Addendum 2

Jackson County Gum Springs Park- Phase 1

This Addendum is hereby made a part of the Contract Documents.

BID FORM REVISED - See Attached Specification 00300 Bid Proposed Form

Questions and Answers

- 1. Q: Is the Musco Specification 26 5668 Exterior Athletic Lighting required for this phase of the project?
 - A: The sports lighting specifications 26 5668 are for reference only. The sports lights will be installed in Phase 2. The conduit and pull boxes for the sports lights will be installed in this phase.
- 2. Q: What is the type of fixture and pole height for the pedestrian lights? Where is the electrical tie-in for the pedestrian lights?
 - A: The basis of design for the pedestrian light fixture is King Luminaire K118 Washington or approved alternate. The basis of design for the pedestrian light pole is King Luminaire KSB19 The Cleveland Jr (10') or approved alternate. The electrical tie-in for the pedestrian light poles is shown on C-5.0 behind the proposed restroom building.
- 3. Q: Is the infield mix/pitcher's mounds, bases, etc. required for the baseball fields or is it to be all covered by sod?
 - A. The infield mix, pitcher mounds, bases, etc. are not included in this phase of the project. Install sod per C-6.6.
- 4. Q: If no infield mix is required, is there an allowance made in the grading for the future infield installation?
 - A. Grade per C-4.0.
- 5. Q: If sod is installed on the infields, does the irrigation installation make allowances for future infield installation?
 - A: Contractors should provide irrigation for all sodded areas on the sports fields. The irrigation should be laid out to allow the irrigation system to be removed in the infield areas in the future phase of the project.
- 6. Q: In Section 33 4600 of the specs, it mentions subsurface drainage for the multipurpose field, but there are no lateral lines shown on the drawings. Is a subsurface system required for the entire field? Is it design build for the drainage system?
 - A: The subsurface drainage system has been removed from the multipurpose field in this phase of the project.

- 7. Q: Would it be possible to get 1H: 1V profiles for the retaining walls? A: See C-7.2 for proposed retaining wall profiles.
- 8. Q: Wall B & C need to tie into the final grade. They cannot be 4' to 5' at the ends of these walls.
 - A: The wall profiles and layout have been revised to tie into the proposed grade. The wall profiles are provided for a guide only for the contractor. The contractor will need to provide wall plans to the County for review before beginning wall construction.
- 9. Q: The civil engineer needs to check to see if the Sleeve-It fence system can be installed with the "fence wing load" as noted on Sheet C-8.3.
 - A: The Sleeve-It fence system was called out for the basis of design for the project. The contractor can use the system or another system for the retaining walls system as long as it meets the required fence wind load.

Attachments:

- 1. Revised Specifications
 - 00300 Bid Proposal Form
 - 01 2200 Unit Prices
 - King Luminaire K118 Washington light fixture spec
 - King Luminaire KSB19 The Cleveland Jr. light pole spec
- 2. Revised Civil Plans
 - The parking lot was removed from this phase of the project. All items related to the parking lot including but not limited to earthwork, stormwater drainage, curb & gutter, paving, striping, erosion control, details and Jackson EMC lighting have been removed from this phase of the project. The new disturbed area for the project is 19.48 AC.
 - C-2.0- Demo of the existing road to the W. Jackson Middle School has been removed.
 - C-3.0 The parking lot has been removed.
 - C-4.0- The grading and stormwater for the parking lot has been removed.
 - C-5.0- Service Point for the pedestrian lights shown behind the proposed restroom building location. Fire Hydrant location has been revised.
 - C-6.4 to C-6.6- The erosion control for the parking lot has been removed.
 - C-7.2 Wall B and Wall C Profiles have been revised.

END OF ADDENDUM 2

Section 00300 Bid Proposal Form

Part 1 - General

- 1.1 DESCRIPTION: Following this page is the Bid Proposal Form to be used by each Bidder for preparing and submitting a Bid for the Work of this Project.
- 1.2 **ONLY THE FOLLOWING FORM SHALL BE USED**. No other form or forms are acceptable. The use of any other Bid Proposal Form or modification of any kind to the required form (except where noted or required to do so, or by the Contractor's signature of the Bid Proposal Form) shall cause the Bid to be non-responsive and cause for rejection by Jackson County.
- 1.3 Interested Bidders are required to attend the scheduled Pre-Bid Conference, at the date and time indicated in Section 00020, Invitation for Bids.
- 1.4 BID TIMES AND DATES Each interested Bidder shall fully acquaint themselves with the particular date and time for submittal of a Bid. Each interested Bidder shall be fully and solely responsible for the timely and proper delivery of their Bid at the required location by the time indicated.
- 1.5 Each Bidder shall complete, sign and otherwise properly execute the Bid Proposal Form, and shall include and attach all other forms, exhibits, statements and other documents required to be submitted with the Bid Proposal(s).
- 1.6 All contractors submitting a bid for the work of this project, at any individual and separate park project, shall be a registered <u>LICENSED GEORGIA GENERAL CONTRACTOR</u>.
- **1.7 DETERMINATION OF SUCCESSFUL BIDDER:** The Contract will be awarded by Jackson County based upon the most responsive Bid from the most responsible Bidder, if awarded, as determined solely by the review and evaluation conducted by Jackson County.
 - A. **RESPONSIBILITY:** The determination of the Bidder's responsibility will be made by Jackson County, based on whether the Bidder, as a minimum:
 - (1) Maintains a permanent place of business, having the same business name over the last 10 years
 - (2) Has the appropriate and adequate technical <u>experience in projects of similar scope and size.</u>
 - (3) <u>Has adequate capacity, personnel and equipment **experienced in projects of similar scope and size** to do the work properly and expeditiously,</u>
 - (4) Has suitable financial means, including all required bonds and insurance, to meet obligations incidental to the work.

- (5) Has a satisfactory performance record with Jackson County, and other public and private agencies or authorities, and/or other clients. The Bidder shall furnish to Jackson County all such information and data for this purpose as Jackson County may request. Jackson County reserves the right to reject any Bid if the evidence submitted by, or investigation of, the Bidder fails to satisfy Jackson County that the Bidder is properly qualified to carry out the obligations of the Contract; or if the Bidder fails or refuses to supply the requested data or information in the manner and time set forth by Jackson County.
- B. **RESPONSIVENESS:** The determination of responsiveness will be made by Jackson County based on a consideration of whether the Bidder has submitted a complete Bid Proposal Form and accompanying required documents, or later requested documentation, without irregularities, excisions, special conditions, or alternative Bids for any item unless specifically requested in or allowed by the Bid Proposal Form.
- C. Contractors and Bidders submitting a Bid Proposal to Jackson County for this project understand and accept the above requirements for review and selection by Jackson County, and therefore agree that should a Contractor and Bidder who has submitted a Bid Proposal be determined to not meet the above requirements, and is therefore NOT selected, such non-selection by Jackson County shall not be a cause of action by any such non-selected Contractor of Bidder.

PROJECT:	Gum Springs Park
ТО:	JACKSON COUNTY BOARD OF COMMISSIONERS Jackson County Public Development 67 Athens Street, Jefferson, GA 30549
FROM:	BIDDER'S NAME AND ADDRESS:

INFORMATION AND INSTRUCTIONS

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Bid Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the Contract to be entered into; that this Bid Proposal is made without connection with any other person, company or parties making a Bid or Proposal; and that it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has visited and carefully examined the Site of the Work and has thoroughly informed himself fully in regard to all conditions pertaining to the place where the Work is to be done; that he has examined the Bid Proposal Form, Bidding Requirements and Conditions, the Project Manual, the Construction Agreement, Drawings and Specifications and any Addenda for the Work, and all other Bidding and Contract Documents relative thereto, and has read all instructions to Bidders and Conditions and Requirements furnished prior to the openings of Bids; and that he has satisfied himself relative to the work to be performed.

THEREBY, the Bidder proposes and agrees, if his Bid is accepted, to contract with Jackson County, in the form of contract specified, to execute and perform as required, to furnish all necessary materials, plant and equipment, machinery, tools, apparatus, hoisting, hauling, delivery and means of transportation and labor necessary, overhead & profit, and to complete the Work and to cooperate and coordinate its required work in full and complete accordance with the shown, noted, and reasonably intended requirements of the Construction Agreement and the Contract Documents, including but not limited to the Project Manual, Drawings and Specifications to the full and entire satisfaction of Jackson County with a definite understanding that no money will be allowed for extra work except as set forth in the Contract Documents or for the agreed upon unit prices, if any, and to perform its respective duties and responsibilities in accordance with the contract documents, and instructions and directives of Jackson County.

The Bidder agrees hereby to commence work under this Contract, with adequate project and construction management and superintending personnel and equipment, on the date to be specified in a written Notice to Proceed from Jackson County, and to fully complete all work under this Contract within the specified and agreed upon schedule.

The Bidder further declares that he understands that the quantities shown for the unit prices items, if any, are subject to both increases or decreases, and that should the quantities of any of the items of Work be increased or decreased, the Bidder proposes to do the additional work at the unit prices stated herein; and the Bidder also understands that payments will only be made on the basis of actual quantities, at the unit price Bid and the Contractor will make no claim for anticipated profits for any decrease in quantities; and that actual quantities will be mutually determined upon completion of work, at which time adjustments will be made to the contract amount by direct increase or decrease.

Jackson County reserves the sole right to select which Bid it desires, based upon those factors Jackson County considers relevant and necessary for that final determination and selection, including, but not limited to price, schedule, qualifications, capacity and capabilities of the Contractor, acceptance or rejection of any alternative(s), and technical coordination elements concerning the project as a whole.

ADDENDA

1.

Bidder acknowledges receipt of Adde	enda:		
Dated:	;	Dated:	;
Dated:	;	Dated:	;
Dated:	;	Dated:	;
Dated:	;	Dated:	;
UNIT PRICES:			

The following Unit Prices are amounts to be used for work that will be **ADDED TO OR DELETED FROM** the Contract by Change Order as and when unsuitable soils and other materials occur in the performance of the work of this Project, and in the event such additional work may also be required.

All Unit Prices are inclusive and complete for labor, equipment, material, mobilization and associated time for the work of each unit price for site operations, installation, applicable taxes, supervision, bonds and insurance, management & supervision, overhead and profit, and all other incidental costs; and are **applicable at any point or location at and within the Project.** Units will be measured in place by Jackson County or the project's materials testing and consulting firm, as the work progresses or upon completion of the work.

Jackson County reserves the sole right to accept or reject these Unit Prices or to require the Work to be performed on a time and material basis with complete daily breakdowns and logs submitted, or to have the work performed for an agreed upon lump sum price.

#	Item	Unit	Unit Cost
1	Remove and Haul-Off Unsuitable Soil, Replace with Suitable Soil	CY	\$
2	Remove and Haul-Off Unsuitable Soil, Replace with #57 Stone	CY	\$
3	Remove and Haul-Off Unsuitable Soil	CY	\$
4	Tifway 419 Bemuda Sod	SF	\$
5	Silt Fence	LF	\$
6	4" Concrete Sidewalk	SF	\$
7	Vinyl Fence	LF	\$
8	Conduit	LF	\$
9	Pull Boxes	EA	\$

2. ALLOWANCES

1. OWNER'S 10% CONTINGENCY: Lump Sum Amount by Contractor.

3. BASE BID PRICE OR BASE BID PROPOSAL:

The undersigned, having become thoroughly familiar with terms and conditions of the proposed Contract Documents affecting the contract with and from Jackson County, hereby proposes and agrees to fully provide and to perform the work identified for the work of this Project within the time stated and in accordance with the Contract Documents, including furnishing any and all services, delivery, hoisting, hauling, labor, materials, plant and equipment, overhead & profit, and to do all the work required to perform and complete said work in accordance with the Contract Documents for the following sum or sums.

NOTE: Prior to award, and as a part of the evaluation of the Bid, the Bidder shall forward to Jackson County a complete itemized breakdown of services, materials and labor within forty-eight (48) hours of the request by Jackson County, through the Architect or Engineer to furnish such information.

PROPOSAL AMOUNT LINE ITEM COST.

