									
868	15									
863	20									
858	25									
853	30									
848	35									

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

PROJECT: LFUCG Canine Facility **PROJECT NO.:** 2017048

CLIENT: Lexington Fayette Urban County Government **DATE:** 9/8/17

LOCATION: LFUCG Canine Facility **ELEVATION:** 881

DRILLER: Danny Anderson **LOGGED BY:** SEM

DRILLING METHOD: 4" SFA

DEPTH TO WATER> INITIAL: ▽ dry **AFTER 24 HOURS:** ▼ _____ **CAVING>** C _____

BORING No. B-3

ELEVATION (feet)	DEPTH (feet)	Description	Soil and Sampler Symbols, Blows	Sample No.	TEST RESULTS: Plastic Limit ⊢⊣ Liquid Limit; Water Content - ●; Penetration - ▨ (10 20 30 40 50)	NM	PL	LL	N	Undrained Shear Strength (tsf/psf)
881	0	Topsoil (0.0-0.4)	3							
		Lean clay, silty, sandy, root fragments and trace organics, weathered rock fragments, brown with black mineral deposits, stiff, moist	4	1		26.4			9	
			5							
			50/3	2		22.5			50+	
		Auger refusal at 3.5 ft.								
876	5									
871	10									
866	15									
861	20									
856	25									
851	30									
846	35									

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

PROJECT: LFUCG Canine Facility **PROJECT NO.:** 2017048

CLIENT: Lexington Fayette Urban County Government **DATE:** 9/8/17

LOCATION: LFUCG Canine Facility **ELEVATION:** 878

DRILLER: Danny Anderson **LOGGED BY:** SEM

DRILLING METHOD: 4" SFA

DEPTH TO WATER> INITIAL: ▽ dry **AFTER 24 HOURS:** ▽ _____ **CAVING>** C _____

BORING No. B-4

ELEVATION (feet)	DEPTH (feet)	Description	Soil and Sampler Symbols, Blows	Sample No.	TEST RESULTS: Plastic Limit ⊢ Liquid Limit; Water Content - •; Penetration - ▨ (10 20 30 40 50)	NM	PL	LL	N	Undrained Shear Strength (tsf/psf)
878	0	Topsoil (0.0-0.4)	2 4 6							
		Lean clay, silty, sandy, root fragments and trace organics, rock fragments, brown with black mineral deposits, stiff to very stiff, moist		1		22.2			10	
			5 7 9	2		21.4	26	48	16	
873	5	Weathered rock								
		Auger refusal at 4.8 ft.								
868	10									
863	15									
858	20									
853	25									
848	30									
843	35									

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

PROJECT: LFUCG Canine Facility **PROJECT NO.:** 2017048

CLIENT: Lexington Fayette Urban County Government **DATE:** 9/8/17

LOCATION: LFUCG Canine Facility **ELEVATION:** 878

DRILLER: Danny Anderson **LOGGED BY:** SEM

DRILLING METHOD: 4" SFA

DEPTH TO WATER> INITIAL: ▽ dry **AFTER 24 HOURS:** ▼ _____ **CAVING>** C _____

BORING No. B-5

ELEVATION (feet)	DEPTH (feet)	Description	Soil and Sampler Symbols, Blows	Sample No.	TEST RESULTS: Plastic Limit ⊢⊣ Liquid Limit; Water Content - ●; Penetration - ▨ (10 20 30 40 50)	NM	PL	LL	N	Undrained Shear Strength (tsf/psf)
878	0	Topsoil (0.0-0.4)	3 3 3	1		22.3			6	
		Lean clay, silty, sandy, root fragments and trace organics, rock fragments, brown to dark brown with black mineral deposits, firm, moist	4 4 5	2		27.4			9	
		Lean clay, silty, sandy, rock fragments, brown to dark brown with black mineral deposits, stiff, moist								
873	5	Weathered rock and thin clay layers	50/3	3		22.7			50+	
		Auger refusal at 4.5 ft.								
868	10									
863	15									
858	20									
853	25									
848	30									
843	35									

