



Architecture
Landscape Architecture
Interior Design
Historic Preservation
Food Service Consulting

Exhibit H

Leigh Farm Park Site & Architectural Design Scope of Services

Project Scope of Basic Services

Design Elements

The scope of work under this proposal covers professional design, surveying, environmental and testing services from Design Development through Construction Administration for various site and architectural features at Leigh Farm Park as follows:

1. Site elements as illustrated on the drawing Leigh Farm Park Phase II Site Improvements, Scheme 1, dated 11/10/2010. (See Attachment A)
2. Water and sanitary sewer services as illustrated on the drawing Leigh Farm Park Preliminary Utility Plan, Option 2. (See Attachment B)
3. Modular building at site to be used as temporary Visitors Center.
4. Utility connections to Visitors Center, Leigh Farm House, Speak Easy, residence south of Speak Easy, Slave Cabin #2, building northwest of Slave Cabin #2.

Design Development & Site Plan Approval Phase

1. Conduct on-site wetland and stream buffer delineation.
2. Conduct land survey of portions of site. (See Attachment C).
3. Conduct geotechnical investigation of site to include subsurface borings at (1) Visitors Center, (2) new loop drive & parking, (3) along sanitary sewer corridors. Core existing drive to determine condition of pavement and sub-base. Prepare report of findings.
4. Prepare base map for project from field survey and transfer Schematic Design layout to new survey base.
5. Review concurrence transferred Schematic Design layout with new survey and determine adjustments needed. Review with Durham General Services Department (DGS), if needed, and receive approval on proposed changes.
6. Proceed with preparation of Design Development documents. Submit progress site drawings to DGS for review at 90% prior to Site Plan Approval submittal. Design Development documents (as required for Large Simplified Site Plan Approval) to include:
 - a. Project cover sheet.
 - b. Overall park plan sheet.
 - c. Existing Conditions & Demolition Plan
 - d. Site layout Plan.
 - e. Grading Plan.
 - f. Stormwater Management Plan
 - g. Stormwater Impact Analysis
 - h. Utility (water & sewer) Plan.
 - i. Lighting Plan (provided by Duke Energy)
 - j. Landscape Planting Plan.
 - k. Site Detail Sheets (as required).
7. Subsequent to development of grading plan with clearing limit, conduct field survey to locate 10"+ dbh trees within 30 feet of clearing limits.
8. Concurrent with Large Simplified Site Plan Approval drawings, design development level architectural plans will be prepared for the Visitors Center. Review set to be provided to DGS at 100% completion of phase. Architectural plans to include:
 - a. Elevations.
 - b. Floor plan.

9. Update estimate of probable construction cost and submit to DGS with 90% Design Development submittal.
10. Large Simplified Site Plan Approval
 - a. Prepare and submit to City of Durham documents required for Site Plan Approval.
 - b. Attend review meeting and respond to staff comments as required.
11. State of North Carolina submissions – Submit completed design development drawings as appropriate to State Historic Preservation Office, State Construction Office and Capital Projects Office for review and comment.

Construction Documents & Construction Permit Approval Phase

1. Subsequent to receipt of Site Plan Approval, conduct review of project schedule and design status with DGS.
 - a. Identify outstanding design issues for further study or clarification.
 - b. Review estimate of probable construction cost.
 - c. Review comments from State agencies.
 - d. Proceed with
2. Proceed with preparation of Construction Documents. Drawings to include:
 - a. Site layout Plan.
 - b. Grading Plan.
 - c. Erosion Control Plan
 - d. Stormwater Management Plan
 - e. Stormwater Impact Analysis
 - f. Utility (water & sewer) Plan.
 - g. Utility Plan & Profiles.
 - h. Lighting Plan (provided by Duke Energy)
 - i. Landscape Planting Plan.
 - e. Site Detail Sheets (as required)
 - f. Visitor Center Architectural Plans
 - a. Elevations
 - b. Floor plan.
 - c. Mechanical, electrical, plumbing.
 - g. Plumbing plans for 5 existing buildings to be connected to water and sanitary sewer.
3. Prepare technical specifications for project including General and Supplementary Conditions.
4. Coordination with catv and phone for routing to Visitors Center. Preparation of construction plans for these utilities by others.
5. Provide 90% progress drawings and specifications to DGS for review and comment.
6. State of North Carolina submissions – Submit completed construction document drawings as appropriate to State Historic Preservation Office, State Construction Office and Capital Projects Office for review and comment.
7. Construction documents approvals:
 - a. Submit appropriate drawing sets to City of Durham for approval of water, sanitary sewer and stormwater.
 - b. Submit to North Carolina Division of Land Quality for land disturbance permit.