Gen	eral						
1	General Requirements	\$					
2	Fees, Bonds, Insurance, Etc.	\$					
3	Staking and As-builts	\$					
Eart	hwork						
4	NPDES Monitoring	\$					
5	Erosion Control	\$					
6	Clearing and Grubbing	\$					
7	Grading (Mass Grading, Backfilling, Fine Grading, Etc.) \$						
8	Design-Build Retaining Walls and Railings	\$					
9	Storm Drainage	\$					
10	Sanitary Sewer	\$					
11	Water System (Domestic and Fire)	\$					
12	Detention Pond Fencing, Gates, and Signage	\$					
13	Sidewalk	\$					
Roa	dway Improvements						
14	6' Sidewalk	\$					
15	Vinyl Fencing	\$					
16	Landscaping	\$					
17	Design-Build Irrigation	\$					
18	Pedestrian Lights	\$					
Bas	eball Fields						
19	Tifway 419 Bemuda Sod	\$					
20	Design-Build Irrigation	\$					
Mu	ti-Purpose Field						
21	Tifway 419 Bemuda Sod	\$					
22	Design-Build Irrigation	\$					
Spo	rts Field Lighting						
23	Conduit & Pull Boxes	\$					
Ow	ner Contingency						
24	Owner's Contingency (10% of Items 1-23)	\$					
	BASE BID TOTAL (TOTAL OF ITEMS 1-24)	\$					

<u>LUMP SUM BASE BID PROPOSAL AMOUNT: Complete for all Work of this Project: INCLUDING ALLOWANCES;</u>

Dollars (\$)
which Sum is hereinafter called the "Lump Sum Base Bid Proposal"	

BID BOND:

A Bid Bond, in an amount not less than five percent (5%) of the above total submitted Gum Springs Park Bid Proposal amount is required to be submitted with this Bid Proposal.

<u>Submission of the Bid Bond is mandatory</u>, and is separate and apart from any requirements or acceptance of the Performance and Labor & Material Payment Bond. Any Bidder's inability to provide a Performance and Labor & Material Payment Bond shall deem that Bid Proposal to be non-responsive, and that Bidder to be non-responsible to perform the Work of the Bid Proposal; and the Bid Proposal rejected by Jackson County, with penalty against the Bidder.

- 4. **TIME OF COMMENCEMENT AND COMPLETION:** Bidder hereby agrees to commence and to perform all necessary coordination and Work of this Project with the design work and services of Jackson County and the Architect or Engineer, to commence fabrication, to commence delivery, and to commence actual physical work on the site with an adequate force and equipment and proper supervision and management on the date to be specified in the written order of the Notice to Proceed, and to substantially complete and final complete the work by the dates stated in the Project Manual
- 5. **WITHDRAWAL OF BID(S):** The Undersigned acknowledges and agrees that this Bid may not be revoked or withdrawn after the time set for the opening of Bids, and will remain open for acceptance by Jackson County for a period of Ninety (90) calendar days following such time.
- 6. **PERFORMANCE AND LABOR & MATERIALS PAYMENT BOND:** The Contractor shall upon award furnish to Jackson County **Performance and Labor & Material Payment Bonds** to Jackson County, the Undersigned's surety will be:

and the Undersigned agrees that upon receipt of Jackson County's Notice of Award, the Contractor will, within ten (10) days of receipt of the Notice of Award with accompanying Agreement and requirements for bonds and insurance, execute the formal Contract, and will deliver all required Bonds for the faithful performance of this Contract and such other required information, representations and insurance certificates and polices. The Undersigned further agrees that if he fails or neglects to appear or execute or deliver within the specified time to execute the Contract of which this Proposal, the Bidding Documents and the Contract Documents are a part, the Undersigned will be considered as having abandoned the Contract, and Jackson County shall proceed to take action to review and recommend the next responsive and responsible Bid.

7. **VOLUNTARY ALTERNATES:** If a Bidder has determined that an alternative method, practice or specification would be beneficial to the project, the Bidder is encouraged to submit such a proposed Voluntary Alternative for consideration by Jackson County. Reference is made to SECTION 01630 SUBSTITUTIONS for guidance in submitting Voluntary Alternates information. However, the Bidder is cautioned that the base Bid proposal prices MUST fully and completely comply and meet the requirements of the Contract Documents. Unless so noted in the submittal of a Voluntary Alternate, the Bid prices received by Jackson County from the Bidder are for the requirements set forth by the documents. Submission of any Voluntary Alternates shall be submitted on the Contractor's letterhead, fully and completely presenting

the alternate(s), with all required supporting documentation.

8. **CHANGES IN THE WORK:** The Bidder agrees that should additional compensation be requested, the Bidder/Contractor will submit complete itemized material and labor breakdowns for evaluation by Jackson County For deleted work, the Contractor's offered credits shall be INCLUSIVE of overhead and profit.

CONFIRMATION OF BASE BID PROPOSAL COST OF WORK: The undersigned Bidder agrees that it shall promptly after the receipt of Bids by Jackson County, and upon request by Jackson County, provide additional information to Jackson County and shall meet with Jackson County and the Architect or Engineer for purposes of confirming the Bidder's understanding and acceptance of the scope of work and the Bid submitted by the Bidder. It is further understood and agreed that should such post-Bid contact and price confirmation information and meeting(s) not confirm an agreeable contact scope of work and price, that Jackson County may, at its sole discretion, proceed to reject the Bid and take steps to re- Bid the work, in whole or in part, or to award the work to the next most responsible Bidder, with the most responsive Bid.

KI	ESPECTFULLY SUBMITTED:	
If	an Individual, by:	
	Doing Business as:	
	Business Address:	
	If a Joint Venture, LLC. or Partnership:	
	By:	Member of Firm:
	By:	Member of Firm:
	Ву:	Member of Firm:
	Business Address:	_
	If a Corporation:	(Seal REQUIRED, If Bid is by Corporation)

10. ENCLOSURES AND ATTACHMENTS TO BE SUBMITTED WITH THIS BID PROPOSAL FORM (Section 00300) INCLUDE:

- E-Verify Forms
- Non-Influence and Non-collusion Affidavit (Section 00325)
- Bid Bond; (Section 00410)
- Certificate of Ability to Provide Performance and Labor & Material Payment Bond (Section 00415)
- Contractor's Certificate as Individual, or as Partnership, or as Corporation (Section 00420.)
- General Contractor's License Certification or Number (Georgia) (Section 00425.)
- Contractor's Authorized Permit Agent Form (Section 00430)
- Certification as to Review and Acceptance of Construction Agreement (Section 00850)
- Contractor's Qualifications Statement (Section 00860)

END OF BID PROPOSAL FORM

END OF SECTION

Section 01 2200 Unit Prices

Part 1- General

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This section includes administrative and procedural requirements for unit prices for work above and beyond that shown in the contract documents.

1.3 DEFINITIONS

- A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to the scope of Work or estimated quantities of Work required by the Contract Documents.
- B. Rock shall be defined as material that cannot be ripped by a single tooth ripper.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.
- B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections. Rock will be measured via survey cross section prior to removal and after removal to determine the quantity. Unit price will include surveying for quantity determination.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

#	Item	Unit	Unit Cost
1	Remove and Haul-Off Unsuitable Soil, Replace with Suitable Soil	CY	
2	Remove and Haul-Off Unsuitable Soil, Replace with #57 Stone	CY	
3	Remove and Haul-Off Unsuitable Soil	CY	
4	Tifway 419 Bermuda Sod	SF	
5	Silt Fence	LF	
6	4" Concrete Sidewalk	SF	
7	Vinyl Fence	LF	
8	Conduit	LF	
9	Pull Boxes	EA	

END OF SECTION



K118 WASHINGTON - LED

The King Luminaire K118 Washington is a beautiful depiction of this street light classic. This historical acorn shape teamed with King Luminaire's high performance LED engines make for a perfect solution for city streets, parks, schools and commercial areas.



PRODUCT SPECIFICATIONS

R1/B3/B2 LED ENGINE

Light engine shall be an array of 36, 42, 54 or 63 solid state Cree X-Series high power LEDs (light emitting diodes) mounted to a multi-sided, vertical heat sink of highly conductive aluminum. The LED emitters are mounted to removable circuit boards such that they are in full thermal contact with the vertical heat sink. The vertical heat sink is open at the bottom and vented at the top to provide appropriate dynamic airflow cooling for the LED array. The emitters are arranged in various patterns on each face of the vertical heat sink to provide the required light distribution.

The LED arrays include optical baffles constructed of optical grade ABS plastic with a vacuum metallized reflective surface or clear acrylic precision refractors over each diode. Optical options are designed to efficiently control light distribution in IESNA Type IV & V for the B3/B2 and Type III & V for the R1.

P4 LED ENGINE

Light engine shall include an array of Cree X-Series high power LEDs (light emitting diodes). The emitters shall be mounted to a metal core circuit board using SMT technology. The LEDs and circuit boards shall then be mounted to a high performance heat sink.

External light control shall consist of high precision refractive lenses mounted above the LED emitter arrays in such a way to achieve optimum uplight control. The lenses shall also control horizontal light distribution so that either Type II, III, IV or V IESNA distribution patterns are achieved.

LUMINAIRE CONSTRUCTION

All K118 Washington cast components shall consist of a heavy grade A319 cast aluminum. The main body or capital acts as an enclosure for the driver assembly and is of adequate thickness to give sufficient structural rigidity. The capital shall have an opening at the base tenon body to allow the luminaire to be mounted to a tenon of 3-1/2" maximum diame-

ter. The luminaire shall be locked in place by means of heavy duty, stainless steel set-screws.

GLOBE ASSEMBLY

The protective globe shall be molded of either; rippled polycarbonate Miles Makrolon GP/OP Thermoplastic Polymer, or equivalent, or rippled acrylic Acrylite Plus Acrylic Polymer, or equivalent, having a minimum thickness of 0.125".

The globe assembly is a selfcontained unit consisting of the globe, rugged cast locking ring, and the LED light engine and optical control. The LED light engine is of a modular design, and is able to be quickly removed from the globe assembly. The globe assembly is secured to the main housing by means of a spring-tensioned. twist-locking Rotolock™ unit to allow tool-less removal of the globe, while maintaining a secure seal between the globe assembly and the main body of the luminaire, making the K118 Washington suitable for an outdoor environment.

DRIVER

The LED universal dimmable driver will be class 2 and capable of 120 - 277V or 347 - 480V input voltage, greater than 0.9 power factor, less than 20% total harmonic distortion. The case temperature of the driver can range from -40°C up to 70°C. Each LED system comes with a standard surge protection designed to withstand up to 20kV/10kA of transient line surge as per IEEE C62.41.2 C High. An in-line ferrite choke is utilized to provide protection against EFT's. The driver assembly will be mounted on a heavy duty fabricated galvanized steel bracket to allow complete tool-less maintenance.

PHOTOMETRICS

Fixtures are tested to IESNA LM79 specifications. These reports are available upon request.

CHROMATICITY

High output LEDs come standard at 3000K & 4000K (+/- 300K) with a minimum nominal 70 CRI.

Additional CCT emitters are available upon request.

LUMEN MAINTENANCE

Reported (TM21) and Calculated (L70) reports are available upon request with a minimum calculated value of 100,000 hrs.

WIRING

All internal wiring and connections shall be completed so that it will be necessary only to attach the incoming supply connectors to Mate-N-Lok connectors or to a terminal block. Mate-N-Lok shall be certified for 600V operation. Internal wire connectors shall be crimp connector only and rated at 1000V and 150°C. All wiring to be CSA certified and/or UL listed, type SFF-2, SEWF-2, or SEW-2 No. 14 gauge, 150°C, 600V, and color coded for the required voltage.

THERMALS

Fixtures tested by a DOE sanctioned test facility to determine the maximum in-situ solder-point or junction-point temperatures of the LED emitters. This report is available upon request.

FINISH

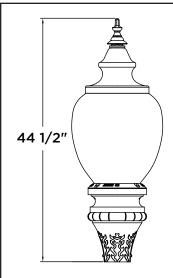
Housing is finished with a 13 step KingCoat™ SuperDurable polyester TGIC powder coat. Standard colors include strobe white, brown metal, marina blue, gate gray, Chicago bronze, standard gold, standard black, federal green and rain forest. Please see our website for a complete list of colors. RAL and custom color matches are available.

MISCELLANEOUS

All exterior hardware and fasteners, wholly or partly exposed, shall be stainless steel alloy. All internal fasteners are stainless steel or zinc coated steel. All remaining internal hardware is stainless steel, aluminum alloy, or zinc coated steel.

WARRANTY

The K118 Washington LED luminaire comes with a 7 year limited warranty.



CERTIFICATION:

CSA US Listed Suitable for wet locations ISO 9001 IP66 ARRA Compliant

LM79 / LM80 Compliant

DRIVER INFO:

>0.9 Power Factor <20% Total Harmonic Distortion 120 - 277V & 347 - 480V -40°C Min. Case Temperature 70°C Max. Case Temperature Surge Protection: ANSI C136.2 extreme level 20kV/10kA

EPA:

1.53 sq. ft.

