

NORTH MECKLENBURG RECYCLING CENTER
PHASE 2 SITE IMPROVEMENTS

MECKLENBURG COUNTY LUESA
CHARLOTTE, NORTH CAROLINA

ADDENDUM NO. 4

December 21, 2023

TO: Prospective Bidders

FROM: HDR Engineering, Inc. of the Carolinas
440 South Church St, Suite 1200
Charlotte, NC 28202

OWNER: Mecklenburg County LUESA
2145 Suttle Avenue
Charlotte, NC 28208

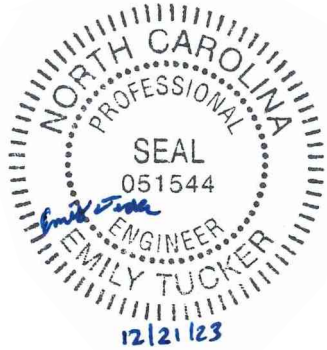
SUBJECT: North Mecklenburg Recycling Center
Phase 2 Site Improvements

This Addendum is part of the Bidding Documents and the Contract Documents and modifies the original Bidding Documents dated December 21, 2023, as indicated below. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification for award of the associated Contract.

This Addendum consists of 23 pages and the attachments, if any, listed on the last page.



ADDENDUM NO. 4 SEALS AND SIGNATURES

<p>Emily L. Tucker, PE License No. 051544</p> 	<p>The seal and signature to the left applies to the changes made via this Addendum for the Work.</p>
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It is a violation applicable laws and regulations governing professional licensing and registration for any person, unless acting under the direction of the licensed and registered design professional(s) indicated above, to alter in any way the proposed Specifications, Drawings, and Addenda for this Project.

CHANGES TO PRIOR ADDENDA

None

CHANGES TO INTRODUCTORY INFORMATION

None

CHANGES TO BIDDING REQUIREMENTS

4.01 Section 01 14 16 – Bid Form: Replace in its entirety (see attached).

- Section 5 Base Bid Measurement and Basis for Payment:
 - Item #36 Materials Shed Canopy Structure: Change **FROM** “*This Work includes all columns, beams, bracing, floor decking, concrete slab and reinforcement, connections and appurtenant work.*” **TO** “*This Work includes all columns, beams, bracing, floor decking, connections and appurtenant work.*”
- Section 6 Base Bid Schedule:
 - Item #12 Riprap, measurement changed **FROM** “150 Tons” **TO** “200 Tons”.
 - Item #14 Porous Baffles, measurement changed **FROM** “450 LF” **TO** “300 LF”.
 - Item #37 Materials Shed Canopy CMU Wall Construction, measurement changed **FROM** “40 SF” **TO** “960 SF”.

CHANGES TO CONTRACTING REQUIREMENTS

None

CHANGES TO SPECIFICATIONS

- 4.02 Section 31 23 00 Earthwork, Part 2.1.A.1.: Change **FROM** "Selected material approved by Geotechnical Engineer from offsite borrow." **TO** "Selected material approved by Geotechnical Engineer from site excavation or from offsite borrow."
- 4.03 Section 33 44 16 Trench Drains: New Technical Specification **ADDED**.

CHANGES TO DRAWINGS

- 4.04 Drawing Sheet S501: Spread Footing Section detail **REVISED**. Please refer to clouding on attached drawing.
- 4.05 Drawing Sheet S502: Metal screening wall height **REVISED** to 8 feet and metal screening direction **REVISED** to be shown as vertical. Please refer to clouding on attached drawing.

QUESTIONS

- 4.06 Metal Screening: S502 shows a height of 6'6". C100 shows a height of 8'. Please confirm the Metal Screening height.
Answer: The metal screening height is 8 feet. Drawing Sheet S502(attached) has been revised to 8 feet. Please also refer to changes on the spread footing section on Drawing Sheet S501 (attached).
- 4.07 Metal Screening: S502/Detail 1 shows vertical metal screening. S502/Detail A appears to show horizontal metal screening. Please confirm the direction of the metal screening.
Answer: The metal screening is vertical. Drawing Sheet S502/Detail A has been revised to show vertical metal screening.
- 4.08 Are any or all underground conduits to be concrete encased?
Answer: There is no intent to use concrete encased ductbanks for electrical. They are to be direct buried.
- 4.09 For Unit Prices 5 and 6, who pays for the survey to establish the unit quantities?
Answer: Contractor shall pay for the survey to establish the unit quantities.
- 4.10 What unit price does the proposed sidewalk at Statesville Road fall under?
Answer: Proposed sidewalk along Statesville Road is not included as part of this project's construction work.
- 4.11 Is the earthwork for this project being bid as classified or unclassified?
Answer: Please refer to Technical Specification 31 23 00 Earthwork.
- 4.12 Item #37 has an estimated quantity of 40 SF for the CMU Wall Construction, however the actual quantity is much greater than this figure. Please advise.
Answer: Bid Item No. 37 Materials Shed Canopy CMU Wall Construction Estimated Quantity has been revised to 960 SF. Per Addendum No. 2, the project is to be priced per the unit price quantities on the bid form regardless of what is shown on the drawings. Once the work is put in place, the final cost will be determined from actual quantities put in place based on the unit price on the bid form.
- 4.13 There is a trench drain shown on 03A101. What does this drain tie into and can a specification be provided for the drain?
Answer: There is no tie in as the catch basin acts as a collector so the spill can be vacuumed out without it getting into anything. For clarity, it is not a storm drain. The note calls out for the catch basin to not include an outlet. Technical Specification 33 44 16 Trench Drains has been added.