Bidding & Negotiation Phase

1. Prepare bid packages
2. Assist City of Durham with advertising project for bid.
3. Conduct Pre-Bid conference at site.
4. Receive prospective bidders' questions (email) and issue addenda.
5. Receive bids and conduct formal bid opening.
6. Assist DGS with evaluation of bids.

Construction Administration Phase

1. Conduct on-site pre-construction conference. Meeting to be attended by Architectural and Landscape Architectural representatives from HagerSmith Design. Issue meeting minutes.
2. In-progress site visits/meetings:
 - a. HagerSmith Design Landscape Architect - 22.
 - b. HagerSmith Design Architect – 5
 - c. BNK civil engineers – 5 (includes required certification inspections)
 - d. BNK PME – 1 site visit
 - e. Lysaght & Assoc. structural engineer – 1 site visit.
3. Representative(s) of HagerSmith Design will conduct periodic site visits as appropriate to progress of construction work and issue reports of observations.
4. As part of site visits, perform periodic work progress reviews for approval of Contractor's pay request.
5. Review product and shop drawing submittals.
6. Issue construction bulletin drawings.
7. Review change order proposals.
8. Architectural and Landscape Architectural representatives from HagerSmith Design will conduct Substantial Completion Inspection and issue punch-list.
9. Architectural and Landscape Architectural representatives from HagerSmith Design conduct Final Completion Inspection and issue report.
10. Coordinate with Contractor for submittal of close-out documents.

Qualifications to Scope of Basic Services

The following items describe or further define the level of service as described under the Scope of Basic Services.

General Project and Sitework

1. Design work will be based on site elements as illustrated on the drawing Leigh Farm Park Phase II Site Improvements, Scheme 1, dated 11/10/2010, and water and sanitary sewer services as illustrated on the drawing Leigh Farm Park Preliminary Utility Plan, Option 2.
2. Property boundaries – We understand that a boundary plat has been recorded for the properties upon which this work will be undertaken. All boundary information utilized in this work shall be as referenced from existing legal documents as provided by the City of Durham or Durham County. If in-field surveying of the park boundary is required for any part of this project, those services shall be provided on an as-needed basis as Additional Services.
3. For purposes of required planning and construction approvals, the various lots comprising the "park" will be treated as a single property. This approach was confirmed with Durham Planning and Engineering staff at a regulatory review meeting. Services resulting from the property being treated as multiple parcels under multiple ownerships shall be provided as Additional Services.
4. Unless otherwise specifically noted under Scope of Basic Services, design of off-site facilities shall be treated as Additional Services.
5. All review and permitting fees to be paid for by City of Durham Parks and Recreation Department or Durham General Services.
6. This proposal, per conversation with Durham Planning staff, assumes a "Large Simplified Site Plan" approval process.
7. Existing park drive – The Scope of Basic Services assumes that, in addition to improvements to the pavement and sub-base, that the drive will be required to be widened to accommodate minimum City of Durham Engineering requirements. This will include modifications to grading of shoulders, drainage ditches and stormwater piping. Replacement of existing ditches with pipe is assumed not to be required.
8. ADA accessibility to buildings – Scope of Basic Services assumes that for all buildings identified as "public" and requiring ADA accessibility, that design documents will provide for accessible parking, accessible walk and front door connection for each.
9. Landscaping – Scope of work will include planting design for Visitors Center and for new parking areas as required to meet City of Durham requirements. Provisions for grassing or mulching are disturbed landscape areas will be included.

