

CITY OF DURHAM, NORTH CAROLINA

Household Hazardous Waste Facility

New Facility Permit Application



APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
Date 06/10/2014 By Patricia M. Beckel
DIN 21233
Attachment 1 Part II Document 2
Permit 3212-HHW-2014 Permit DIN 21234

CITY OF DURAM

SOLID WASTE MANAGEMENT DEPARTMENT

FEBRUARY 2014

DURHAM



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CITY OF DURHAM

CITY OF DURHAM

Department of Solid Waste Management
101 CITY HALL PLAZA 27701
1833 CAMDEN AVENUE | DURHAM, NC 27704
919.560.4186 | F 919.560.1197



February 20, 2014

Patricia Backus, P.E.
Environmental Engineer
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

Ms. Backus:

Please find enclosed a signed copy of an application for the City of Durham Household Hazardous Waste facility currently operating under existing permit #**32-10-HHW** located at 1900 E. Club Blvd Durham, NC 27704. The current HHW facility is located on the North Durham Water Reclamation Facility. As discussed, the City of Durham is in the process of relocating its HHW facility to the Transfer Station (across the street) located at 2115 E. Club Blvd which operates under (PTO) **32-12T**.

Understanding that the current permit, **32-10-HHW**, expires on October 16, 2014; the City of Durham would like to apply for a **new permit** to allow for the construction and relocation of the HHW facility from its current location to the property at the Transfer Station Convenience Center area. The construction for the new facility is scheduled to begin on **March 19, 2014**. By applying for a new permit to operate, it is understood that the old PTO will be listed as "cleaned and closed."

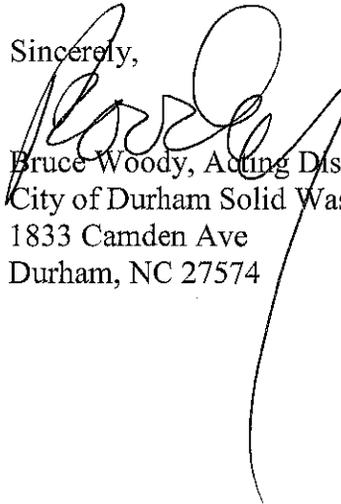
Included in this packet are the following documents:

- **An application:** with current name of the facility and permit number,
- With the address of the facility,
- With the name, address, telephone, fax number, and email address of the designated contact person, and
- With the name, address, telephone, fax number, and email address of the receiver of the permit and future invoices (same as contact person).

- **Existing location description of property:** Located on the property of the City of Durham North Durham Water Reclamation facility; physical address of 1900 E. Club Blvd. Durham, NC 27704. Main collection facility is a prefabricated metal building extended from a brick permanent structure.
- **Description of new facility:** The new facility will be relocated from its present location **to 2115 E Club Blvd** (across the street) in the area currently known as the City of Durham Convenience Center. The design will use an area approximately 45 feet X 100 feet of dedicated operations space (**see C-002 of the included site plans**). A Steel Fabricated Canopy structure on existing concrete will be erected, along with footings, containment curb, curb and gutters. A modular prefabricated HHW storage unit will be purchased and installed by the contractor.
- The new facility will be designed and constructed in accordance with all applicable state and local construction codes including fire codes which address hazardous materials.
- **Copy of Site plans enclosed.**
- **Construction schedule enclosed.**
- **A copy of the construction contract is enclosed.**
- **Copies of verifying the property deeds are enclosed.**
- **Copy of revised Operation Plan enclosed.**

All requested documents have been enclosed per your request. If you determine additional information is needed, please contact me immediately. Thank you.

Sincerely,



Bruce Woody, Acting Disposal Manager
City of Durham Solid Waste Management
1833 Camden Ave
Durham, NC 27574

Floodplain Map

Construction Plans

DEVELOPMENT TEAM

OWNER
 CITY OF DURHAM
 101 CITY HALL PLAZA
 DURHAM, NC 27701
 919-560-1200

BUILDING ENGINEER
 CHA COMPANIES
 8720 RED OAK BLVD, STE 505
 CHARLOTTE, NC 28217-4938
 CONTACT: ADAM HOGAN
 (704) 527-3227

SITE ENGINEER
 CH ENGINEERING, PLLC
 3220 GLEN ROYAL ROAD
 RALEIGH, NC 27617
 CONTACT: ERIC TWEED
 919-788-0224

- SHEETS**
 C-001: COVER
 C-002: DEMOLITION PLAN & EXISTING CONDITIONS
 C-003: SITE PLAN
 C-004: SITE DETAILS
 S-001: GENERAL NOTES & DESIGN
 S-101: FOUNDATION PLAN
 S-201: ROOF FRAMING PLAN
 S-401: SECTIONS AND TYPICAL SECTIONS, DETAILS AND SCHEDULES
 E-001: ELECTRICAL LEGEND AND ABBREVIATIONS
 E-101: ELECTRICAL LIGHTING AND POWER PLAN

CITY OF DURHAM HOUSEHOLD HAZARDOUS WASTE CUSTOMER DROP-OFF FACILITY

2115 EAST CLUB BLVD
 DURHAM, NC 27704

PIN: 0842-01-18-1935

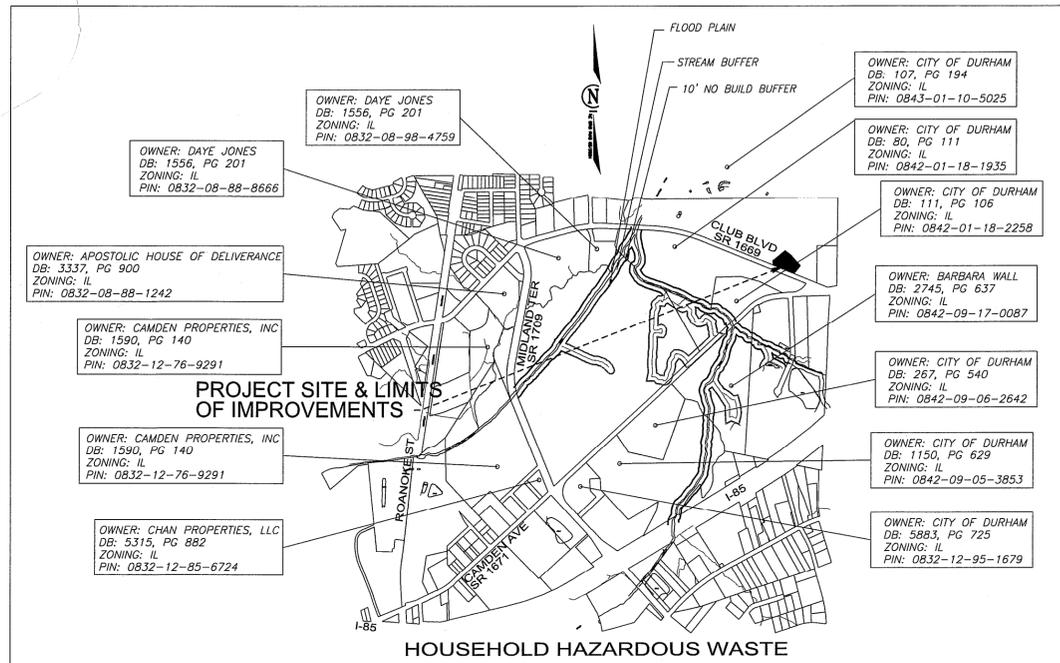
- RESOURCE ORDINANCE COMPLIANCE**
 -FLOODPLAIN PROTECTION: PROJECT AREA IS 1350' FROM CLOSEST MAPPED FLOODPLAIN
 -STEEP SLOPE PROTECTION: STEEP SLOPES EXIST ON SITE, BUT ARE NOT WITHIN THE PROJECT LIMITS.
 -WETLANDS PROTECTION: NO WETLANDS ARE WITHIN PROJECT LIMITS.
 -STREAM BUFFERS: STREAMS EXIST ON PROPERTY BUT NOT WITHIN PROJECT LIMITS.

SITE DATA TABLE

SITE AREA: 68.91 AC PIN: 0842-01-18-1935 USE: PUBL SVC/ SEWER & WATER ZONING: IL DEVELOPMENT TIER: SUBURBAN FLOOD ELEV: APPROX. 295 FT FIRM PANEL 0842J EFFECTIVE MAY 2, 2006	IMPERVIOUS SURFACE: ADDING 0 SF= 0.00 AC PERCENT INCREASED=0.00%
CANOPY GSF = 3,335 SF CANOPY HEIGHT = 20FT (1 STORY)	OPEN SPACE/EXISTING: NA WATERSHED OVERLAY: F/J-B RIVER BASIN: NEUSE
SETBACKS: REAR: 25' FRONT: 40' SIDE: 20' CORNER: 40'	TOTAL DISTURBED AREA: 1100SF BICYCLE PARKING NOT REQ'D PARKING SPACES NOT REQ'D
BUFFERS: REAR: N/A FRONT: N/A SIDE: N/A CORNER: N/A	

GENERAL STANDARD NOTES:

- TOPOGRAPHIC INFORMATION AND STRUCTURE & UTILITY LOCATIONS TAKEN FROM SURVEY PROVIDED BY CITY OF DURHAM. UNDERGROUND SUE INFORMATION SHOWN IS APPROXIMATE AND MAY NOT BE A COMPLETE REPRESENTATION OF UNDERGROUND UTILITIES PRESENT AT THE SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES AND REPAIRING ANY BROKEN DURING CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR QUANTITIES. ANY NON-LANDSCAPING QUANTITIES GIVEN IN THE PLANS ARE APPROXIMATE AND ARE PROVIDED AS AN ESTIMATE. CONTRACTOR SHALL VERIFY DIMENSIONS AT THE SITE.
- TREE PROTECTION NOTE: TREE PROTECTION FENCING MUST BE IN PLACE PRIOR TO ANY DEMOLITION, LAND DISTURBANCE OR ISSUANCE OF A GRADING PERMIT AND SHALL INCLUDE WARNING SIGNS POSTED IN BOTH ENGLISH AND SPANISH. AS FOLLOWS: "NO TRESPASSING/TREE PROTECTION AREA/ PROHIBIDO ENTRAR/ ZONA PROTECTORA PARA LOS ARBOLES."
- ROOT ZONE PROTECTION AREA: EQUALS ONE FOOT OF RADIUS FOR EVERY INCH OF DIAMETER OF EXISTING TREES, OR SIX FOOT RADIUS, WHICHEVER IS GREATER. NO DISTURBANCE ALLOWED WITHIN THIS AREA. AREA MUST BE PROTECTED WITH BOTH TREE PROTECTION FENCING AND WARNING SIGNS.
- JOB SITE COPY: A COPY OF THE APPROVED SITE PLAN MUST BE ON SITE AND AVAILABLE FOR PERIODIC INSPECTION AND USE DURING CONSTRUCTION TO EVALUATE COMPLIANCE WITH THE APPROVED SITE PLAN. REQUIRED INSPECTIONS WILL NOT TAKE PLACE IF THE JOBSITE COPY IS NOT AVAILABLE AND RE-INSPECTION FEES WILL BE CHARGED.



- UDO SIGHT LIGHTING NOTE: MEASURES SHALL BE PROVIDED TO PREVENT LIGHT SPILLOVER ONTO ADJACENT PROPERTIES AND GLARE TOWARD MOTOR VEHICLE OPERATORS AND SHALL BE INDICATED ON THE SITE PLAN. EXTERIOR LIGHTS SHALL BE SHIELDED SO THAT THEY DO NOT CAST DIRECT LIGHT BEYOND THE PROPERTY LINE. IN ACCORDANCE WITH THESE STANDARDS:
 A. THE MAXIMUM ILLUMINATION AT THE EDGE OF THE PROPERTY LINE ADJACENT TO RESIDENTIAL ZONING IS 0.5 FOOT CANDLES.
 B. THE MAXIMUM ILLUMINATION AT THE EDGE OF THE PROPERTY LINE ADJACENT TO NONRESIDENTIAL ZONING IS 5.0 FOOT CANDLES.
 C. THE MAXIMUM ILLUMINATION AT THE EDGE OF THE PROPERTY LINE ADJACENT TO A STREET IS 5.0 FOOT CANDLES.
 D. THE LEVEL OF ILLUMINATION AS MEASURED IN FOOT CANDLES AT ANY ONE POINT SHALL MEET THE STANDARDS IN THE TABLE IN UDO SECTION 7.4.3A WITH MINIMUM AND MAXIMUM LEVELS MEASURED ON THE PAVEMENT WITHIN THE LIGHTED AREA.
 E. THE MAXIMUM HEIGHT FOR DIRECTIONAL OR FULL CUT-OFF LIGHTING FIXTURES (FIXTURES DESIGNED TO INSURE THAT NO LIGHT IS EMITTED ABOVE A HORIZONTAL LINE PARALLEL TO THE GROUND) SHALL BE 30 FEET ABOVE GRADE (MEASURED TO THE TOP OF THE FIXTURE).
 F. THE MAXIMUM HEIGHT FOR NON-DIRECTIONAL LIGHTING FIXTURES, WHICH ARE DEFINED AS FIXTURES DESIGNED TO ALLOW LIGHT TO BE EMITTED ABOVE A HORIZONTAL LINE PARALLEL TO THE GROUND, SHALL BE 15 FEET ABOVE GRADE (MEASURED TO THE TOP OF THE FIXTURE).
 G. THESE STANDARDS MUST BE VERIFIED BY FIELD SURVEY (BY USE OF PHOTOMETRIC SURVEY) PRIOR TO THE CERTIFICATE OF COMPLIANCE BEING ISSUED. ALL OF THIS INFORMATION, INCLUDING DETAILS, WILL BE REQUIRED ON BUILDING PLANS PRIOR TO ISSUANCE OF BUILDING PERMIT.
- LANDSCAPE REINSPECTION FEE: EACH LANDSCAPING COMPLIANCE INSPECTION AFTER THE INITIAL INSPECTION WILL INCUR A REINSPECTION FEE, STARTING AT \$100 +4% TECHNOLOGY SURCHARGE. EACH SUBSEQUENT REINSPECTION WILL INCREASE BY \$100 +4% (EXAMPLE 1ST -\$104, 2ND -\$208, 3RD -\$312, ETC). PAYMENT MUST BE RECEIVED BY THE DURHAM CITY COUNTY PLANNING DEPT. PRIOR TO REINSPECTION.

SPECIAL CONDITIONS OF APPROVAL

GENERAL CONDITIONS OF APPROVAL

PUBLIC WORKS CONDITIONS OF APPROVAL

- ALL SIZES, MATERIALS, SLOPES, LOCATIONS, EXTENSIONS, AND DEPTHS FOR ALL PROPOSED UTILITIES (WATERLINES, SANITARY SEWER LINES AND STORM DRAINAGE CONVEYANCE SYSTEMS) SHALL BE REVIEWED AT CONSTRUCTION DRAWING SUBMITTAL AND SUBJECT TO APPROVAL BY THE CITY OF DURHAM PUBLIC WORKS DEPARTMENT BASED UPON THE DESIGN CRITERIA AND STANDARDS SET FORTH BY THE PUBLIC WORKS DEPARTMENT AND BE SUBJECT TO REVIEW AND APPROVAL BY THE PUBLIC WORKS DEPARTMENT AT CONSTRUCTION DRAWING SUBMITTAL.
- THE DESIGNING PROFESSIONAL (A NCPE, NCPLS OR NCRLA - AS REQUIRED) WILL SUBMIT 3 SETS OF CONSTRUCTION DRAWINGS TO CITY ENGINEERING FOR REVIEW AND APPROVAL BEFORE STARTING CONSTRUCTION (SEE CONSTRUCTION PLAN APPROVAL PROCESS). NOTE THE APPROVAL OF CONSTRUCTION DRAWINGS IS SEPARATE FROM SITE PLAN APPROVAL. (IF APPLICABLE)
- AS-BUILT DRAWINGS SHALL BE APPROVED PRIOR TO WATER METER AND SANITARY SEWER SERVICE CONNECTION INSTALLATIONS AND PRIOR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- WATER AND SEWER PERMITS NOT REQUIRED FOR THIS PROJECT.
- BACKFLOW PREVENTER PERMIT NOT REQUIRED FOR PROJECT.
- PROVIDE TWO (2) SETS OF APPROVED SITE PLAN DOCUMENTS TO ENGINEERING INSPECTIONS, 3RD FLOOR, 101 CITY HALL PLAZA, DURHAM, NC 27701 AT LEAST 5 DAYS PRIOR TO BEGINNING CONSTRUCTION. CONTACT ENGINEERING INSPECTIONS AT 560-4326 AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

CASE # D1200333
 APPROVAL BOX - FOR PLANNING DEPARTMENT USE

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 3220 GLEN ROYAL RD.
 RALEIGH, NC 27617
 TELE 919.788.0224
 FAX 919.788.0232
 ehmesa@ch-engine.com
 NC LICENSE #P-0189



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CITY OF DURHAM, NC
 HOUSEHOLD HAZARDOUS WASTE
 CUSTOMER DROP-OFF FACILITY
COVER SHEET

C-001

No.	By	Appri	Submital / Revision	Date
2	ert		SIA Review Comment FINAL DESIGN DRAWINGS	6-4-13 8-14-13