- 4.14 Should Bid Item No. 36 be revised to omit concrete slab and reinforcement?
Answer: Yes. "Concrete slab and reinforcement" has been removed from Bid Item No. 36 Materials Shed Canopy Structure. This is already covered under Bid Item No. 39 Canopy Ground Floor Slab.

ATTACHMENTS

- 4.15 Section 00 41 13 – Bid Form (revised)
- 4.16 Drawing Sheet S501 – Canopy Foundation Sections and Details
- 4.17 Drawing Sheet S502 – Retaining Wall and Fence Sections and Details
- 4.18 Technical Specification 33 44 16 Trench Drains

END OF ADDENDUM NO. 4

BID FORM

PROJECT IDENTIFICATION: NORTH MECKLENBURG RECYCLING CENTER PHASE 2 – SITE IMPROVEMENTS

CONTRACTOR NAME: _____

CONTRACTOR LICENSE NO.: _____

THIS BID IS SUBMITTED TO: _____, hereinafter referred to as Owner.

1. ENTER INTO CONTRACT

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with Owner in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2. BIDDER ACCEPTANCE

Bidder accepts all of the terms and conditions of the Solicitation or Invitation for Bid, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for sixty (60) days after the day of Bid opening. Bidder will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bid Requirements within five (5) business days after the date of Owner's Notice of Award.

Bidder has enclosed with this bid response Bid Bond(s) in the amount of: \$ _____.

Bidder accepts all of the terms and conditions? YES _____ NO _____

Bidder included one original and two complete copies of all bid documents? YES _____ NO _____

Bidder has included their forms listed in Section 9 of this Bid Form? YES _____ NO _____

3. BIDDER REPRESENTATIONS

In submitting this Bid, Bidder represents, as more fully set forth in the Contract, that:

- A. Bidder has examined and carefully studied the Bidding Documents, Pre-Bid Meeting Notes and the following Addenda, (if applicable), receipt of all which is hereby acknowledged: (List Addenda by Number and Date).

ADDENDA NO.	DATE
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

- B. Bidder has visited the site and become familiar with, and is satisfied as to, the general, local, and site conditions that may affect cost, progress, performance and furnishing of the Work.
- C. Bidder is familiar with, and is satisfied as to, all federal, state and local laws and regulations that may affect cost, progress, performance and furnishing of the Work.

- D. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at, or contiguous to, the site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto.

Bidder does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price, and other terms and conditions of the Contract Documents.

- E. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- F. Bidder has given Owner written notice of all conflicts, errors, ambiguities or discrepancies in the Contract Documents, and the written resolution thereof by Owner is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

Where conflicts, errors, ambiguities or discrepancies have been discovered in or between Contract Documents and/or other related documents, and where said conflicts, etc. have not been resolved through the interpretations or clarifications by Owner as described in the Instructions to Bidders, because of insufficient time or otherwise, Bidder has included in the Bid the greater quantity or better quality of Work, or compliance with the more stringent requirement resulting in a greater cost.

- G. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- H. Bidder is familiar with all the conditions surrounding the performance of the work required for this project, including the availability of materials, equipment, supplies and labor.
- I. If Bidder is awarded the Contract, Bidder will provide all labor, material, supplies, and equipment, and execute the Work in accordance with the Contract Documents.
- J. If awarded the Contract, Bidder will commence work after the issuance of a "Notice to Proceed" as required in the resulting Contract.
- K. If awarded the Contract, Bidder agrees that if the Work, or any part thereof, is not completed within the Contract Time (including any extension thereof), Bidder will be liable for liquidated damages in accordance with the Contract.
- L. If awarded the Contract, Bidder will provide insurance coverage as required in Exhibit C. The cost of the insurance is included in the Bid.
- M. Bidder understands that the Owner reserves the right to reject any bids which do not meet the requirements, or all bids in the event that the project is canceled or postponed.
- N. If awarded the Contract, the successful Bidder will enter and execute a contract as required.
- O. Bidder will hold his bid open for a period of sixty (60) calendar days from the date that bids are due.
- P. Bidder is legally able to enter into and perform a contract, if awarded.