10. City of Durham requires that all trees 10" dbh or larger within 30' of clearing limits be located in the filed and shown on Site Plan Approval drawings. For this proposal, the tree survey will be conducted once the site layout and preliminary grading have been reviewed and approved by DGS and not at the time that the overall topographic survey work is performed.
11. Based on the approved Schematic Design plan, there are potential impacts to a riparian stream and a small "poeket" wetlands identified on the park site. Services for confirming the extent of these two features and confirming findings with NCDWQ and USACOE as appropriate are included under the Scope of Basic Services. Flood Studies and/or mitigation of impacts related to state (N.C. Division of Water Quality) and federal (U.S. Army Corps of Engineers) regulated natural resources have not been identified as required for this project and are not included in the Scope of Basic Services.
12. Traffic Impact Analysis or signalization design studies were not identified by City of Durham as being required for this project are not included in the Scope of Basic Services.
13. Archaeological monitoring – Schematic Design Scheme I plan and Water & Sewer Option 2 drawings were provided to Ms. Dolores Hall, N.C. State Historic Preservation Office (SHPO), for review regarding required archaeological monitoring during construction. Ms. Hall has indicated that no monitoring will be required. A letter from SHPO is to be provided.
14. Services associated with annexation, easements, encroachments, covenants or similar legal property issues not specifically described in the Scope of Basic Services shall be provided as Additional Services. Note: during Schematic Design, Justin Weist, Durham Engineering Department, indicated that, due to the park being under multiple ownership, that some form of homeowners type agreement might be required to address sewer and waterlines crossing property boundaries. We have assumed for this proposal that the City of Durham will provide legal and survey services for this agreement, if required.
15. Presentation graphics and renderings as might be required for promotional efforts or public meeting review were not identified by City of Durham as being required for this project. If required, they will be provided as Additional Services.
16. Signage design except as required for compliance with regulatory requirements (ADA) are not included in the Scope of Basic Services.
17. Services not specifically described under Scope of Basic Services shall be considered Additional Services and provide on an hourly, as-needed basis unless otherwise arranged for with City of Durham.

Stormwater & Utilities (water, sanitary sewer)

The following provides a scope of work for preparing and submitting the Design Development drawings for Site Plan approval.

Design Development

1. Design Development (DD) drawings will be based on the site layout and grading plans provided by HagerSmith Design and the Schematic Design drawings previously prepared during the Phase 1 Design work.
2. Prepare utility plan based on layout plan provided by HagerSmith Design and sanitary sewer collection system alternative selected by the Owner. The utility plan will include information on the proposed waterline extension and sanitary sewer system improvements required to service the proposed visitors center and existing structures. It is assumed that no offsite utility improvements will be required.
3. Prepare the Stormwater Impact Analysis required for Site Plan submittal. This includes calculating the pre-developed and post-developed Q2 and Q10 stormwater discharge for the proposed site development. It is anticipated that stormwater facilities will not be needed for the proposed site improvements. If it is later determined that stormwater facilities are needed, the scope of work and proposed fee may need to be adjusted accordingly.
4. Attend meetings with the Owner to discuss the proposed site/utility improvements (2 meetings included in proposal).
5. Attend meetings with City of Durham staff to discuss the proposed design and review comments (3 meetings included in Scope of Basic Services).
6. Provide basic site related details.
7. Prepare submittal application for submittal to Stormwater Engineering (i.e., Stormwater Submittal Checklist, Stormwater Impact Analysis, copy of USGS Map with approximate site boundary, copy of the Durham County Soils Survey with approximate site boundary and copy of the FEMA Mapping with the approximate site boundary).