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

PROJECT: LFUCG Canine Facility **PROJECT NO.:** 2017048

CLIENT: Lexington Fayette Urban County Government **DATE:** 9/8/17

LOCATION: LFUCG Canine Facility **ELEVATION:** 881

DRILLER: Danny Anderson **LOGGED BY:** SEM

DRILLING METHOD: 4" SFA

DEPTH TO WATER> INITIAL: ▽ dry **AFTER 24 HOURS:** ▽ _____ **CAVING>** C _____

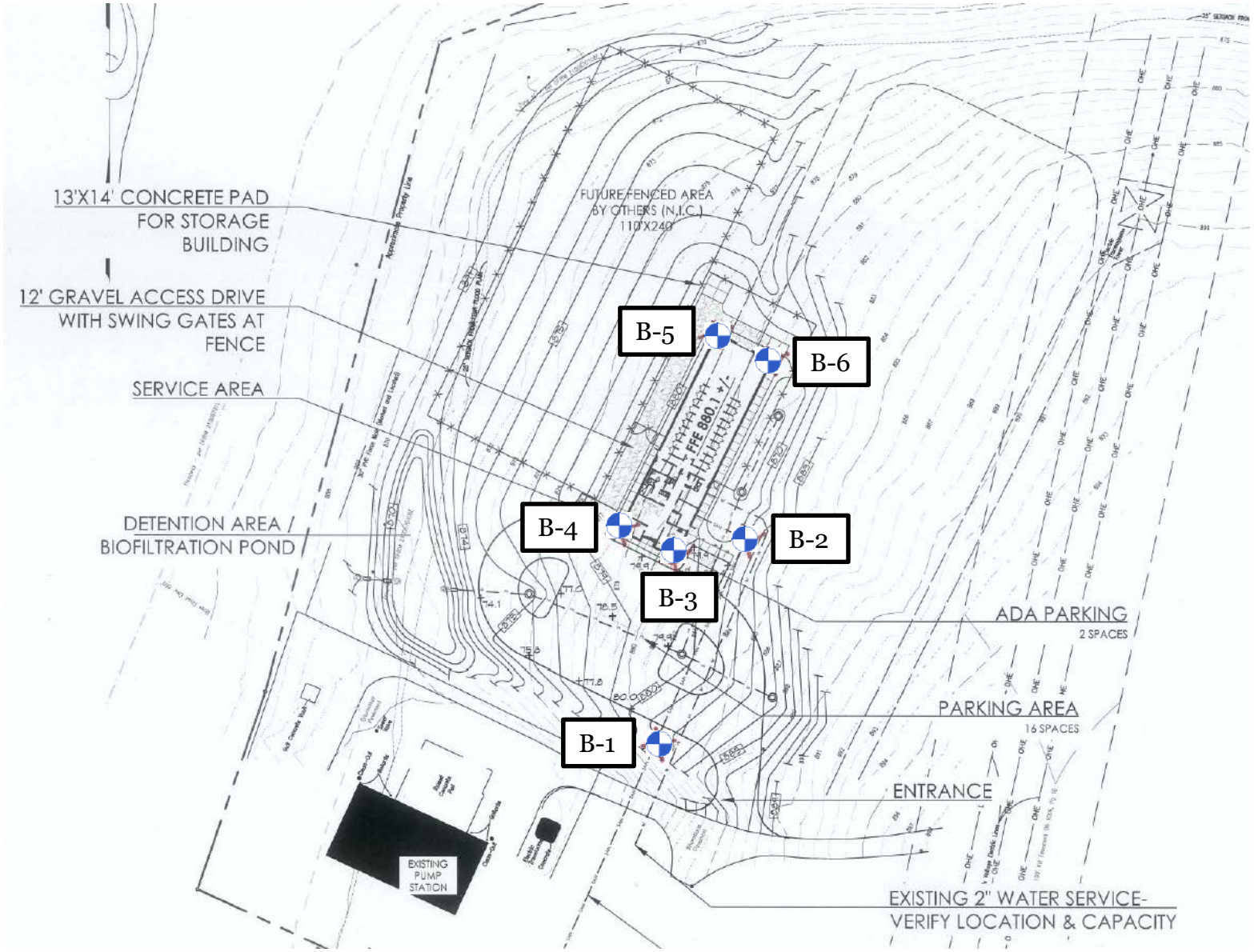
BORING No. B-6

ELEVATION (feet)	DEPTH (feet)	Description	Soil and Sampler Symbols, Blows	Sample No.	TEST RESULTS: Plastic Limit ⊢ Liquid Limit; Water Content - ●; Penetration - ▨ (10 20 30 40 50)	NM	PL	LL	N	Undrained Shear Strength (tsf/psf)
881	0	Topsoil (0.0-0.4)	3 3 4							
		Fat clay, silty, sandy, root fragments and trace organics, rock fragments, brown to dark brown with black mineral deposits, firm to stiff, moist		1		23.7			7	
			4 4 7							
		Fat clay, silty, sandy, rock fragments, brown to dark brown with black mineral deposits, firm to stiff, moist		2	63	26.9	30	63	11	
876	5	Weathered rock Auger refusal at 4.0 ft.								
871	10									
866	15									
861	20									
856	25									
851	30									
846	35									

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

APPENDIX C

Site Location Map
Drawings



L.E. Gregg Associates, Inc.
2456 Fortune Drive, Suite 155
Lexington, Kentucky 40509

Lexington Fayette Urban County Government
Canine Facility
Lexington, Kentucky

Project #2017048

Boring Layout

APPENDIX D

Seismic Design Information

USGS Design Maps Summary Report

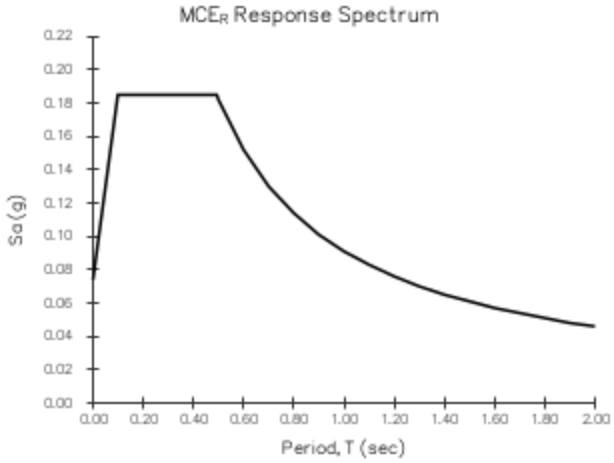
User–Specified Input

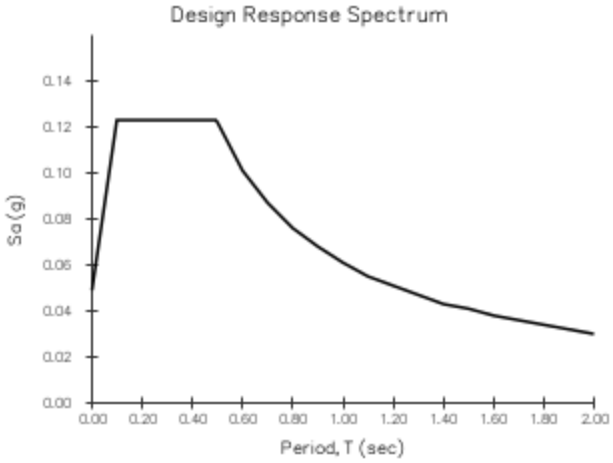
Report Title	LFUCG Canine Facility Wed September 20, 2017 21:04:08 UTC
Building Code Reference Document	2012/2015 International Building Code (which utilizes USGS hazard data available in 2008)
Site Coordinates	38.07179°N, 84.55331°W
Site Soil Classification	Site Class B – "Rock"
Risk Category	I/II/III

USGS–Provided Output

S_S =	0.185 g	S_{MS} =	0.185 g	S_{DS} =	0.123 g
S_1 =	0.091 g	S_{M1} =	0.091 g	S_{D1} =	0.061 g

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.





Design Maps Detailed Report

2012/2015 International Building Code (38.07179°N, 84.55331°W)

Site Class B – "Rock", Risk Category I/II/III

Section 1613.3.1 — Mapped acceleration parameters

Note: Ground motion values provided below are for the direction of maximum horizontal spectral response acceleration. They have been converted from corresponding geometric mean ground motions computed by the USGS by applying factors of 1.1 (to obtain S_S) and 1.3 (to obtain S_1). Maps in the 2012/2015 International Building Code are provided for Site Class B. Adjustments for other Site Classes are made, as needed, in Section 1613.3.3.

From Figure 1613.3.1(1) [1]	S_S = 0.185 g
From Figure 1613.3.1(2) [2]	S_1 = 0.091 g

Section 1613.3.2 — Site class definitions

The authority having jurisdiction (not the USGS), site-specific geotechnical data, and/or the default has classified the site as Site Class B, based on the site soil properties in accordance with Section 1613.

2010 ASCE-7 Standard – Table 20.3-1
SITE CLASS DEFINITIONS

Site Class	$\overline{v}_s$	$\overline{N}$ or $\overline{N}_{ch}$	$\overline{s}_u$
A. Hard Rock	>5,000 ft/s	N/A	N/A
B. Rock	2,500 to 5,000 ft/s	N/A	N/A
C. Very dense soil and soft rock	1,200 to 2,500 ft/s	>50	>2,000 psf
D. Stiff Soil	600 to 1,200 ft/s	15 to 50	1,000 to 2,000 psf
E. Soft clay soil	<600 ft/s	<15	<1,000 psf
	Any profile with more than 10 ft of soil having the characteristics: • Plasticity index PI > 20, • Moisture content w ≥ 40%, and • Undrained shear strength $\overline{s}_u$ < 500 psf		
F. Soils requiring site response analysis in accordance with Section 21.1	See Section 20.3.1		

For SI: 1ft/s = 0.3048 m/s 1lb/ft² = 0.0479 kN/m²

Section 1613.3.3 — Site coefficients and adjusted maximum considered earthquake spectral response acceleration parameters

TABLE 1613.3.3(1)
VALUES OF SITE COEFFICIENT F_a

Site Class	Mapped Spectral Response Acceleration at Short Period				
	$S_S \leq 0.25$	$S_S = 0.50$	$S_S = 0.75$	$S_S = 1.00$	$S_S \geq 1.25$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.2	1.2	1.1	1.0	1.0
D	1.6	1.4	1.2	1.1	1.0
E	2.5	1.7	1.2	0.9	0.9
F	See Section 11.4.7 of ASCE 7				

Note: Use straight–line interpolation for intermediate values of S_S

For Site Class = B and S_S = 0.185 g, F_a = 1.000

TABLE 1613.3.3(2)
VALUES OF SITE COEFFICIENT F_v

Site Class	Mapped Spectral Response Acceleration at 1–s Period				
	$S_1 \leq 0.10$	$S_1 = 0.20$	$S_1 = 0.30$	$S_1 = 0.40$	$S_1 \geq 0.50$
A	0.8	0.8	0.8	0.8	0.8
B	1.0	1.0	1.0	1.0	1.0
C	1.7	1.6	1.5	1.4	1.3
D	2.4	2.0	1.8	1.6	1.5
E	3.5	3.2	2.8	2.4	2.4
F	See Section 11.4.7 of ASCE 7				

Note: Use straight–line interpolation for intermediate values of S_1

For Site Class = B and S_1 = 0.091 g, F_v = 1.000

Equation (16-37):	$S_{MS} = F_a S_S = 1.000 \times 0.185 = 0.185$ g

Equation (16-38):	$S_{M1} = F_v S_1 = 1.000 \times 0.091 = 0.091$ g

Section 1613.3.4 — Design spectral response acceleration parameters

Equation (16-39):	$S_{DS} = \frac{2}{3} S_{MS} = \frac{2}{3} \times 0.185 = 0.123$ g