CITY OF DURHAM
 GENERAL SERVICES
 2011 FAY ST
 DURHAM, NC 27704

Designated: EMT	Drawn: EMT	Checked: MAC
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Issue Date: 06/04/13	Project No.: 24451	Scale: AS NOTED
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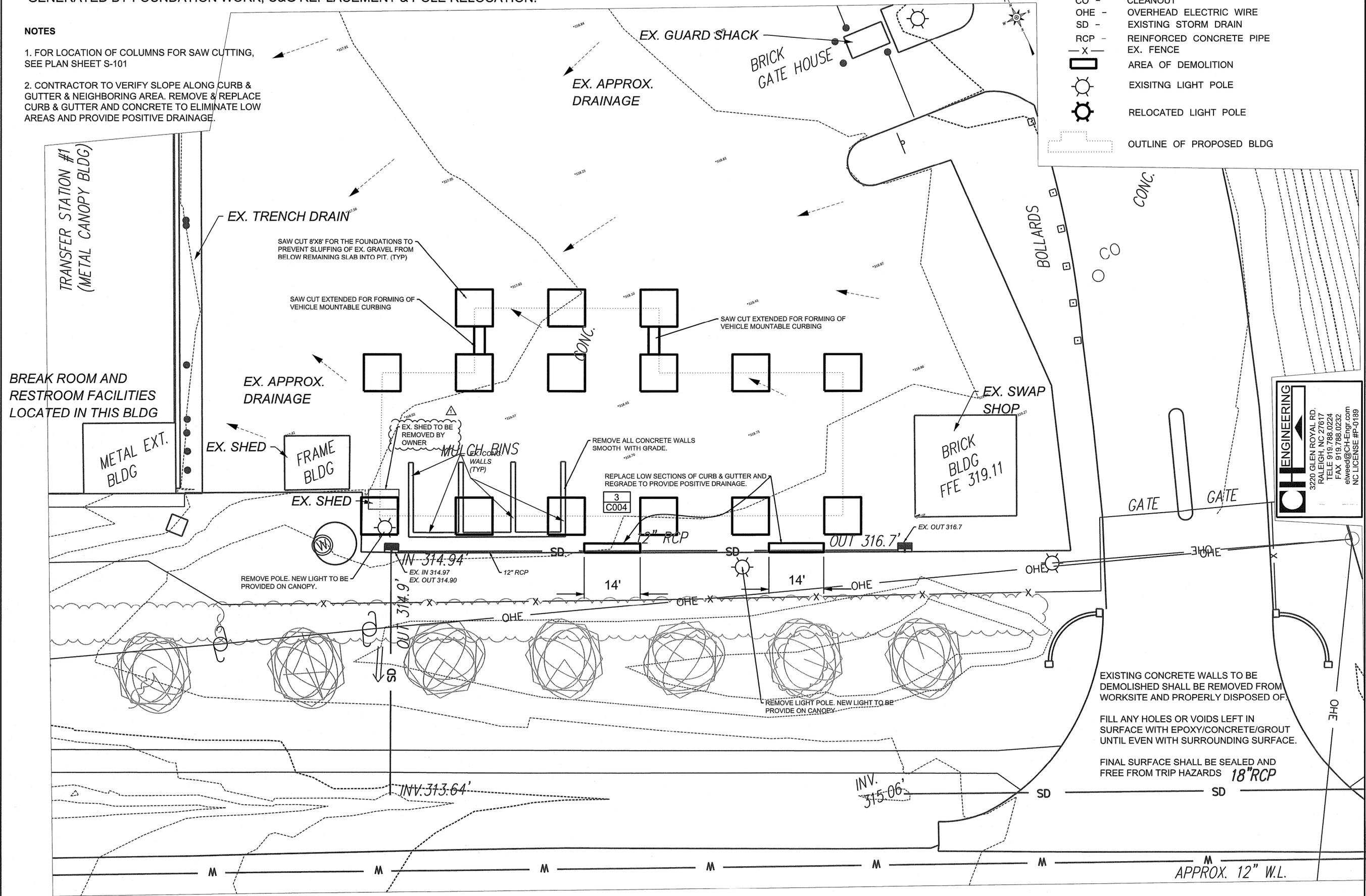
DISTURBED AREA: 5825 SF
GENERATED BY FOUNDATION WORK, C&G REPLACEMENT & POLE RELOCATION.

NOTES

- FOR LOCATION OF COLUMNS FOR SAW CUTTING, SEE PLAN SHEET S-101
- CONTRACTOR TO VERIFY SLOPE ALONG CURB & GUTTER & NEIGHBORING AREA. REMOVE & REPLACE CURB & GUTTER AND CONCRETE TO ELIMINATE LOW AREAS AND PROVIDE POSITIVE DRAINAGE.

LEGEND

- CO - CLEANOUT
- OHE - OVERHEAD ELECTRIC WIRE
- SD - EXISTING STORM DRAIN
- RCP - REINFORCED CONCRETE PIPE
- X- EX. FENCE
- [Box] AREA OF DEMOLITION
- [Sun] EXISTING LIGHT POLE
- [Gear] RELOCATED LIGHT POLE
- [Dashed] OUTLINE OF PROPOSED BLDG



EXISTING CONCRETE WALLS TO BE DEMOLISHED SHALL BE REMOVED FROM WORKSITE AND PROPERLY DISPOSED OF.

FILL ANY HOLES OR VOIDS LEFT IN SURFACE WITH EPOXY/CONCRETE/GROUT UNTIL EVEN WITH SURROUNDING SURFACE.

FINAL SURFACE SHALL BE SEALED AND FREE FROM TRIP HAZARDS **18" RCP**



APPROX. 12" W.L.

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Date	By	App'd	Revision
4-17-13			1ST SITE PLAN COMMENTS
8-14-13			FINAL DESIGN PLANS

CITY OF DURHAM
GENERAL SERVICES
 2011 FAY ST
 DURHAM, NC 27704



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Drawn: EMT Checked: MAC
 Designed: AS NOTED

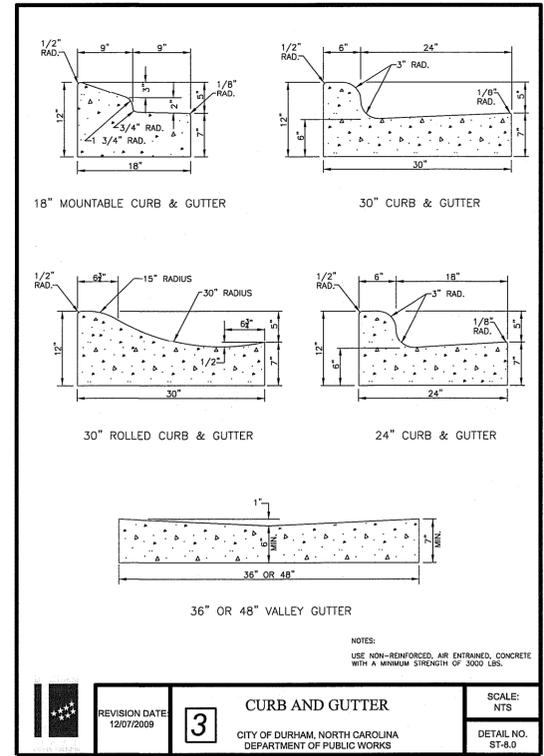
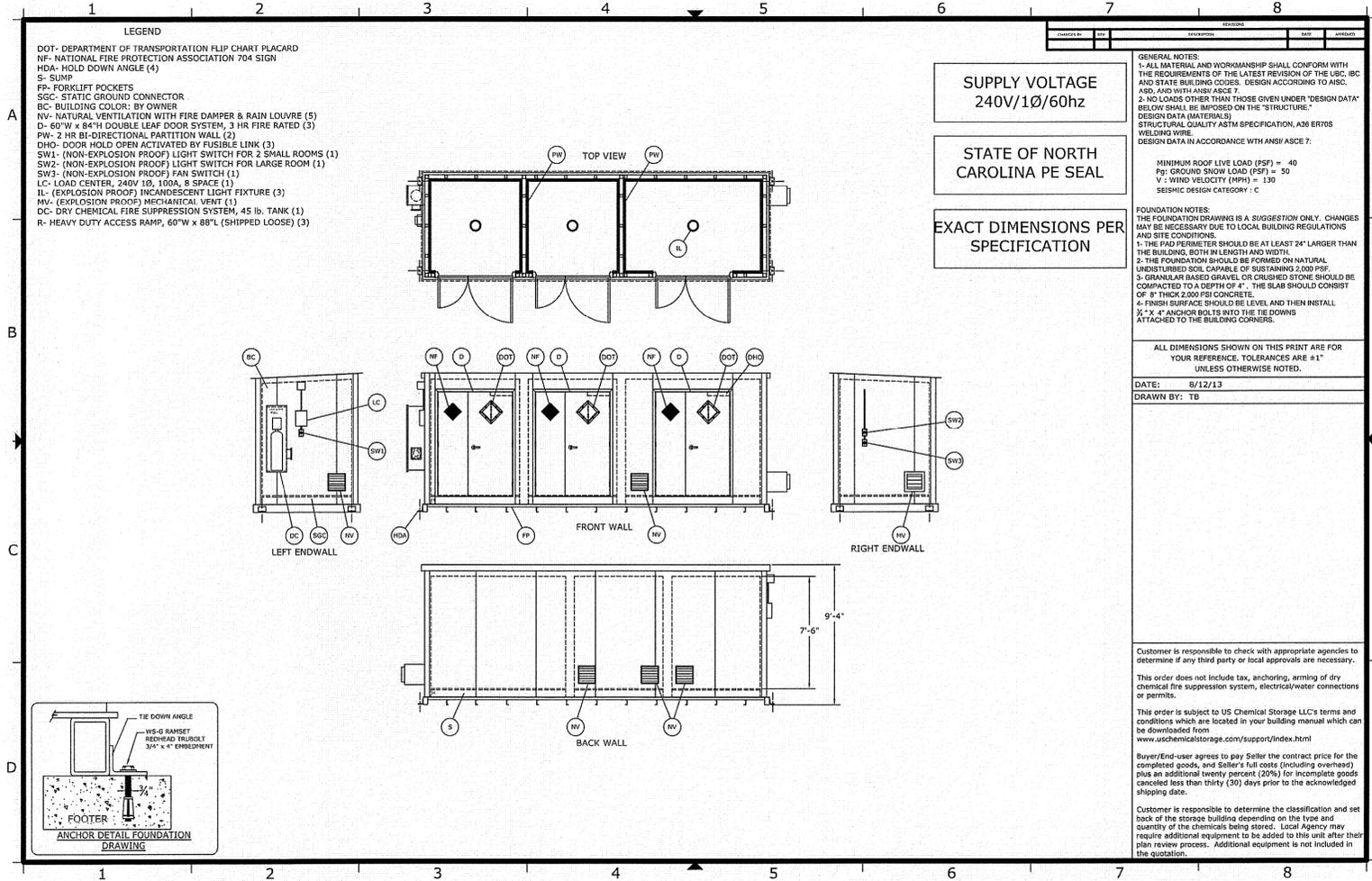
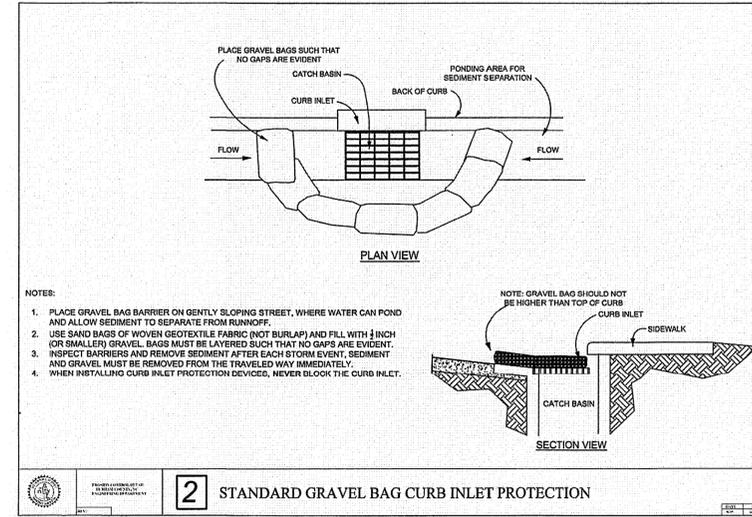
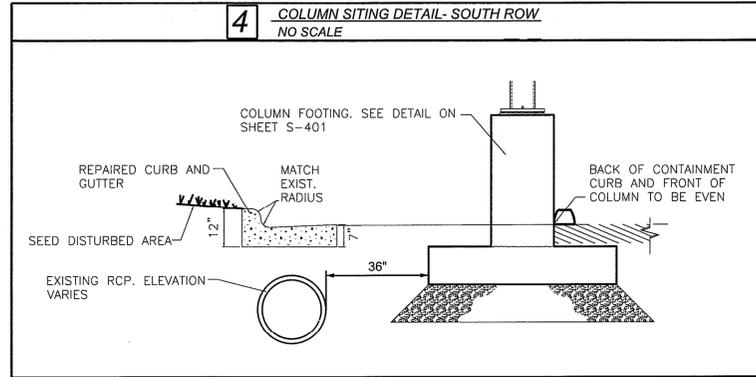
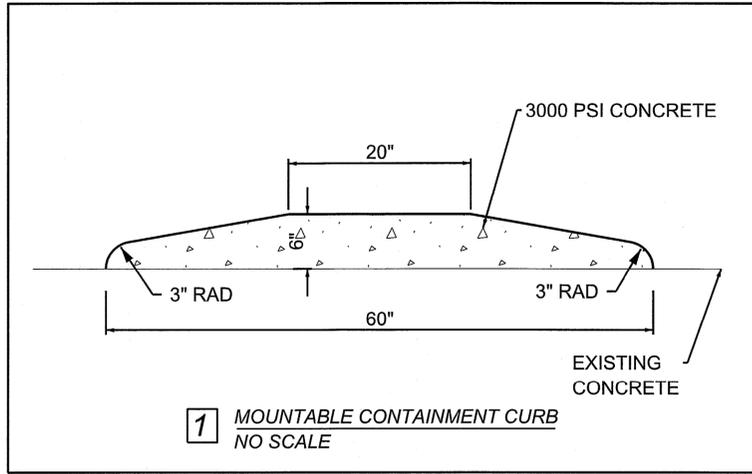
CITY OF DURHAM, NC
HOUSEHOLD HAZARDOUS WASTE
CUSTOMER DROP-OFF FACILITY

DEMOLITION PLAN
& EXISTING CONDITIONS

Issue Date: 06/04/13 Project No.: 24451 Scale: AS NOTED

C-002

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FOR CONSTRUCTION

Date	By	App'd	8-14-13
Submittal / Revision	FINAL DESIGN DRAWINGS		
No.			

CITY OF DURHAM
GENERAL SERVICES
2011 FAY ST
DURHAM, NC 27704

Professional Engineer Seal: SEAL 028812, ENGINEER, REG. M. THOMPSON, 4-15-12

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CITY OF DURHAM, NC
HOUSEHOLD HAZARDOUS WASTE
CUSTOMER DROP-OFF FACILITY

DETAILS

Project No.: 24451
Scale: AS NOTED
Issue Date: 06/04/13

C-004

GENERAL NOTES:

- ALL DIMENSIONS TO AND OF EXISTING STRUCTURES SHALL BE VERIFIED IN FIELD BY CONTRACTOR AND ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
- DO NOT CHANGE THE SIZE OR SPACING OF STRUCTURAL ELEMENTS WITHOUT THE APPROVAL OF THE ENGINEER.
- DETAILS SHOWN ARE TYPICAL AND APPLY TO SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
- BRACE STRUCTURE AS REQUIRED FOR CONSTRUCTION AND WIND LOADS UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: ROOF DECK, BRACING MEMBERS, ETC.
- THE DESIGN IS BASED ON THE 2012 NORTH CAROLINA BUILDING CODE.
- CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE/SHE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS/HER FAILURE TO LOCATE AND PRESERVE ALL UNDERGROUND UTILITIES.
- INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE PRE-APPROVAL BY THE ENGINEER.
- EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE AND COORDINATE HIS/HER WORK WITH THE WORK OF OTHERS.
- VERIFY SIZE AND LOCATION OF OPENINGS PRIOR TO BEGINNING WORK. FOR DIMENSIONS NOT SHOWN, SEE ELECTRICAL AND CIVIL DRAWINGS.

FOUNDATION AND SOIL PREPARATION NOTES:

- THE FOUNDATION DESIGN IS BASED ON AN ASSUMED ALLOWABLE SOIL BEARING PRESSURE OF 1,000 POUNDS PER SQUARE FOOT. BEARING STRATUM FOR FOOTINGS SHALL BE VERIFIED IN FIELD BY THE GEOTECHNICAL ENGINEER BEFORE PLACING CONCRETE FOOTINGS.
- BOTTOM OF ALL FOOTINGS SHALL BE A MINIMUM OF 1'-0" BELOW FINAL FINISHED GRADE. ADJUST FOOTING ELEVATIONS AS REQUIRED TO MAINTAIN MINIMUM FROST COVER.
- PROVIDE POSITIVE DRAINAGE FOR ALL TRENCHES DURING CONSTRUCTION. DO NOT ALLOW ANY PONDING OF WATER DURING CONSTRUCTION.
- DO NOT PLACE FOOTINGS IN WATER OR ON FROZEN GROUND. DO NOT ALLOW GROUND BENEATH FOOTINGS TO FREEZE.
- BEAR ALL FOOTINGS ON A BASE COURSE OF CLEAN, COMPACTED #57 CRUSHED STONE A MINIMUM OF 6" THICK UNDERLAIN BY STRUCTURAL FILL OR NATIVE UNDISTURBED SOIL AS APPROVED BY THE GEOTECHNICAL ENGINEER. SOIL BEARING SURFACES, PREVIOUSLY ACCEPTED BY OWNER'S REPRESENTATIVE, WHICH ARE ALLOWED TO BECOME SATURATED, FROZEN OR DISTURBED SHALL BE REWORKED TO SATISFACTION OF OWNER'S REPRESENTATIVE.
- STRUCTURAL FILL AND SELECTED FILL: SOUND, DURABLE, SAND, GRAVEL, STONE, OR BLENDS OF THESE MATERIALS, FREE FROM ORGANIC, FROZEN OR OTHER DELETERIOUS MATERIALS, AND MEETING THE FOLLOWING GRADATION REQUIREMENTS:

SI-EVE	PERCENT PASSING
4"	100
NO. 40	0-70
NO. 200	0-10

- FINES PASSING NO. 200 SHALL BE NON-PLASTIC.
 - PARTICLE SIZE ANALYSIS SHALL SHOW NO GAP GRADING.
- THE SOIL BENEATH THE FOOTINGS SHALL BE TREATED AS FOLLOWS:
 - PERFORM ALL CUT OPERATIONS.
 - THE FILL REQUIRED TO RAISE THE BEARING SURFACE TO BENEATH THE FOOTINGS SHALL BE EITHER ON SITE FILL OR SELECT (STRUCTURAL) FILL. THE SELECT FILL SHALL HAVE A PLASTICITY INDEX BETWEEN 4 AND 12 AND A LIQUID LIMIT LESS THAN 40. PLACE ALL FILL (ON SITE OR SELECT) FILL IN 8-INCH LIFTS AND COMPACT TO AT LEAST 95% OF THE STANDARD PROCTOR DENSITY AT A MOISTURE CONTENT WITHIN -3 AND +3 PERCENTAGE POINTS OF OPTIMUM.
 - ALL FOOTINGS SHALL BEAR ON A BASE COURSE OF CLEAN, COMPACTED CRUSHED STONE A MINIMUM OF 6" THICK.
 - EACH LIFT SHALL BE TESTED FOR MOISTURE CONTENT AND IN PLACE DENSITY AT A RATE OF ONE TEST PER 3,000 SQUARE FEET (MINIMUM OF THREE PER LIFT).
 - SUBMITTALS:
 - PRIOR TO DELIVERY OR USE OF ANY FILL MATERIAL, THE TESTING LABORATORY SHALL SUBMIT THE FOLLOWING REPORTS OF EACH MATERIAL:
 - DESCRIPTION OF MATERIAL
 - GRADATION ANALYSIS
 - MODIFIED PROCTOR LABORATORY COMPACTION TESTS PER ASTM D1557.
 - FIELD REPORTS OF IN PLACE SOIL DENSITY TESTS CALIBRATED FROM THE MODIFIED PROCTOR LABORATORY COMPACTION TEST.