8. Prepare cost opinion of anticipated construction costs for the proposed water and sewer improvements.
9. Address City's comments.

Construction Documents & Approvals

1. It is anticipated that a legal agreement will be required for proposed utilities that cross property lines and that a business agreement similar to a homeowner's association agreement will be needed to address the utilities. Preparation and execution of this agreement and associated documents are assumed to be the responsibility of City of Durham.
2. Provide site plan drawing (using site plan prepared by HagerSmith Design).
3. Provide final utility plan for waterline extension and sanitary sewer collection system.
4. Provide grading plan drawing (using grading plan prepared by HagerSmith Design).
5. Provide fire flow analysis for water system improvements.
6. Provide Plan and Profiles for waterline extension.
7. Provide Plan and Profiles for sanitary sewer collection system(s)
8. Provide ditch calculations, if required.
9. Provide final site related details.
10. Prepare cost opinion of anticipated construction costs for the proposed water and sewer improvements.
11. Attend meetings with the Owner to discuss the proposed site/utility improvements (2 meetings included in Scope of Basic Services).
12. Prepare applications and supporting documentation required for submitting the construction drawings to the City of Durham Engineering Division for review and approval and make submittal.
13. Attend meetings with the Owner to discuss the review comments if necessary (1 meeting included in Scope of Basic Services).
14. Attend meetings with City of Durham staff to discuss the review comments if necessary (1 meeting included in Scope of Basic Services).
15. Address City comments as needed.

Bidding & Negotiations

1. BNK will address contractor questions and prepare addenda during bidding of the project.
2. Submit water and/or sewer permit applications to City of Durham after approval of construction drawings.

Construction Administration

1. Attend meetings with the Owner and Contractor at the project site to discuss the progress of work (3 meetings in Scope of Basic Services).
2. Prepare site inspection reports concerning items discussed during onsite meetings and observations of work, including utility installation work.
3. Provide water and/or sewer engineering as-built certifications after completion of work, if required (does not include surveying work required for as-built drawings).

Architectural

HagerSmith Design will provide architectural services and observation required for the relocation of the Amtrak Modular Trailer from its current site on the park property to a new foundation at the location designated in the Leigh Farm Park Schematic Plan Scheme 1. The following is a scope of services associated with the building relocation:

2. Prepare construction bid documents that describe:
 - a. Foundation plans and details for new site.
 - b. How the building is to be reassembled and made weather-tight on the new site
 - c. Design of repairs to interior surfaces, to include repairs to wall, floor and ceiling finishes, revision of interior partitions, and required accessibility alterations to existing toilets.
 - d. Design of new handicapped ramp and accessibility at the front entrance.
 - e. Plumbing, mechanical and electrical engineering and connections.
 - f. Requirements for bidding.
3. Accessibility for Historic Structures
 - a. Per comments from North Carolina Department of Justice and State Historic Preservation Office, accessible routes will need to be provided to historic structures that visitors will be allowed to enter. For the scope of this work, these structures are identified as the Leigh (main) House, Slave Cabin 1 and Slave Cabin 2.

- b. Per Volume 1-C of the building code, the accessible paths to these buildings will need to be connected to handicap parking spaces within 200 feet of each building.
The scope of service for this element is to (1) locate a handicap parking area (1 or 2 spaces) at a location along the existing drive within 200 feet of each of the three buildings, (2) design a accessible path to the visitor entrance to each building, and (3) design a ramp from the end of the path to entrance for the main house and slave cabin one.
- c. Design of accessible paths and accessible front entrance at Speakeasy, residence south of Speak Easy and Piedmont Wildlife House..
- d. Design of domestic water and sewer connections for Leigh Farm House, Slave Cabin #2, Piedmont Wildlife house, Speak Easy, residence south of Speak Easy.