FIXTURE WEIGHT:

38 lbs

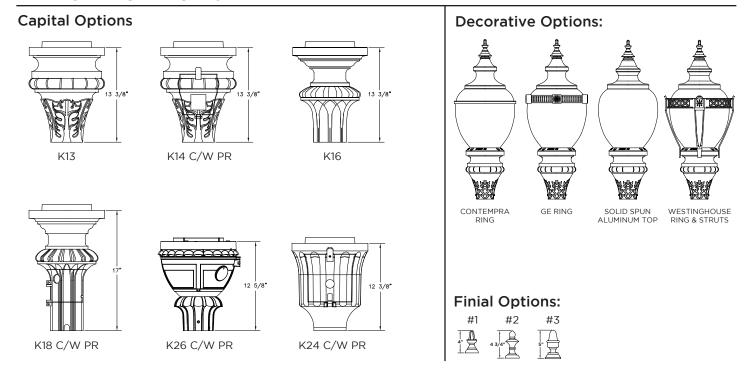




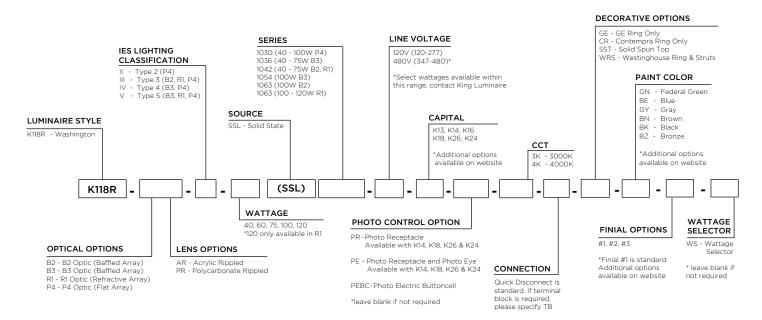


Not all product variations listed on this page are DLC qualified.
Visit www.designlights.org/search to confirm qualification.
Contact King Luminaire for product specifications that are exempt from CSA Certification.
1-30-2020

FIXTURE OPTIONS



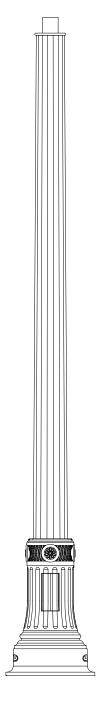
HOW TO ORDER

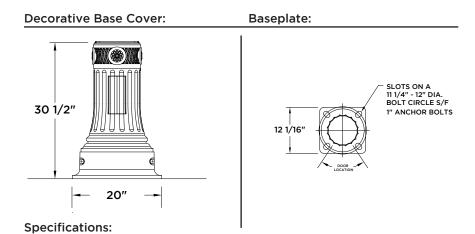












Pole Shaft Options:

Available as Fluted Extruded (FE) 16 flute non-tapered in aluminum, Round Extruded (RE) non-tapered in aluminum, Form Fluted (FF) 16 flute tapered in aluminum or steel and Round Formed (RF) tapered in aluminum or steel.



Decorative Base Cover:

Cast aluminum clam shell with maximum shaft opening of 9.125".

Base Weight*:

49 lbs

*Consult Shaft Detail Charts below for pole shaft weight

Finish

Available in textured or smooth.

Options:

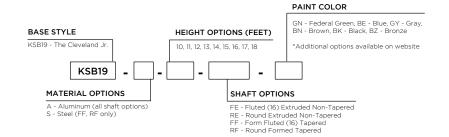
FΗ

GFI > Ground Fault Receptacle

BA > Banner Arms FPH > Flower Pot Holder

> Flag Holder

How to Order:



							90 M	1PH	100 I	MPH	110 N	1PH	120 N	MPH	150 N	1РН	
Catalog Number	Ht. (ft)	Butt (in)	Tip (in)	Tenon	Wall Thickness (in)	Wt. (lbs)	Max EPA (sq ft)	Max Load (lbs)	Anchor Bolt Dia. (in)								
KSB19-A-10-FE	10	5.25	5.25	3.5" x 3.5"	0.25	46	16.8	500	13.3	500	10.7	500	8.8	500	5.2	500	0.75
KSB19-A-11-FE	11	5.25	5.25	3.5" x 3.5"	0.25	50	14.7	500	11.6	500	9.3	500	7.6	500	4.4	500	0.75
KSB19-A-12-FE	12	5.25	5.25	3.5" x 3.5"	0.25	55	12.9	500	10.1	500	8.1	500	6.6	500	3.7	500	0.75
KSB19-A-13-FE	13	5.25	5.25	3.5" × 3.5"	0.25	59	11.4	500	8.9	500	7.1	500	5.7	500	3.1	500	0.75
KSB19-A-14-FE	14	5.25	5.25	3.5" × 3.5"	0.25	64	10.1	500	7.8	500	6.1	500	4.9	500	2.6	500	0.75
KSB19-A-15-FE	15	5.25	5.25	3.5" × 3.5"	0.25	69	8.9	500	6.8	500	5.3	500	4.1	500	2.1	500	0.75
KSB19-A-16-FE	16	5.25	5.25	3.5" × 3.5"	0.25	73	7.8	500	5.9	500	4.5	500	3.5	500	1.6	500	0.75
KSB19-A-17-FE	17	5.25	5.25	3.5" × 3.5"	0.25	78	6.8	500	5.0	500	3.8	500	2.9	500	1.2	500	0.75
KSB19-A-18-FE	18	5.25	5.25	3.5" x 3.5"	0.25	82	5.8	500	4.2	500	3.1	500	2.3	500	0.8	500	0.75