CAST-IN-PLACE CONCRETE NOTES:

- ALL CONCRETE SHALL HAVE A 28 DAY DESIGN COMPRESSIVE STRENGTH OF 4,000 PSI, A MINIMUM OF 564 POUNDS OF PORTLAND CEMENT PER CUBIC YARD, MID OR HIGH RANGE WATER REDUCING AGENT, AND A 4-6 INCH SLUMP. 20% OF CLASS F FLYASH MAY BE USED WITH THE APPROVAL OF THE ENGINEER AND THE CONCRETE FINISHER/CONTRACTOR BEFORE BIDDING. CONCRETE SHALL BE AIR ENTRAINED FOR MODERATE EXPOSURE PER ACI TABLE 4.2.1. TOLERANCE ON AIR CONTENT AS DELIVERED SHALL BE +/- 1.5 PERCENT.
- CONCRETE SHALL HAVE A MAXIMUM WATER TO CEMENT RATIO AS FOLLOWS:
 - 4,000 PSI CONCRETE - 0.46
- PLACEMENT OF CONCRETE SHALL BE IN CONFORMANCE WITH ACI 117-06 "SPECIFICATION FOR TOLERANCE FOR CONCRETE AND MATERIALS AND COMMENTARY".
- IF THE AIR TEMPERATURE IS GREATER THAN 90 DEGREES WITHIN 24 HOURS AFTER PLACEMENT, HOT WEATHER CONCRETE PROCEDURES SHALL BE USED. THE CONTRACTOR SHALL SUBMIT A PROCEDURE TO THE ENGINEER FOR APPROVAL. THESE PROCEDURES MAY INCLUDE THE FOLLOWING:
 - PLACING THE CONCRETE IN THE EARLY MORNING HOURS
 - THE USE OF EVAPORATION REDUCER (SEE BELOW)
 - THE USE OF MISTING AS A CURING METHOD
 - THE USE OF WET BLANKETS AS A CURING METHOD
 - THE USE OF A RETARDING ADMIXTURE (NOT PREFERABLE)
- FOUR 4"x8" CONCRETE CYLINDERS SHALL BE MADE FOR EVERY 50 CUBIC YARDS OR EACH DAY'S POUR, TO BE TESTED AT 7 DAYS, 28 DAYS, 28 DAYS AND ONE TO HOLD. THE CONCRETE SLUMP, TEMPERATURE, AND AIR CONTENT SHALL BE MEASURED EVERY TIME A SET OF FOUR CYLINDERS IS MADE.

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE AMERICAN CONCRETE INSTITUTE STANDARDS "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318) AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301). SPLICES IN REINFORCEMENT SHALL MEET CLASS B TENSION LAP REQUIREMENTS UNLESS NOTED OTHERWISE.
- COVER FOR ALL REINFORCEMENT SHALL MEET THE COVERAGE REQUIREMENTS AS SHOWN IN THE LATEST ACI 318, OR AS SHOWN ON THE DETAILS. COVER DIMENSIONS SHOWN ON THE DETAILS CONTROL OVER ACI.
- ANY CONCRETE TO BE PLACED FURTHER THAN 16 FEET FROM THE END OF A CONCRETE TRUCK SHALL BE PUMPED WITH A COMMERCIAL CONCRETE PUMPING TRUCK OR OTHER PLACEMENT METHOD APPROVED BY THE ENGINEER. THE CONCRETE TRUCK SHALL NOT BE ALLOWED TO DRIVE OVER THE SUBGRADE OR THE SLAB REINFORCEMENT.
- REINFORCING STEEL SHALL BE DOMESTIC DEFORMED BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60. #4 REINFORCEMENT BARS AND SMALLER SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED IN THE FIELD. REINFORCEMENT GREATER THAN A #4 BAR MAY NOT BE BENT IN THE FIELD WITHOUT APPROVAL OF THE ENGINEER.
- DOWEL CONCRETE PIERS INTO FOOTINGS WITH DOWELS THE SAME SIZE AND SPACING AS VERTICAL REINFORCEMENT. EXTEND DOWELS TO WITHIN 3" OF BOTTOM OF FOOTING, TERMINATED WITH ACI STD. 90 DEGREE HOOK, UNLESS NOTED OTHERWISE.
- PROVIDE A ROUGH CONCRETE SURFACE (1/4" MINIMUM AMPLITUDE) AT THE INTERSECTION OF CONCRETE PIERS WITH THE TOP OF FOOTINGS. DO NOT PROVIDE A KEYWAY UNLESS SHOWN OR NOTED ON THE DRAWINGS
- PROVIDE 3/4" x 3/4" CHAMFER AT ALL EXPOSED CORNERS UNLESS NOTED OTHERWISE.
- CAST CONCRETE ON SLOPED SURFACES BEGINNING AT LOWEST ELEVATION AND CONTINUING MONOLITHICALLY TOWARD HIGHER ELEVATIONS UNTIL INTENDED POUR IS COMPLETED.
- REINFORCING BARS, BAR SUPPORTS, AND SPACERS SHALL BE DETAILED AND PROVIDED IN ACCORDANCE WITH THE LATEST ACI DETAILING MANUAL. USE WIRE-BAR SUPPORTS COMPLYING WITH CRSI SPECIFICATIONS. SUPPORTS SHALL NOT BE PLACED FURTHER THAN 4 FEET APART.
 - USE SUPPORTS WITH SAND PLATES OR HORIZONTAL RUNNERS WHERE BASE MATERIAL WILL NOT SUPPORT CHAIR LEGS. CONCRETE BLOCK OR CLAY MASONRY MAY NOT BE USED.
- SEE CIVIL DRAWINGS FOR EXACT LOCATIONS AND DETAILS OF CURBS.
- ADHESIVE ANCHORS WITH REBAR SHALL BE AS NOTED BELOW. INSTALL ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, WHICH INCLUDES CLEANING THE HOLE WITH AIR AND USING A MANUFACTURER APPROVED DISPENSING TOOL WITH MIXING NOZZLE.
 - INTO CONCRETE: HILTI HIT 150 MAX, SIMPSON SET HIGH STRENGTH EPOXY-TIE ANCHORING ADHESIVE OR APPROVED EQUAL.
- NO PIPING OR CONDUITS SHALL BE INSTALLED IN ANY CONCRETE WITHOUT THE APPROVAL OF THE ENGINEER.
- WATERSTOPS SHALL BE HYDROTITE CJ-1020-2K BY GREENSTREAK GROUP, INC, OR APPROVED EQUAL. SEE SECTIONS FOR LOCATIONS.
- ALL DOWELS, ANCHOR BOLTS, WATERSTOPS, AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT. FOR EMBEDDED ITEMS AND REQUIRED DETAILS, SEE CIVIL DRAWINGS. VERIFY SIZE AND LOCATION OF ALL OPENINGS.
- SEALANT FOR ISOLATION JOINTS SHALL BE SIKAFLEX 1A, BY SIKA CORP. OR APPROVED EQUAL.
- SUBMITTALS:
 - PRODUCT DATA FOR PROPRIETARY MATERIALS AND ITEMS, INCLUDING REINFORCEMENT AND FORMING ACCESSORIES, ADMIXTURES, PATCHING COMPOUNDS, FLY ASH, AND OTHERS AS REQUESTED BY ENGINEER.
 - SHOP DRAWINGS FOR FABRICATION, BENDING AND PLACEMENT FOR CONCRETE REINFORCEMENT COMPLYING WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL. DUPLICATION OF CONTRACT DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.
 - LABORATORY TEST REPORTS FOR CONCRETE MATERIALS AND MIX DESIGN TESTS. TEST REPORTS SHALL BE LESS THAN 12 MONTHS OLD.

STEEL NOTES:

- STRUCTURAL STEEL FABRICATION AND ERECTION SHALL CONFORM TO THE AISC MANUAL OF STEEL CONSTRUCTION.
- WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIETY.
- ANY CONNECTIONS WITHOUT WELD SYMBOLS SHALL BE AT A MINIMUM WELDED ALL AROUND WITH THE MINIMUM FILLET OR BUTT WELD SIZE.
- STRUCTURAL STEEL ANGLES, PLATES, ETC. SHALL CONFORM TO ASTM A36 REQUIREMENTS (36 KSI). STRUCTURAL STEEL W SHAPES SHALL CONFORM TO ASTM A992 (50 KSI). STRUCTURAL TUBING AND PIPES SHALL CONFORM TO THE ASTM A500 GRADE B REQUIREMENTS (46 KSI). ANCHOR RODS SHALL CONFORM TO ASTM F1554 GRADE 36.
- DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
- CONNECTIONS:
 - ALL BOLTED CONNECTIONS ARE TO BE 3/4" MINIMUM DIAMETER A325 TYPE N OR SC BOLTS IN STANDARD HOLES UNLESS NOTED OTHERWISE OR AS DETERMINED BY THE CONNECTION DESIGNER OR NOTED ON THE PLANS. DESIGN USING STANDARD HOLES UNLESS OTHERWISE NOTED OR REQUIRED FOR ERECTION.
 - MINIMUM CAPACITY OF BEAM CONNECTIONS: FOR CONNECTIONS NOT DETAILED, PROVIDE CONNECTION CAPACITY OF AT LEAST THAT REQUIRED BY PART 3 OF THE AISC MANUAL IN THE SECTION "MAXIMUM TOTAL UNIFORM LOAD TABLES" FOR LRFD DESIGN OR "ALLOWABLE LOADS ON BEAMS" FOR ALLOWABLE STRESS DESIGN, FOR THE GIVEN MEMBER AND STEEL SPECIFICATIONS. CONCENTRATED LOADS NEAR SUPPORTS MUST BE ADDED.
 - THE DESIGN SHEAR FOR EACH CONNECTION UNLESS NOTED ON THE DRAWINGS SHALL BE 110% OF THE REACTION FROM A UNIFORM LOAD OVER THE SPAN WHICH CREATES THE MAXIMUM DESIGN MOMENT FOR ROOF BEAM CONNECTIONS. THE MINIMUM REACTION SHALL BE 14 KIPS.
 - INDICATOR BOLTS EQUAL TO TENSION FOR CONTROL BOLTS OF THE LeJEUNE COMPANY OF MINNEAPOLIS, MINNESOTA (800-872-2658) SHALL BE USED.
 - CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER. USE MINIMUM OF TWO 3/4" DIAMETER A325 BOLTS PER CONNECTION.

- FRAME ALL OPENINGS IN ROOF DECK 8" OR LARGER WITH A STRUCTURAL STEEL MEMBER ON ALL SIDES EXCEPT WHERE A SIDE MAY BE WITHIN 1'-0" OF ANOTHER FRAMING MEMBER. FRAMING NOT REQUIRED FOR ROOF OPENINGS SMALLER THAN 8".
- PAINT ALL STRUCTURAL STEEL WITH A THREE COAT SYSTEM (TWO-COMPONENT ZINC PRIMER, HI-BUILD EPOXY, AND POLYURETHANE FINISH COAT). THE PAINT SYSTEM SHALL BE BY TRNEMEC, INC OR APPROVED EQUAL AND SHALL BE APPLIED ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS AND AS SPECIFIED BELOW. COLOR TO BE SELECTED BY OWNER.
 - SURFACE PREPARATION SHALL BE COMPLETED IN SHOP IN ACCORDANCE WITH SSPC SP-6 COMMERCIAL BLAST CLEANING. REMOVE ALL BLASTING RESIDUE. ALL SURFACES SHALL BE CLEAN AND DRY.
 - PRIMER SHALL BE APPLIED IN SHOP USING SERIES 90-97 TNAME-ZINC AT 2.5-3.5 MILS DFT.
 - FIELD SPOT TOUCH-UPS: PREPARE ALL RUSTED AND ABRADED AREAS IN ACCORDANCE WITH SSPC SP-11. TOUCH-UP PRIMER COAT AT 2.5-3.5 MILS DFT.
 - INTERMEDIATE COAT SHALL BE APPLIED IN FIELD USING TNAMEC SERIES N69-COLOR HI-BUILD EPOXOLINE II AT 2.0-3.0 MILS DFT.
 - FINISH COAT SHALL BE APPLIED IN FIELD USING TNAMEC SERIES 1075U-COLOR ENDURA-SHIELD II AT 2.0-3.0 MILS DFT.
- SUBMITTALS:
 - PRODUCT DATA OR MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR THE FOLLOWING PRODUCTS. INCLUDE LABORATORY TEST REPORTS AND OTHER DATA TO SHOW COMPLIANCE WITH SPECIFICATIONS.
 - STRUCTURAL STEEL INCLUDING CERTIFIED COPIES OF MILL REPORTS COVERING CHEMICAL AND PHYSICAL PROPERTIES.
 - HIGH STRENGTH BOLTS (EACH TYPE), INCLUDING NUTS AND WASHERS; FOR INFORMATION ONLY.
 - SHRINKAGE RESISTING GROUT.
 - STRUCTURAL STEEL PRIMER PAINT.
 - PAINT SYSTEM.
 - SHOP DRAWINGS PREPARED UNDER SUPERVISION OF A LICENSED STRUCTURAL ENGINEER, INCLUDING COMPLETE DETAILS AND SCHEDULES FOR FABRICATION AND ASSEMBLY. DUPLICATION OF CONTRACT DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.

ROOF DECK NOTES:

- ROOF DECK SHALL BE 1", NARROW RIB TYPE E, 20 GAGE AS SPECIFIED BY THE STEEL DECK INSTITUTE AND SHALL BE GALVANIZED. FASTEN ROOF DECK TO STEEL SUPPORTING MEMBERS BY #12 GALVANIZED TEK SCREWS WITH NEOPRENE WASHERS, SPACED NOT MORE THAN 12 INCHES AT EVERY SUPPORT. IN ADDITION, SECURE DECK TO EACH SUPPORTING MEMBER IN RIBS WHERE SIDELAPS OCCUR. SIDELAP SCREWS SHALL BE #10 OR LARGER GALVANIZED TEK SCREWS WITH NEOPRENE WASHERS. MECHANICALLY FASTEN SIDELAPS OF ADJACENT DECK UNITS BETWEEN SUPPORTS AT INTERVALS NOT EXCEEDING 30 INCHES ON CENTER. MINIMUM OF (1) FASTENER PER SPAN.
- PROVIDE L3X3X1/4 AROUND ALL ROOF PENETRATIONS NOT SHOWN, 8 INCHES OR GREATER, FOR METAL DECK SUPPORT.
- VERIFY SIZE, LOCATION, AND NUMBER OF ROOF OPENINGS WITH ELECTRICAL PLANS AND CONTRACTORS.
- SUBMITTALS:
 - PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF DECKING AND ACCESSORIES.
 - SHOP DRAWINGS SHOWING LAYOUT AND TYPES OF DECK UNITS, ANCHORAGE DETAILS AND CONDITIONS REQUIRING CLOSURE STRIPS AND OTHER ACCESSORIES. DUPLICATION OF CONTRACT DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.

DESIGN LOADS:

THE FOLLOWING DESIGN LOADS WERE USED FOR THIS BUILDING:

BUILDING OCCUPANCY CATEGORY: II

ROOF DEAD LOADS:	1 1/2" METAL DECK	2 PSF
	STRUCTURAL STEEL	6 PSF
	MEP	5 PSF
	TOTAL	13 PSF

ROOF LIVE LOAD: 20 PSF

ROOF SNOW LOAD:
 GROUND SNOW LOAD: 15 PSF
 FLAT-ROOF SNOW LOAD: 15 PSF
 SNOW EXPOSURE FACTOR: 0.9
 SNOW LOAD IMPORTANCE FACTOR: 1.0
 THERMAL FACTOR: 1.2

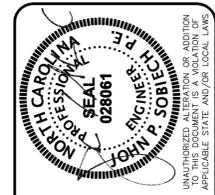
WIND DESIGN DATA:
 BASIC WIND SPEED (3 SECOND GUST): 90 MPH
 WIND IMPORTANCE FACTOR: 1.0
 WIND EXPOSURE CATEGORY: B
 INTERNAL PRESSURE COEFFICIENTS: 0
 ALL NEW COMPONENTS AND CLADDING NOT DESIGNED BY THE ENGINEER SHALL BE DESIGNED FOR 25 PSF UNLESS OTHERWISE APPROVED BY THE ENGINEER.