Equation (16-40):	$S_{D1} = \frac{2}{3} S_{M1} = \frac{2}{3} \times 0.091 = 0.061$ g

Section 1613.3.5 — Determination of seismic design category

TABLE 1613.3.5(1)
SEISMIC DESIGN CATEGORY BASED ON SHORT-PERIOD (0.2 second) RESPONSE ACCELERATION

VALUE OF S_{DS}	RISK CATEGORY		
	I or II	III	IV
$S_{DS} < 0.167g$	A	A	A
$0.167g \le S_{DS} < 0.33g$	B	B	C
$0.33g \le S_{DS} < 0.50g$	C	C	D
$0.50g \le S_{DS}$	D	D	D

For Risk Category = I and S_{DS} = 0.123 g, Seismic Design Category = A

TABLE 1613.3.5(2)
SEISMIC DESIGN CATEGORY BASED ON 1-SECOND PERIOD RESPONSE ACCELERATION

VALUE OF S_{D1}	RISK CATEGORY		
	I or II	III	IV
$S_{D1} < 0.067g$	A	A	A
$0.067g \le S_{D1} < 0.133g$	B	B	C
$0.133g \le S_{D1} < 0.20g$	C	C	D
$0.20g \le S_{D1}$	D	D	D

For Risk Category = I and S_{D1} = 0.061 g, Seismic Design Category = A

Note: When S_1 is greater than or equal to 0.75g, the Seismic Design Category is **E** for buildings in Risk Categories I, II, and III, and **F** for those in Risk Category IV, irrespective of the above.

Seismic Design Category ≡ "the more severe design category in accordance with Table 1613.3.5(1) or 1613.3.5(2)" = A

Note: See Section 1613.3.5.1 for alternative approaches to calculating Seismic Design Category.

References

1. *Figure 1613.3.1(1)*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/IBC-2012-Fig1613p3p1(1).pdf
2. *Figure 1613.3.1(2)*: https://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/IBC-2012-Fig1613p3p1(2).pdf

Attachment G: LFUCG Price Contract - Lighting

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
DROP CEILING LAY IN TROFFERS				
2'X2' DROP IN TROFFER, 4000K, METALUX	17-2017C	$106.00	REXEL	5_22SR-2x2-LED-SSS
2'X2' DROP IN TROFFER, 4000K, W/BATTERY, METALUX	17-2017C	$293.00	REXEL	5_22SR-2x2-LED-SSS
2'X2' DROP IN TROFFER, 4000K, CREE	17-2017C	$95.00	REXEL	1_ZR22 Troffer Spec Sheet
2'X2' DROP IN TROFFER, 4000K, W/BATTERY, CREE	17-2017C	$285.00	REXEL	1_ZR22 Troffer Spec Sheet
2'X4' DROP IN TROFFER, 4000K, CREE	17-2017C	$112.00	REXEL	3_ZR24 Troffer Spec Sheet
2'X4' DROP IN TROFFER, 4000K, W/BATTERY, CREE	17-2017C	$303.00	REXEL	3_ZR24 Troffer Spec Sheet
2'X4' DROP IN TROFFER, 4000K, METALUX	17-2017C	$150.00	REXEL	7_24SR-2x4-LED-SSS
2'X4' DROP IN TROFFER, 4000K, W/BATTERY, METALUX	17-2017C	$330.00	REXEL	7_24SR-2x4-LED-SSS
FLAT PANEL STYLE - DROP CEILING LAY IN TROFFERS				
2X2 FLAT PANEL 5000 Lumen	180-2018C	$56.00	Rexel	Topaz FlatPanel 2x2
2X2 FLAT PANEL 3900 Lumen	180-2018B	$54.66	Bluegrass LED Lighting	NOVAFlatPanel
2X2 FLAT PANEL 3900 Lumen	180-2018A	$80.00	Big Ass Solutions (Delta	NOVAFlatPanel
2X2 FLAT PANEL 5000 Lumen With 90 minute battery	180-2018C	$125.00	Rexel	Topaz FlatPanel 2x2
2X2 FLAT PANEL 3900 Lumen With 90 minute battery	180-2018B	$243.99	Bluegrass LED Lighting (Bluegrass LED	NOVAFlatPanel
2X2 FLAT PANEL 3900 Lumen With 90 minute battery	180-2018A	$250.00	Big Ass Solutions (Delta T Corporation)	NOVAFlatPanel

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
LED 2X2 DROP IN TROFFER, 4000K, 3000LM, 120-277 VAC, DIMMABLE,	Metalux	22SR-LD1-29-C-UNV-L840-CD1-U
LED 2X2 DROP IN TROFFER, 4000K, 3000LM, 120-277 VAC, DIMMABLE, 90 MINUTE BATTERY BACKUP	Metalux	22SR-LD1-29-C-UNV-L840-CD1-U-EL14
LED 2X2 DROP IN TROFFER, 4000K, 3200LM, 120-277 VAC, FROSTED LENS, DIMMABLE,	Cree	ZR22T-32L-40K-10V
LED 2X2 DROP IN TROFFER, 4000K, 3200LM, 120-277 VAC, FROSTED LENS, DIMMABLE, 90 MINUTE BATTERY BACKUP	Cree	ZR22T-32L-40K-10V-EB14
LED 2X4 DROP IN TROFFER, 4000K, 4000LM, 120-277 VAC, FROSTED LENS, DIMMABLE,	Cree	ZR24T-40L-40K-10V
LED 2X4 DROP IN TROFFER, 4000K, 4000LM, 120-277 VAC, FROSTED LENS, DIMMABLE, 90 MINUTE BATTERY BACKUP	Cree	ZR24T-40L-40K-10V - EB14
LED 2X4 DROP IN TROFFER, 4000K, 4800LM, 120-277 VAC, DIMMABLE	Metalux	24SR-LD1-29-C-UNV-L840-CD1-U
LED 2X4 DROP IN TROFFER, 4000K, 4800LM, 120-277 VAC, DIMMABLE, 90 MINUTE BATTERY BACKUP	Metalux	24SR-LD1-29-C-UNV-L840-CD1-U-EL14
LED 2X2 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours	Topaz	F-L22/40/840D/HE2
LED 2X2 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours	NUVO	FPEL22-30W-40K
LED 2X2 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours	NUVO	FPEL22-30W-40K
LED 2X2 DROP IN TROFFER, 4000K, 5800LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours, 90 Minute Battery Back-up	Topaz	F-L22/40/840D/HE2/EM
LED 2X2 DROP IN TROFFER, 4000K, 5800LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours, 90 Minute Battery Back-up	NUVO	FPEL22-30W-40K - EM
LED 2X2 DROP IN TROFFER, 4000K, 5800LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours, 90 Minute Battery Back-up	NUVO	FPEL22-30W-40K - EM

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
2X4 FLAT PANEL 5000 Lumen	180-2018C	$78.75	Rexel	Topaz FlatPanel 2x2
2X4 FLAT PANEL 5080 Lumen	180-2018B	$90.66	Bluegrass LED Lighting	NOVAFlatPanel
2X4 FLAT PANEL 5080 Lumen	180-2018A	$95.00	Big Ass Solutions (Delta	NOVAFlatPanel
2X4 FLAT PANEL 5000 Lumen With 90 minute battery	180-2018C	$147.50	Rexel	Topaz FlatPanel 2x2
2X4 FLAT PANEL 5080 Lumen With 90 minute battery	180-2018B	$275.00	Bluegrass LED Lighting (Bluegrass LED	NOVAFlatPanel
2X4 FLAT PANEL 5080 Lumen With 90 minute battery	180-2018A	$279.99	Big Ass Solutions (Delta T Corporation)	NOVAFlatPanel