								00.1	4D11	100 1	4DII	110 1	4011	100 1	4011	150 1	4DII	
S						VA / - II		90 N		100 M		110 M		120 N		150 N		A la
Details	Catalog Number	Ht. (ft)	Butt (in)	Tip (in)	Tenon	Wall Thickness (in)	Wt. (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Anchor Bolt Dia. (in)
Shaft	KSB19-A-10-RE	10	4.5	4.5	3.5" × 3.5"	0.25	39	15.7	500	12.3	500	10.0	500	8.3	500	5.1	500	0.75
	KSB19-A-11-RE	11	4.5	4.5	3.5" × 3.5"	0.25	43	13.6	500	10.6	500	8.6	500	7.1	500	4.3	500	0.75
>	KSB19-A-12-RE	12	4.5	4.5	3.5" x 3.5"	0.25	47	11.9	500	9.2	500	7.4	500	6.0	500	3.6	500	0.75
Σ	KSB19-A-13-RE	13	4.5	4.5	3.5" × 3.5"	0.25	51	10.3	500	8.0	500	6.2	500	5.1	500	3.0	500	0.75
Ž	KSB19-A-14-RE	14	4.5	4.5	3.5" × 3.5"	0.25	55	9.0	500	6.8	500	5.3	500	4.3	500	2.5	500	0.75
ALUMINUM	KSB19-A-15-RE	15	4.5	4.5	3.5" x 3.5"	0.25	59	7.8	500	5.8	500	4.5	500	3.6	500	2.0	500	0.75
	KSB19-A-16-RE	16	4.5	4.5	3.5" × 3.5"	0.25	63	6.9	500	5.3	500	4.0	500	3.2	500	1.7	500	0.75
R	KSB19-A-17-RE	17	4.5	4.5	3.5" x 3.5"	0.25	67	6.1	500	4.3	500	3.3	500	2.5	500	1.3	500	0.75
	KSB19-A-18-RE	18	4.5	4.5	3.5" x 3.5"	0.25	71	5.2	500	3.5	500	2.5	500	1.9	500	0.9	500	0.75
								90 N	1PH	100 N	ИРН	110 M	1PH	120 N	1РН	150 N	ИРН	
Details	Catalog Number	Ht. (ft)	Butt (in)	Tip (in)	Tenon	Wall Thickness (in)	Wt. (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Anchor Bolt Dia. (in)
aft I	KSB19-A-10-FF	10	5.9	4.5	3.5" × 3.5"	0.182	33	11.9	500	9.4	500	7.6	500	6.2	500	3.6	500	0.75
Shaft	KSB19-A-11-FF	11	6.04	4.5	3.5" x 3.5"	0.182	37	11.0	500	8.7	500	7.0	500	5.7	500	3.2	500	0.75
>	KSB19-A-12-FF	12	6.18	4.5	3.5" x 3.5"	0.182	41	10.2	500	8.0	500	6.4	500	5.1	500	2.8	500	0.75
Σ	KSB19-A-13-FF	13	6.32	4.5	3.5" x 3.5"	0.182	45	9.5	500	7.4	500	5.9	500	4.7	500	2.5	500	0.75
Ž	KSB19-A-14-FF	14	6.46	4.5	3.5" x 3.5"	0.182	49	8.8	500	6.9	500	5.4	500	4.3	500	2.2	500	0.75
ALUMINUM	KSB19-A-15-F	15	6.6	4.5	3.5" × 3.5"	0.182	54	8.3	500	6.4	500	5.0	500	3.9	500	1.9	500	0.75
	KSB19-A-16-FF	16	6.74	4.5	3.5" × 3.5"	0.182	58	7.8	500	5.9	500	4.6	500	3.6	500	1.6	500	0.75
lt.	KSB19-A-17-FF	17	6.88	4.5	3.5" × 3.5"	0.182	62	7.2	500	5.5	500	4.2	500	3.2	500	1.4	500	0.75
	KSB19-A-18-FF	18	7.02	4.5	3.5" x 3.5"	0.182	67	6.7	500	5.0	500	3.8	500	2.9	500	1.1	500	0.75
								90 N	1PH	100 N	ирн	110 M	1PH	120 N	ИРН	150 N	ирн	
<u>s</u>						Wall		90 M		100 N		110 M Max		120 N Max		150 N Max		Anchor
Details	Catalog Number	Ht. (ft)	Butt (in)	Tip (in)	Tenon	Wall Thickness (in)	Wt. (lbs)	90 M Max EPA (sq ft)	Max Load (lbs)	100 Max EPA (sq ft)	MPH Max Load (lbs)	110 M Max EPA (sq ft)	Max Load (lbs)	120 Max EPA (sq ft)	Mex Load (lbs)	150 Max EPA (sq ft)	Max Load (lbs)	Anchor Bolt Dia. (in)
aft Details					Tenon 3.5" × 3.5"	Thickness		Max EPA	Max Load	Max EPA	Max Load	Max EPA	Max Load	Max EPA	Max Load	Max EPA	Max Load	Bolt
Shaft	Number	(ft)	(in)	(in)		Thickness (in)	(lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Bolt Dia. (in)
// Shaft	Number KSB19-A-10-RF	(ft) 10	(in) 5.9	(in) 4.5	3.5" × 3.5"	Thickness (in) 0.182	(lbs) 33	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Max EPA (sq ft)	Max Load (lbs)	Bolt Dia. (in) 0.75
// Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF	(ft) 10 11 12 13	(in) 5.9 6.04	(in) 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182	(lbs) 33 37 41 45	Max EPA (sq ft) 13.0 12.0 11.1	Max Load (lbs) 500 500 500	Max EPA (sq ft) 10.2 9.4 8.7 8.1	Max Load (lbs) 500 500 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5	Max Load (lbs) 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8	Max Load (lbs) 500 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2	Max Load (lbs) 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75
// Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF	(ft) 10 11 12 13 14	(in) 5.9 6.04 6.18 6.32 6.46	(in) 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7	Max Load (lbs) 500 500 500 500	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5	Max Load (lbs) 500 500 500 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0	Max Load (lbs) 500 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9	Max Load (lbs) 500 500 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9	Max Load (lbs) 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75
LUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-15-RF	(ft) 10 11 12 13 14 15	(in) 5.9 6.04 6.18 6.32 6.46 6.6	4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1	Max Load (lbs) 500 500 500 500 500	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5	Max Load (lbs) 500 500 500 500 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0	Max Load (lbs) 500 500 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9	Max Load (lbs) 500 500 500 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6	Max Load (lbs) 500 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75
ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-16-RF	(ft) 10 11 12 13 14 15 16	(in) 5.9 6.04 6.18 6.32 6.46 6.6	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54 58	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4	Max Load (lbs) 500 500 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75
LUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-15-RF KSB19-A-16-RF KSB19-A-17-RF	(ft) 10 11 12 13 14 15 16 17	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88	4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54 58 62	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2	Max Load (lbs) 500 500 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75
ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-16-RF	(ft) 10 11 12 13 14 15 16	(in) 5.9 6.04 6.18 6.32 6.46 6.6	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54 58	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2	Max Load (lbs) 500 500 500 500 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4	Max Load (lbs) 500 500 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75
RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-15-RF KSB19-A-16-RF KSB19-A-17-RF	(ft) 10 11 12 13 14 15 16 17	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88	4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54 58 62	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2	Max Load (lbs) 500 500 500 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75
Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-15-RF KSB19-A-16-RF KSB19-A-17-RF	(ft) 10 11 12 13 14 15 16 17	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88	4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54 58 62	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6	Max Load (lbs) 500 500 500 500 500 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2	Max Load (lbs) 500 500 500 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75
Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-16-RF KSB19-A-16-RF KSB19-A-17-RF KSB19-A-18-RF	(ft) 10 11 12 13 14 15 16 17 18	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88 7.02	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 Tip	3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 Vall Thickness	(lbs) 33 37 41 45 49 54 58 62 67	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5 90 N	Max Load (lbs) 500 500 500 500 500 500 500 500 500 1PH Max Load	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6 100 N	Max Load (lbs) 500 500 500 500 500 500 500 500 4PH Max Load	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4 110 Max EPA	Max Load (lbs) 500 500 500 500 500 500 500 500 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6	Max Load (lbs) 500 500 500 500 500 500 500 500 600 600	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2 1.9 150 N Max EPA	Max Load (lbs) 500 500 500 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 Anchor Bolt
Shaft Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-16-RF KSB19-A-16-RF KSB19-A-18-RF Catalog Number	(ft) 10 11 12 13 14 15 16 17 18	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88 7.02	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 Vall Thickness (in)	(lbs) 33 37 41 45 49 54 58 62 67 Wt. (lbs)	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5 90 N Max EPA (sq ft)	Max Load (lbs) 500 500 500 500 500 500 500 500 4PH Max Load (lbs)	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6 100 N Max EPA (sq ft)	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4 110 M Max EPA (sq ft)	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6	Max Load (lbs) 500 500 500 500 500 500 500 4PH Max Load (lbs)	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2 1.9 150 N Max EPA (sq ft)	Max Load (lbs) 500 500 500 500 500 500 500 4PH Max Load (lbs)	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 4.75 0.75 0.75 0.75
// Shaft Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-15-RF KSB19-A-16-RF KSB19-A-16-RF KSB19-A-18-RF Catalog Number KSB19-S-10-FF	(ft) 10 11 12 13 14 15 16 17 18	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88 7.02	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 3.5" × 3.5" 4.5" × 3.5" 5.5" × 3.5" 5.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 Vall Thickness (in) 0.12	(lbs) 33 37 41 45 49 54 58 62 67 Wt. (lbs) 65	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5 90 N Max EPA (sq ft) 34.4	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6 100 N Max EPA (sq ft) 27.6	Max Load (lbs) 500 500 500 500 500 500 500 4PH Max Load (lbs) 500	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4 110 M Max EPA (sq ft) 22.7	Max Load (lbs) 500 500 500 500 500 500 500 500 500 1PH Max Load (lbs) 500	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6 120 N Max EPA (sq ft) 18.9	Max Load (lbs) 500 500 500 500 500 500 500 4PH Max Load (lbs) 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2 1.9 150 N Max EPA (sq ft) 11.7	Max Load (lbs) 500 500 500 500 500 500 500 4PH Max Load (lbs) 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 Anchor Bolt Dia. (in) 1.00
// Shaft Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-14-RF KSB19-A-16-RF KSB19-A-16-RF KSB19-A-18-RF KSB19-A-18-RF Catalog Number KSB19-S-10-FF KSB19-S-11-FF	(ft) 10 11 12 13 14 15 16 17 18 Ht. (ft) 10	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88 7.02 Butt (in) 5.9 6.04	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 Thickness (in) 0.12 0.12	(lbs) 33 37 41 45 49 54 58 62 67 Wt. (lbs) 65 73	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5 90 N Max EPA (sq ft) 34.4 32.4	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6 100 N Max EPA (sq ft) 27.6 26.0	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4 110 M Max EPA (sq ft) 22.7 21.3	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6 120 N Max EPA (sq ft) 18.9	Max Load (lbs) 500 500 500 500 500 500 500 4PH Max Load (lbs) 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2 1.9 150 N Max EPA (sq ft) 11.7 10.9	Max Load (lbs) 500 500 500 500 500 500 500 4PH Max Load (lbs) 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 1.00 1.00
// Shaft Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-16-RF KSB19-A-16-RF KSB19-A-18-RF Catalog Number KSB19-S-10-FF KSB19-S-11-FF KSB19-S-12-FF	(ft) 10 11 12 13 14 15 16 17 18 Ht. (ft) 10 11 12	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88 7.02 Butt (in) 5.9 6.04 6.18	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54 58 62 67 Wt. (lbs) 65 73 80	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5 90 N Max EPA (sq ft) 34.4 32.4 30.7	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6 100 N Max EPA (sq ft) 27.6 26.0 24.6	Max Load (lbs) 500 500 500 500 500 500 500 500 500 50	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4 110 M Max EPA (sq ft) 22.7 21.3 20.1	Max Load (lbs) 500 500 500 500 500 500 500 500 500 50	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6 120 N Max EPA (sq ft) 18.9 17.7 16.7	Max Load (lbs) 500 500 500 500 500 500 500 600 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2 1.9 150 N Max EPA (sq ft) 11.7 10.9 10.2	Max Load (lbs) 500 500 500 500 500 500 500 600 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 1.00 1.00 1.00
Shaft Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-15-RF KSB19-A-16-RF KSB19-A-16-RF KSB19-A-17-RF KSB19-A-18-RF Catalog Number KSB19-S-10-FF KSB19-S-11-FF KSB19-S-12-FF KSB19-S-13-FF	(ft) 10 11 12 13 14 15 16 17 18 Htt. (ft) 10 11 12 13	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88 7.02 Butt (in) 5.9 6.04 6.18 6.32	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54 58 62 67 Wt (lbs) 65 73 80 88	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5 90 N Max EPA (sq ft) 34.4 32.4 30.7 29.3	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6 100 N Max EPA (sq ft) 27.6 26.0 24.6 23.4	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4 110 M Max EPA (sq ft) 22.7 21.3 20.1 19.1	Max Load (lbs) 500 500 500 500 500 500 500 500 500 50	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6 120 N Max EPA (sq ft) 18.9 17.7 16.7 15.8	Max Load (lbs) 500 500 500 500 500 500 500 600 500 500	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2 1.9 150 N Max EPA (sq ft) 11.7 10.9 10.2 9.6	Max Load (lbs) 500 500 500 500 500 500 500 4PH Max Load (lbs) 500 500 500 500 500 500	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 1.00 1.00 1.00 1.00
STEEL // Shaft Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-15-RF KSB19-A-16-RF KSB19-A-16-RF KSB19-A-17-RF KSB19-A-18-RF Catalog Number KSB19-S-10-FF KSB19-S-11-FF KSB19-S-12-FF KSB19-S-13-FF KSB19-S-14-FF	(ft) 10 11 12 13 14 15 16 17 18 Ht. (ft) 10 11 12 13 14	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88 7.02 Butt (in) 5.9 6.04 6.18 6.32 6.46	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182 0.182	(lbs) 33 37 41 45 49 54 58 62 67 Wt. (lbs) 65 73 80 88 96	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5 90 N Max EPA (sq ft) 34.4 32.4 30.7 29.3 28.1	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6 100 N Max EPA (sq ft) 27.6 26.0 24.6 23.4 22.4	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4 110 M Max EPA (sq ft) 22.7 21.3 20.1 19.1 18.3	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6 120 N Max EPA (sq ft) 18.9 17.7 16.7 15.8 15.1	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2 1.9 150 N Max EPA (sq ft) 11.7 10.9 10.2 9.6 9.1	Max Load (lbs) 500 500 500 500 500 500 500 5	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 1.00 1.00 1.00 1.00 1.00 1.00
STEEL // Shaft Details RF ALUMINUM // Shaft	Number KSB19-A-10-RF KSB19-A-11-RF KSB19-A-12-RF KSB19-A-13-RF KSB19-A-15-RF KSB19-A-16-RF KSB19-A-16-RF KSB19-A-17-RF KSB19-A-18-RF KSB19-A-18-RF KSB19-S-11-FF KSB19-S-11-FF KSB19-S-12-FF KSB19-S-13-FF KSB19-S-14-FF KSB19-S-15-FF	(ft) 10 11 12 13 14 15 16 17 18 Htt. (ft) 10 11 12 13 14 15 16 17 18	(in) 5.9 6.04 6.18 6.32 6.46 6.6 6.74 6.88 7.02 Butt (in) 5.9 6.04 6.18 6.32 6.46 6.6 6.6	(in) 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	3.5" × 3.5" 3.5" × 3.5"	Thickness (in) 0.182	(lbs) 33 37 41 45 49 54 58 62 67 Wt. (lbs) 65 73 80 88 96 104	Max EPA (sq ft) 13.0 12.0 11.1 10.4 9.7 9.1 8.6 8.0 7.5 90 N Max EPA (sq ft) 34.4 32.4 30.7 29.3 28.1 27.0	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 10.2 9.4 8.7 8.1 7.5 7.0 6.6 6.1 5.6 100 N Max EPA (sq ft) 27.6 26.0 24.6 23.4 22.4 21.5	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 8.3 7.6 7.0 6.5 6.0 5.6 5.2 4.8 4.4 110 Max EPA (sq ft) 22.7 21.3 20.1 19.1 18.3 17.5	Max Load (lbs) 500 500 500 500 500 500 500 5	Max EPA (sq ft) 6.9 6.3 5.8 5.3 4.9 4.6 4.2 3.9 3.6 120 N Max EPA (sq ft) 18.9 17.7 16.7 15.8 15.1 14.4	Max Load (lbs) 500 500 500 500 500 500 500 500 500 5	Max EPA (sq ft) 4.2 3.8 3.5 3.2 2.9 2.6 2.4 2.2 1.9 150 N Max EPA (sq ft) 11.7 10.9 10.2 9.6 9.1 8.6	Max Load (lbs) 500 500 500 500 500 500 500 5	Bolt Dia. (in) 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