EARTHQUAKE DESIGN DATA:
 SEISMIC IMPORTANCE FACTOR: 1.0
 MAPPED SPECTRAL RESPONSE ACCELERATIONS: SS=0.1952 S1=0.0767
 SITE CLASS: D
 SEISMIC DESIGN CATEGORY: B
 BASIC SEISMIC-FORCE-RESISTING SYSTEM: STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
 DESIGN BASE SHEAR: 4.5 kips
 SEISMIC RESPONSE COEFFICIENT: Cs=0.0694
 RESPONSE MODIFICATION FACTOR: R=3.0
 ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE METHOD

VERIFICATION/INSPECTION		CONTINUOUS OBSERVATION	PERIODIC OBSERVATION
SCHEDULE OF SPECIAL INSPECTION - SOILS AND FOUNDATIONS			
1. SOILS			
a. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	-	X
b. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	-	X
c. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	X	-	-
d. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF FILL.	-	-	X
e. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PROPERLY PREPARED.	-	-	X
2. COMPACTION TESTING: ONE TEST FOR EACH SPREAD FOOTING AND FOR EACH 2,000 SF OF BUILDING AREA.	-	-	X
3. MOISTURE CONTENT TESTING OF SLAB SUBBASE. ONE TEST FOR EACH 2,000 SF OF BUILDING AREA. MINIMUM OF FOUR TESTS PER AREA.	-	-	X
SCHEDULE OF SPECIAL INSPECTION - CONCRETE			
1. INSPECTION OF REINFORCING STEEL AND PLACEMENT FOR GENERAL CONFORMANCE BEFORE EVERY POUR.			
a. FOOTINGS.	-	-	X
b. SLABS ON GRADE.	-	-	X
2. INSPECTION OF ANCHOR BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE.	X	-	-
3. VERIFYING USE OF REQUIRED DESIGN MIX, ALL SAMPLED TRUCKS BEFORE THEY ARE Poured.	-	-	X
4. SAMPLING FRESH CONCRETE AND PERFORMING SLUMP, AIR CONTENT, AND DETERMINING THE TEMPERATURE OF FRESH CONCRETE AT THE TIME OF MAKING	-	-	X
5. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	-
6. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	-	X
7. INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED. INSPECT FOR GENERAL CONFORMANCE BEFORE EVERY POUR.	-	-	X
SCHEDULE OF SPECIAL INSPECTION - STRUCTURAL STEEL			
1. VERIFY THAT FABRICATOR(S) MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES. REVIEW PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.			
2. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS:	-	-	X
a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED.	-	-	X
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	-	X
3. INSPECTION OF HIGH-STRENGTH BOLTING:	-	-	X
a. BEARING TYPE CONNECTIONS	-	-	X
4. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED DECK:	-	-	X
a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	-	-	X
b. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED.	-	-	X
c. MANUFACTURER'S CERTIFIED MILL TEST REPORTS REQUIRED.	-	-	X
5. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:	-	-	X
a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION.	-	-	X
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	-	X
6. INSPECTION OF WELDING OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:	-	-	X
a. SINGLE-PASS DECK WELDS <5/16"	-	-	X
b. ROOF DECK WELDS	-	-	X
7. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:	-	-	X
a. DETAILS SUCH AS BRACING AND STIFFENING.	-	-	X
b. MEMBER LOCATIONS.	-	-	X
c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-	-	X
8. INSPECT CONDITION OF ERECTED MATERIALS.	-	-	X
9. VERIFY COLUMN PLUMBNESS.	-	-	X
OBSERVATION PROGRAM NOTES:			
1. CONTRACTOR SHALL PAY FOR ALL TESTING PRIOR TO CONSTRUCTION TO VERIFY MATERIALS MEET SPECIFIED REQUIREMENTS.			
2. OWNER SHALL ENGAGE AND PAY FOR THE SERVICES OF THE REGISTERED DESIGN PROFESSIONAL, SPECIAL INSPECTOR, AGENTS OF THE SPECIAL INSPECTOR, AND TESTING LABORATORY FOR ALL TESTING DURING CONSTRUCTION.			
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ANY RE-TESTING OR RE-INSPECTION OF WORK, WHICH FAILS TO COMPLY WITH THE REQUIREMENTS.			
4. DUTY OF THE BUILDING OFFICIAL: PER THE 2009 IBC, IT IS THE RESPONSIBILITY OF THE BUILDING OFFICIAL TO REVIEW THIS PROGRAM FOR CONFORMANCE WITH THE BUILDING CODE AND NOTIFY THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE, BEFORE ISSUING A BUILDING PERMIT, IF ANY ADDITIONAL OBSERVATIONS WILL BE REQUIRED.			
5. DUTIES OF THE CONTRACTOR INCLUDE: <ol style="list-style-type: none"> COORDINATE AND COOPERATE WITH THE SPECIAL INSPECTOR. SCHEDULE INSPECTIONS AND TESTS AND NOTIFY THE SPECIAL INSPECTOR WHEN WORK IS READY FOR EACH OBSERVATION. MAKE ALL WORK ACCESSIBLE FOR OBSERVATION. KEEP A COPY OF ALL PLANS AND APPROVED SUBMITTALS ON THE SITE. NOTIFY THE SPECIAL INSPECTOR WHEN THE PROJECT HAS BEEN COMPLETED AND REQUEST A FINAL REPORT FROM THE LAB. 			
6. DUTIES OF THE SPECIAL INSPECTOR INCLUDE: <ol style="list-style-type: none"> TECHNICIANS SHALL ONLY PERFORM OBSERVATIONS THEY ARE QUALIFIED TO NOTIFY THE ENGINEER IF DEVIATIONS FROM THE PLANS ARE OBSERVED WHEN IT APPEARS THEY WILL NOT BE CORRECTED. FURNISH REPORTS FOR EACH OBSERVATION TO THE BUILDING OFFICIAL, ENGINEER, AND CONTRACTOR. SUBMIT A FINAL REPORT STATING ALL REQUIRED OBSERVATIONS HAVE BEEN MADE AND REPORTED. 			

No.	Date	By	App'd	RCS	CEC	B-14-13

CITY OF DURHAM
 GENERAL SERVICES
 2011 FAY ST
 DURHAM, NC 27704



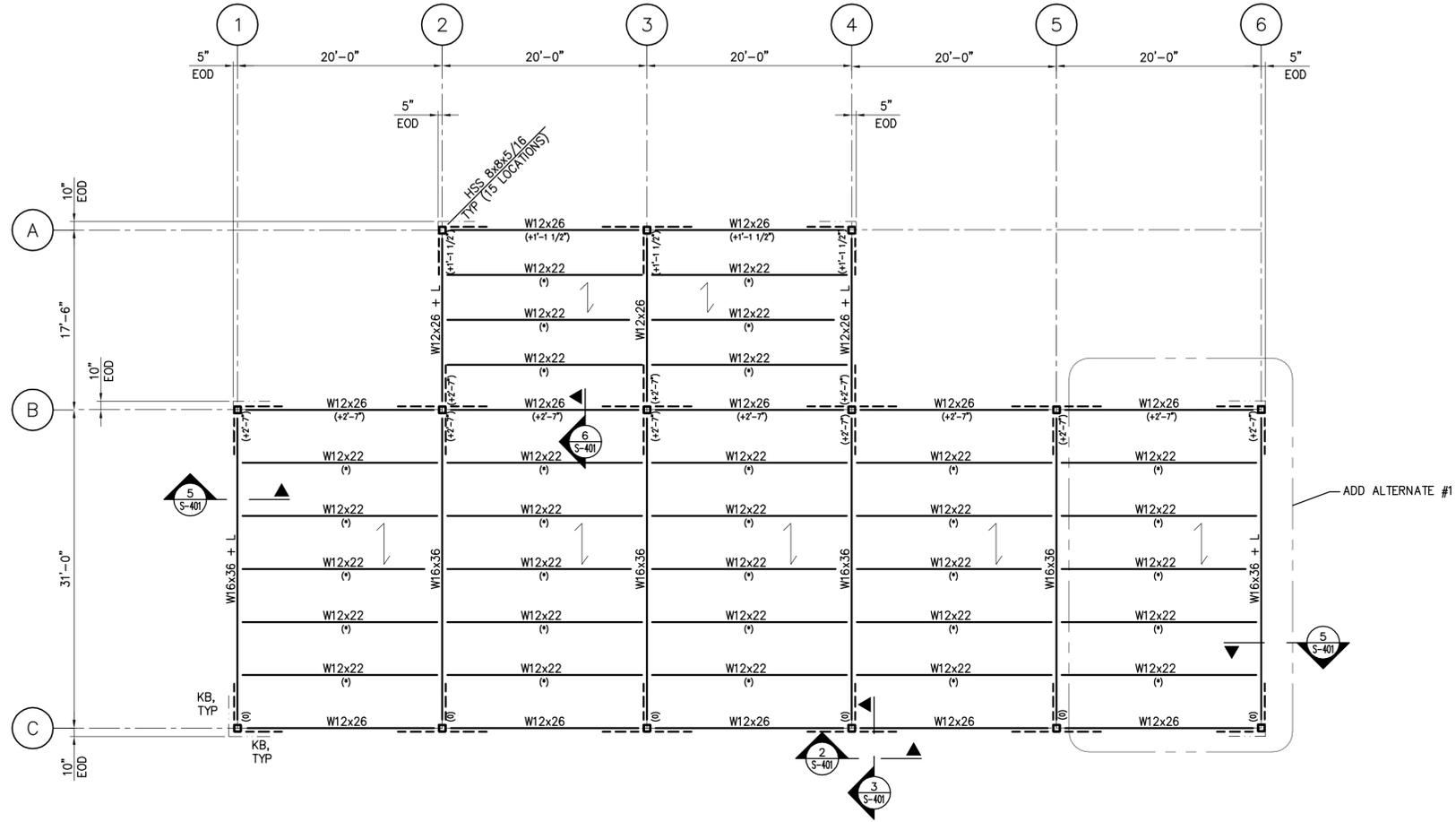
6720 Red Oak Boulevard, Suite 805 - Charlotte, NC 28217-4838
 Main: (704) 527-2527 - www.ch2.companies.com
 N.C. Engineering License: F-1168

Checked: CJJ
 Drawn: CEC
 Designed: EAB

CITY OF DURHAM, NC
 HOUSEHOLD HAZARDOUS WASTE
 CUSTOMER DROP-OFF FACILITY
 GENERAL NOTES AND DESIGN DATA

Issue Date: 08/14/13 | Project No.: 24451 | Scale: AS NOTED

S-001



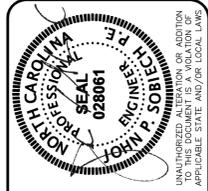
NOTES:

1. PROVIDE 1", 20 GAGE, GALVANIZED, TYPE E, NARROW RIB METAL DECK OVER ENTIRE AREA
2. DENOTES DIRECTION OF METAL DECK SPAN.
3. TOP OF STEEL (BOTTOM OF DECK) IS +15'-6" ABOVE REFERENCE ELEVATION UNLESS NOTED +/- THEREFROM.
4. BEAMS MARKED WITH AN ASTERISK (*) ARE AT THE SAME ELEVATION AS THE BEAM IT FRAMES INTO.
5. ALL BEAMS ARE EQUALLY SPACED ON PLAN UNLESS NOTED OTHERWISE.

ROOF FRAMING PLAN
 SCALE: 1/8"=1'-0"

No.	Submital / Revision	Appd.	By	Date
1	FINAL DESIGN DRAWINGS	RCS	CEC	08-14-13

CITY OF DURHAM
 GENERAL SERVICES
 2011 FAY ST
 DURHAM, NC 27704



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 6720 Red Oak Boulevard, Suite 505 - Charlotte, NC 28217-4838
 Main: (704) 527-3227 · www.ch2acompanies.com
 N.C. Engineering License F-1165

Designed: EAB | Drawn: CEC | Checked: CJJ

CITY OF DURHAM, NC
 HOUSEHOLD HAZARDOUS WASTE
 CUSTOMER DROP-OFF FACILITY
ROOF FRAMING PLAN

Issue Date: 08/14/13 | Project No.: 24451 | Scale: AS NOTED

S-201

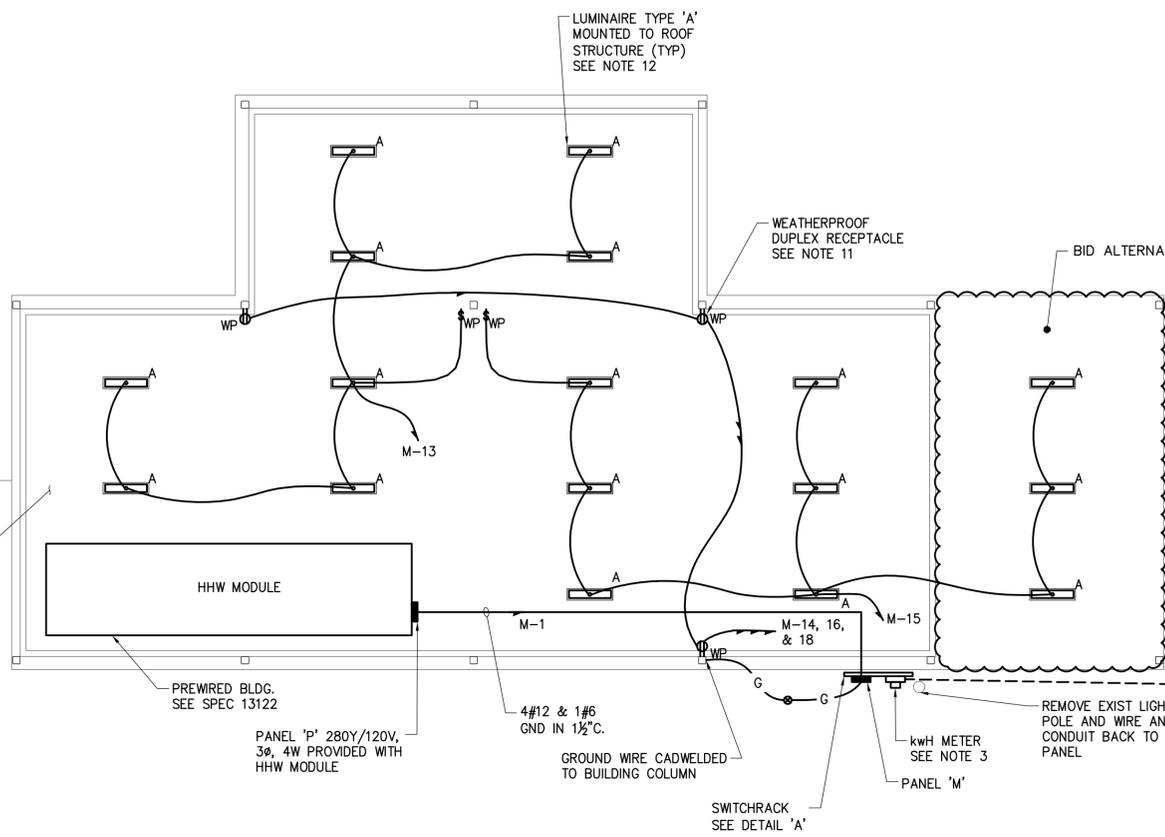
ELECTRICAL LEGEND

- WIRE IN EXPOSED CONDUIT
- WIRE IN UNDERGROUND CONDUIT
- WIRE IN CONDUIT HOME RUN TO PANEL
- GROUND WIRE
- WEATHERPROOF DUPLEX RECEPTACLE
- WEATHERPROOF LIGHT SWITCH
- CIRCUIT BREAKER PANELBOARD
- TYPE A LUMINAIRE
- COPPERWELD GROUND ROD, 3/4" DIA. x 10 FT. LONG
- HDBC** HARD DRAWN BARE COPPER
- C** CONDUIT
- AWG** AMERICAN WIRE GAUGE