Survey Services

HagerSmith Design will provide architectural services and observation required for the relocation of the Amtrak Modular Trailer from its current site on the park property to a new foundation at the location designated in the Leigh Farm Park Schematic Plan Scheme 1. The following is a scope of services associated with the building relocation:

1. Work included in Scope of Basic Services:
 - a. Topographic survey of approximately 14 acres, as seen on the exhibit below, located at the following: PIN+ 0709-01-40-6317 (or) parcel ID= 141565. We will tie into and lock the contours on the recorded boundary by locating 2 or 3 property corners.
 - b. Site topography with 1' contour intervals established from GPS derived site benchmark (NAVD 88 datum). Horizontal datum will be tied to NC Grid (NAD 27) per the recorded plat.
 - c. Road topography to opposing R/W and 100' past the subject parcel in both directions.
 - d. Location of the existing buildings and their finished floor elevation.
 - e. Utility survey= gravity and ferrous utilities (everything onsite and the next structure offsite).
 - f. Sanitary and Storm sewer to include rim/top, inverts, direction and material.
 - g. Above ground utilities to include meters, boxes, valves, poles, guy anchors and wires.
 - h. Locate delineated perimeter of small pond west of new loop road.
 - i. Cost for topographic survey assumes fieldwork will be performed after "leaf-out" of vegetation; assumed date of April 15.
2. Additional survey services presently not identified as required for work within Scope of Basic Services:
 - a. Sub-surface utilities will be painted on the ground and located. No excavation will be performed. Please note that some underground utilities are non-ferrous and cannot be located without GPR (ground penetrating radar) which we do not provide.
 - b. Location of flagged wetlands and streams outside of survey area.
 - c. Location and mapping for individual trees (>/=) 8" dbh (location and mapping to provide the common name and size. Note: per unit (tree) cost assumes fieldwork for location of trees will be performed as a single effort versus multiple visits for small groups of trees.
 - d. Re-survey of adjusted wetland or stream buffers per NCDWQ or US Army Corps of Engineers review if required.
 - e. Preparation and recording of plat maps including maps for wetlands recordation.

Geotechnical Services

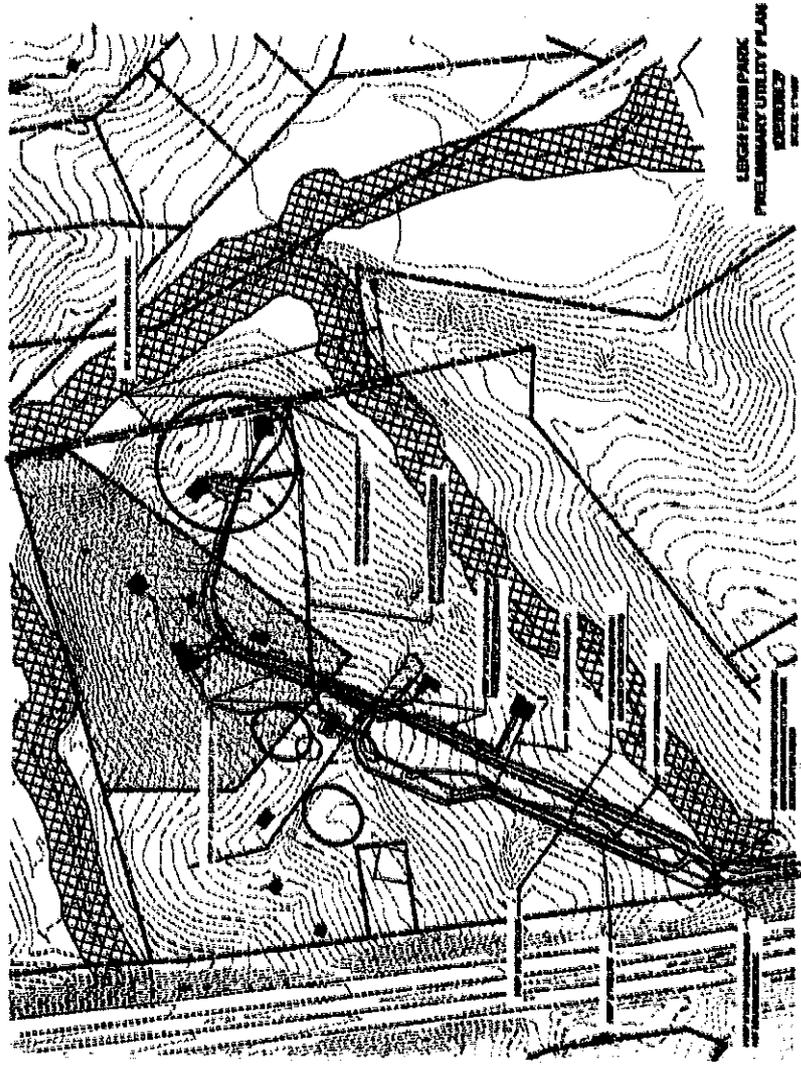
1. Loop Road, Visitors Center & Existing Pavement:
 - a. Topographic survey of approximately 14 acres, as seen on the exhibit below, located at the following: PIN+ 0709-01-40-6317 (or) parcel ID= 141565. We will tie into and lock the contours on the recorded boundary by locating 2 or 3 property corners.
 - b. Site Contact the North Carolina One-Call Center to field mark underground public utilities in the vicinity of the borings.
 - c. Field layout of borings will be performed (by S&ME) by referencing existing site features or using GPS equipment if coordinates are available.
 - d. Mobilization of an ATV mounted drill rig to the site.
 - e. Performance of 2 soil test borings to depths of 15 feet below the existing ground surface in the visitor's center area and 4 borings to a depth of 10 feet in the loop road alignment. Borings will be performed to the above indicated depths, or auger refusal, whichever occurs first.