4. BID PRICE

- A. The Base Bid Schedule in the following section outlines all major components of the Work required to complete the project as specified. The Base Bid Total indicated in numbers and in words at the end of the Base Bid Schedule, shall be used for determination of the successful Bidder.
- B. The Contractor is directed to Base Bid Measurement and Basis for Payment, for a narrative description of each item in the Base Bid Schedule.
- C. The quantities outlined below represent an approximation as estimated by the Engineer. All quantities depicted in the Base Bid Schedule, represent in-place, constructed quantities (as constructed in the proposed Work). The Contractor is responsible for verifying quantities for bidding. Engineer's estimated quantities are provided for informational purposes only, and are not to be relied upon as the sole basis for the Contractor's bid.
- D. Refer to General Terms and Conditions regarding method of award. Refer to the Specifications package for further information regarding other project specifics.
- E. Lump sum line items will constitute the total payment for the Work.
- F. Unit price items will be measured and payment will be for the actual quantity.
- G. In the event the Owner desires to modify the quantity (reduce or increase) of work for one or more lump sum Bid Schedule line items during construction, the general basis for establishing the corresponding change in contract price will be to divide the lump sum bid price by the Engineer's estimated quantity, thereby yielding a unit price by which to modify the line item total price. Other methods for price adjustment may be considered at the Owner's and Engineer's discretion.

5. BASE BID MEASUREMENT AND BASIS FOR PAYMENT

The line items below provide further description of the Work listed in the Base Bid Schedule. Some of the line items include approximate in place quantities as estimated by the Engineer. All estimated areas are measured on a plan view basis where no adjustment is made for slope. For any unit price items based on areas, measurement will also be measured on a plan view basis without adjustment for slope. The Contractor shall not rely on the quantities given, but shall instead estimate all quantities independently as required to complete the Bid. The price associated with each Lump Sum item shall be the full compensation paid for the Work described, regardless of the Engineer's or Contractor's estimated quantity. For Lump Sum items, no claim shall be made by the Contractor for deviations between the Contractor's estimated quantity and the actual quantity required to complete the Work described.

- 1. **BONDS AND INSURANCE:** This Work shall consist of securing all performance and payment bonds and insurance coverage required for the project. Payment for this item will be made on a lump sum basis, wherein no measurement will be made.
- 2. **MOBILIZATION:** This Work shall consist of performance of preparatory construction operations, including the movement of personnel and equipment to the Project site, demolition of existing structures, providing safety equipment and other facilities including field trailers and storage containers required in conformance with the Drawings and Specifications. The cost shall be full compensation for performing the Work specified and the furnishing of all materials, labor, tools, equipment, and incidentals necessary to mobilize and subsequently demobilize. Payment for this item will be made on a lump sum basis, wherein no measurement will be made.

3. **ADMINISTRATION:** This Work shall consist of provide on-site superintendent observation, project management and office administrative support throughout the project. Payment for this item will be made on a lump sum price basis, wherein no measurement will be made.
4. **SURVEY LAYOUT AND CONTROL:** This Work shall consist of furnishing all equipment, materials, labor, and appurtenances necessary to provide survey layout and control, survey of installed material quantities for payment, and completion of as-built documentation and as-built survey drawings in conformance with the Drawings and Specifications. Payment for this item shall be made on a lump sum basis, wherein no measurement will be made.
5. **COMMON SITE EXCAVATION:** This Work shall consist of furnishing all equipment, materials, labor, and appurtenances necessary to excavate to soil subgrade within asphalt areas and to final grade, less applied topsoil, within other excavation areas such as retaining wall, sediment basin, and diversion swales. Soil subgrade depth below final grade varies as shown on the site plan and details. Soil is to be hauled to locations requiring structural fill in conformance with the Drawings and Specifications. Work shall include the excavation and hauling of excavated soil material, and verification of subgrade competency. Payment for this bid item shall be made on a unit price basis, wherein measurement will be made by survey. The Engineer will make final determination of the quantity.
6. **STRUCTURAL FILL PLACEMENT:** This work shall consist of furnishing all equipment, materials, labor, and appurtenances necessary to complete all structural fill required to achieve subgrade elevations within asphalt areas and to final grade, less applied topsoil, within other fill areas such as fill slopes and berms in conformance with the Drawings and Specifications. Soil subgrade depth below final grade varies as shown on the site plan and details. Work shall include processing, placement, compaction, and fine grading of soil materials recovered from common site excavation. Payment for this bid item shall be made on a unit price basis, wherein measurement will be made by survey. The Engineer will make final determination of the quantity.
7. **CLEARING AND GRUBBING:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary to clear and grub the site area to the limits of disturbance in accordance with the Drawings and Specifications. Work shall include erection of tree protection fencing, clearing and removal of trees, brush and other vegetation, and stump removal as outlined in the Drawings. Work performed should not disturb vegetation designated “to remain” on plans. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
8. **REMOVE EXISTING ASPHALT PAVEMENT:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary to saw cut and/or excavate and remove existing asphalt pavement in accordance with the Drawings and Specifications. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
9. **EXISTING FENCE REMOVAL:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary to remove sections of the existing 8-foot fencing in accordance with the Drawings and Specifications. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
10. **SEDIMENTATION AND EROSION CONTROL:** This Work shall consist of furnishing all necessary materials, labor, maintenance, tools, equipment, and incidentals necessary to complete the work in conformance with the Drawings and Specifications regarding erosion