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
LED 2X4 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours	Topaz	F-L24/40/840D/HE2
LED 2X4 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours	NUVO	FPEL24-40W-40K
LED 2X4 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours	NUVO	FPEL24-40W-40K
LED 2X4 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours, 90 Minute Battery Back-up	Topaz	F-L24/40/840D/HE2/EM
LED 2X4 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours, 90 Minute Battery Back-up	NUVO	FPEL24-40W-40K-EM
LED 2X4 DROP IN TROFFER, 4000K, 3900LM, 120-277 VAC, DIMMABLE, FLATPANEL, >=120 LPW, CRI >= 80, L70>= 50,000 hours, 90 Minute Battery Back-up	NUVO	FPEL24-40W-40K-EM

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
24" - Lumens and manufactures varies				
24 " Economy Wrapstyle	180-2018C	$18.99	REXEL	SatcoWrap Fixture
24" Premium Strip Style	180-2018C	$52.00	REXEL	Metalux-SLSTP
48" - Lumens and manufactures varies				
48" STRIP, NARROW DIST., 5000LUMEN, 5000K	17-2017C	$95.00	REXEL	9_ZL1N
48" STRIP, NARROW DIST., 5000LUMEN, 5000K, W/BATTERY *SPECIFY VOLTAGE WHEN ORDERING*	17-2017C	$210.00	REXEL	9_ZL1N
48" STRIP, NARROW DIST., 7000LUMEN, 5000K	17-2017C	$115.00	REXEL	9_ZL1N
48" STRIP, NARROW DIST., 7000LUMEN, 5000K, W/BATTERY *SPECIFY VOLTAGE WHEN ORDERING*	17-2017C	$225.00	REXEL	9_ZL1N
48" STRIP, WIDE DIST., 5000LUMEN, 5000K	17-2017C	$102.50	REXEL	13_ZL1D
48" STRIP, WIDE DIST., 5000LUMEN, 5000K W/BATTERY *SPECIFY VOLTAGE WHEN ORDERING*	17-2017C	$225.00	REXEL	13_ZL1D
48" STRIP, WIDE DIST., 5000LUMEN, 5000K NEW ALTERNATIVE	17-2017C	$88.00	REXEL	13_FSS
48" STRIP, WIDE DIST., 5000LUMEN, 5000K W/BATTERY NEW ALTERNATIVE	17-2017C	$225.00	REXEL	13_FSS
48" STRIP, WIDE DIST., 7000LUMEN, 5000K	17-2017C	$129.50	REXEL	13_ZL1D
48" STRIP, WIDE DIST., 7000LUMEN, 5000K, W/BATTERY *SPECIFY VOLTAGE WHEN ORDERING*	17-2017C	$240.00	REXEL	13_ZL1D
48" STRIP, WIDE DIST., 7000LUMEN, 5000K NEW ALTERNATIVE	17-2017C	$80.00	REXEL	13_FSS
48" STRIP, WIDE DIST., 7000LUMEN, 5000K, W/BATTERY NEW ALTERNATIVE *SPECIFY VOLTAGE WHEN ORDERING*	17-2017C	$240.00	REXEL	13_FSS
48" Economy (for low use areas, like closets, etc.)- Lumens and manufactures				
48" Economy (for low use areas, like closets, etc.)- Lumens and manufactures varies	180-2018C	$31.50	REXEL	SatcoWrap Fixture
48" Vaportight (for area of high moisture, dust, or insects, etc.)				

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
LED STRIP LIGHT 24" 1600LM , 4000K, CRI >= 90, FROSTED LENS, 120-277 VAC, WHITE FINISH, FROSTED LENS	satco/nuvo	65/1081
LED STRIP LIGHT 24" 2000LM Nominial, 4000-5000K, CRI >= 80, FROSTED LENS, 120	Metalux	2SLSTP2040DD
LED STRIP LIGHT 48 5000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, NARROW DISTRIBUTION	Lithonia	ZL1N-L48-5000LM-FST-MVOLT-50K-80CRI-WH
LED STRIP LIGHT 48 5000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, NARROW DISTRIBUTION, 90 MINUTE BATTERY BACKUP	Lithonia	ZL1N-L48-5000LM-FST-MVOLT-50K-80CRI-E7W-WH
LED STRIP LIGHT 48 7000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, NARROW DISTRIBUTION	Lithonia	ZL1N-L48-7000LM-FST-MVOLT-50K-80CRI-WH
LED STRIP LIGHT 48 7000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, NARROW DISTRIBUTION, 90 MINUTE BATTERY BACKUP	Lithonia	ZL1N-L48-7000LM-FST-MVOLT-50K-80CRI-E7W-WH
LED STRIP LIGHT 48 5000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION	Lithonia	ZL1D-L48-5000LM-FST-MVOLT-50K-80CRI-WH
LED STRIP LIGHT 48 5000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH,DIFFUSE OR WIDE DISTRIBUTION, 90 MINUTE BATTERY BACKUP	Lithonia	ZL1D-L48-5000LM-FST-MVOLT-50K-80CRI-E7W-WH
LED STRIP LIGHT 48 5000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION	PHILLIPS	FSS-4-55L-850-UNV-DIM
LED STRIP LIGHT 48 5000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH,DIFFUSE OR WIDE DISTRIBUTION, 90 MINUTE BATTERY BACKUP	PHILLIPS	FSS-4-55L-850-UNV-DIM-EMLED
LED STRIP LIGHT 48 7000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION	Lithonia	ZL1D-L48-7000LM-FST-MVOLT-50K-80CRI-WH
LED STRIP LIGHT 48 7000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION,90 MINUTE BATTERY BACKUP	Lithonia	ZL1D-L48-7000LM-FST-MVOLT-50K-80CRI-E7W-WH
LED STRIP LIGHT 48 7000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION	PHILLIPS	FSS-4-70L-850-UNV-DIM
LED STRIP LIGHT 48 7000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION,90 MINUTE BATTERY BACKUP	PHILLIPS	FSS-4-70L-850-UNV-DIM-EMLED
s varies		
LED STRIP LIGHT 48" 3200LM , 4000K, CRI >= 90, FROSTED LENS, 120-277 VAC, WHITE FINISH, FROSTED LENS	satco/nuvo	65/1082

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
48" Vaportight with Sensor (motion and photo) Programable	180-2018C	$115.00	REXEL	Syl Vapor with_Sensor
48" Vaportight	180-2018C	$93.75	REXEL	Syl Vapor with_Sensor
96" - Lumens and manufactures varies				
96" STRIP, WIDE DIST., 10000LUMEN, 5000K	17-2017C	$202.70	REXEL	13_ZL1D
96" STRIP, WIDE DIST., 10000LUMEN, 5000K, W/BATTERY *SPECIFY VOLTAGE WHEN ORDERING*	17-2017C	$309.00	REXEL	13_ZL1D
96" STRIP, WIDE DIST., 10000LUMEN, 5000K NEW ALTERNATIVE	17-2017C	$159.00	REXEL	13_FSS
96" STRIP, WIDE DIST., 10000LUMEN, 5000K, W/BATTERY NEW ALTERNATIVE *SPECIFY VOLTAGE WHEN ORDERING*	17-2017C	$309.00	REXEL	13_FSS