- f. Backfill soil test borings with soil cuttings and borehole plugs (see below).
 - g. Stratification of the boring soil samples by a geotechnical professional.
 - h. Mobilization of a 2-man coring crew to the site to obtain 3 asphalt cores from the existing roadway. The core locations will be randomly distributed along the full length of the existing road. The thickness of any underlying stone base material will be measured at each coring location.
 - i. Stone (if any) will be replaced and the core hole filled with asphalt patch.
2. Sewer lines
- a. Contact the North Carolina One Call Center to field mark underground public utilities in the vicinity of the borings.
 - b. Field layout of borings will be performed (by S&ME) by referencing existing site features, or using GPS equipment if coordinates are available.
 - c. Mobilization of an ATV mounted drill rig to the site.
 - d. Performance of 10 soil test borings to depths of 10 feet below the existing ground surface (4 borings along the 450 feet long section and 6 borings along the 750 feet long section). Borings will be performed to the above indicated depths, or auger refusal, whichever occurs first.
 - e. Backfill soil test borings with soil cuttings and borehole plugs (see below).
 - f. Stratification of the boring soil samples by a geotechnical professional.
 - g. Within borings, samples of subsurface soils will be taken at 2½-foot intervals above a depth of 10 feet and at 5-foot intervals below 10 feet using a split-spoon sampler. Standard penetration tests will be conducted in conjunction with split-spoon sampling in general accordance with ASTM D 1586-99. Collected soil samples will be returned to our office for visual classification and testing. Upon completion of the borings, measurements of water levels will be taken within boreholes at the time of drilling and within several boreholes after a selected waiting period. Boreholes will be backfilled up to the original ground surface with auger cuttings and closed in accordance with our standard borehole closure protocol (see below).
 - h. Bore Hole Closure - The work described in this proposal will involve the drilling or boring of test holes on the property being explored. Open boreholes on any site expose the property owner and other parties to a multitude of liability risks. These include physical risk of injury or damage to the owner or third parties on the property of the owner. Additionally, livestock or other real property may be at risk due to presence of the boreholes. While no method of closing a borehole is totally foolproof, S&ME has found that the use of borehole closure appliances will substantially improve the stability of the surface in the vicinity of completed boreholes. Unless otherwise directed by you, S&ME will close all borehole(s) made in this study using its standard protocol. A copy of this protocol (SP-FE-A1) is available upon request.
3. Geotechnical Report – A geotechnical report will be prepared based on the results of fieldwork. If borings along the sewer lines are performed concurrently with those for the visitor's center and loop road, we will prepare one report. If sewer line borings are completed separately, two reports will be prepared. The geotechnical report(s) will include the following information:
- a. Description of the exploration sampling methods as well as soil test boring logs
 - b. General description of the site and subsurface soils.
 - c. Water depths encountered in completed borings and within selected borings after a waiting period.
 - d. Depth and location of unsuitable materials, if encountered in borings.
 - e. Depth of partially weathered rock or auger refusal materials encountered in borings.
 - f. Foundation recommendations for proposed visitor's center including an allowable soil bearing pressure for shallow foundations based on assumed structural loads.
 - g. General information regarding site grading including suitability for on-site materials for reuse as structural fill, compaction recommendations, and preparation of subgrades.
 - h. Discussion of anticipated excavation difficulties.
 - i. Present results of cores obtained from the existing asphalt pavements including thickness of the asphalt and any underlying stone base material.
 - j. Vehicular pavement and sub-base design recommendation.