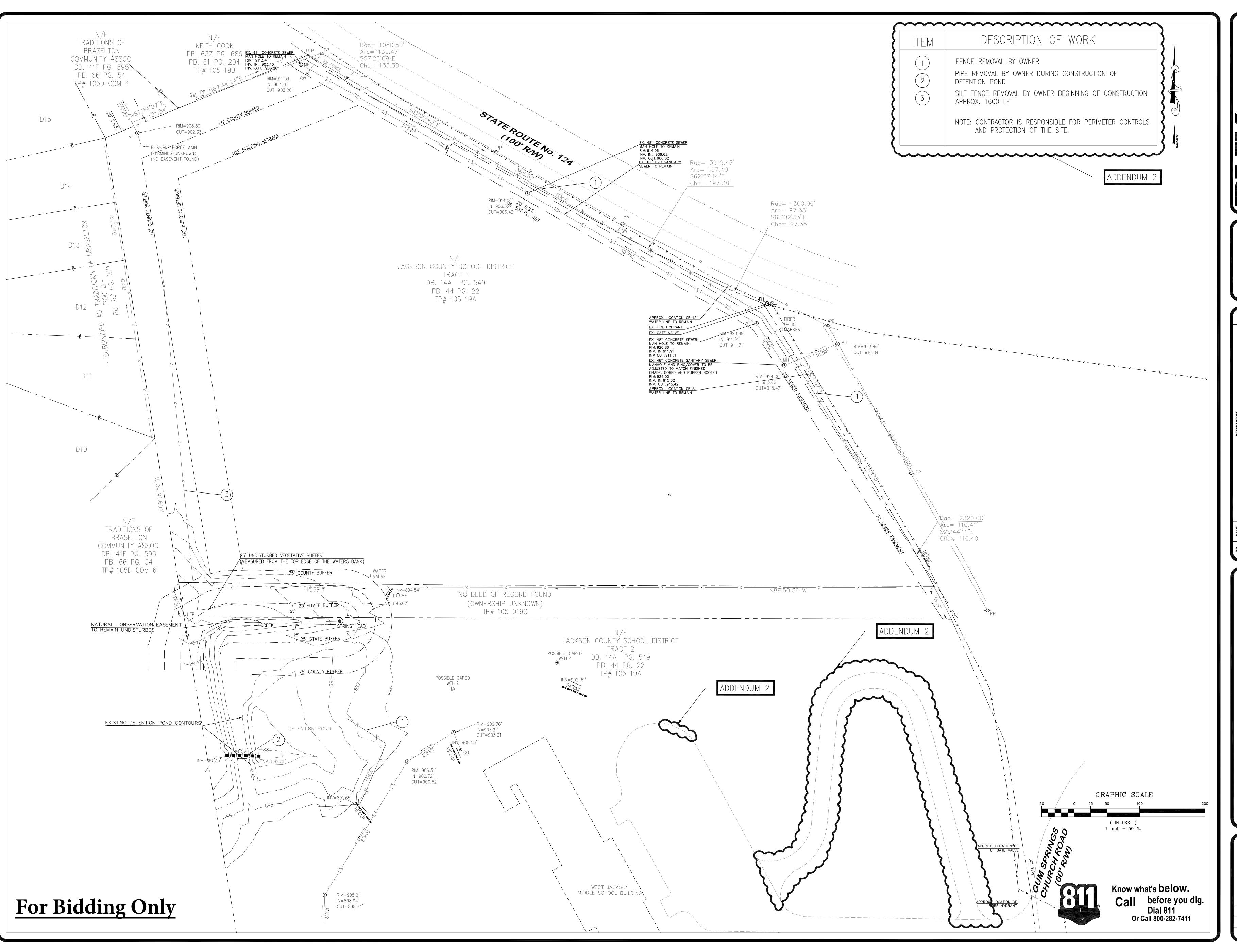


								90 N	1PH	100 I	МРН	110 N	1PH	120 1	1PH	150 N	ИРН	
Details	Catalog Number	Ht. (ft)	Butt (in)	Tip (in)	Tenon	Wall Thickness (in)	Wt. (lbs)	Max EPA (sq ft)	Max Load (lbs)	Anchor Bolt Dia. (in)								
Shaft	KSB19-S-10-RF	10	5.9	4.5	3.5" x 3.5"	0.12	65	37.1	500	29.8	500	24.5	500	20.5	500	12.9	500	1.00
S	KSB19-S-11-RF	11	6.04	4.5	3.5" x 3.5"	0.12	73	35.0	500	28.1	500	23.0	500	19.2	500	12.1	500	1.00
>	KSB19-S-12-RF	12	6.18	4.5	3.5" x 3.5"	0.12	80	33.2	500	26.6	500	21.8	500	18.2	500	11.4	500	1.00
	KSB19-S-13-RF	13	6.32	4.5	3.5" x 3.5"	0.12	88	31.7	500	25.3	500	20.8	500	17.3	500	10.8	500	1.00
STE	KSB19-S-14-RF	14	6.46	4.5	3.5" x 3.5"	0.12	96	30.4	500	24.3	500	19.9	500	16.6	500	10.3	500	1.00
<u>Е</u>	KSB19-S-15-RF	15	6.6	4.5	3.5" x 3.5"	0.12	104	29.3	500	23.3	500	19.1	500	15.9	500	9.9	500	1.00
_	KSB19-S-16-RF	16	6.74	4.5	3.5" x 3.5"	0.12	113	28.2	500	22.5	500	18.4	500	15.3	500	9.5	500	1.00
	KSB19-S-17-RF	17	6.88	4.5	3.5" x 3.5"	0.12	121	27.2	500	21.6	500	17.6	500	14.6	500	9.1	500	1.00
	KSB19-S-18-RF	18	7.02	4.5	3.5" x 3.5"	0.12	130	26.0	500	20.7	500	16.9	500	14.0	500	8.6	500	1.00

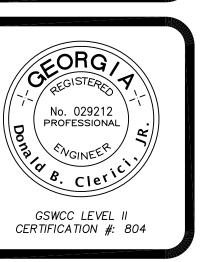
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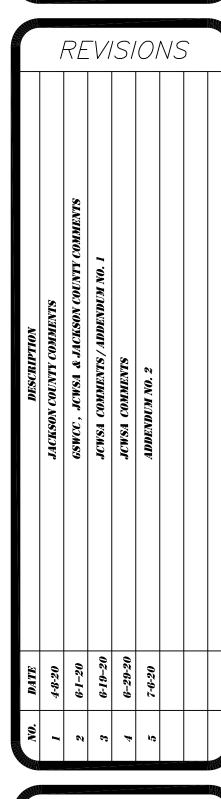






BRASELTON, GA 30517
BUSINESS: 706–824–0514
FAX: 706–824–0519
LICENSE #: PEF005337
ISSUED: 4/1/18
EXPIRES: 6/30/22





FOR:

GUM SPRINGS PARK

GA STATE ROUTE 124

JACKSON COUNTY, GA

SHEET TITLE

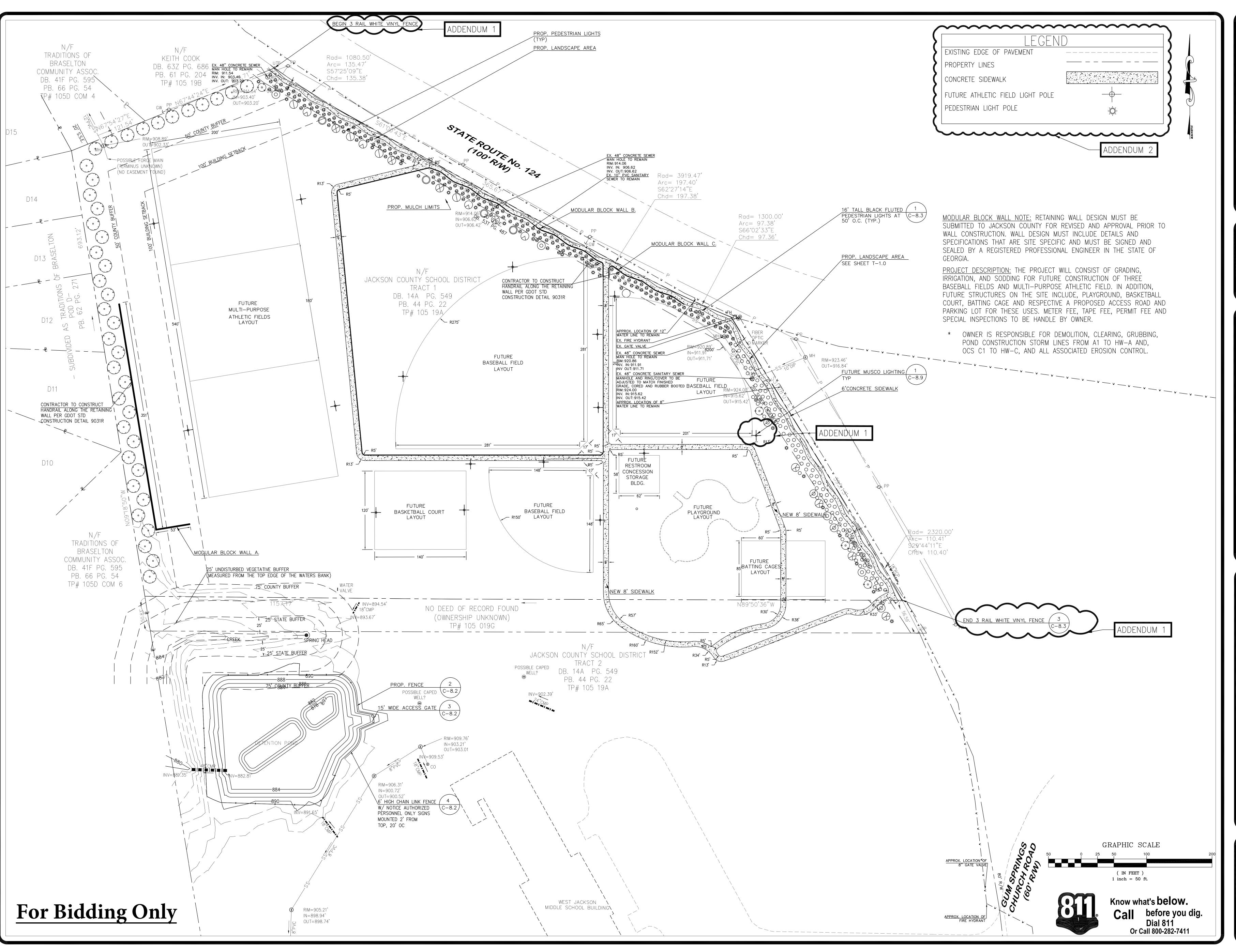
DEMOLITION PLAN

SHEET NUMBER

C-2.0

SCALE SEE PLAN

DATE 1-10-20



BRASELTON, GA 30517
BUSINESS: 706–824–0519
FAX: 706–824–0519
FAX:

ORGINEER

ORGINEER

ORGINEER

CIETIC

GSWCC LEVEL II

CERTIFICATION #: 804

REVISIONS

 NO.
 DATE
 DESCRIPTION

 1
 4-8-20
 JACKSON COUNTY COMMENTS

 2
 6-19-20
 GSWCC, JCWSA & JACKSON COUNTY COMMENTS

 3
 6-19-20
 JCWSA COMMENTS / ADDENDUM NO. 1

 4
 6-29-20
 JCWSA COMMENTS

 5
 7-6-20
 ADDENDUM NO. 2

GUM SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

SHEET TITLE

SITE
PLAN

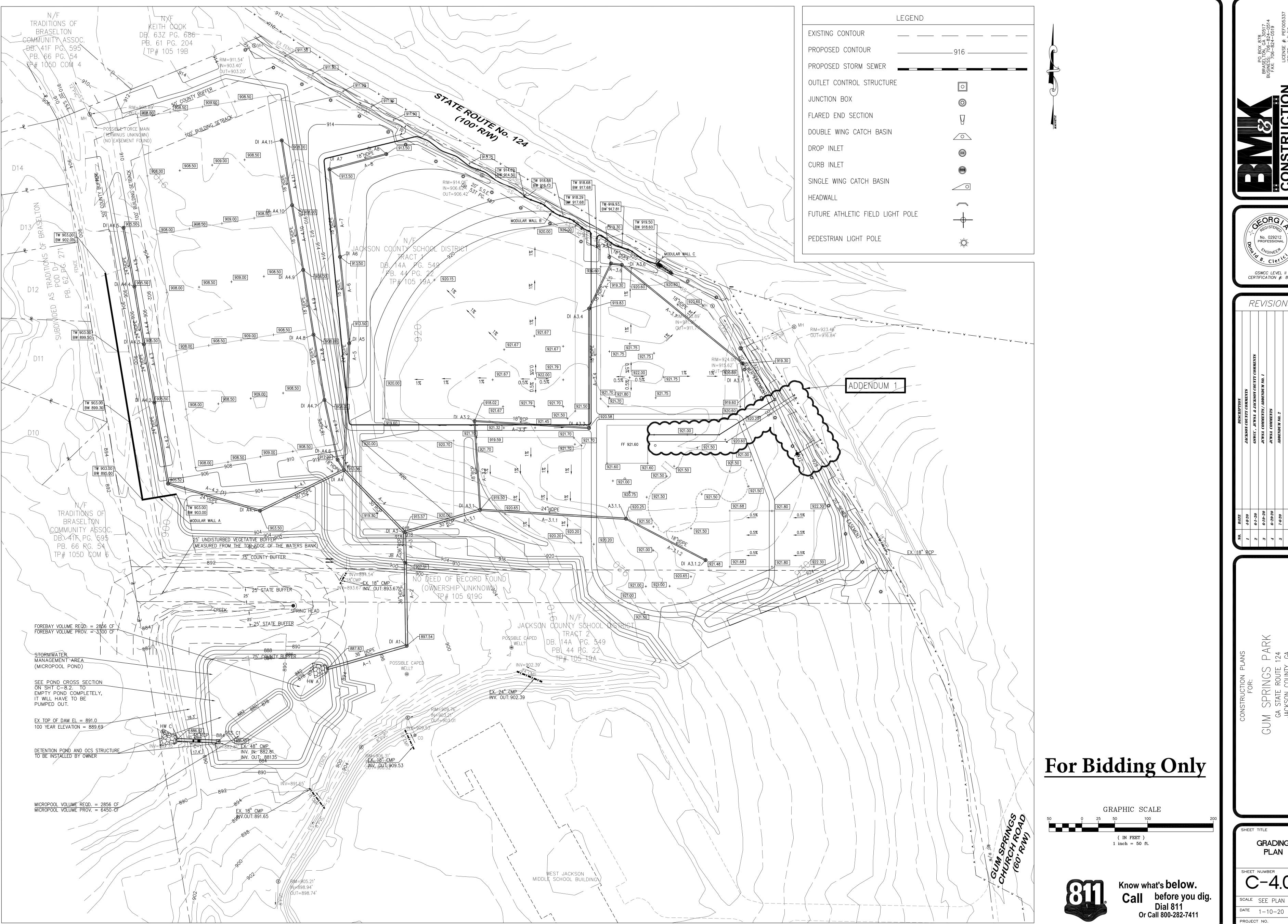
SHEET NUMBER

C-3.0

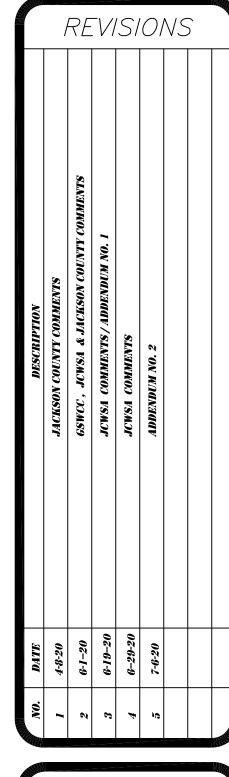
SCALE SEE PLAN

DATE 1-10-20

PROJECT NO.