EXISTING LOADING DOCK AND CANOPY

EXISTING METAL BUILDING

EXIST CONCRETE SLAB

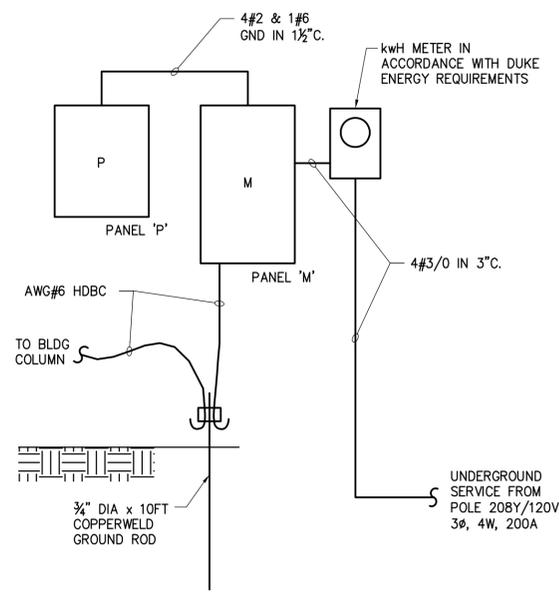


EXISTING SWAP SHOP

EXIST DUKE ENERGY POLE, SEE NOTE 2



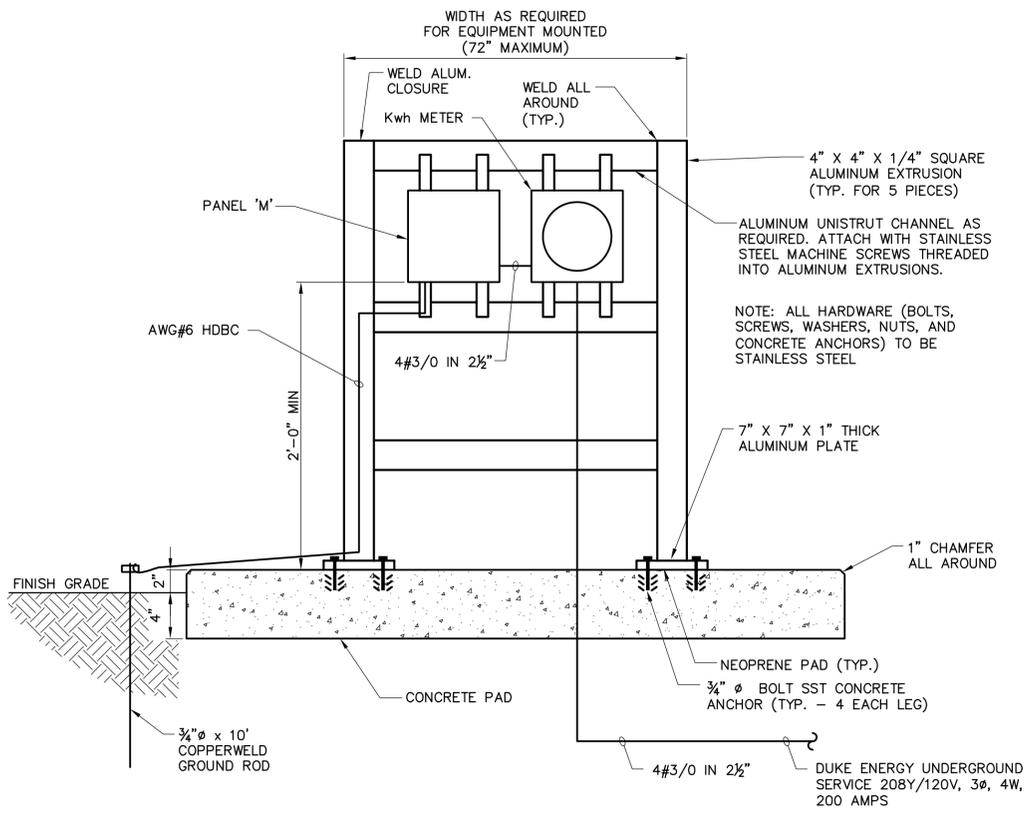
CANOPY PLAN - ELECTRICAL
1/8"=1'-0"



PANEL DESIGNATION: M				LOCATION: SWITCHRACK						
VOLTAGE: 208Y/120 VOLTS, 3Ø, 4 WIRE				MAIN: 200/3 MCB						
AMPERES: 200A				PANEL MOUNTING: NEMA 3R						
LOAD SERVED	CONNECTED LOAD (KVA)			CIRCUIT BREAKER	CKT NO.	LOAD (KVA)			LOAD SERVED	
	A	B	C			AMPS	POLES	A		B
HHW MODULE	3	3	3	100	3	1				SPARE
EQUIPPED SPACE						7				EQUIPPED SPACE
LIGHTS	0.5			20	1	13				RECEPTACLES
LIGHTS		0.6		20	1	15				RECEPTACLES
SPARE				20	1	17				RECEPTACLES
SPARE				20	1	19		0.5		SPARE
SPARE				20	1	21				SPARE
SPARE				20	1	23				SPARE
SUB-TOTAL	3.5	3.6	3							SUB-TOTAL
L1:	4.0	KVA					TOTAL CONNECTED LOAD = 11.6 KVA			
L2:	4.1	KVA					C/B'S #14, 16, & 18 TO BE GFCI TYPE.			
L3:	3.5	KVA					INTERRUPTING RATING AT 240 VOLTS: 10,000 AMPS			

ELECTRICAL NOTES

- ELECTRICAL EQUIPMENT, MATERIALS, AND INSTALLATION SHALL BE NEW AND IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND APPLICABLE STATE AND LOCAL CODES.
- ELECTRICAL SERVICE TO PANEL 'M' SHALL BE UNDERGROUND AT 208Y/120 VOLTS, 3 PHASE, 4 WIRE, 200 AMPS. INSTALL SERVICE CONDUIT AS SHOWN AND IN ACCORDANCE WITH DUKE ENERGY REQUIREMENTS. DUKE ENERGY WILL PROVIDE SERVICE WIRE.
- FURNISH AND INSTALL THE KWH METER BASE IN ACCORDANCE WITH DUKE ENERGY REQUIREMENTS.
- CONDUIT AND WIRE USAGE:
- EXPOSED CONDUIT SHALL BE HEAVY WALL RIGID GALVANIZED STEEL.
- UNDERGROUND CONDUIT SHALL BE PVC INSTALLED 30 INCHES BELOW GRADE. STUBUPS FROM UNDERGROUND SHALL BE HEAVY WALL RIGID GALVANIZED STEEL. NO EXPOSED PVC CONDUIT SHALL BE INSTALLED.
- WIRE SHALL BE STRANDED COPPER, THWN INSULATED.
- INSTALL EXPOSED CONDUIT PARALLEL TO BUILDING STRUCTURAL MEMBERS AND ATTACHED WITH GALVANIZED STEEL CLAMPS AND HARDWARE TO STRUCTURE.
- DEVICE BOXES SHALL BE CAST METAL WITH THREADED CONDUIT HUBS EQUAL TO CROUSE-HINDS TYPE 'FS'.
- RECEPTACLES AND LIGHT SWITCHES SHALL BE SPECIFICATION GRADE INSTALLED IN WEATHERPROOF BOXES.
- DUPLEX RECEPTACLES SHALL BE RATED 20 AMPS AND INSTALLED IN METALLIC "WHILE-IN-USE" WEATHERPROOF BOXES EQUAL TO ARROW-HART CAT. NO. WIUMV-1.
- LUMINAIRE TYPE 'A' SHALL BE THE LED TYPE, WITH WET LOCATION LABEL, LITHONIA CAT. NO. VAP-59LED-SYM-120V.
- PANELBOARD 'M' SHALL BE RATED NEMA 3R WITH COPPER BUS AND BOLT-ON CIRCUIT BREAKERS. STAB CONNECTED CIRCUIT BREAKERS ARE NOT ACCEPTABLE. PANELBOARD SHALL HAVE COPPER NEUTRAL AND GROUND BUSES. MAKE THE SERVICE NEUTRAL BOND INSIDE THE PANEL TO THE GROUNDING ELECTRODE.
- PROVIDE A GREEN TW INSULATED COPPER GROUNDING CONDUCTOR IN ALL CONDUITS AND CONNECT BOTH ENDS TO PROVIDE THE NEC REQUIRED EQUIPMENT GROUNDING. EQUIPMENT GROUNDING SHALL BE CONTINUOUS AND SECURE THROUGHOUT THE ENTIRE ELECTRICAL SYSTEM.



A SWITCHRACK DETAIL
NOT TO SCALE

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Saved: 9/16/2013 4:08:43 PM Plotted: 9/17/2013 8:25:31 AM User: Hodge, Chris LastSavedBy: 3771

No.	1	2	3	4	5	6	7	8	9	10
Submittal / Revision										
App'd	RCS	CEC	B-14-13							
Date										

CITY OF DURHAM
GENERAL SERVICES
2011 FAY ST
DURHAM, NC 27704



Design: RCM
Drawn: CDH
Checked: RCM

6720 Red Oak Boulevard, Suite 505 - Charlotte, NC 28217-4938
Mail: (704) 527-5227 - www.abcmpanies.com
N.C. Engineering License F-1165

CITY OF DURHAM, NC
HOUSEHOLD HAZARDOUS WASTE
CUSTOMER DROP-OFF FACILITY
ELECTRICAL LIGHTING AND POWER
PLAN

Issue Date: 08/14/13
Project No.: 24451
Scale: AS NOTED

CONTRACT:
PROJECT: HHW Customer Drop-off Facility
DATE: December 4, 2013

PROJECT MANAGEMENT DIVISION
DEPARTMENT OF GENERAL SERVICES
CITY OF DURHAM, NORTH CAROLINA

DOCUMENT 00 52 15

AGREEMENT FORM - EJCDC STIPULATED SUM (SINGLE-PRIME CONTRACT)

THIS AGREEMENT is by and between the City of Durham (Owner), a North Carolina municipal corporation, and Progressive Contracting Co., Inc. (Contractor).

The City of Durham and Contractor, in consideration of the mutual covenants set forth herein, agree as follows:

1.1 WORK

- A. Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: Construction of a Steel Fabricated Canopy structure on existing concrete. Footings, containment curb, curb and gutter repair are included. A modular prefabricated HHW Storage Unit will be purchased and installed by the contractor. New electric service will be run, to supply the Canopy and the modular unit.

1.2 THE PROJECT

- A. The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Contract / Project: Household Hazardous Waste Customer Drop-Off Facility

- B. Listed below are the Sites, in order of priority, that the Contractor may be instructed to complete construction under this Contract.
 - 1. 2115 East Club Boulevard, Durham, NC.

1.3 ENGINEER

- A. The Project has been designed by CHA Consulting, Inc. (Engineer), who is to act as the City of Durham's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

1.4 CONTRACT TIMES

- A. Time of the Essence
 - 1. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- B. Days to Achieve Substantial Completion and Final Payment
 - 1. The Work shall be substantially completed within **120** days after the date when the Contract Times commence to run (Notice to Proceed) as provided in [Paragraph 2.03] of the General Conditions, and completed and ready for final

CONTRACT:
PROJECT: HHW Customer Drop-off Facility
DATE: December 4, 2013

PROJECT MANAGEMENT DIVISION
DEPARTMENT OF GENERAL SERVICES
CITY OF DURHAM, NORTH CAROLINA

payment in accordance with [Paragraph 14.07] of the General Conditions within 134 days after the date when the Contract Times commence to run (Notice to Proceed).

C. Liquidated Damages

1. Contractor and the City of Durham recognize that time is of the essence of this Agreement and that the City of Durham will suffer financial loss if the Work is not completed within the times specified in [Paragraph 1.4.B.1] above, plus any extensions thereof allowed in accordance with [Article 12] of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by the City of Durham if the Work is not completed on time. Accordingly, instead of requiring any such proof, the City of Durham and the Contractor agree that as liquidated damages for the delay (but not as a penalty), Contractor shall pay the City of Durham [four hundred dollars (\$400.00)] for each day that expires after the time specified in [Paragraph 1.4.B.1] for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by the City of Durham, Contractor shall pay the City of Durham [four hundred dollars (\$400.00)] for each day that expires after the time specified in [Paragraph 1.4.B.1] for completion and readiness for final payment until the Work is completed and ready for final payment.
2. Failure of the Contractor to commence construction within ten (10) days of the Notice to Proceed shall begin a daily penalty to the Contractor at a rate of fifty percent (50%) of the daily liquidated damages specified in [Paragraph 1.4.C.1].

D. Weather Related Delays

1. The Contractor may request for an extension of Contract Times for delays related to adverse weather as described in the [General Conditions, Paragraph 12.02A].

1.5 CONTRACT PRICE

A. The City of Durham shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amount determined pursuant to [Paragraphs 1.5.A.1 and 1.5.A.2] below:

1. For all Work other than Unit Price Work, a Lump Sum of:

Two Hundred Forty Eight Thousand Seven Hundred Dollars and zero cents
(words), (\$ 248,700.00 (numerals))

All specific cash allowances are included in the above price and have been computed in accordance with [Paragraph 11.02] of the General Conditions.

2. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in this [Paragraph 1.5.A.2]:

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As provided in [Paragraph 11.03] of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by the Engineer as provided in [Paragraph 9.07] of the General Conditions. Unit prices have been computed as provided in [Paragraph 11.03] of the General Conditions.

UNIT PRICE WORK

Item	Unit for Adjustment	Adjustment Price per Unit
Curb and Gutter Repair	LF	\$ 30.48
Over Excavation and Backfill	CY (bank volume)	\$ 52.90
Subgrade Stabilization (#57 Stone)	CY (in-place)	\$ 66.70
Structural Concrete: Foundations	CY (in-place)	\$ 575.00

1.6 PAYMENT PROCEDURES

- A. Submittal and Processing of Payments
 - 1. Contractor shall submit Applications for Payment in accordance with [Article 14] of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

- B. Progress Payments; Retainage
 - 1. The City of Durham shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the [first] day of each month during performance of the Work as provided in [Paragraphs 1.6.B.1.a through 1.6.B.1.e] below. All such payments will be measured by the schedule of values established as provided in [Paragraph 2.07.A] of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:
 - a. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amount as Engineer may determine or the City of Durham may withhold, including but not limited to liquidated damages, in accordance with [Paragraph 14.02 of the General Conditions].
 - b. The City of Durham will retain five (5) percent of the amount of each estimate until Work covered by the Contract is fifty percent (50%) complete. If after the Project is deemed fifty percent (50%) complete based upon the Contractor's gross Project invoices, excluding the value of materials stored on and off-site, and the Contractor provides the City and the Engineer the following:

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- 1) Written verification evidencing fifty percent (50%) completion of the Project; and,
 - 2) Written consent of the surety named in the Project performance and payment bonds agreeing that the City shall not retain any further retainage from periodic payments due to the Contractor; the City shall cease holding retainage from future periodic payments if the City finds that the Contractor is performing satisfactorily, and any nonconforming Work identified in writing by the Engineer or City (prior to the point of fifty percent (50%) Project completion) has been corrected by the Contractor and accepted by the Engineer or City, whoever provided such prior notice of nonconforming Work. If, however, the City determines the Contractor's performance is unsatisfactory, the City may reinstate the specified retainage for each subsequent periodic payment. Notwithstanding anything to the contrary, City may assess retainage after fifty percent (50%) project completion, even if the Contractor has complied with [Paragraphs 1.6.B.1.b.1 and 1.6.B.1.b.2 (above)] and continues to perform satisfactorily as necessary to retain two and one-half percent (2.5%) total retainage through the completion of the Project.
- c. If by or before the Project is deemed fifty percent (50%) complete and one hundred percent (100%) performance has been completed for the following "early" finishing trades: (1) structural steel; (2) piling; (3) caisson; or (4) demolition; and after receipt by the City of Durham of an approval or certificate from the Engineer that such early finishing Work is acceptable and in accordance with the Contract Documents, and after the Contractor provides City of Durham and the Engineer the following:
- 1) The early finishing trade Subcontractor's written request for such payment; and,
 - 2) Written consent of the surety named in the Project performance and payment bonds agreeing that the City of Durham shall make such early finishing trade payment;
- The City of Durham shall make full payment to the Contractor for said one hundred percent (100%) completed early finishing trade Work less retainage of five-tenths percent (0.5%) (of the early finishing trade contract) upon the later occurrence of the following:
- 1) Sixty (60) days receipt of said early finishing trade Subcontractor's written request; or,
 - 2) Immediately upon receipt of said written consent of the surety.
- d. Notwithstanding any of the retainage provisions described herein, there shall be no retainage on periodic or final payments for Contracts having a total project cost less than \$100,000.00, and, in addition to the retainage amounts allowed to be held by the City of Durham, the City shall also retain all rights allowed under this Agreement to withhold payment to the Contractor in accordance with [Article 14 of the General Conditions] and for unsatisfactory job progress, defective or nonconforming construction

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not remedied, disputed Work, or third-party claims filed against the City of Durham or reasonable evidence that a third-party claim will be filed.

- e. Within sixty (60) days of receipt by City of (1) an Application for Payment and (2) written consent of the surety, and after City has either (1) received a certificate of Substantial Completion or (2) received beneficial occupancy or use of the Project (if applicable), the City of Durham shall pay an amount sufficient to increase total payment to Contractor to the Contract Price, less such amounts as Engineer shall determine in accordance with [Paragraph 14.02.B.5 of the General Conditions], including up to [two hundred fifty percent (250%)] of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

C. Final Payment

- 1. Prior to issuing final payment, the Contractor will furnish to the City of Durham certification that: All Subcontractors and vendors associated with this Contract have been paid; no liens and/or lawsuits have been placed against the Contractor for this Work; and the total dollar amount has been paid to all Subcontractors, Suppliers, and others associated with this project.
- 2. Upon final completion and acceptance of the Work in accordance with [Paragraph 14.07] of the General Conditions, the City of Durham shall pay the remainder of the Contract price as recommended by Engineer as provided in said [Paragraph 14.07].

1.7 NOT USED

- A. Not Used

1.8 CONTRACTOR'S REPRESENTATIONS

- A. In order to induce the City of Durham to enter into this Agreement Contractor makes the following representations:
 - 1. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - 2. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - 3. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and regulations that may affect cost, progress, and performance of the Work.
 - 4. Contractor has carefully studied all:
 - a. Reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in [Paragraph 4.02] of the General Conditions; and

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- b. Reports and drawings of a Hazardous Environmental Condition, if any, at the Site which has been identified in [Paragraph 4.06] of the General Conditions.
5. Contractor has obtained and carefully studied (or assumes responsibility for doing so) all examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by the Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto.
6. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
7. Contractor is aware of the general nature of work to be performed by the City of Durham and others at the Site that relates to the Work as indicated in the Contract Documents.
8. Contractor has correlated the information known to the Contractor, 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.
9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

1.9 CONTRACT DOCUMENTS

A. Contents

1. The Contract Documents consist of the following:
 - a. This Agreement (pages 1 to 12, inclusive).
 - b. Performance and Payment bonds (pages 1 to 4, inclusive).
 - c. DOCUMENT 00 72 15 GENERAL CONDITIONS – EJCDC STIPULATED SUM (SINGLE-PRIME CONTRACT) (1 page).
 - d. EJCDC C-700 Standard General Conditions of the Construction Contract (pages 00700 -1 to 00700 - 54, inclusive).
 - e. Technical Specifications (not attached hereto) as listed in the table of contents of the Project Manual, dated September 13, 2013.
 - f. Drawings (not attached hereto) consisting of 9 sheets with each sheet bearing the following general title: City of Durham, NC Household Hazardous Waste Customer Drop-off Facility, and as listed below:

1) C-001	Cover Sheet	Aug 14, 2013
2) C-002	Demolition Plan & Existing Conditions	Aug 14, 2013
3) C-003	Site Plan	Aug 14, 2013

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- 4) C-004 Details Aug 14, 2013
- 5) S-001 General Notes and Design Data Aug 14, 2013
- 6) S-101 Foundation, Slab and Curb Plan Aug 14, 2013
- 7) S-201 Roof Framing Plan Aug 14, 2013
- 8) S-401 Sections & Typical Sect, Details & Schedules Aug 14, 2013
- 9) E-101 Electrical Lighting and Power Plan Aug 14, 2013

g. Addenda (not attached hereto) (numbers 1 to 1, pages 1 to 3, inclusive).

h. Exhibits to this Agreement (enumerated as follows):

- 1) Contractor's Bid (pages 1 to 4, inclusive)
- 2) Contract Certificates of Liability/Insurance (pages 1 to 4, inclusive).
- 3) Non-Collusion Statement by Contractor (1 page).
- 4) Claim for Additional Time on the Basis of Adverse Weather Conditions (pages 1 to 2, inclusive).
- 5) Notice on Reimbursement for Sales and Use Tax (pages 1 to 4, inclusive).
- 6) *Not used.*

i. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:

- 1) Notice to Proceed (1 page).
- 2) Work Change Directives.
- 3) Change Order(s).