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
4' LED Strip Vapor Tight, 4000K, >= 5400 LM, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=130 LPW, with Motion & Photo Sensor, Min. IP65 rating	Sylvania	Vapor1B/050UNVD84048EC/GR/D
LED HID Replacement (>=400w Equivilent), Mogul - E39 Base, 4000-5000K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=130 LPW	Sylvania	Vapor1B/050UNVD84048EC/GR
LED STRIP LIGHT 96 10000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION	Lithonia	TZL1D-L96-10000LM-FST-MVOLT-50K-80CRI-WH
LED STRIP LIGHT 96 10000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION,90 MINUTE BATTERY BACKUP	Lithonia	TZL1D-L96-10000LM-FST-MVOLT-50K-80CRI-E7W-WH
LED STRIP LIGHT 96 10000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION	PHILLIPS	FSS-8-110L-850-UNV-DIM
LED STRIP LIGHT 96 10000LM, 5000K, CRI >= 80, FROSTED LENS, 120-277 VAC, WHITE FINISH, DIFFUSE OR WIDE DISTRIBUTION,90 MINUTE BATTERY BACKUP	PHILLIPS	FSS-8-110L-850-UNV-DIM-EMLED

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
EMERGENCY & EXIT LIGHTS				
EXIT LIGHT W/BATTERY	17-2017C	$19.00	REXEL	21_EX RLED EL M6
EXIT LIGHT COMBO W/BATTERY	17-2017C	$59.00	REXEL	20_ECR LED HO M6
EMERGENCY LIGHT W/BATTERY "BUG EYE"	17-2017C	$19.00	REXEL	19_EU2 LED M12

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
LED EXIT LIGHT, 90 MINUTE BATTERY BACKUP, NFPA 101 & 70/OSHA/UL COMPLIANT	Lithonia	EX RLED EL M6
LED EXIT/EMERGENCY LIGHT COMBO, 90 MINUTE BATTERY BACKUP, NFPA 101 & 70/OSHA/UL COMPLIANT	Lithonia	ECR LED HO M6
LED TWO ADJUSTABLE LED LAMP HEADS EMERGENCY LIGHT, 90 MINUTE BATTERY BACKUP, NFPA 101 & 70/OSHA/UL COMPLIANT	Lithonia	EU2 LED M12

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
SCREW IN LED				
15W A-TYPE SCREW IN LED , 2700K, MED BASE (100W REPLACEMENT)($7.40 EACH)	17-2017C	$5.00	REXEL	26_LED9WA19
15W A-TYPE SCREW IN LED, 4000K, MED BASE (100W REPLACEMENT)($7.40 EACH)	17-2017C	$5.00	REXEL	26_LED9WA19
9W A-TYPE SCREW IN LED , 2700K, MED BASE (60W REPLACEMENT)	17-2017C	$2.50	REXEL	26_LED9WA19
9W A-TYPE SCREW IN LED, 4000K, MED BASE (60W REPLACEMENT)($2.60 EACH)	17-2017C	$2.50	REXEL	26_LED9WA19
4w Candelabra LED Bulb	180-2018C	$3.50	REXEL	Eiko - L-58 Filament Lamps
4w Candelabra LED Bulb	180-2018B	$15.62	Bluegrass LED	BG LED - Candelabra
BR30 TYPE SCREW IN LED, 8W, 2700K, MED BASE (65W REPLACEMENT)	17-2017C	$4.25	REXEL	34_LED8WBR30
BR30 TYPE SCREW IN LED, 8W, 4000K, MED BASE (65W REPLACEMENT)	17-2017C	$4.25	REXEL	34_LED8WBR30
HID - HPS/MH/MV Replacements (CornCob style for Highbay, Area Lights, Post				
Mogul 125W Replacement	180-2018C	$44.90	REXEL	Eiko - LED Medium G7 Medium 27-54W
Mogul 150W Replacement	180-2018C	$49.99	REXEL	Eiko - LED Medium G7 Medium 27-54W
Mogul 175W Replacement	180-2018C	$58.99	REXEL	Eiko - LED Medium G7 Medium 27-54W
Mogul 200W Replacement	180-2018C	$59.99	REXEL	Eiko - LED Medium G7 Medium 27-54W
Mogul 300/320W Replacement	180-2018C	$119.99	REXEL	Eiko - HID LED large

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
100 WATT EQUIVILENT SCREW IN LED LIGHT, 2700K, MEDIUM BASE/E26, A TYPE, <=15W, DIMMABLE, >= 80 CRI, MIN L70 AT 25,000 HOURS, ROHS COMPLIANT, UL LISTED	Eiko	LED15WA21/OMN/827K-DIM-G7
100 WATT EQUIVILENT SCREW IN LED LIGHT, 4000K, MEDIUM BASE/E26, A TYPE, <=15W, DIMMABLE, >= 80 CRI, MIN L70 AT 25,000 HOURS, ROHS COMPLIANT, UL LISTED	Eiko	LED15WA21/OMN/840K-DIM-G7
60 WATT EQUIVILENT SCREW IN LED LIGHT, 2700K, MEDIUM BASE/E26, A TYPE, <=9W, DIMMABLE, >= 80 CRI, MIN L70 AT 25,000 HOURS, ROHS COMPLIANT, UL LISTED	Eiko	LED9WA19/OMN/827K-DIM-G7
60 WATT EQUIVILENT SCREW IN LED LIGHT, 4000K, MEDIUM BASE/E26, A TYPE, <=9W, DIMMABLE, >= 80 CRI, MIN L70 AT 25,000 HOURS, ROHS COMPLIANT, UL LISTED	Eiko	LED9WA19/OMN/840K-DIM-G7
LED Candelabra Bulb(40w Equivilent), Round or Flame Tip, >= 300LM, E12 Base, 2700K-3000K, CRI >=70, L70 >=15000 hours	EIKO	LED4WB11E12/FIL/827k-dim-g6
LED Candelabra Bulb(40w Equivilent), Round or Flame Tip, >= 300LM, E12 Base, 2700K-3000K, CRI >=70, L70 >=15000 hours	Revolution Lighting	102111-101
65WATT EQUIVILENT SCREW IN LED FLOOD LIGHT, 2700K, MEDIUM BASE/E26, BR30 TYPE, <=12W, MIN 650 LUMEN, DIMMABLE, >= 80 CRI, MIN L70 AT 25,000 HOURS, ROHS COMPLIANT, UL LISTED	Eiko	LED8WBR30/827K-DIM-G5
65WATT EQUIVILENT SCREW IN LED FLOOD LIGHT, 4000K, MEDIUM BASE/E26, BR30 TYPE, <=12W,MIN. 650 LUMEN, DIMMABLE, >= 80 CRI, MIN L70 AT 25,000 HOURS, ROHS COMPLIANT, UL LISTED	Eiko	LED8WBR30/840K-DIM-G5
Tops, etc)		
LED HID Replacement (125w Equivilent), Mogul - E39 Base, 4000-5000K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=130 LPW	Eiko	LED27WPT40KMOG-G7
LED HID Replacement (150w Equivilent), Mogul - E39 Base, 4000-5000K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=130 LPW	Eiko	LED36WPT40KMOG-G7
LED HID Replacement (175w Equivilent), Mogul - E39 Base, 4000-5000K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=130 LPW	Eiko	LED45WPT40KMOG-G7
LED HID Replacement (200w Equivilent), Mogul - E39 Base, 4000-5000K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=130 LPW	Eiko	LED54WPT40KMOG-G7
LED HID Replacement (300-320w Equivilent), Mogul - E39 Base, 4000-5000K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=130 LPW	Eiko	LED80WPT40KMOG-G6

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
Mogul >=400W Replacement	180-2018C	$127.50	REXEL	Eiko - HID LED large
LINEAR LED				
48" LINEAR LED TUBE, 3000K, 15W (USES EXISTING BALLAST)	17-2017C	$9.00	REXEL	54A_Subti-Tube
48" LINEAR LED TUBE, 4000K, 15W (USES EXISTING BALLAST)	17-2017C	$9.00	REXEL	54A_Subti-Tube
48" LINEAR LED TUBE, 5000K, 15W (USES EXISTING BALLAST)	17-2017C	$9.00	REXEL	54A_Subti-Tube