control during development of the site. Work to include furnishing, installing and maintaining construction entrance, temporary seeding, temporary culvert, cloth and gravel inlet and outlet protection, concrete washout, rock check dams (wattles), rock outlet in silt fencing, 24" flared end section storm structure, six drop inlet storm structures, three anti-seep collars, emergency spillway and other erosion control devices not included in other bid items. Payment for this item shall be made on a lump sum basis, wherein no measurement will be made.

11. **SILT FENCE:** This Work shall consist of furnishing all necessary equipment, materials, labor, and appurtenances necessary for the installation and maintenance of silt fence in accordance with the Drawings and Specifications. Work shall include installation and maintenance during project duration. Work shall also include removal of silt fencing and posts once grading is complete, and vegetation has been established. Payment for this item will be made on a unit price basis, wherein measurement will be made.
12. **RIPRAP:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the placement and installation of stone revetment (riprap) in conformance with the Drawings and Specifications. Work shall include any necessary fine grading, geotextile fabric and placement of designated riprap. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
13. **SEDIMENT BASIN SKIMMER AND OUTLET STRUCTURE:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the installation of the skimmer and outlet structure for the temporary sediment basin in conformance with the Drawings and Specifications. Work shall include fine grading, tie-in, and installation of structures to elevations specified in the Drawings. Payment for this item will be made on a lump sum basis, wherein no measurement will be made.
14. **POROUS BAFFLES:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the installation of porous baffles within the temporary sediment basin in accordance with the Drawings and Specification. Work shall include removal of porous baffles before conversion of temporary sediment basin to dry detention pond. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
15. **SEDIMENT BASIN CONVERSION TO DRY DETENTION:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the conversion of the temporary sediment basin to the permanent dry detention pond in conformance with the Drawings and Specifications. Work shall include the grading to convert the temporary sediment basin into the dry detention pond and backfilling basin side slopes in applicable areas. Payment for this item will be made on a lump sum basis, wherein no measurement will be made.
16. **TEMPORARY DIVERSION DITCHES:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the excavation and grading of temporary diversion ditches in conformance with the Drawings and Specifications. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
17. **PERMANENT DIVERSION DITCH:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the excavation and grading of the permanent concrete diversion ditch in conformance with the Drawings and Specifications.

Payment for this item shall be made on a lump sum basis, wherein no measurement will be made.

18. ASPHALT PAVEMENT CONSTRUCTION: This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary to install the asphalt pavement in conformance with the Drawings and Specifications. Work shall include supplying and installing the compacted ABC Base Course, bituminous concrete intermediate course (I9.0C), and bituminous concrete surface course (S9.5B). Payment for this bid item shall be made on a unit price basis, wherein measurement will be made.
19. CONCRETE COMPACTOR PADS: This Work consists of furnishing all equipment, materials, labor, and appurtenances necessary to furnish and install concrete pads for proposed self-contained compactor containers in conformance with the Drawings and Specifications. Work shall include supplying and installing compacted granular base, reinforcement, formwork, concrete, control joints, and finishing. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
20. SUBSURFACE 24"RCP INSTALLATION: This Work consists of furnishing all equipment, materials, labor, and appurtenances necessary to complete the installation of the 24" RCP, Class III subsurface pipe in conformance with the Drawings and Specifications. Payment for this bid item shall be made on a unit price basis, wherein measurement will be made.
21. SUBSURFACE 18"RCP INSTALLATION: This Work consists of furnishing all equipment, materials, labor, and appurtenances necessary to complete the installation of the 18" RCP, Class III subsurface pipe in conformance with the Drawings and Specifications. Payment for this bid item shall be made on a unit price basis, wherein measurement will be made.
22. FES-1 30"RCP INSTALLATION: This Work consists of furnishing all equipment, materials, labor, and appurtenances necessary to complete the installation of the 30" RCP flared end section storm structure in conformance with the Drawings and Specifications. Payment for this bid item shall be made on a unit price basis, wherein measurement will be made.
23. DRY DETENTION RISER STRUCTURE: This Work shall consist of furnishing all equipment, materials, labor, and appurtenances necessary to install the dry detention pond riser structure in conformance with the Drawings and Specifications. Work shall include supplying and installing precast riser structure, anti-flotation block, and orifice trash rack. Work shall also include removal of temporary skimmer and plugging skimmer inlet to riser structure upon site stabilization. Payment for this bid item shall be made on a lump sum basis, wherein no measurement will be made.
24. POND OUTLET 24" RCP: This Work consists of furnishing all equipment, materials, labor, and appurtenances necessary to complete the installation of the 24" RCP, Class V pond outlet pipe in conformance with the Drawings and Specifications. Payment for this bid item shall be made on a unit price basis, wherein measurement will be made.
25. BOLLARDS: This Work consists of furnishing all equipment, materials, labor, and appurtenances necessary to complete the installation of bollards in conformance with the Drawings and Specifications. Payment for this bid item shall be made on a unit price basis, wherein measurement will be made.