B. The documents listed in [Paragraph 1.9.A.1] are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this [Paragraph 1.9.A.1].

D. The Contract Documents may only be amended, modified, or supplemented as provided in [Paragraph 3.04] of the General Conditions.

E. Coordination of General Conditions, Supplementary Conditions, Agreement, and Technical Specifications

- 1. All components of the Contract Documents are essential elements of the Contract between the Owner and Contractor, and notwithstanding the requirements of [Paragraph 3.03] of the General Conditions, in case of a conflict or contradiction among the General Conditions (including Supplementary Conditions), Agreement, and Technical Specifications, the following shall be the order of controlling authority as among these documents: The Technical Specifications shall control over the Agreement and the Agreement shall control over the General Conditions (including Supplementary Conditions).

1.10 MISCELLANEOUS

A. Terms

- 1. Terms used in this Agreement will have the meanings stated in the General Conditions.

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B. Assignment of Contract

1. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

C. Successors and Assigns

1. The City of Durham and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

D. Severability

1. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the City of Durham and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

E. Notices and Communications

1. All notices and other communications required or permitted by Contract shall be in writing and shall be given by personal delivery, fax, or certified United States mail (return receipt requested) addressed/faxed as follows:

To the City of Durham (Owner):
Attention: Donna G. Maskill, PE, PEM
City of Durham
Department of General Services
Project Management Division
2011 Fay Street
Durham, North Carolina 27701
Fax: (919) 560-4970

To the Contractor:
Attention: Todd Snyder, Vice President
Progressive Contracting Co., Inc.
143 Charlotte Ave., Suite 201
Sanford, NC 27330
(919) 718-5454 x202
tsnyder@progressivecci.com

2. A change of address, fax number, or person to receive notices or communications may be made by either party by notice given to the other party. Any notices or

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communications under Contract shall be deemed given at the time of actual delivery, if it is personally delivered or faxed. If the notices or communications are sent by United States mail, it shall be deemed given upon the third calendar day following the day on which the notices or communications were postmarked, or upon actual delivery, whichever first occurs.

- F. Other Provisions - E-Verify Compliance. The contractor represents and covenants that the contractor and its subcontractors comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes (NCGS). The City is relying on this E-Verify Compliance section in entering into this contract. The parties agree to this section only to the extent authorized by law. If this section is held to be unenforceable or invalid in whole or in part, it shall be deemed amended to the extent necessary to make this contract comply with NCGS 160A-20.1(b).
- G. Technical Data and Other Work
1. Subsurface and Physical Conditions
 - a. No reports of explorations or tests of subsurface conditions at or contiguous to the Site are known to the City of Durham or Engineer.
 2. Hazardous Environmental Condition
 - a. No reports or drawings related to Hazardous Environmental Condition are known to the City of Durham or Engineer.
 3. Other Work
 - a. The City of Durham and Engineer are unaware of any other work on the Site at the time of Notice to Proceed.

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H. Contractor's Liability Insurance
Contractor shall maintain insurance not less than the following:

Commercial General Liability, covering

- premises/operations
- products/completed operations
- broad form property damage
- explosion, collapse, and underground hazards if the hazards exist in the performance of this contract
- contractual liability
- independent contractors, if any are used in the performance of this contract
- City of Durham must be named additional insured, and an original of the endorsement to effect the coverage must be attached to the certificate (if by blanket endorsement, then agent may so indicate in the GL section of the certificate, in lieu of an original endorsement)
- combined single limit not less than \$2,000,000 per occurrence; aggregate limit not less than \$2,000,000 per year

Commercial Auto Liability, covering

- Symbol 1, all vehicles
- Combined single limit of \$1,000,000; aggregate limit not less than \$2,000,000 per year
- City of Durham must be named additional insured, and an original of the endorsement to effect the coverage must be attached to the certificate (if by blanket endorsement, then agent may so indicate in the GL section of the certificate, in lieu of an original endorsement)

Workers' Compensation Insurance, covering

- statutory benefits;
- covering employees; covering owners, partners, officers, and relatives (who work on this contract); if Contractor has less than 3 employees, certificate must specifically state that owners, partners, officers, employees and relatives are covered by the policy)
- employers' liability, \$1,000,000.

Builder's risk and installation floater, covering

- work in progress
- materials and equipment, on and off site
- deductible to be paid by contractor; deductibles greater than \$5,000 must be approved by Finance Director.

Insurance shall be provided by:

- companies authorized to do business in the State of North Carolina
- companies with Best rating of A, VIII . Anything less requires written approval from the client.

Insurance shall be evidenced by a certificate:

- providing notice to the City of not less than 30 days prior to cancellation or reduction of coverage
- certificates shall be addressed to:

City of Durham, North Carolina
Attention: Donna Maskill, PE
General Services Department
2011 Fay Street
Durham, NC 27704

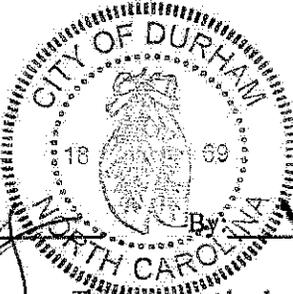
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ATTEST:

CITY OF DURHAM

Attest: *D. Ann Gray*
City Clerk



By: *Thomas J. Bonfield*
Thomas J. Bonfield
City Manager

This instrument has been pre-audited in a manner required by the Local Government Budget and Fiscal Control Act.

preaudit certificate, if applicable *Keith R. Herrmann*
Keith R. Herrmann, Finance Officer

CONTRACTOR (CORPORATION):

By: *Todd Snyder*
Title: *VICE PRESIDENT*

(CORPORATE SEAL)

Attest: *Ly C. [Signature]*
Title: *ASSISTANT SEC.*

(CORPORATE SEAL)

Address for giving notices:
143 CHARLOTTE AVB.
SUITE 201
SANFORD, NC 27330

Phone No.: *919-718-5454* Fax No.: *919-718-5455*

License No.: *36100*

Agent for service or process:

(If Contractor is a corporation or partnership, attach evidence of authority to sign.)

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State of NORTH CAROLINA
County of LEE

ACKNOWLEDGMENT BY CORPORATION

I, a notary public in and for the aforesaid county and state, certify that TODD SNYDER
personally appeared before me this day and stated that he or she is

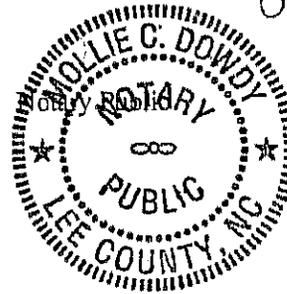
~~(Strike through the inapplicable:) chairperson/ president/ chief executive officer/ vice-president/
assistant vice-president/ treasurer/ chief financial officer of~~

Progressive Contracting Co., Inc., a corporation, and that by authority duly given and as the act of the
corporation, he or she signed the foregoing contract or agreement with the City of Durham and the
corporate seal was affixed thereto. This the 16 day of DECEMBER,
2013.

My commission expires:

Mollie C. Dowdy

May 20, 2014



END OF DOCUMENT

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DOCUMENT 00 72 15

GENERAL CONDITIONS - EJCDC STIPULATED SUM (SINGLE-PRIME CONTRACT)

1.1 SUMMARY

- A. Document Includes:
 - 1. General Conditions.
 - 2. Supplemental Conditions.
- B. Related Documents:
 - 1. Document 00 52 15 - Agreement Form - EJCDC Stipulated Sum (Single-Prime Contract).

1.2 GENERAL CONDITIONS

- A. EJCDC No. C-700 (2002 Edition) - Standard General Conditions of the Construction Contract, is the General Conditions of the Contract.

END OF DOCUMENT

DURHAM HHW FACILITY CONSTRUCTION SCHEDULE - PROGRESSIVE CONTRACTING CO., INC.

ID	Task Mode	Task Name	Duration	Start	Finish	% Comp	an	Jan	Feb	Mar	Apr	May	Jun				
1	Preconstruction Activities	notice to proceed - mats	0 days	1/22/14	1/22/14	100%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
2	Preconstruction Activities	storage building shop dwgs	10 days	1/22/14	2/4/14	40%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
3	Preconstruction Activities	metal fabrication shop dwgs	20 days	1/22/14	2/18/14	18%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
4	Preconstruction Activities	storage bldg shop dwg review	10 days	2/5/14	2/18/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
5	Preconstruction Activities	metal fab shop dwg review	10 days	2/19/14	3/4/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
6	Preconstruction Activities	storage bldg fabrication	50 days	2/19/14	4/29/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
7	Preconstruction Activities	metal fabrication	20 days	3/5/14	4/1/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
8	Construction Activities	demolition & sediment control	5 days	3/19/14	3/25/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
9	Construction Activities	concrete footings & piers	7 days	3/26/14	4/3/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
10	Construction Activities	underground electrical rough-in	5 days	3/28/14	4/3/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
11	Construction Activities	concrete slab patching	5 days	4/4/14	4/10/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
12	Construction Activities	gear construction	5 days	4/4/14	4/10/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
13	Construction Activities	column & beam installation	10 days	4/11/14	4/24/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
14	Construction Activities	above ground electrical rough-in	7 days	4/15/14	4/23/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
15	Construction Activities	column & beam painting	3 days	4/25/14	4/29/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
16	Construction Activities	metal building installation	2 days	4/30/14	5/1/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
17	Construction Activities	concrete containment curbs	5 days	5/2/14	5/8/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
18	Construction Activities	metal deck installation	5 days	5/2/14	5/8/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
19	Construction Activities	light fixture installation	5 days	5/9/14	5/15/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
20	Construction Activities	Project substantially complete	0 days	5/15/14	5/15/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
21	Construction Activities	cleaning & demobilization	5 days	5/16/14	5/22/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25
22	Construction Activities	Project Complete	0 days	5/22/14	5/22/14	0%	1/5	1/19	2/2	2/16	3/2	3/16	3/30	4/13	4/27	5/11	5/25

Current Date: 2/4/14
 Completion Date: 5/22/14

Task: Split
 Milestone: Critical

Summary: Project Summary

Progress:

Slack:

Operation Manual

CITY OF DURHAM, NORTH CAROLINA

Household Hazardous Waste Facility

OPERATION MANUAL



APPROVED
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION
Date 06/10/2014 By Patricia M. Beckus
DIN 21233
Attachment 1 Part II Document 2
Permit 3212-HHW-2014 Permit DIN 21234

FACILITY ID # 3212-HHW-2014

HHW ID – NCPH0321402

**OPERATED BY: SOLID WASTE MANAGEMENT DEPARTMENT
FOR HOUSEHOLD HAZARDOUS WASTE GENERATED BY RESIDENTS OF DURHAM
AND DURHAM COUNTY**

**OTHER ELIGIBLE USERS INCLUDE HOUSEHOLD RESIDENTS FROM WAKE,
CHATHAM AND ORANGE COUNTIES**

Revised June 2014

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I. INTRODUCTION

A. Objectives

This plan outlines the normal operation and emergency procedures for the City of Durham (City) Household Hazardous Waste (HHW) Facility. The City owns a permanent HHW facility which is managed by the Solid Waste Management Department and operated under contract by a licensed hazardous waste management contractor.

Solid waste generated by households is exempted from hazardous waste management regulations under federal regulations. However, the collection and safe disposal of HHW protects the employees involved in waste disposal, prevents contamination of groundwater from sanitary landfills, prevents damage to sewer systems and wastewater treatment plants, and prevents the pollution of storm water.

The City of Durham has collected HHW since 1990 to ensure safe disposal of products that are corrosive, reactive, toxic, or ignitable that are generated in a household. A permanent facility was built in 1995 and was replaced by a new facility in 2014.

The facility is open to all resident of the City of Durham and Durham County. In addition, the City has local agreements with Chatham, Orange, and Wake Counties to bring waste to any of the local government facilities operated in the four counties.

B. Location

The HHW Collection facility is located at 2115 E. Club Boulevard, Durham, NC 27704. This is also the site of the City of Durham Transfer Station (Permit ID 3212T-TRANSFER-1999). The site location is shown on the map in Appendix A.

C. Permits

The solid waste management facility permit number is 3212-HHW-2014.

The Household Hazardous Waste Identification number is NCPH0321402. The application for the HHW identifier number is Appendix B.

D. Facility Operation Hours

The facility is open to the public from 7:30 a.m. to 4:00 p.m. on Monday through Friday and 7:30 a.m. to 12 noon on Saturday.

The facility is closed to the public on the following holidays: New Year's Day, Martin Luther King Holiday, Good Friday, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas.

E. Facility Staffing

Since the facility shares some features with the City's transfer station, the overall operation is a joint effort between City and the hazardous waste contractor. The public may interact with city employees when entering and leaving the site; however, the primary operation duties relating to the handling and management of the HHW are the responsibility of the hazardous waste contractor hired by the City. The current contractor is ECOFLO, Inc.

II. WASTE ACCEPTANCE AND MANAGEMENT

A contractor or local government representative provides initial contact with the public, asking for survey information, directing traffic, and acknowledging eligibility of acceptance of the materials. The hazardous waste contractor is responsible for checking the waste and removing it from the vehicle. As the wastes are received, contractor personnel will perform initial waste identification and segregation. Some materials that can be managed by local government representatives (such as motor oil, antifreeze, fire extinguishers, gas cylinders, and lead-acid batteries) may be segregated from the household hazardous waste and handled according to local government protocols.

A. Acceptable Wastes

Wastes accepted at the HHW are limited to those generated by households as exempted under 40 CFR 261.4(b)(1). "Household waste" means any material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, range stations, crew quarters, campgrounds, picnic ground and day-use recreations areas).

The City of Durham HHW facility is designed to manage HHW from the following general categories:

- Yard and garden products
- Automotive products
- Paints and solvents
- Household cleaning products, and
- Miscellaneous HHW.

B. Unacceptable or Unknown Wastes

Wastes exclude from this facility may include: any waste for businesses, asbestos, explosives, infectious waste, radioactive materials, and polychlorinated biphenyls (PCB) waste as defined in 40 CFT 761.

Because of difficulties in handling a few specific types of wastes (including explosives, radioactive materials, biologically active or infectious waste, and asbestos) education materials actively discourage users from bringing these materials. However, in the event that such wastes are brought to the facility, local government representatives will consider taking the waste anyway to avoid improper disposal.

Onsite chemical analyses will be conducted in an attempt to identify any unknown wastes. If necessary, additional analyses will be conducted at an offsite laboratory. Such offsite analyses will occur as soon as possible. Contractor personnel will prepare the samples using appropriate chain of custody and will send them to a laboratory for analysis. Meanwhile, the unknown waste material will remain onsite, isolated in a container by itself. Once the analytical results are obtained, the material will be scheduled for pick up and appropriately managed.

The decision regarding these wastes will be based upon established policies as well as the specific details of each case and also any advice from contractor personnel. As necessary, the transportation and disposal contractor will help find specialized vendors to remove any such wastes for treatment or disposal. Whenever wastes are rejected, the user will be given names of people to contact for further information concerning options for proper disposal.

C. Waste Storage, Containers, and Containment Systems

Contractor personnel will conduct or directly supervise the packaging, document preparation, and transportation of the hazardous wastes collected at the facility. The contractor will also arrange the recycling, treatment, or disposal of these wastes. Many of the wastes will probably require lab packing. Lab packing of materials may occur on the same day as collection activities, provided that time is available and adequate quantities of compatible materials are received. Otherwise, materials will be safely stored until the next scheduled workday. Additionally, partially filled (packed) containers may remain onsite until adequate amounts are collected and properly packaged for transport.

If pumping, pouring, or bulking of wastes is required, grounding and explosion-proof equipment will be used as needed. For both lab pack and bulk packaging, all containers will be of the Department of Transportation (DOT) specification, type, and size most appropriate for the specific waste type and planned treatment or disposal method. Wastes will be packed in either fiber, plastic, or steel containers of open or closed-head types, in sizes ranging from 5-gallon pails to 85-gallon over packs.

For lab packs, wastes will first be segregated according to DOT hazard class, then by chemical compatibility and by the acceptance criteria of specific waste recycling, treatment, or disposal facilities. An absorbent material such as vermiculite or Silk-wik will be used to surround inner containers, prevent breakage, absorb any leaking materials, and prevent release from the outer (shipping) container. Each inner container will be recorded on container content forms, providing a complete record of the contents of any drum.

Whether lab pack or bulk, the filled drums are closed, labeled, and marked in accordance with DOT and Environmental Protection Agency (EPA) shipping requirements, and the proper information is recorded on the manifest. The generator's notification and certification are also prepared, as required under the land-ban regulations if applicable.

D. Use and Management of Containers

Appropriate containers fitting DOT specifications will always be used for storing wastes at the City of Durham HHW Collection Facility. Contractor personnel preparing wastes for storage will only use containers that are compatible with the wastes to be stored in them, so that containment ability is not impaired.