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
LED HID Replacement (>=400w Equivilent), Mogul - E39 Base, 4000-5000K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=130 LPW	Eiko	LED100WPT40KMOG-G6
48” LINEAR LED COMPATIBLE WITH RAPID AND IS BALLAST, 3000K, >= 80 CRI, MINIMUM 100 LPW, MIN L70 AT 50,000 HOURS, MINUMUM PF OF .9	Sylvania	Syl 75286 LED15T8L48DIM830SUBG6
48” LINEAR LED COMPATIBLE WITH RAPID AND IS BALLAST, 4000/4100K, >= 80 CRI MINIMUM 100 LPW, MIN L70 AT 50,000 HOURS, MINUMUM PF OF .9	Sylvania	Syl 75288 LED 15T8L48DIM840SUBG6
48” LINEAR LED COMPATIBLE WITH RAPID AND IS BALLAST, 5000K, >= 80 CRI, MINIMUM 100 LPW, MIN L70 AT 50,000 HOURS, MINUMUM PF OF .9	Sylvania	Syl 75297 LED 15T8L48DIM850SUBG6

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
Low & Highbay LEDS (Also check LED Bulbs Tab for screw in replacemnts for HP				
HIGHBAY, 18000 LUMEN, 5000K, W/SENSOR, CREE	17-2017C	$395.00	REXEL	22_CREE CXB
HIGHBAY REFLECTOR - ALUMINUM	17-2017C	$28.50	REXEL	22_CREE CXB
HIGHBAY REFLECTOR - CLEAR	17-2017C	$49.50	REXEL	22_CREE CXB
HIGHBAY REFLECTOR - WHITE/FROSTED	17-2017C	$60.00	REXEL	22_CREE CXB
14,000 Lumen LED	180-2018C	$109.00	Rexel	Eiko- LLH Low-HighBay L-83B
14,000 Lumen LED	180-2018A	$290.00	Big Ass Solutions (Delta T Corporation)	BAS-cutsheet-high-bay
14,000 Lumen LED with Occupancy and photo sensor	180-2018C	$139.00	Rexel	Eiko- LLH Low-HighBay L-83B
14,000 Lumen LED with Occupancy and photo sensor	180-2018A	$330.00	Big Ass Solutions (Delta T Corporation)	BAS-cutsheet-high-bay
21,000 Lumen LED	180-2018C	$139.00	Rexel	Eiko- LLH Low-HighBay L-83B
21,000 Lumen LED with Occupancy and photo sensor	180-2018C	$169.00	Rexel	Eiko- LLH Low-HighBay L-83B
29,000 Lumen LED	180-2018C	$179.00	Rexel	Eiko- LLH Low-HighBay L-83B
29,000 Lumen LED	180-2018A	$395.00	Big Ass Solutions (Delta T Corporation)	BAS-cutsheet-high-bay

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
'S and MH bulbs)		
LED LOW/HIGH BAY 18000LM, 5000K, =>80CRI, 120-277 VAC, DIMMING, QUICK RESTART, PIR OCCUPANCY SENSOR, SURFACE/PENDANT/J-BOX MOUNT CONFIGURATION	Cree	CXB-A-UV-M-50K-8-UL-ML
LED LOW/HIGH BAY REFLECTOR (MANUFACTURER MATCHING) - ALUMINUM	Cree	CXBA16N
LED LOW/HIGH BAY REFLECTOR (MANUFACTURER MATCHING) - CLEAR ACRYLIC	Cree	CXBP16
LED LOW/HIGH BAY REFLECTOR (MANUFACTURER MATCHING) - WHITE ACRYLIC	Cree	CXBW16
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=14,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE	EIKO	LLH-1C-50K-U
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=14,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE	Big Ass Solutions	BAS-HBL3-14050103100100
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=14,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE, WITH OCCUPANCY SENSOR	EIKO	LLH-1C-50K-U-1S
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=14,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE, WITH OCCUPANCY SENSOR	Big Ass Solutions	BAS-HBL3-14050103100101
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=21,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE	EIKO	LLH-2C-50K-U
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=21,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE, WITH OCCUPANCY SENSOR	EIKO	LLH-2C-50K-U-1S
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=29,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE	EIKO	LLH-3C-50K-U
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=29,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE	Big Ass Solutions	BAS-HPF2-36050103100100

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
29,000 Lumen LED with Occupancy and photo sensor	180-2018C	$219.00	Rexel	Eiko- LLH Low-HighBay L-83B
29,000 Lumen LED with Occupancy and photo sensor	180-2018A	$435.00	Big Ass Solutions (Delta T Corporation)	BAS-cutsheet-high-bay

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=29,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE, WITH OCCUPANCY SENSOR	EIKO	LLH-3C-50K-U-1S
LINEAR LED HIGH/LOW BAY FIXTURE, 4000 - 5000K, >=29,000 LM, CRI >=80, L70>= 70,000 hours, 120-277VAC, >=130 LPW, FROSTED LENS, DIMMABLE, WITH OCCUPANCY SENSOR	Big Ass Solutions	BAS-HPF2-36050103100101

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
Surface Mount Lights - (Also check out the Economy wraps in 24" and 48" liste				
11" Round Flush Mount ~ 1100 Lumen Typical use for closet or small space	180-2018C	$ 18.99	Rexel	Topaz Flush Mount Fixtures - 11inch
11" Round Flush Mount ~ 1100 Lumen Typical use for closet or small space	180-2018D	$ 39.00	VaOpto	VaOpto-ceiling_light
14" Round Flush Mount ~ 1500 Lumen Typical use for bathroom or small space	180-2018C	$ 31.25	Rexel	Syl Surface Mount
14" Round Flush Mount ~ 1500 Lumen Typical use for bathroom or small space	180-2018D	$ 40.00	VaOpto	VaOpto-ceiling_light
Under counter or economy utility lights and accessories				
1' 400 Lumen very small utility style LED	180-2018C	$ 10.50	Rexel	FOLI-T5 Integrated LED
2' 900 Lumen very small utility style LED	180-2018C	$ 11.89	Rexel	FOLI-T5 Integrated LED
2' 1200 Lumen very small utility style LED	180-2018C	$ 11.89	Rexel	FOLI-T8 Integrated LED
3' 1100 Lumen very small utility style LED	180-2018C	$ 13.00	Rexel	FOLI-T5 Integrated LED
4' 1600 Lumen very small utility style LED	180-2018C	$ 14.50	Rexel	FOLI-T5 Integrated LED
4' 1900 Lumen very small utility style LED	180-2018C	$ 14.50	Rexel	FOLI-T8 Integrated LED

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
d under strip lights)		
LED Round Flush Mount 11" Nom., 3000-4000K, CRI >= 80, > 1050LM, L70>= 50,000 hours, 120VAC, Poly or Acrylic Frosted Lens, Dimmable, , White	Topaz	F-FM11/15/RN/P/30/WH 79004
LED Round Flush Mount 11" Nom., 3000-4000K, CRI >= 80, > 1050LM, L70>= 50,000 hours, 120VAC, Poly or Acrylic Frosted Lens, Dimmable, , White	VaOpto	VO-CL-1WW16V
LED Round Flush Mount 14" Nom., 3000-4000K, CRI >= 80, > 1550LM, L70>= 50,000 hours, 120VAC, Poly or Acrylic Frosted Lens, Dimmable, , White	Sylvania	74264 SURFACER1A/025120T840/14S/WH
LED Round Flush Mount 14" Nom., 3000-4000K, CRI >= 80, > 1550LM, L70>= 50,000 hours, 120VAC, Poly or Acrylic Frosted Lens, Dimmable, , White	VaOpto	VO-CL-1CW22V
1' LED Undercounter/Direct mount line voltage lamp, 4000-4100K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=80 LPW, sutiable for damp locations, diffused lens	Forest Lighting	T5N141
2' LED Undercounter/Direct mount line voltage lamp, 4000-4100K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=80 LPW, sutiable for damp locations, diffused lens	Forest Lighting	T5N241
2' LED Undercounter/Direct mount line voltage lamp, 4000-4100K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=100 LPW, sutiable for damp locations, diffused lens	Forest Lighting	T8N241
3' LED Undercounter/Direct mount line voltage lamp, 4000-4100K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=80 LPW, sutiable for damp locations, diffused lens	Forest Lighting	T5N341
4' LED Undercounter/Direct mount line voltage lamp, 4000-4100K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=80 LPW, sutiable for damp locations, diffused lens	Forest Lighting	T5N441
4' LED Undercounter/Direct mount line voltage lamp, 4000-4100K, CRI >=80, L70>= 50,000 hours, 120-277VAC, >=100 LPW, sutiable for damp locations, diffused lens	Forest Lighting	T8N441