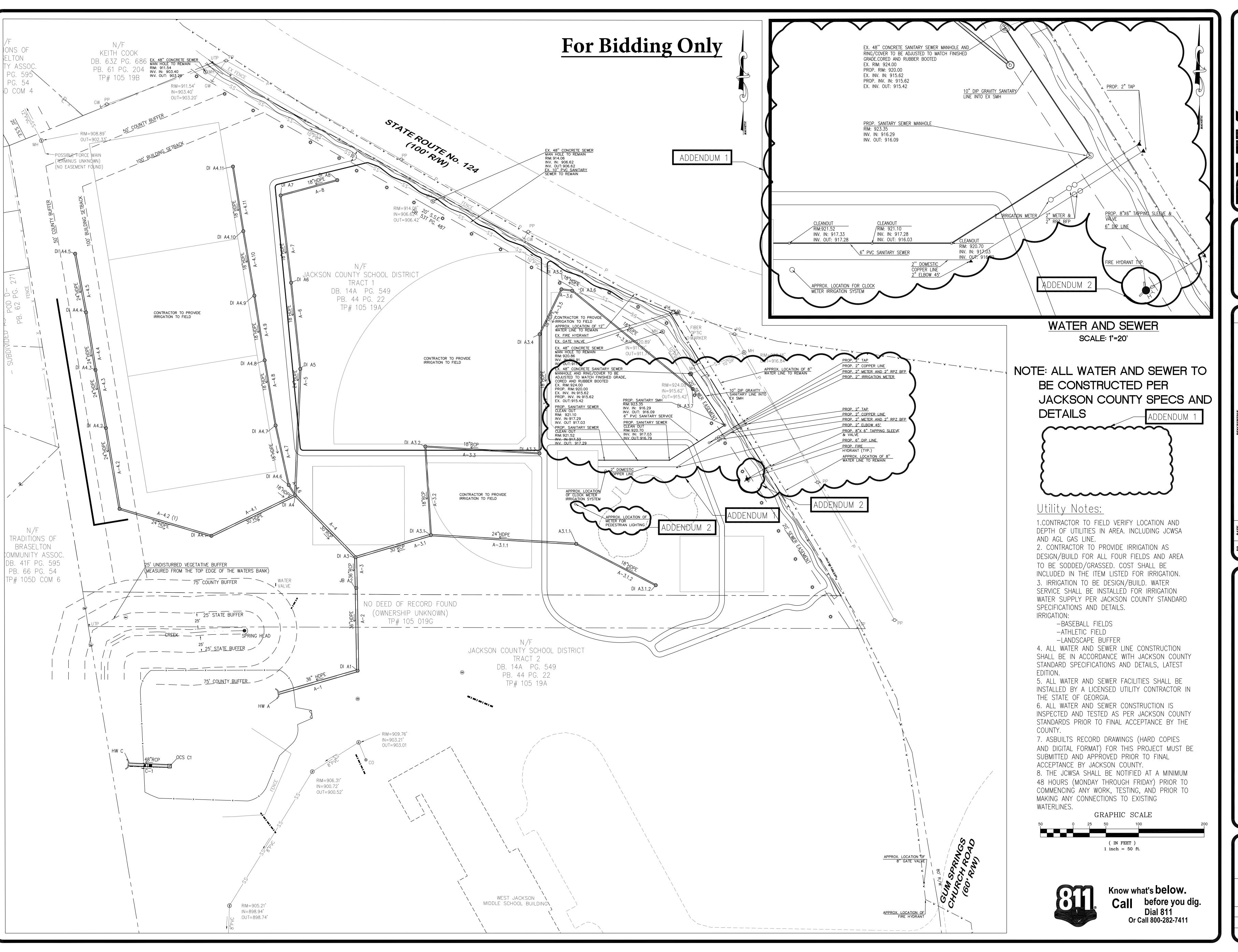






GRADING PLAN

C-4.0 SCALE SEE PLAN



PO BOX 878
BRASELTON, GA 30517
BUSINESS: 706-824-0514
FAX: 706-824-0519
CONSTRUCTION
INCENSE #: PEF005337
ISSUED: 4/1/18
EXPIRES: 6/30/22





FOR:

GUM SPRINGS PARK

GA STATE ROUTE 124

JACKSON COUNTY, GA

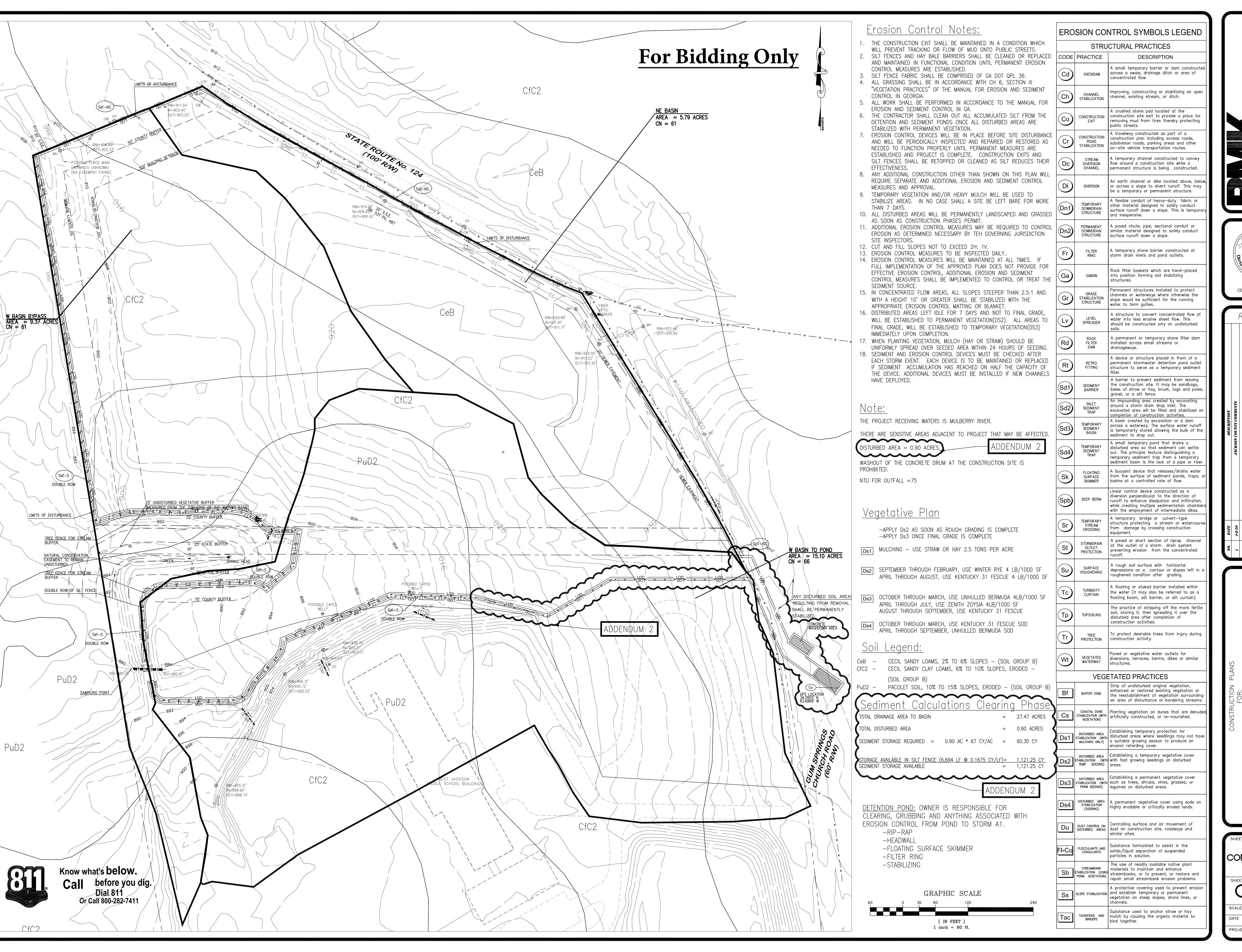
UTILITY
PLAN

C-5.0

SCALE SEE PLAN

DATE 1-10-20

PROJECT NO.



BRASELTON, GA 30517
BUSINESS: 706–824–0514
FAX: 706–824–0519
CONSTRUCTION
ISSUED: 4/1/18
EXPIRES: 6/30/22

No. 029212
PROFESSIONAL

STATE OF THE PROFESSIONAL

GSWCC LEVEL II
CERTIFICATION #: 804

 NO.
 DATE
 DESCRIPTION

 1
 4-8-20
 JACKSON COUNTY COMMENTS

 2
 6-1-20
 GSWCC, JCWSA & JACKSON COUNTY COMMENTS

 3
 6-19-20
 JCWSA COMMENTS/ ADDENDUM NO. 1

 4
 6-29-20
 JCWSA COMMENTS

 5
 7-6-20
 ADDENDUM NO. 2

FOR:

UM SPRINGS PARK

GA STATE ROUTE 124

JACKSON COUNTY, GA

EROSION
CONTROL PLAN
INITIAL

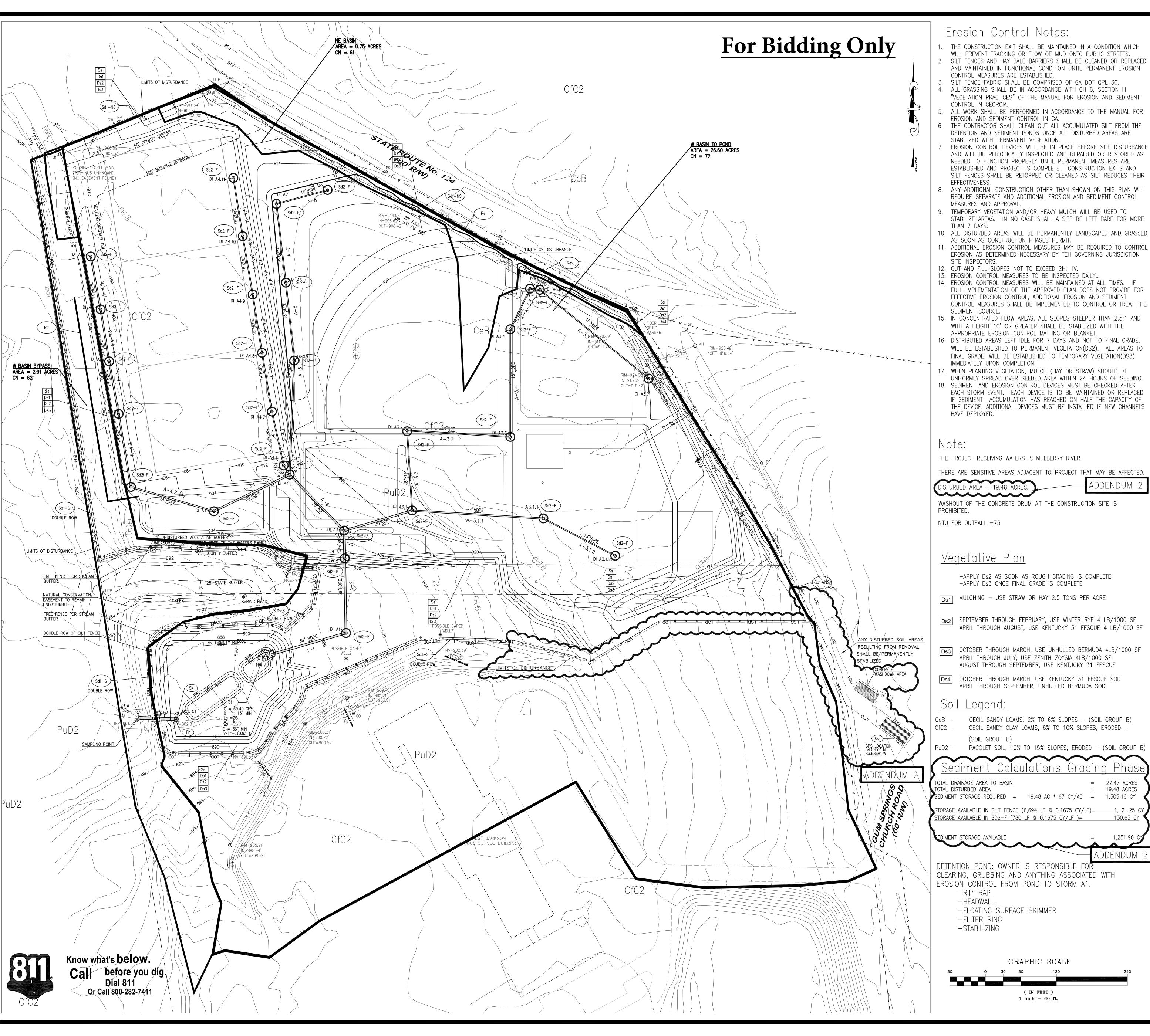
SHEET NUMBER

C-6.4

SCALE SEE PLAN

DATE 1-10-20

PROJECT NO.