26. **NEW FENCE:** This Work shall consist of furnishing all materials, labor, and appurtenances necessary to install the extension of property fencing in conformance with the Drawings and Specifications. Payment for this item will be on a unit price basis, wherein measurement will be made.
27. **SEGMENTAL BLOCK RETAINING WALL:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary to construct the segmental block retaining wall in conformance with the Drawings and Specifications. Work shall include all excavation and fine grading to establish subgrade, reinforcement, footing, modular concrete block installation and testing. Payment will be made on unit price basis, wherein measurement will be made.
28. **CONCRETE RETAINING WALL:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary to construct the concrete retaining wall in conformance with the Drawings and Specifications. Work shall include all excavation and fine grading to establish subgrade, reinforcement, foundation, concrete forming, pouring and testing. Payment will be made on unit price basis, wherein measurement will be made.
29. **STONE BACKFILL BEHIND WALL AND DRAINAGE:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for placement of stone backfill behind the concrete retaining wall. Work shall include furnishing and installing the stone backfill, drainage board, stone, and drainage weeps in conformance with the Drawings and Specifications. Payments for this item will be made on a unit price basis, wherein measurement will be made.
30. **STRUCTURAL BACKFILL BEHIND WALL:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for installation of compacted structural fill behind the retaining wall. Work shall include furnishing structural fill materials from on-site, compacted backfill, testing and fine grading in conformance with the Drawings and Specifications. Payments for this item will be made on a unit price basis, wherein measurement will be made by survey. The Engineer will make final determination of the quantity.
31. **METAL SCREENING:** This Work shall consist of furnishing all materials, labor, and appurtenances necessary to install the 8-foot metal screening in conformance with the Drawings and Specifications. Payment for this item will be on a unit price basis, wherein measurement will be made.
32. **CONCRETE CURB AND GUTTER:** This Work shall consist of furnishing all materials, labor, and appurtenances necessary to install the curb and gutter system as part of the permanent diversion ditch system in conformance with the Drawings and Specifications. Payment for this item will be on a unit price basis, wherein measurement will be made.
33. **FIRE HYDRANT:** This Work consists of furnishing all equipment, materials, labor, and appurtenances necessary to furnish, install a fire hydrant and connect to the existing 12" water main in conformance with the Drawings and Specifications. Work shall include supplying and installing the hydrant, 6" PVC pipe, bedding, backfill, connections, gaskets, valves and valve boxes, thrust blocks, and tracing wire. Payment for this item shall be made on a lump sum basis, wherein no measurement will be made.

34. **YARD HYDRANT RELOCATION AND INSTALLATIONS:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the installation of the yard hydrants in conformance with the Drawings and Specifications. Work shall include connections to water service lines and any backfilling of soil around hydrant areas to bring to proposed grades. Only one of the two yard hydrants will need to be purchased as one will be the relocation of an existing yard hydrant on-site. Payment for this item will be made on a lump sum basis, wherein no measurement will be made.
35. **LANDSCAPE PLANTINGS:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the landscaping of the site in conformance with the Drawings and Specifications. Contractor will be responsible for planting, maintenance and warranty on all plantings on the site. Payment for this item shall be made on a lump sum basis, wherein no measurement will be made.
36. **MATERIALS SHED CANOPY STRUCTURE:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the materials shed canopy structure in conformance with the Drawings and Specifications. This Work includes all columns, beams, bracing, floor decking, connections and appurtenant work. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
37. **MATERIALS SHED CANOPY CMU WALL CONSTRUCTION:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the construction of the two CMU Type I walls within the materials shed canopy structure in conformance with the Drawings and Specifications. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
38. **CANOPY FOUNDATION:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary to construct the foundations for the materials shed canopy structure in conformance with the Drawings and Specifications. Work shall include all excavation and fine grading to establish subgrade, stone subgrade installation, reinforcement, concrete forming, pouring and testing. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
39. **CANOPY GROUND FLOOR SLAB:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the materials shed canopy slab on grade in conformance with the Drawings and Specifications. Work shall include fine grading of slab location, formwork, pouring, and reinforcement of slab. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
40. **CANOPY OFFICE BUILDINGS INSTALLATIONS:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for installation of the two prefabricated office buildings in the materials shed canopy structure in conformance with the Drawings and Specifications. Work shall include electrical and telecommunications connections to the office buildings. The County shall be responsible for supplying these two prefabricated office buildings. Payment for this item shall be made on a unit price basis, wherein measurement will be made.
41. **CANOPY HHW BUILDING INSTALLATION:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the relocation of the existing prefabricated household hazardous waste (HHW) building on-site and its installation under

the materials shed in conformance with the Drawings and Specifications. Payment for this item shall be made on a lump sum basis, wherein no measurement will be made.