4. Construction Administration – Provide on-site observation and testing for grading, backfill, and materials (concrete, asphalt) to insure Contractor's work is in compliance with specifications. Note: the specific scope of this work to be based on construction specifications to be prepared during Construction Documents phase. Cost for this item is provided as an allowance in this proposal.
5. Excluded Services - Unless otherwise stated above, we specifically exclude the following services
 - a. Site Clearing - We have assumed that the boring locations are accessible by our drilling equipment without the need for limited site clearing. We may need to offset the borings to accommodate drill rig access.
 - b. Environmental and Other Non-Geotechnical Evaluations - Any wetland, environmental, contaminant, drainage, infiltration, or existing structure assessments are beyond the scope of this subsurface exploration proposal.
 - c. Surveying of the Boring Locations - Because S&ME does not perform surveying services and does not employ a licensed surveyor at our Raleigh office, this service is not included in our scope of work. If this is required, the project surveyor should locate our boring locations and provide us this information.
 - d. High Water Levels - Our borings will reflect the depth to water at time of boring or after 24 hours. Recording of high water levels would require the weekly observations of a temporary piezometer over a one to two year period, during typical seasonal activities.
 - e. Retention Ponds - Any seepage analysis or water balance estimates for proposed retention, detention or infiltration basins are beyond the scope of this subsurface exploration.
 - f. Seismic Site Classification – The exploration will not be sufficient to provide a recommended seismic site classification in general accordance with the North Carolina Building Code.

Environmental (wetland, stream buffers) Services

1. Conduct a wetland delineation and Durham stream buffer evaluation on the site. Wetland boundaries and stream origins will be demarcated in the field with pink S&EC logo flagging.
2. Conduct a site meeting with the NCDWQ to verify intermittent/perennial determinations for streams located on-site.
3. Coordinate verification of findings with US Army Corps of Engineers (USACE).
4. Submit information to the USACE in an effort to acquire a current Jurisdictional Determination (JD). This includes correspondence with the surveyor for any revisions to the survey map, as well as submittal of all other pertinent forms.
5. Deliverables:
 - a. Durham stream buffer report (ref: item 1 above).
 - b. Letter summarizing agency determinations (ref: items 2 & 3 above).
 - c. Copy of updated JD request package and approved JD (if approved) (ref: item 4 above)
 - d. Field layout of borings will be performed (by S&ME) by referencing existing site features or using GPS equipment if coordinates are available.