EROSION CONTROL SYMBOLS LEGEND

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH STRUCTURAL PRACTICES WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC STREETS. SILT FENCES AND HAY BALE BARRIERS SHALL BE CLEANED OR REPLACED | CODE | PRACTICE DESCRIPTION AND MAINTAINED IN FUNCTIONAL CONDITION UNTIL PERMANENT EROSION A small temporary barrier or dam constructe across a swale, drainage ditch or area of SILT FENCE FABRIC SHALL BE COMPRISED OF GA DOT QPL 36. concentrated flow. ALL GRASSING SHALL BE IN ACCORDANCE WITH CH 6, SECTION III

"VEGETATION PRACTICES" OF THE MANUAL FOR EROSION AND SEDIMENT

THE CONTRACTOR SHALL CLEAN OUT ALL ACCUMULATED SILT FROM THE DETENTION AND SEDIMENT PONDS ONCE ALL DISTURBED AREAS ARE

EROSION CONTROL DEVICES WILL BE IN PLACE BEFORE SITE DISTURBANCE AND WILL BE PERIODICALLY INSPECTED AND REPAIRED OR RESTORED AS NEEDED TO FUNCTION PROPERLY UNTIL PERMANENT MEASURES ARE ESTABLISHED AND PROJECT IS COMPLETE. CONSTRUCTION EXITS AND SILT FENCES SHALL BE RETOPPED OR CLEANED AS SILT REDUCES THEIR

ANY ADDITIONAL CONSTRUCTION OTHER THAN SHOWN ON THIS PLAN WILL

9. TEMPORARY VEGETATION AND/OR HEAVY MULCH WILL BE USED TO STABILIZE AREAS. IN NO CASE SHALL A SITE BE LEFT BARE FOR MORE

11. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO CONTROL

14. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR

CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE 15. IN CONCENTRATED FLOW AREAS, ALL SLOPES STEEPER THAN 2.5:1 AND

16. DISTRIBUTED AREAS LEFT IDLE FOR 7 DAYS AND NOT TO FINAL GRADE, WILL BE ESTABLISHED TO PERMANENT VEGETATION(DS2). ALL AREAS TO FINAL GRADE, WILL BE ESTABLISHED TO TEMPORARY VEGETATION(DS3)

17. WHEN PLANTING VEGETATION, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING 18. SEDIMENT AND EROSION CONTROL DEVICES MUST BE CHECKED AFTER

EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ON HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS

THERE ARE SENSITIVE AREAS ADJACENT TO PROJECT THAT MAY BE AFFECTED.

WASHOUT OF THE CONCRETE DRUM AT THE CONSTRUCTION SITE IS

-APPLY Ds2 AS SOON AS ROUGH GRADING IS COMPLETE

SEPTEMBER THROUGH FEBRUARY, USE WINTER RYE 4 LB/1000 SF

Ds3 OCTOBER THROUGH MARCH, USE UNHULLED BERMUDA 4LB/1000 SF

Ds4 OCTOBER THROUGH MARCH, USE KENTUCKY 31 FESCUE SOD

CECIL SANDY LOAMS, 2% TO 6% SLOPES - (SOIL GROUP B) CECIL SANDY CLAY LOAMS, 6% TO 10% SLOPES, ERODED -

= 27.47 ACRES = 19.48 ACRES SEDIMENT STORAGE REQUIRED = 19.48 AC * 67 CY/AC = 1,305.16 CY

CLEARING, GRUBBING AND ANYTHING ASSOCIATED WITH

Ds4	DISTURBED AREA STABILIZATION (SODDING)	A permanent vegetative cover using sods highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS	Controlling surface and air movement of dust on construction site, roadways and similar sites.
I-Co	FLOCCULANTS AND COAGULANTS	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
		The use of readily available native plant

STREAMBANK
STABILIZATION (USING PERM VEGETATION)

The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems. A protective covering used to prevent erosion Ss | SLOPE STABILIZATION and establish temporary or permanent vegetation on steep slopes, shore lines, or

Substance used to anchor straw or hay TACKIFIERS AND mulch by causing the organic material to bind together.

channels.

DATE 1-10-20 PROJECT NO.

proving, constructing or stabilizing an ope

channel, existing stream, or ditch.

CONSTRUCTION | construction site exit to provide a place for

CONSTRUCTION | construction plan including access roads,

public streets.

and inexpensive.

crushed stone pad located at the

A travelway constructed as part of a

on-site vehicle transportation routes.

flow around a construction site while a

subdivision roads, parking areas and other

A temporary channel constructed to convey

permanent structure is being constructed.

be a temporary or permanent structure.

flexible conduit of heavy—duty fabric or

surface runoff down a slope. This is temporary

other material designed to safely conduct

paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.

temporary stone barrier constructed at

Rock filter baskets which are hand—placed

Permanent structures installed to protect

channels or waterways where otherwise the slope would be sufficient for the running

water into less erosive sheet flow. This

structure to convert concentrated flow of

should be constructed only on undisturbed

, permanent or temporary stone filter dan

A device or structure placed in front of a

permanent stormwater detention pond outlet

structure to serve as a temporary sediment

barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles,

An impounding area created by excavating around a storm drain drop inlet. The

excavated area will be filled and stabilized o

A basin created by excavation or a dam

A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a

temporary sediment trap from a temporary

sediment basin is the lack of a pipe or riser.

A buoyant device that releases/drains water

from the surface of sediment ponds, traps, a

inear control device constructed as a

diversion perpendicular to the direction of

runoff to enhance dissipation and infiltration,

with the employment of intermediate dikes. temporary bridge or culvert—type structure protecting a stream or watercourse

from damage by crossing construction

while creating multiple sedimentation chambers

A paved or short section of riprap channel at the outlet of a storm drain system

depressions on a contour or slopes left in a

floating or staked barrier installed within

The practice of stripping off the more fertile

soil, storing it, then spreading it over the

To protect desirable trees from injury during

disturbed area after completion of

Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar

Strip of undisturbed original vegetation, enhanced or restored existing vegetation or

COASTAL DUNE | Planting vegetation on dunes that are denude

the reestablishment of vegetation surrounding an area of disturbance or bordering streams

construction activities.

VEGETATED PRACTICES

STABILIZATION (WITH VEGETATION)

STABILIZATION (WITH VEGETATION)

Planting vegetation on address that are a artificially constructed, or re-nourished.

DISTURBED AREA STABILIZATION (WITH AND CHARGE OF THE PROPERTY OF THE PROPERTY

DS2 DISTURBED AREA STABILIZATION (WITH TEMP SEEDING) Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.

Ds3 | STABILIZATION (WITH such as trees, shrubs, vines, grasses, or

PERM SEEDING) legumes on disturbed areas.

DISTURBED AREA | Establishing a permanent vegetative cover

MULCHING ONLY) | a suitable growing season to produce an erosion retarding cover.

PROTECTION | construction activity.

the water (it may also be referred to as a

floating boom, silt barrier, or silt curtain).

preventing erosion from the concentrated

A rough soil surface with horizontal

roughened condition after grading.

basins at a controlled rate of flow.

across a waterway. The surface water runoff

is temporarily stored allowing the bulk of the

nstalled across small streams or

torm drain inlets and pond outlets.

into position forming soil stabilizing

water to form gullies.

gravel, or a silt tence.

sediment to drop out.

n earth channel or dike located above, belo or across a slope to divert runoff. This may

removing mud from tires thereby protecting

STABILIZATION

DIVERSION

DOWNDRAIN

ROCK FILTER

TEMPORARY

SEDIMENT

SKIMMER

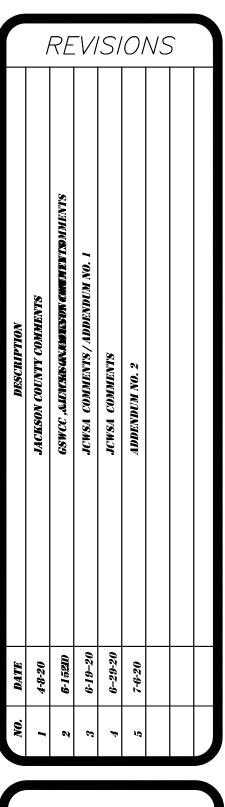
PROTECTION

ROUGHENING

TOPSOILING

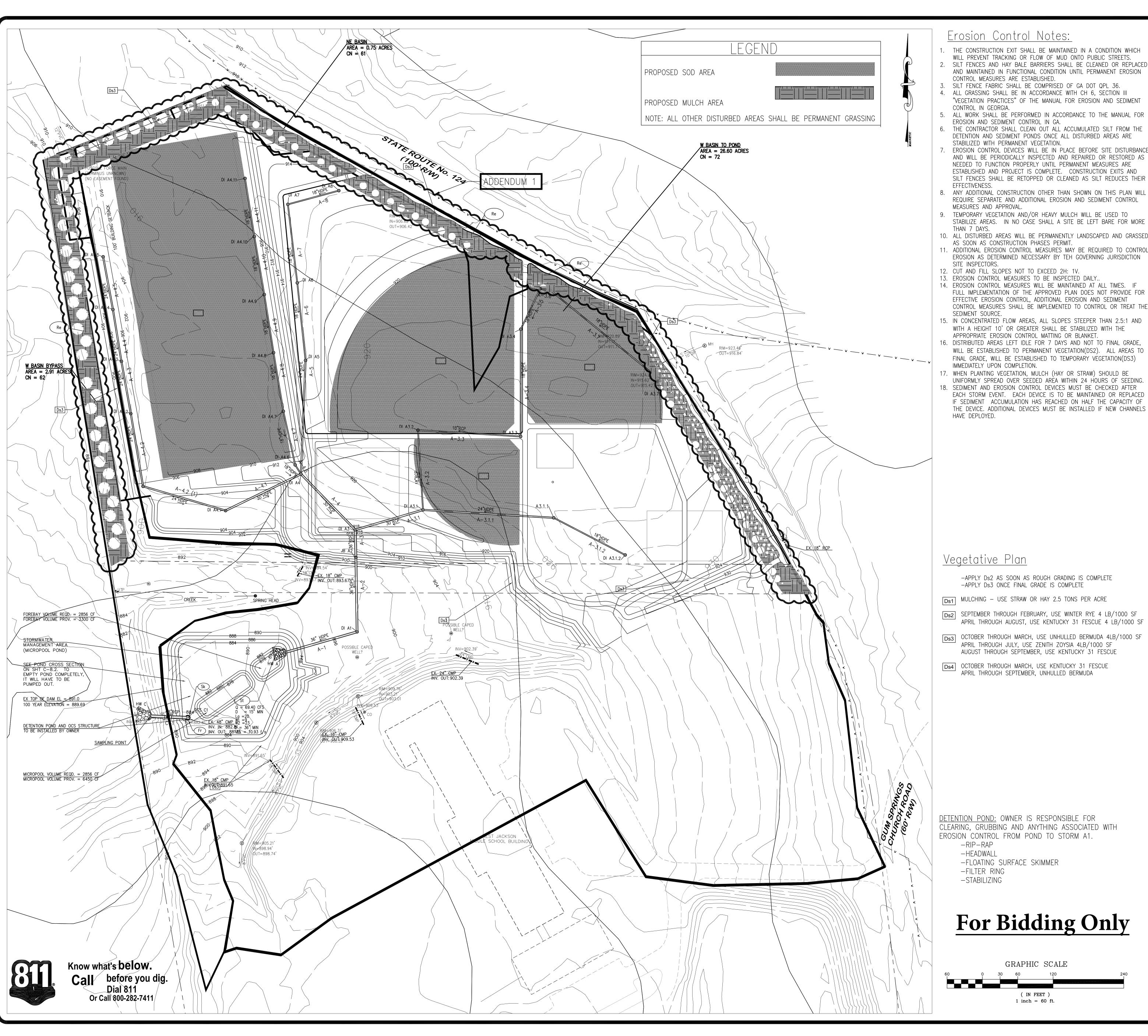
Cr)