42. **ELECTRICAL SERVICE AND FEEDERS:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for the installation of the electrical service and feeders in conformance with the Drawings and Specifications. Work shall include trenching and backfilling for electrical service lines, electrical conduit banks, handholes, cabling, equipment racks, cabinets, panels, transformers and all other appurtenant work to provide power to the site and feeders to the materials shed canopy and modular buildings. Payment for this item will be on a lump sum basis, wherein no measurement will be made.
43. **COMPACTOR ELECTRICAL SERVICE:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for establishing electrical service to each compactor pad area in conformance with the Drawings and Specifications. Payment for this item will be made on a lump sum basis, wherein no measurement will be made.
44. **SITE LIGHTING:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for installing the site lighting and materials shed canopy lighting in conformance with the Drawings and Specifications. Work shall include pole and fixture installation, photocells, switches, conduit banks, cabling and all other appurtenant work. Payment for this item will be made on a lump sum basis, wherein no measurement will be made.
45. **SECURITY & COMMUNICATION SERVICE:** This Work shall consist of furnishing all materials, labor, equipment, and appurtenances necessary for installation the security and communication service and feeders to the materials shed canopy camera locations in conformance with the Drawings and Specifications. Work shall include installation of all communication conduit banks, cables, connections, handholes, and other appurtenant work. Payment for this item will be made on a lump sum basis, wherein no measurement will be made.
46. **PERMANENT SEEDING:** This Work shall consist of furnishing all equipment, materials, labor, and appurtenances necessary to provide seeding to those areas disturbed by construction operations and not stabilized by pavement in conformance with the Drawings and Specifications. Payment for this bid item shall be made on a lump sum basis, wherein no measurement will be made.
47. **PROJECT CONTINGENCY:** This Work includes a built-in project contingency of \$500,000 provided as a required lump sum price item.

6. BASE BID SCHEDULE

Bidder will complete the Work in accordance with the Contract Documents for the following prices:

Item	Description	Estimated Quantity	Unit	Basis of Payment	Total Cost
1.	Bonds and Insurance	1	LS	LS	\$_____
2.	Mobilization	1	LS	LS	\$_____
3.	Administration	1	LS	LS	\$_____
4.	Survey Layout and Control	1	LS	LS	\$_____
5.	Common Site Excavation	10,000	CY	\$_____/CY	\$_____
6.	Structural Fill Placement	8,000	CY	\$_____/CY	\$_____
7.	Clearing and Grubbing	2.5	Acre	\$_____/Acre	\$_____
8.	Remove Existing Asphalt Pavement	7,000	SY	\$_____/SY	\$_____
9.	Existing Fence Removal	950	LF	\$_____/LF	\$_____
10.	Sedimentation and Erosion Control	1	LS	LS	\$_____
11.	Silt Fence	2,500	LF	\$_____/LF	\$_____
12.	Riprap	200	Tons	\$_____/Ton	\$_____
13.	Sediment Basin Skimmer and Outlet Structure	1	LS	LS	\$_____
14.	Porous Baffles	300	LF	\$_____/LF	\$_____
15.	Sediment Basin Conversion to Dry Detention	1	LS	LS	\$_____
16.	Temporary Diversion Ditches	1,400	LF	\$_____/LF	\$_____
17.	Permanent Diversion Ditch	1	LS	LS	\$_____
18.	Asphalt Pavement Construction	10,500	SY	\$_____/SY	\$_____
19.	Concrete Compactor Pads	120	CY	\$_____/CY	\$_____
20.	Subsurface 24" RCP Installation	325	LF	\$_____/LF	\$_____
21.	Subsurface 18" RCP Installation	200	LF	\$_____/LF	\$_____