All containers holding accumulated HHW are checked at least weekly to ensure that they have not been stored more than 180 days and also to ensure their integrity. These inspections, to be conducted by the contractor, are used to detect any leaks or deterioration caused by corrosion or other factors. Results of these inspections are recorded in the notebook on site. If a container holding hazardous waste is found to be in poor condition or if it begins to leak, contractor personnel will transfer the wastes from the defective container to one that is in good condition or will over pack the container in a suitable storage drum.

Contractor personnel also ensure that any containers holding hazardous waste are closed during storage, except when it is necessary to add or remove waste. Caution is taken in the movement of all containers to prevent them from being tipped over or punctured. Furthermore, the containers are not opened, handled, or stored in a manner that may rupture them or cause them to leak.

Unobstructed aisle space is maintained to allow movement of personnel, containers, and emergency equipment within the storage building and apron at all times.

E. Waste Storage and Accumulation Time

The storage building at the City of Durham HHW Collection Facility is designed to accommodate temporary accumulation of several classes of hazardous materials. Contractor personnel are trained as appropriate concerning proper waste segregation and safe storage procedures.

In accordance with state requirements for temporary storage, the date upon which each period of accumulations begins is clearly marked and visible on each container. Furthermore, while being stored onsite, all containers with accumulating hazardous wastes are labeled or marked clearly with the words, "Hazardous Waste," unless the material is recyclable (e.g., used oil, latex paint, batteries) and is separated from other hazardous waste.

Time in storage may vary according to the volume of waste received. Removal of waste by the contractor is scheduled as necessary to minimize expense to the local government while still in

compliance with the applicable regulations and safety considerations. Waste is not stored longer than 180 days without written permission from the North Carolina DENR Division of Waste Management.

F. Recycling of Waste

HHW collected at this facility is recycled or treated whenever economically practical, and incineration or land filling is used as a last resort. In keeping with this operating philosophy, the following wastes are collected for recycling or BTU recovery:

- Adhesives, paint waste in small cans
- Paint – oil based
- Paint – latex
- Aerosols, flammable and non-flammable
- Motor oil and mixed solvents
- Household batteries, NiCad
- Mercury debris
- PCB ballasts
- Lead acid batteries
- Fluorescent bulbs
- Empty drums
- Oil filters

G. Transportation and Disposal

When the transportation and disposal contractor arrives at the HHW storage facility for a scheduled pickup, the contractor will ensure that all containers are properly packaged, labeled, documented and manifested. Contractor personnel will then load the containers onto a contractor vehicle and will transport them to a licensed facility for final treatment, recycling or disposal.

H. Reporting and Documentation

Thorough and accurate records will be maintained to ensure the accurate tracking of hazardous materials from the generator to final disposal sites. Container Contents Sheets will detail each drum's contents and waste quantities. Additional records that will be generated to ensure accurate record keeping include the following:

- Drum Tracking Sheet (contractor's in-house form);
- Uniform Hazardous Waste Manifest;
- Contractor's Material Profile Sheet (for wastes in bulk, 5 gallon or more);
- Waste Certification/Notification (to meet requirements of land-ban requirements, if applicable);
- TC Rule Certification/Recertification (to meet the TCLP Rule requirements, if applicable); and

- Certificates of Disposal

I. Maintenance and Operation of the Facility

The HHW collection facility will be maintained and operated to promote personnel safety and to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. The appropriate provisions and procedures necessary to ensure safe and efficient operations have been stated in this plan.

J. Closure of Collection Facility

At such a time that the City of Durham Household Hazardous Waste Collection Facility should close or be relocated, all household hazardous waste and any residue from the containment system shall be removed. Any remaining liners, bases, soil and related equipment or structures containing or contaminated with household hazardous waste or their residues shall be decontaminated or removed. All wastes or material that is decontaminated or removed shall be managed appropriately.

III. FACILITY FEATURES

A. Storage Building Specifications

The building used for the City of Durham HHW Collection Facility was previously used to store flammable materials. The structure is located at least 50 feet from the facility property line and is separated from other operations areas in order to minimize damage in case of fire. The location of the facility in relation to other operational areas is shown on the site map. Drawings showing the facility layout and building elevation drawings are in Appendix C.

As required for proper safety and environmental protection, the structure is:

- designed to contain leaks and spills,
- covered to exclude rain water,
- secured to control access, and
- constructed in accordance with all applicable National Fire Protection Association codes.

The HHW collection facility consists of a Steel Fabricated Canopy and storage building with a paved receiving area. In addition, a small storage building for local government staff is located as residents enter and is used to store educational and safety materials and to provide protection from the elements in bad weather.

B. Access Control and Security

Access to the facility and chemical handling areas are controlled to prevent unnecessary public exposure to potentially harmful substances. Areas where chemicals are handled or stored are clearly marked using one or more of the following: warning tape, barriers, and caution signs. The signs contain appropriate warnings such as “No Smoking” and “Authorized Personnel Only.” In addition, during special event collection times, local government representatives are stationed in strategic locations and serve as checkpoint personnel to direct the flow of traffic and people.

During normal operating hours, the HHW facility is design allows customers to use the drop off / drive up area only. This area can only be accessed when customers come through the main gate of the because the facility is surrounded by a chain link fence with coiled barbed wire on top. During business hours, attending staff are on hand to keep the public from areas that are off limits to them. After business hours, all entry points are locked and secured. Also, two digital video surveillance cameras monitor the property at night.

IV. PERSONNEL, DUTIES, AND TRAINING

The HHW collection facility will be staffed by well-trained, qualified personnel under the leadership of the hazardous waste contractor’s Project Supervisor and Health and Safety Supervisor. In some cases, the Project Supervisor and the Safety Liaison may be the same person. The duties of personnel are described below.

A. Personnel and Duties

Project Supervisor: The Project Supervisor directs onsite operational efforts. This individual, assisted by the Health and Safety Supervisor, has primary responsibility for:

- assuring that all onsite contractor personnel have met the training requirements appropriate for their duties;
- assuring that onsite contractor personnel and local government representatives are aware of the provisions of the Contingency Plan;
- assuring that onsite contractor personnel and local government representatives are aware of the potential hazards associated with site operations;
- assuring that appropriate personal protective equipment is available and properly used;
- monitoring the safety performance of onsite contractor personnel and local government representatives
- correcting any work practices or conditions that may result in injury or exposure to hazardous substances
- preparing any accident/incident reports; and

- implementing all aspects of the contractor's injury and illness Prevention Program as applicable to the project site.

Safety Liaison: The Health and Safety Supervisor or designee is responsible for implementing the safety plan during site operations. The Health and Safety Supervisor has the authority to stop work for health and safety reasons. Other specific responsibilities include:

- verifying that onsite contractor personnel and local government representatives work in a safe manner according to the health and safety plan;
- establishing guidelines for wearing and decontaminating (if necessary) personal protective equipment;
- observing onsite contractor personnel and local government representatives for sign of exposure or stress;
- immediately reporting any unusual or unsafe conditions to the Project Supervisor;
- informing onsite contractor personnel and local government representatives of the proper procedure during an emergency;
- providing first aid if necessary;
- identifying any onsite contractor personnel or local government representatives having special medical problems; and
- ensuring that any necessary monitoring equipment is properly maintained and in good operating order.

These two supervisors direct the efforts of as many contractor personnel and local government representatives as required for safe and efficient operations.

Local Government Representatives: Local government representatives may direct traffic, conduct surveys, determine user eligibility, and distribute educational materials.

B. Training Plan and Qualification of Trainers

The transportation and disposal contractor for this HHW collection facility will be responsible for training contractor personnel. The contractor's training program is designed to enable appropriately trained personnel to receive and handle wastes in a safe, environmentally sound manner and to work in compliance with the contractor's methods and with applicable regulations. Contractor personnel assigned to this project will complete the appropriate health and safety training in accordance with the Occupational Safety and Health Administration standard in 29 CFR 1910.120(e). All onsite contractor personnel will have received a minimum of forty (40) hours of classroom training and three days of field experience under the direct supervision of a trained, experienced supervisor.

The training is designed to ensure that facility personnel are able to effectively respond to emergencies by familiarizing them with emergency procedures, emergency equipment and emergency systems, including the following:

- Procedures for using and inspecting facility emergency and monitoring equipment;
- Communications or alarm systems;
- Response to fires or explosions
- Response to spills or leaks; and
- Shutdown of operations.

Contractor personnel will be fully trained before being assigned to the facility. Onsite contractor personnel will be required to take part in an annual review of the initial training. Training records for onsite contractor personnel will be kept at the contractor's office. Documentation of employee training is to include date, name and topics covered. The records must be kept for current employees until closure of the facility; on former employees for at least three years from the date the employee last worked at the facility.

C. Operational/Emergency Equipment and Personal Protection Equipment

The HHW collection facility contains the necessary equipment for protecting contractor personnel and local government representatives. The facility also contains the equipment needed to implement the contingency plan. The facility is equipped with a cellular telephone from which emergency assistance could be summoned. Internal communications will be carried out by voice as the most practical method given the restricted size of the facility. A hand-held, pressurized air horn is also available to signal an emergency situation.

Other equipment kept at the facility includes portable ABC dry chemical and CO fire extinguishers; spill control equipment including clay and/or inert absorbents, pads, boom, shovels, brooms, containers, and various commercial decontamination solutions.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment are inspected weekly and maintained as necessary to ensure its presence and proper operation in case of emergency. Fire protection equipment is tested according to manufacturer specifications. Results of all inspections are recorded on a customized checklist that includes sections dates and a list of all systems and equipment to be inspected. This checklist is kept in a loose-leaf notebook on site.

Personal Protective Equipment (PPE) is used as appropriate to protect contractor personnel and local government representatives from spills, broken containers, and sharp objects. The level of PPE required for particular tasks is described in the following examples:

Person Removing Waste from Cars – Level II*

- chemical resistant (polyethylene-coated type) coveralls;
- safety glasses with side shields;
- chemical-resistant gloves with outer leather or other puncture-resistant gloves (optional);
- safety shoes;

* Depending on the substances being handled, a higher level of PPE (including respirators and goggles or face shield) might be required.

Person Opening containers and Bulking Waste – Level II

- Chemical-resistant coveralls;
- Full-face shield;
- Safety glasses
- Polyurethane or other chemical-resistant safety boots;
- Respirator with organic vapor cartridge and high-efficiency particulate air filter if necessary (as determined according to the waste being handled);
- Chemical-resistant inner glove and outer puncture-resistant glove.

Person Segregating Waste from Vehicles – Level I

- Safety glasses (with splash goggles or full-face shield when necessary);
- White Tyvek with vinyl apron;
- Chemical-resistant safety shoes/boots;
- Respirator (as required);
- Chemical-resistant inner glove and puncture-resistant outer glove.

Person Sampling HHW – Level II

- Full-face shield and safety glasses;
- Chemical-resistant coveralls;
- Chemical-resistant safety shoes/boots;
- Respirator (as required);
- Chemical-resistant inner glove and outer puncture-resistant glove.

Person Lab packing HHW – Level I or II

- Safety glasses (with goggles or full-face shield when necessary);
- White Tyvek with vinyl apron or chemical resistant coverall;
- Chemical-resistant safety boot;
- Respirator (as required);
- Chemical-resistant inner glove and puncture-resistant outer glove.

[Note: Contractor personnel handling or moving drums may require metatarsal safety shoes. Regular safety shoes may be substituted for chemical resistant safety shoes when no chemical exposure hazard exists.]

Person Removing Waste from Cars – Level II*

- chemical resistant (polyethylene-coated type) coveralls;
- safety glasses with side shields;
- chemical-resistant gloves with outer leather or other puncture-resistant gloves (optional);
- safety shoes;

* Depending on the substances being handled, a higher level of PPE (including respirators and goggles or face shield) might be required.

Person Opening containers and Bulking Waste – Level II

- Chemical-resistant coveralls;
- Full-face shield;
- Safety glasses
- Polyurethane or other chemical-resistant safety boots;
- Respirator with organic vapor cartridge and high-efficiency particulate air filter if necessary (as determined according to the waste being handled);
- Chemical-resistant inner glove and outer puncture-resistant glove.

Person Segregating Waste from Vehicles – Level I

- Safety glasses (with splash goggles or full-face shield when necessary);
- White Tyvek with vinyl apron;
- Chemical-resistant safety shoes/boots;
- Respirator (as required);
- Chemical-resistant inner glove and puncture-resistant outer glove.

Person Sampling HHW – Level II

- Full-face shield and safety glasses;
- Chemical-resistant coveralls;
- Chemical-resistant safety shoes/boots;
- Respirator (as required);
- Chemical-resistant inner glove and outer puncture-resistant glove.

Person Lab packing HHW – Level I or II

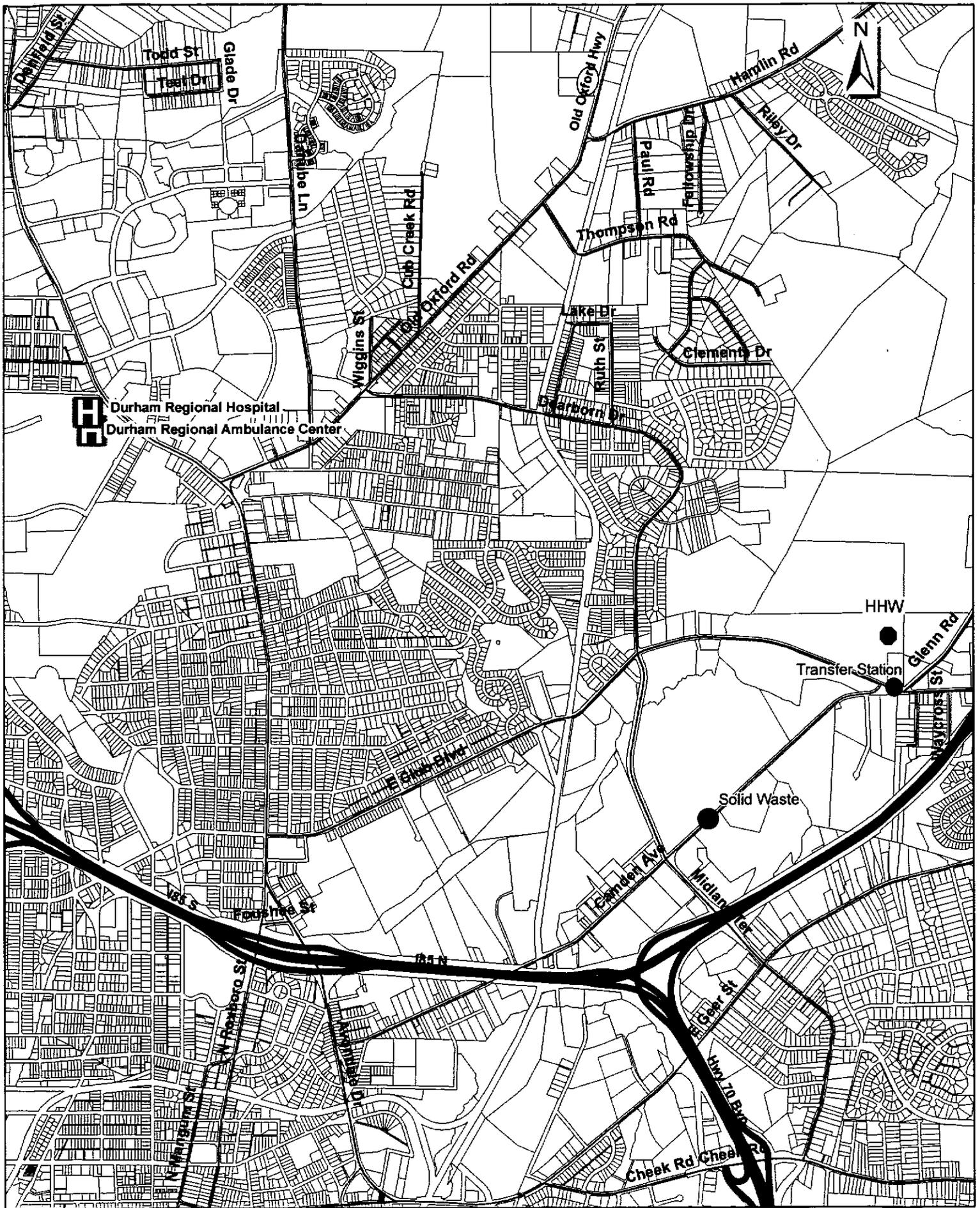
- Safety glasses (with goggles or full-face shield when necessary);
- White Tyvek with vinyl apron or chemical resistant coverall;
- Chemical-resistant safety boot;
- Respirator (as required);
- Chemical-resistant inner glove and puncture-resistant outer glove.

[Note: Contractor personnel handling or moving drums may require metatarsal safety shoes. Regular safety shoes may be substituted for chemical resistant safety shoes when no chemical exposure hazard exists.]

V. CONTINGENCY PLAN

The contingency plan is found in Appendix D.

APPENDIX A
SITE LOCATION MAP



City of Durham Household Hazardous Waste Facility

	Solid Waste Administration		Hospitals
	Transfer Station		HHW

0 0.1 0.2 0.4
Miles

APPENDIX B

**APPLICATION FOR
HOUSEHOLD HAZARDOUS WASTE
IDENTIFICATION NUMBER**

**APPLICATION FOR
 HOUSEHOLD HAZARDOUS WASTE IDENTIFICATION NUMBER**

A household hazardous waste I.D. number shall be required to ship collected materials off-site for treatment and/or processing.
 Please check the appropriate box and fill in the blanks.