EROSION CONTROL PLAN INTERMEDIATE SHEET NUMBER

SCALE SEE PLAN



Erosion Control Notes:

- THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH
- WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC STREETS. SILT FENCES AND HAY BALE BARRIERS SHALL BE CLEANED OR REPLACED AND MAINTAINED IN FUNCTIONAL CONDITION UNTIL PERMANENT EROSION
- CONTROL MEASURES ARE ESTABLISHED. SILT FENCE FABRIC SHALL BE COMPRISED OF GA DOT QPL 36.
- ALL GRASSING SHALL BE IN ACCORDANCE WITH CH 6, SECTION III "VEGETATION PRACTICES" OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA.
- 5. ALL WORK SHALL BE PERFORMED IN ACCORDANCE TO THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GA.
- . THE CONTRACTOR SHALL CLEAN OUT ALL ACCUMULATED SILT FROM THE DETENTION AND SEDIMENT PONDS ONCE ALL DISTURBED AREAS ARE STABILIZED WITH PERMANENT VEGETATION.
- EROSION CONTROL DEVICES WILL BE IN PLACE BEFORE SITE DISTURBANCE AND WILL BE PERIODICALLY INSPECTED AND REPAIRED OR RESTORED AS NEEDED TO FUNCTION PROPERLY UNTIL PERMANENT MEASURES ARE ESTABLISHED AND PROJECT IS COMPLETE. CONSTRUCTION EXITS AND SILT FENCES SHALL BE RETOPPED OR CLEANED AS SILT REDUCES THEIR
- ANY ADDITIONAL CONSTRUCTION OTHER THAN SHOWN ON THIS PLAN WILL REQUIRE SEPARATE AND ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AND APPROVAL.
- TEMPORARY VEGETATION AND/OR HEAVY MULCH WILL BE USED TO STABILIZE AREAS. IN NO CASE SHALL A SITE BE LEFT BARE FOR MORE
- 10. ALL DISTURBED AREAS WILL BE PERMANENTLY LANDSCAPED AND GRASSED AS SOON AS CONSTRUCTION PHASES PERMIT. 11. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO CONTROL EROSION AS DETERMINED NECESSARY BY TEH GOVERNING JURISDICTION
- 12. CUT AND FILL SLOPES NOT TO EXCEED 2H: 1V.
- 13. EROSION CONTROL MEASURES TO BE INSPECTED DAILY ...
- EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
- 15. IN CONCENTRATED FLOW AREAS, ALL SLOPES STEEPER THAN 2.5:1 AND WITH A HEIGHT 10' OR GREATER SHALL BE STABILIZED WITH THE
- Gr) APPROPRIATE EROSION CONTROL MATTING OR BLANKET. 16. DISTRIBUTED AREAS LEFT IDLE FOR 7 DAYS AND NOT TO FINAL GRADE, WILL BE ESTABLISHED TO PERMANENT VEGETATION(DS2). ALL AREAS TO FINAL GRADE, WILL BE ESTABLISHED TO TEMPORARY VEGETATION(DS3)
- 17. WHEN PLANTING VEGETATION, MULCH (HAY OR STRAW) SHOULD BE UNIFORMLY SPREAD OVER SEEDED AREA WITHIN 24 HOURS OF SEEDING.
- 18. SEDIMENT AND EROSION CONTROL DEVICES MUST BE CHECKED AFTER EACH STORM EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ON HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEPLOYED.

<u>Vegetative Plan</u>

-APPLY Ds2 AS SOON AS ROUGH GRADING IS COMPLETE

Ds2 SEPTEMBER THROUGH FEBRUARY, USE WINTER RYE 4 LB/1000 SF

Ds3 OCTOBER THROUGH MARCH, USE UNHULLED BERMUDA 4LB/1000 SF APRIL THROUGH JULY, USE ZENITH ZOYSIA 4LB/1000 SF

Ds4 OCTOBER THROUGH MARCH, USE KENTUCKY 31 FESCUE APRIL THROUGH SEPTEMBER, UNHULLED BERMUDA

	STRUCTURAL PRACTICES								
CODE	PRACTICE	DESCRIPTION							
Cd	CHECKDAM	A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.							
Ch	CHANNEL STABILIZATION	Improving, constructing or stabilizing an open channel, existing stream, or ditch.							
Co	CONSTRUCTION EXIT	A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.							
Cr	CONSTRUCTION ROAD STABILIZATION	A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on—site vehicle transportation routes.							
Dc	STREAM DIVERSION CHANNEL	A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.							
Di)	DIVERSION	An earth channel or dike located above, below, or across a slope to divert runoff. This may							

be a temporary or permanent structure.

A flexible conduit of heavy—duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary

A paved chute, pipe, sectional conduit or similar material designed to safely conduct

temporary stone barrier constructed at orm drain inlets and pond outlets.

surface runoff down a slope.

DOWNDRAIN

EROSION CONTROL SYMBOLS LEGEND



CERTIFICATION #: 804

Rock filter baskets which are hand-placed into position forming soil stabilizing GABION Permanent structures installed to protect channels or waterways where otherwise the STABILIZATION slope would be sufficient for the running water to form gullies. A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed A permanent or temporary stone filter dam stalled across small streams or A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence. An impounding area created by excavating

around a storm drain drop inlet. The

SEDIMENT excavated area will be filled and stabilized o A basin created by excavation or a dam across a waterway. The surface water runoff SEDIMENT is temporarily stored allowing the bulk of the ediment to drop out. A small temporary pond that drains a disturbed area so that sediment can settle

out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or rise A buoyant device that releases/drains water from the surface of sediment ponds, traps, o basins at a controlled rate of flow.

Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes. A temporary bridge or culvert—type

structure protecting a stream or watercourse from damage by crossing construction A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated PROTECTION

rough soil surface with horizontal depressions on a contour or slopes left in roughened condition after grading.

floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain). The practice of stripping off the more fertile soil, storing it, then spreading it over the

disturbed area after completion of construction activities. o protect desirable trees from injury during

PROTECTION | construction activity. Paved or vegetative water outlets for

VEGETATED PRACTICES

diversions, terraces, berms, dikes or similar

Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams

COASTAL DUNE Planting vegetation on dunes that are denuded artificially constructed, or re-nourished. DS1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.

DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)

Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.

Ds3 DISTURBED AREA STABILIZATION (WITH Such as trees, shrubs, vines, grasses, or PERM SEEDING) legumes on disturbed areas.

DISTURBED AREA A permanent vegetative cover using sods on STABILIZATION highly groudely or critically grounds. highly erodable or critically eroded lands.

Du DUST CONTROL ON DISTURBED AREAS COntrolling surface and air movement of dust on construction site, roadways and similar sites.

Substance formulated to assist in the FI-CO FLOCCULANTS AND COAGULANTS solids/liquid separation of suspended particles in solution.

The use of readily available native plant materials to maintain and enhance Sb STABILIZATION (USING PERM VEGETATION) streambanks, or to prevent, or restore and repair small streambank erosion problems. A protective covering used to prevent erosic Ss | SLOPE STABILIZATION and establish temporary or permanent vegetation on steep slopes, shore lines, or

Substance used to anchor straw or hay TACKIFIERS AND BINDERS mulch by causing the organic material to hind together bind together.

SCALE SEE PLAN 1-10-20 PROJECT NO.

SHEET NUMBER

SHEET TITLE

EROSION CONTROL

PLAN - FINAL

C-6.6

-APPLY Ds3 ONCE FINAL GRADE IS COMPLETE Ds1 MULCHING - USE STRAW OR HAY 2.5 TONS PER ACRE

APRIL THROUGH AUGUST, USE KENTUCKY 31 FESCUE 4 LB/1000 SF

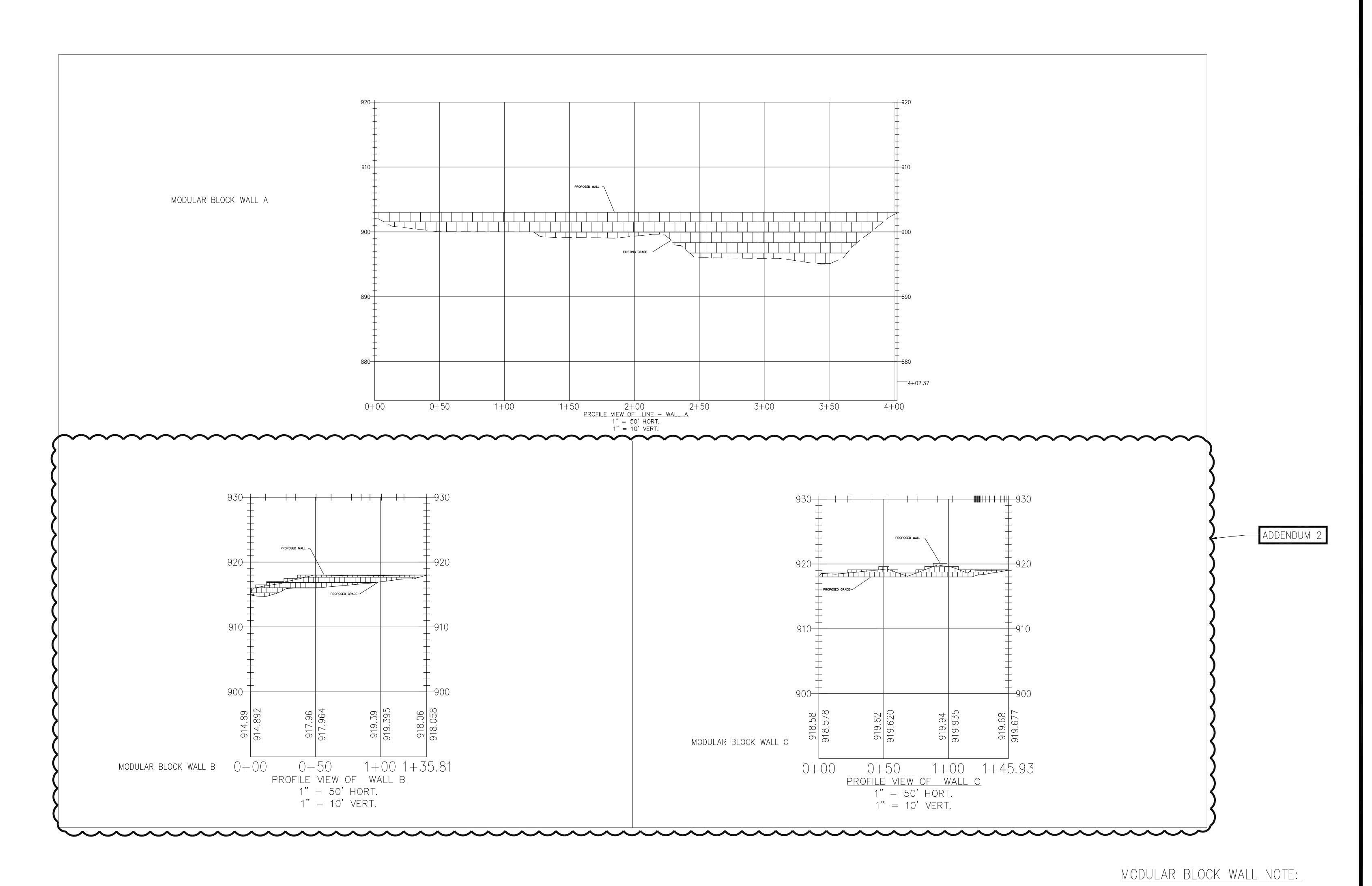
AUGUST THROUGH SEPTEMBER, USE KENTUCKY 31 FESCUE

DETENTION POND: OWNER IS RESPONSIBLE FOR CLEARING, GRUBBING AND ANYTHING ASSOCIATED WITH EROSION CONTROL FROM POND TO STORM A1

> -HEADWALL -FLOATING SURFACE SKIMMER -FILTER RING

For Bidding Only

GRAPHIC SCALE (IN FEET) 1 inch = 60 ft.



For Bidding Only

NO. 029212
PROFESSIONAL
PROFESS

2 6-1-20 6SWC 3 6-19-20 6SWC 4 6-29-20 JCWS 5 7-6-20 ADDE

M SPRINGS PARK
GA STATE ROUTE 124
JACKSON COUNTY, GA

WALL
PROFILES

RETAINING WALL DESIGN MUST BE SUBMITTED TO JACKSON COUNTY FOR APPROVAL PRIOR TO

OF GEORGIA.

CONSTRUCTION PLAN APPROVAL. WALL DESIGN MUST INCLUDE DETAILS AND SPECIFICATIONS THAT ARE SITE SPECIFIC AND MUST BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE

SHEET NUMBER

C-7.2

SCALE SEE PLAN

DATE 1-10-20

PROJECT NO.