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
36" Power Cord plug accessory for Undercounter lamp	180-2018C	$ 6.50	Rexel	FOLI-T5 Integrated LED
72" Power Cord plug accessory for Undercounter lamp	180-2018C	$ 8.89	Rexel	FOLI-T5 Integrated LED
36" Power Cord plug accessory for Undercounter lamp with intergrated switch	180-2018C	$ 10.15	Rexel	FOLI-T5 Integrated LED
72" Power Cord plug accessory for Undercounter lamp with intergrated switch	180-2018C	$ 12.75	Rexel	FOLI-T5 Integrated LED
12" Connector Cable Male-Female for undercounter lamp	180-2018C	$ 2.94	Rexel	FOLI-T5 Integrated LED

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
36" Power Cord plug accessory for Undercounter lamp	Forest Lighting	INT-36-PC
72" Power Cord plug accessory for Undercounter lamp	Forest Lighting	INT-72-PC
36" Power Cord plug accessory for Undercounter lamp with intergrated switch	Forest Lighting	INT-36-PC-SWITCH
72" Power Cord plug accessory for Undercounter lamp with intergrated switch	Forest Lighting	INT-72-PC-SWITCH
12" Connector Cable Male-Female for undercounter lamp	Forest Lighting	INT-M2F-J

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
WALL PACKS				
WALLPACK, 3300LUMEN (REPLACEMENT FOR 100W AND BELOW)	17-2017C	$125.00	REXEL	67_WalPak2N
WALLPACK, 3300LUMEN, W/PHOTOCELL (REPLACEMENT FOR 100W AND BELOW)	17-2017C	$130.00	REXEL	67_WalPak2N
WALLPACK, 5300LUMEN (REPLACEMENT FOR 100W TO 175W)	17-2017C	$150.00	REXEL	67_WalPak2N
WALLPACK, 5300LUMEN W/PHOTOCELL (REPLACEMENT FOR 100W TO 175W)	17-2017C	$159.00	REXEL	67_WalPak2N
WALLPACK, 8600LUMEN (REPLACEMENT FOR 175W AND UP)	17-2017C	$210.00	REXEL	67_WalPak2N
WALLPACK, 8600LUMEN W/PHOTOCELL (REPLACEMENT FOR 175W AND UP)	17-2017C	$220.00	REXEL	67_WalPak2N
WALLPACK - ARCHITECTURAL 4800LUMEN (REPLACEMENT FOR UP TO 150W)	17-2017C	$163.00	REXEL	63A_lumark-crosstour-maxx
WALLPACK - ARCHITECTURAL 4800LUMEN, W/PHOTOCELL (REPLACEMENT FOR UP TO 150W)	17-2017C	$175.00	REXEL	63A_lumark-crosstour-maxx
WALLPACK - ARCHITECTURAL 7300LUMEN (REPLACEMENT FOR 150W AND UP)	17-2017C	$220.00	REXEL	63A_lumark-crosstour-maxx
WALLPACK - ARCHITECTURAL 7300LUMEN, W/PHOTOCELL (REPLACEMENT FOR 150W AND UP)	17-2017C	$230.00	REXEL	63A_lumark-crosstour-maxx
Two Head Spot/Flood with Photo and Motion	180-2018C	$59.00	REXEL	Morris two head flood 72562-Spec
GRANVILLE RETROFIT - COMPLETE HEAD W/GLASS	17-2017C	$960.00	REXEL	73_GVD2
GRANVILLE RETROFIT ONLY, NO GLASS	17-2017C	$434.00	REXEL	74_GVDRETRO

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
LED WALL PACK (RETROFIT FOR <= 100W HPS/MH/HPS)3300LM, 5000K, 120-277 VAC,BRONZE	Sylvania	WALPAK2N/036UNV750/NC/BZ 74201
LED WALL PACK (RETROFIT FOR <= 100W HPS/MH/HPS)3300LM, 5000K, 120-277 VAC,BRONZE,PHOTOCONTROL	Sylvania	WALPAK2N/036UNV750/NC/BZ/P 74219
LED WALL PACK (RETROFIT FOR >= 100W <=175W HPS/MH/HPS)5300LM, 5000K, 120-277 VAC,BRONZE	Sylvania	WALPAK2N/050UNV750/NC/BZ 74202
LED WALL PACK (RETROFIT FOR >= 100W <=175W HPS/MH/HPS)5300LM, 5000K, 120-277 VAC,BRONZE,PHOTOCONTROL	Sylvania	WALPAK2N/050UNV750/NC/BZ/P 74220
LED WALL PACK (RETROFIT FOR > 175W HPS/MH/HPS) 8600LM, 5000K, 120-277 VAC,BRONZE,PHOTOCONTROL	Sylvania	WALPAK2N/075UNV750/NC/BZ/P 74221
LED WALL PACK (RETROFIT FOR > 175W HPS/MH/HPS)8600LM, 5000K, 120-277 VAC,BRONZE	Sylvania	WALPAK2N/075UNV750/NC/BZ 74203
LED WALL PACK (RETROFIT FOR <=150W HPS/MH/HPS) 4800LM, 5000K, 120-277 VAC,BRONZE	LUMARK	XTOR6BRL
LED WALL PACK (RETROFIT FOR <=150W HPS/MH/HPS) 4800LM, 5000K, 120-277 VAC,BRONZE, PHOTOCONTROL	LUMARK	XTOR6BRL-PC2
LED WALL PACK (RETROFIT FOR > 150W HPS/MH/HPS)7300LM, 5000K, 120-277 VAC,BRONZE	LUMARK	XTOR8BRL
LED WALL PACK (RETROFIT FOR > 150W HPS/MH/HPS)7300LM, 5000K, 120-277 VAC,BRONZE, PHOTOCONTROL	LUMARK	XTOR8BRL-PC2
LED Floodlight 2 heads adjustable, 4000-5000K, CRI >= 75, >1000LM, 120vAC, with photocell	Morris	Morris -72562
STREETLIGHT - GRANVILLE II LED BY HOLOPHANE (GVD2), 80W, 3000K, 120-277 VAC, MODERN HOUSING, TYPE 3, PHOTOCONTROL *COMPLETE FIXTURE REPLACEMENT*	HOLOPHANE	GVD2 P30 3K AS M RAL6009 3 R P G H PCS
STREETLIGHT - GRANVILLE II LED BY HOLOPHANE (GVDRETRO) RETROFIT KIT, 80W, 3000K, 120-277 VAC, MODERN HOUSING, TYPE 5, PHOTOCONTROL *RETROFIT KIT*	HOLOPHANE	GVDRETRO 80 3K AS M RAL6009 5 H PCS

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
SWITCHES, SENSORS, AND SPECIALTY LIGHTING				
OCCUPANCY With DIMMER SWITCH LED Compatible (0-10V or Dimmable Driver bulb/lamp)	17-2017C	$62.50	REXEL	59_MS-Z101
OCCUPANCY SWITCH LED Compatible	17-2017C	$30.00	REXEL	57_LUT MS-OPS6M2-DV-WH
DIMMER SWITCH (LED/CFL/ICD COMPATIBLE), LOW LIMIT SETTING, SINGLE POLE	17-2017C	$22.75	REXEL	60_DVCL
DIMMER SWITCH 0-10V (LED/CFL/HID COMPATIBLE), SINGLE POLE	17-2017C	$55.00	REXEL	58_LUT DVSTV-WH DIVA 0-10
WIRELESS CONTROL MODUAL FOR SWITCHES/SENSORS	17-2017C	$95.00	REXEL	61_RMJ
WIRELESS OCCUPANCY AND PHOTO SENSOR	17-2017C	$49.50	REXEL	62_LRF2