ATTACHMENT D



HagerSmith

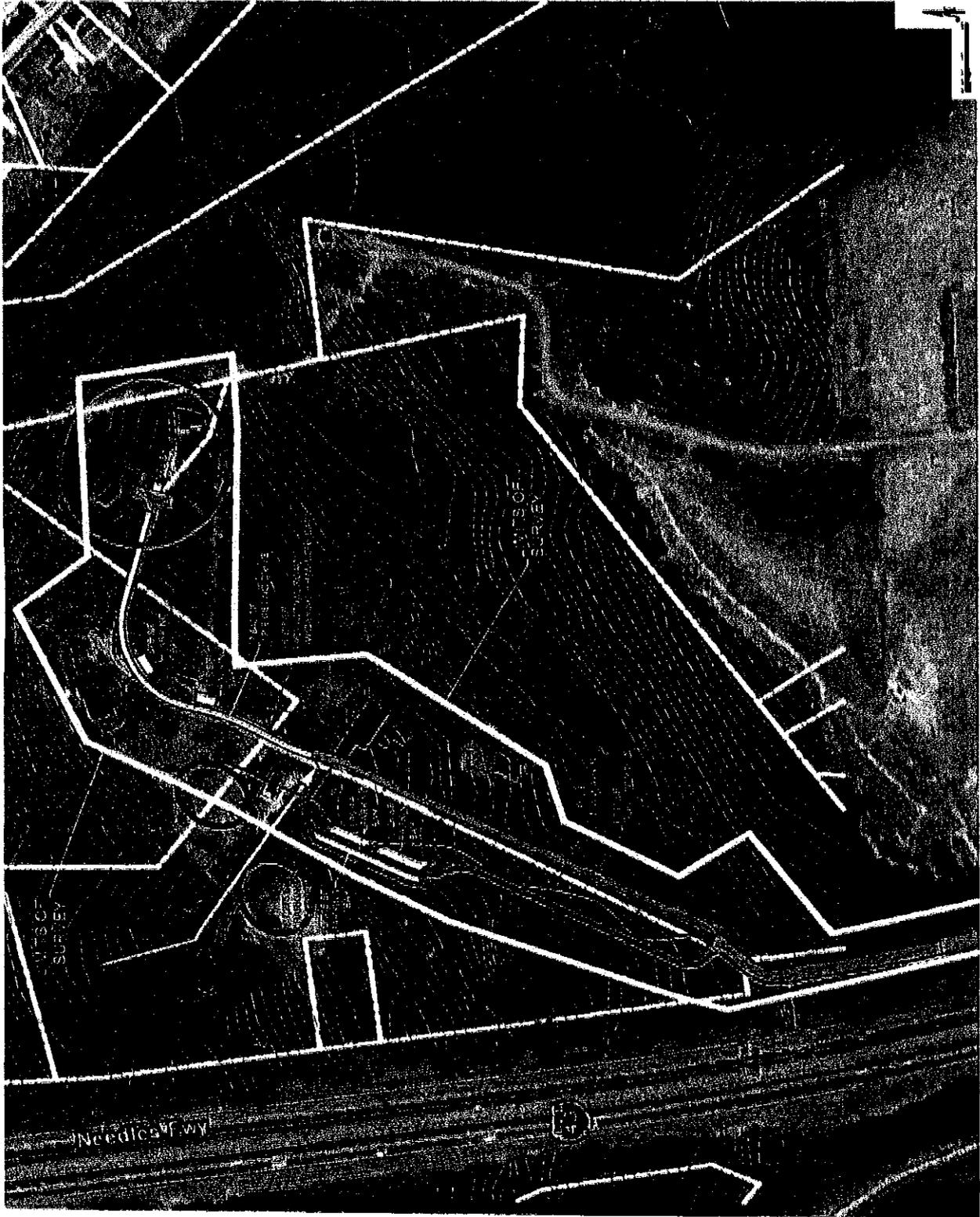
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LESLIE FRANK PARK
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ATTACHMENT C

AREA OF SURVEY



DATE

BY

SCALE