Item	Description	Estimated Quantity	Unit	Basis of Payment	Total Cost
22.	FES-1 30" RCP Installation	40	LF	\$ _____/LF	\$ _____
23.	Dry Detention Riser Structure	1	LS	LS	\$ _____
24.	Pond Outlet Pipe, 24" RCP	60	LF	\$ _____/LF	\$ _____
25.	Bollard	50	Each	\$ _____/Each	\$ _____
26.	New Fence	925	LF	\$ _____/LF	\$ _____
27.	Segmental Block Retaining Wall	343	LF	\$ _____/LF	\$ _____
28.	Concrete Retaining Wall	466	LF	\$ _____/LF	\$ _____
29.	Stone Backfill Behind Wall and Drainage	210	CY	\$ _____/CY	\$ _____
30.	Structural Backfill Behind Wall	1,100	CY	\$ _____/CY	\$ _____
31.	Metal Screening	3,880	SF	\$ _____/SF	\$ _____
32.	Concrete Curb and Gutter	625	LF	\$ _____/LF	\$ _____
33.	Fire Hydrant	1	LS	LS	\$ _____
34.	Yard Hydrant Relocation and Installations	1	LS	LS	\$ _____
35.	Landscape Plantings	1	LS	LS	\$ _____
36.	Materials Shed Canopy Structure	11,000	SF	\$ _____/SF	\$ _____
37.	Materials Shed Canopy CMU Wall Construction	960	SF	\$ _____/SF	\$ _____
38.	Canopy Foundation	85	CY	\$ _____/CY	\$ _____
39.	Canopy Ground floor Slab	230	CY	\$ _____/CY	\$ _____
40.	Canopy Office Buildings Installations	2	Each	\$ _____/Each	\$ _____
41.	Canopy HHW Building Installation	1	LS	LS	\$ _____
42.	Electrical Service and Feeders	1	LS	LS	\$ _____
43.	Compactor Electrical Service	1	LS	LS	\$ _____

Item	Description	Estimated Quantity	Unit	Basis of Payment	Total Cost
44.	Site Lighting	1	LS	LS	\$_____
45.	Security & Communication Service	1	LS	LS	\$_____
46.	Permanent Seeding	1	LS	LS	\$_____
47.	Project Contingency	1	LS	LS	\$500,000.00

TOTAL BID IN NUMBERS \$_____

IN WORDS _____

7. UNIT PRICING

Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

Estimated quantities could be subject to change based on permitting approval processes.

Unit prices include all necessary material, plus cost for delivery, installation, insurance, taxes, overhead, and profit.

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 agent.

8. COMPLETION

Bidder agrees that the Work will be completed and ready for final payment in accordance with the Contract.

Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified in the Agreement.

9. FORMS

The undersigned has enclosed the following forms with this Proposal:

_____ Bid Bond or Bid Deposit

_____ Business Diversity and Inclusion (BDI) Form A – Listing of Good Faith Efforts (GFE)

_____ BDI Form B – Identification of Subcontractor Participation

_____ Certificate of Nondiscrimination in Employment

_____ Contractor E-Verify Declaration

_____ Certificate of Compliance with the Americans With Disabilities Act

10. ADDRESS FOR COMMUNICATIONS

Communications concerning this Bid shall be addressed to the Bidder at the address indicated below.

Name: _____

Telephone #: _____

Email Address: _____

11. AUTHORIZED SIGNATURES

SUBMITTED on _____, 20____.

If Bidder is:

An Individual

By _____ (SEAL)
(Individual's name)

doing business as _____

Business address: _____

FEIN: _____

A Partnership

By _____ (SEAL)
(Firm name)

(General partner)

Business address: _____

FEIN: _____

A Corporation

By _____ (SEAL)
(Corporation name)

(State of incorporation)

By _____ (SEAL)
(Name of person authorized to sign)

(Title)

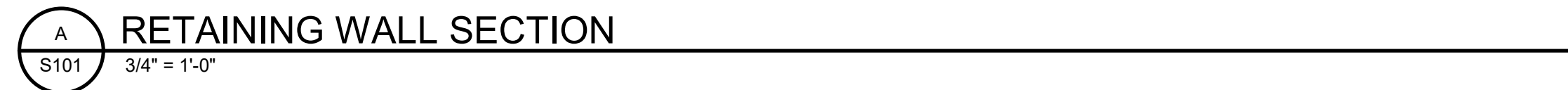
(Corporate Seal)

Attest _____
(Secretary)

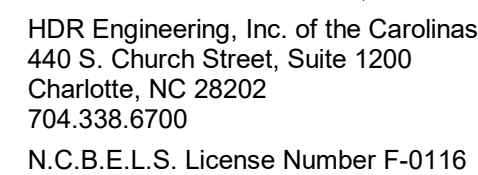
Business address: _____

FEIN: _____

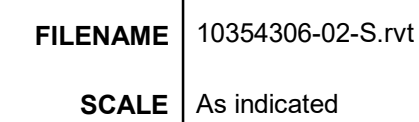
END OF SECTION



1 TYP METAL SCREEN WALL ELEVATION
1" = 1'-0"

[illegible]

PROJECT MANAGER	EMILY TUCKER, PE
DESIGNED BY	B. MUNFORD
DRAWN BY	B. MUNFORD
CHECKED BY	E. MARTIN
PROJECT NUMBER	10354306



SHEET
S502

SECTION 33 44 16 TRENCH DRAINS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes pre-sloped channel drain system.
- B. Related Sections include the following:
 - 1. Civil/Landscape Drawings

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's product data, including installation instructions.
- B. Shop Drawings: Submit manufacturer's shop drawings, indicating layout, materials, components, accessories, and dimensions.
- C. Warranty: Submit manufacturer's standard warranty.