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
OCCUPANCY SENSING SWITCH WITH DIMMER CONTROL, 120V/277V, SINGLE POLE, UP TO 8 AMP, MULTI/3-WAY SWITCHING, PIR 180 DEGREE FOV, WHITE	Lutron	LUT MS-Z101-WH
OCCUPANCY SENSING SWITCH, 120V/277V, SINGLE POLE, UP TO 6 AMP, MULTI/3-WAY SWITCHING, PIR 180 DEGREE FOV, WHITE	Lutron	LUT MS-OPS6M2-DV-WH
DIMMER SWITCH/CONTROL WITH LOW LIMIT ADJUSTMENT, INCANDESCENT/LED/CFL, 120V, SINGLE POLE, MULTI/3-WAY SWITCHING, WHITE	Lutron	LUT DVCL-153PH-WH
DIMMER SWITCH/CONTROL, LED/FLOURESCENT/HID COMPATIBLE, 0-10V, 120V/277V, SINGLE POLE, UP TO 8 AMP, MULTI/3-WAY SWITCHING, WHITE	Lutron	LUT DVSTV-WH DIVA 0-10 W/SWITCHING BOX-DVSTV-WH
WIRELESS CONTROLED DIMMING MODULE FOR LED/FLOURESCENT, 0-10V, 120V/277V, MUST BE COMPATIBLE WITH OCCUPANCY/PHOTO SENSOR	Lutron	LUT RMJ-8T-DV-B
WIRELESS OCCUPANCY AND PHOTO SENSOR - CEILING, 360 DEGREE FOV, WHITE, MUST BE COMPATIBLE WITH OFFERED WIRELESS MODULE.	Lutron	LUT LRF2-OCR2B-P-WH

SHORT DESCRIPTION	Price Contract	UOM COST	SUPPLIER	Link to product Spec Sheet
FLOURESCENT TUBES				
48" T8, 3000K, 32W ($1.70 EACH)	17-2017C	$1.70	REXEL	38_OCTRON 800 ECO
48" T8, 3500K, 32W ($1.45 EACH)	17-2017C	$1.45	REXEL	40_FO32VividValueECO
48" T8, 4000K, 32W ($1.45 EACH)	17-2017C	$1.45	REXEL	40_FO32VividValueECO
48" T8, 5000K, 25W ($2.60 EACH)	17-2017C	$2.60	REXEL	48_FO32OctronSuperSaverECO
48" T8, 5000K, 32W ($1.45 EACH)	17-2017C	$1.45	REXEL	40_FO32VividValueECO
48" T8, 6500K, 32W ($1.45 EACH)	17-2017C	$1.45	REXEL	40_FO32VividValueECO

Full Description(AS LISTED IN PEOPLESOFT)	Mfg.	Mfgno (USE THESE MANUFACTURER NUMBERS TO ENSURE YOU GET THE CORRECT PRODUCT)
48 T8 32W FLOURESCENT BULB, 3000K, ROHS COMPLIANT,>= 80 CRI,	Sylvania	FO32/830/ECO
48 T8 32W FLOURESCENT BULB, 3500K, ROHS COMPLIANT,>= 90 CRI,	Sylvania	FO32/V35/ECO
48 T8 32W FLOURESCENT BULB, 4000K, ROHS COMPLIANT,>= 90 CRI,	Sylvania	FO32/V41/ECO
48 T8 REDUCED WATTAGE <= 28W FLOURESCENT TUBE, 5000K,>= 80 CRI, MINIMUM 2200LM	Sylvania	FO32/25W/850
48 T8 32W FLOURESCENT BULB, 5000K, ROHS COMPLIANT,>= 90 CRI,	Sylvania	FO32/V50/ECO
48 T8 32W FLOURESCENT BULB, 6500K, ROHS COMPLIANT,>= 90 CRI,	Sylvania	FO32/V65/ECO

Attachment H: Project Timeline For a New Police Canine Facility

Task	Duration		Start	Finish
RFP	**58**	**Days**	**5/16/2018**	**7/13/2018**
RFP Advertisement	**21**	**Days**	5/16/2018	6/6/2018
Pre-Bid Meeting	**1**	**Day**	5/24/2018	5/24/2018
RPF - Responses Due	**1**	**Day**	**6/6/2018**	**6/6/2018**
RFP Evaluation and A/E Recommendation	**14**	**Days**	6/6/2018	6/20/2018
Approved in Legistar Date	**0**	**Days**	6/25/2018	6/25/2018
Council WS	**1**	**Day**	7/3/2018	7/3/2018
Council 1st Reading	**1**	**Day**	7/3/2018	7/3/2018
Council 2nd Reading	**1**	**Day**	7/5/2018	7/5/2018
Council Summer Recess	**32**	**Days**	7/9/2018	8/10/2018
N.T.P. & P.O.	**7**	**Days**	7/6/2018	7/13/2018
Design	**98**	**Days**	**7/13/2018**	**10/19/2018**
Design Kick Off Meeting	**1**	**Day**	7/16/2018	7/16/2018
Design & Development Phase	**30**	**Days**	7/16/2018	8/15/2018
Design & Development Submission	**1**	**Day**	**8/15/2018**	**8/15/2018**
Owner Review of DD Phase	**14**	**Days**	8/15/2018	8/29/2018
Construction Document Phase	**30**	**Days**	8/29/2018	9/28/2018
Construction Document Submission	**1**	**Day**	**9/28/2018**	**9/28/2018**
Owner Review of CD Phase	**14**	**Days**	9/28/2018	10/12/2018
Owner's Construction Documents' Comments Incorporated	**7**	**Days**	10/12/2018	10/19/2018
100% Construction Documents Ready to Advertise Submission	**1**	**Day**	**10/19/2018**	**10/19/2018**
Advertisement & Award	**48**	**Days**	**10/19/2018**	**12/6/2018**
Compile Bid Documents	**4**	**Days**	10/19/2018	10/23/2018
Advertise for Bids	**21**	**Days**	10/23/2018	11/13/2018
Pre-Bid Meeting	**1**	**Day**	10/30/2018	10/30/2018
Bids Due	**1**	**Day**	**11/13/2018**	**11/13/2018**
Bid Review & Selection	**7**	**Days**	11/13/2018	11/20/2018
Thanksgiving Break	**1**	**Day**	11/22/2018	11/23/2018
Approved in Legistar Date	**0**	**Days**	11/26/2018	11/26/2018
Council WS	**1**	**Day**	12/4/2018	12/4/2018
Council 1st Reading	**1**	**Day**	12/4/2018	12/4/2018
Council 2nd Reading	**1**	**Day**	12/6/2018	12/6/2018
Council Winter Recess	**23+**	**Days**	12/10/2018	2019
Construction Contract Execution/ P.O.	**14**	**Days**	12/7/2018	12/21/2018
Anticipated Construction	**319**	**Days**	1/7/2019	11/22/2019
Pre-Construction Meeting	**1**	**Day**	1/7/2019	1/7/2019
Construction	**289**	**Days**	1/7/2019	10/23/2019
Substantial Completion	**1**	**Day**	**10/23/2019**	**10/23/2019**
Punch List	**21**	**Days**	10/23/2019	11/13/2019
Close Out Documents	**30**	**Days**	10/23/2019	11/22/2019
Finial Completion	**1**	**Day**	**11/22/2019**	**11/22/2019**