1.4 QUALITY ASSURANCE

- A. Single Source Responsibility: Provide pre-sloped channel drain system from single manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label.
- B. Store materials in clean, cool, dry area in accordance with manufacturer's instructions. Do not store materials in direct sunlight.
- C. Handling: Protect materials during handling and installation to prevent damage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design Manufacturer: Subject to compliance with requirements, provide products by NDS, Inc., Lindsay, CA; Website www.ndspro.com. Substitutions, if allowed, must have prior approval by Architect.

2.2 PRE-SLOPED CHANNEL DRAINS

- A. Dura Slope Channel Drain:
 - 1. Description: 6-5/8-inch wide trench drain system
 - a. Material: Molded, gray, structural-foam polyethylene with UV inhibitor
 - b. Built-In Slope: 0.7 percent
 - c. Inside Diameter: 4 inches
 - d. Bottom Radius: 2 inches
 - e. Each Modular Channel Section: 4-feet long. Molded bottom outlet
 - f. Pre-Installed Pro Fit Locking System: Locks grate to integral frame
 - g. Level Loc Integral Rebar Supports: Located at 24-inch intervals along each side of channel contain internal protruding knob to grip No.4 rebar to provide channel height adjustment during installation
 - h. Dura Loc Tongue-and-Groove Ends: Connect to allow for precise fit and straight channel runs

2.3 CHANNEL GRATES

- A. Dura Slope 2-Foot Ductile Iron Channel Grate:
 - 1. Part Number: DS-232.
 - 2. Description: 2-foot, heavy-duty, ductile iron, channel grate.
 - 3. Grate Openings: 5/16 inch by 4-11/16 inches.
 - 4. Open Surface Area: 15.27 square inches per foot.
 - 5. Inlet Capacity: 20.00 gpm per foot.
 - 6. Load: 326 to 575 psi. H-20 rated at speeds less than 20 mph.
 - 7. Color: Black

2.4 IN-LINE CATCH BASINS

- A. Dura Slope In-Line Catch Basin:
 - 1. Part Number: DS-140.
 - 2. Description: 6-5/8-inch wide catch basin.
 - a. Material: Structural-foam polyethylene with UV inhibitor.
 - b. Module Size: 2-feet long by 2-feet deep.
 - c. Pre-Installed Pro Fit Locking System: Locking devices for grating.
 - d. Level Loc Integral Rebar Supports: Located along each side of catch basin contain internal protruding knob to grip No.4 rebar to provide height adjustment during installation.
 - e. Dura Loc Tongue-and-Groove Ends: Connect to allow for precise fit and straight channel runs.
 - f. End Outlet: Capped
 - 3. Color: Gray

2.5 ACCESSORIES

- A. Pro Fit Grate Lock:
 - 1. Part Number: DS-122.
- B. Universal End Cap Screws:
 - 1. Part Number: DS-123
- C. Universal End Cap:
 - 1. Part Number: DS-124.
- D. Universal End Outlet:
 - 1. Part Number: DS-127.
- E. Bottom Outlet Adapter:
 - 1. Part Number: DS-126.
- F. Grate Screws:
 - 1. Part Number: 629.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive pre-sloped channel drain system. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 INSTALLATION

- A. Install pre-sloped channel drain system in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Excavate trench to ensure proper thickness of concrete beneath and on both sides of channel is maintained and in accordance with designed load range.
- C. Dura Slope channel drain sections shall be installed in accordance with plan elevations and details.

- D. Ensure directional flow arrows located on bottom of channel are pointing in direction of flow, toward catch basin and/or evacuation outlet.
- E. Catch basins shall be installed at required elevation as located on plans and/or details.
- F. Apply silicone sealant to joints of Dura Slope channel drain system as directed by Architect and/or Engineer for watertight joint integrity.
- G. Ensure Blank Grate Inserts are installed if removed during installation procedure. Loosen grate screws to slide Blank Grate Inserts longitudinally to ensure joint alignment is maintained during concrete placement. Tighten grate screws to maintain Blank Grate Insert placement.
- H. Concrete:
 - 1. Place concrete beneath and on both sides of drain system in accordance with specified load design and plan details.
 - 2. Ensure concrete has a minimum compressive strength of 3,500 psi at 28 days.
 - 3. Concrete shall be as specified in Section 033000.
- I. Recess top of drain system 1/8" below concrete finish grade for pedestrian applications and 1/4" for traffic bearing applications.
- J. Allow concrete to cure to specified compressive strength. Remove Blank Grate Inserts, save grate screws and dispose of Blank Grate Inserts in a proper manner. Blank Grate Inserts are recyclable and should be recycled if proper facilities exist. Install final grate selection using saved grate screws. Insure sediment and debris does not collect in Dura Slope channel.
- K. Clean Dura Slope channel and Dura Slope Catch Basin basket of any accumulated sediment and/or debris prior to final project completion.

3.3 PROTECTION

- A. Protect installed pre-sloped channel drain system from damage during construction.

END OF SECTION 33 44 16