Temporary Event

Permanent Facility

OPERATOR/CONTRACTOR

Facility/Event Host	CITY OF DURHAM	County	DURHAM
Contact Person	BRUCE WOODY	Title	ACTING DISPOSAL MANAGER
Mailing Address	1833 CAMDEN AVENUE		
City	DURHAM	State	NC
Zip	27704		
Phone	919-560-4186	Fax	919-560-1197
E-mail	bruce.woody@durhamnc.gov		
On-Site Contractor	ECOFLO		
Contact Person	KENN WEBB	Title	VP AND FIELD SERVICES
Mailing Address	2750 PATTERSON STREET		
City	GREENSBORO	State	NC
Zip	27407		
Phone	336-617-2733	Fax	866-929-0371
E-mail	kwebb@ecoflo.com		

TRANSPORTER

Company Name	ECOFLO	ID No.	NCD980842132
Contact Person	KENN WEBB	Title	VP AND FIELD SERVICES
Mailing Address	2750 PATTERSON STREET		
City	GREENSBORO	State	NC
Zip	27407		
Phone	336-617-2733	Fax	866-929-0371
E-mail	kwebb@ecoflo.com		

DISPOSER/RECYCLER

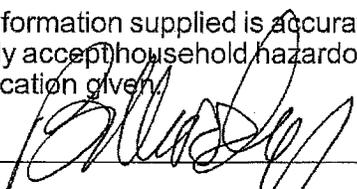
Company Name	ECOFLO	ID No.	NCD980842132
Contact Person	KENN WEBB	Title	VP AND FIELD SERVICES
Mailing Address	2750 PATTERSON STREET		
City	GREENSBORO	State	NC
Zip	27407		
Phone		Fax	
E-mail	kwebb@ecoflo.com		

COLLECTION DETAILS

Physical Location of Event/Facility	City of Durham Transfer Station 2115 E. Club Blvd Durham, NC 27704
Date of Temporary Event (if applicable)	
Materials To Be Collected	Various household hazardous waste material including paints, cleaners, pesticides, herbicides, aerosols, auto products, batteries, waxes, varnishes, coastings, etc.
Materials To Be Recycled	Paints, solvents, motor oil, batteries, computers, empty tanks, etc.
Additional Comments	Not opened on Mondays currently. Tuesday thru Wed 12pm to 6pm, Thursday thru Sat 7am to 3pm.

CERTIFICATION OF OPERATOR/CONTRACTOR:

I certify that the information supplied is accurate and correct to the best of my knowledge and belief, and that this facility will only accept household hazardous waste. I am authorized to make this request on behalf of the operator at the location given.

Name  Title Acting Disposal Manager

Company City of Durham Solid Waste Management Department

Signature _____ Date 02-20-14

Purpose: Application for household hazardous waste identification number. This number shall be used to ship collected materials off-site for treatment and/or processing.

Distribution: Mail completed original to the following address:

Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Contact: Bill Patrakis (919) 508-8512

Disposition: This form shall be maintained in accordance with the standards of the Solid Waste Section's Records Disposition Schedule published by the North Carolina Division of Archives and History.

The Solid Waste Section shall assign an identification number upon receipt of application.

***Temporary Day -** Upon completion of a Temporary Collection day, a report on HHW collected, disposed, and recycled shall be returned to the Solid Waste Section.

***Permanent Site -** An annual report on HHW collected, disposed, and recycled shall be returned to the Solid Waste Section.

SOLID WASTE SECTION USE ONLY

Date Received: 2/20/2014

Date Approved: 6/11/2014

HHW ID Number: NC P_H 0321402

APPENDIX C

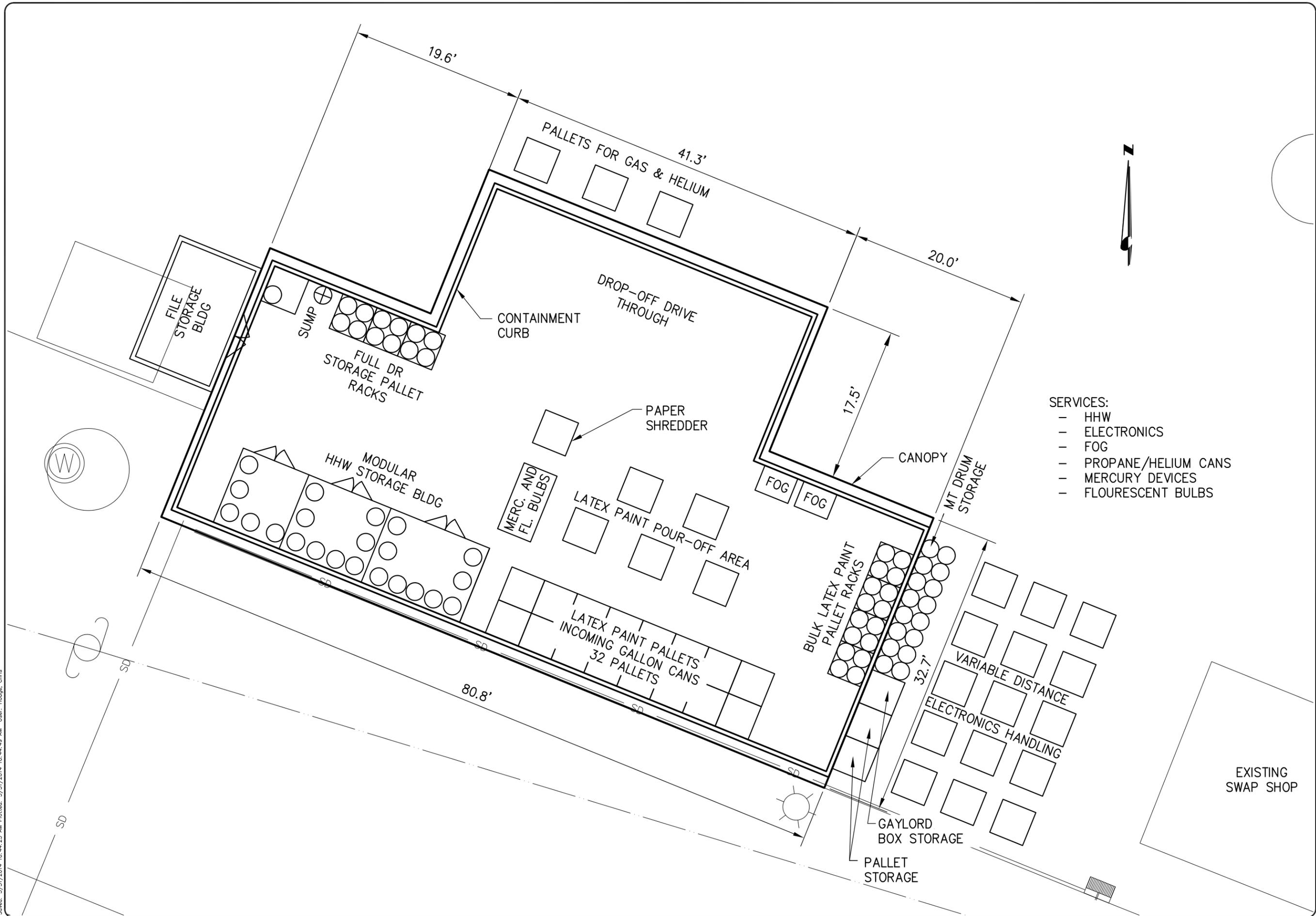
FACILITY LAYOUT

AND

BUILDING ELEVATION

DRAWINGS

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- SERVICES:
- HHW
 - ELECTRONICS
 - FOG
 - PROPANE/HELIUM CANS
 - MERCURY DEVICES
 - FLOURESCENT BULBS

No.	Submittal / Revision	App'd.	By	Date

INTERIOR LAYOUT

UNLESS OTHERWISE NOTED, ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE STATE AND/OR LOCAL LAWS

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Designed: RCS Drawn: CDH Checked: RCS

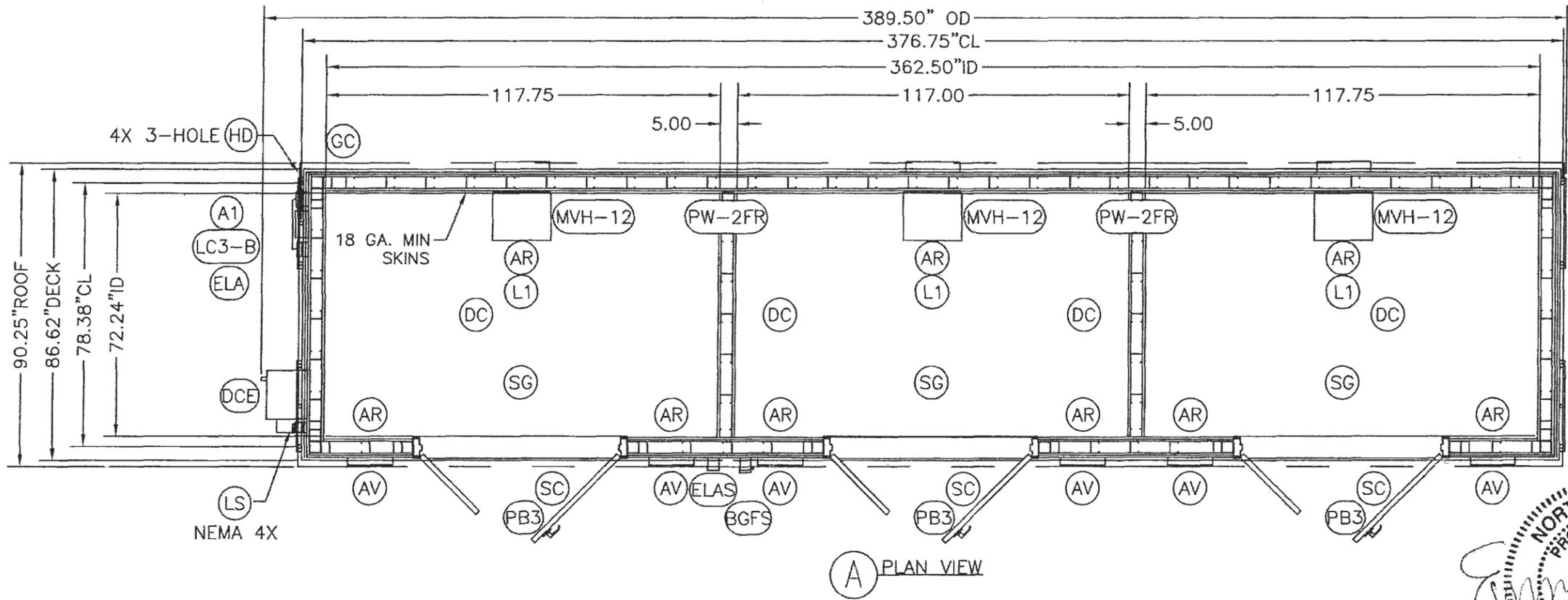
CITY OF DURHAM
 NORTH CAROLINA

HHW CUSTOMER DROP-OFF FACILITY

Issue Date: 3/20/14 Project No.: 24451 Scale: 1" = 10'

FIGURE 4

DRAWN BY: JGE	
DATE: 02/24/14	
REV	DATE



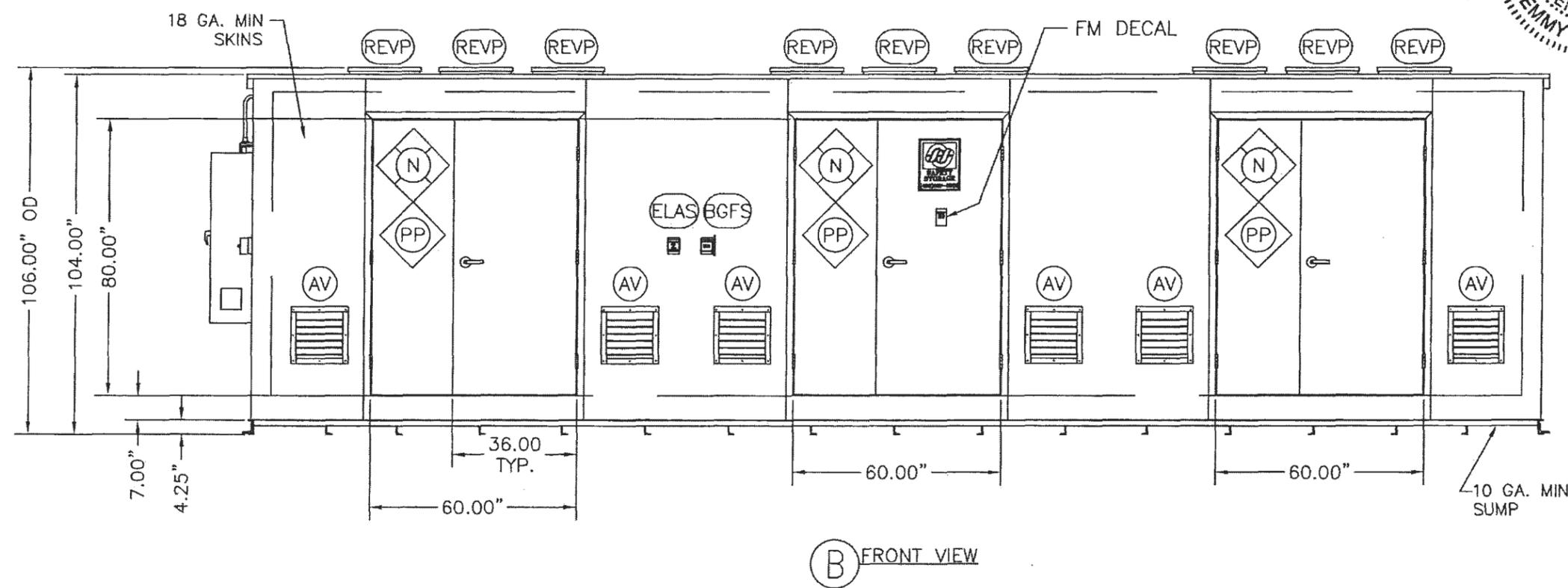
APPROVED

John Siler
MAR 06 2014

R. ARNOLD & ASSOCIATES, INC.
Review of this document does not authorize or approve any omissions or deviations from the applicable requirements.

NORTH CAROLINA
PROFESSIONAL
SEAL
041071
ENGINEER
EMMY M DOWDEN
2/27/14

DURHAM HHW FACILITY
 2115 EAST CLUB BLVD.
 DURHAM, NC 27704
 SSI MODEL: 3208FRE
 SERIAL #: 24723



SAFETY STORAGE

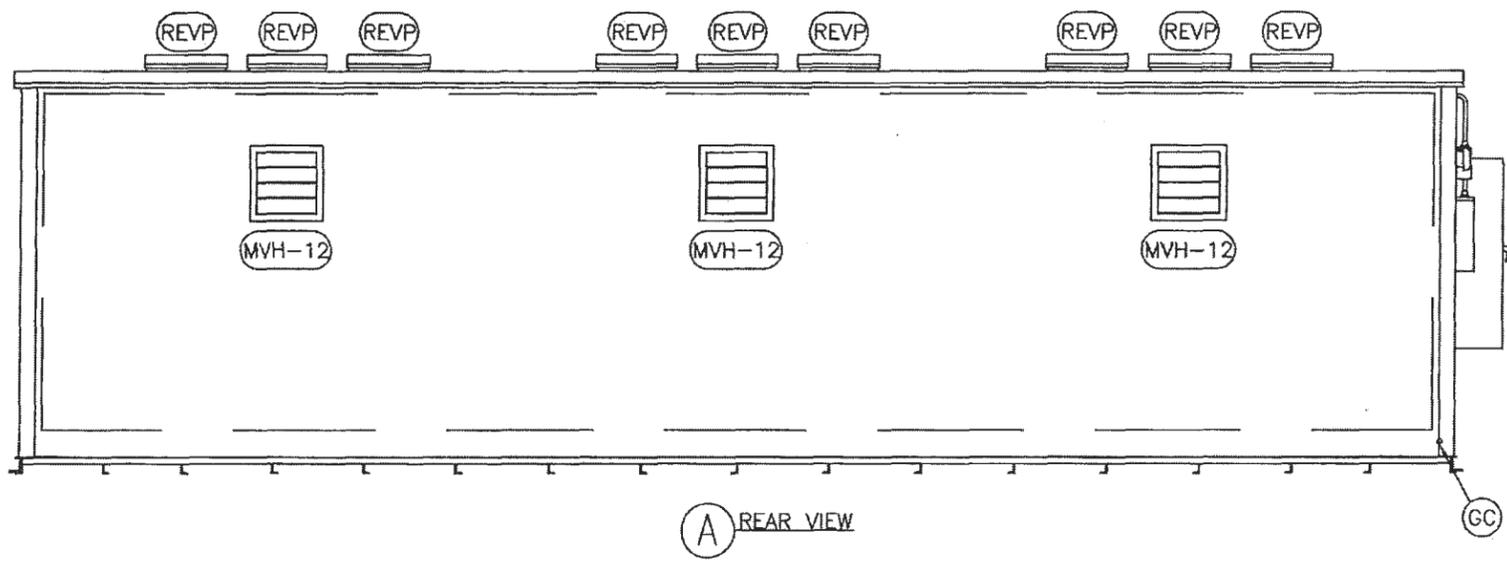
855 N. 5TH STREET
CHARLESTON, IL 61920
PHONE: (217) 345-4422
FAX: (217) 345-4475

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BUILDING ELEVATIONS

D1

DRAWN BY: JGE	
DATE: 02/24/14	
REV	DATE

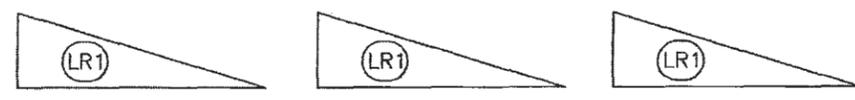
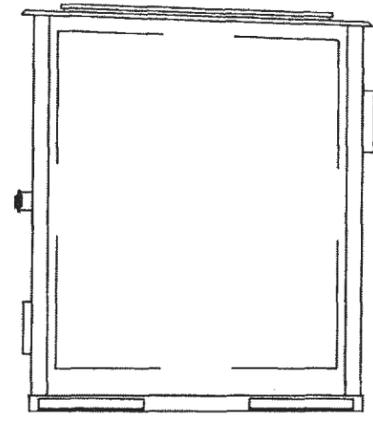
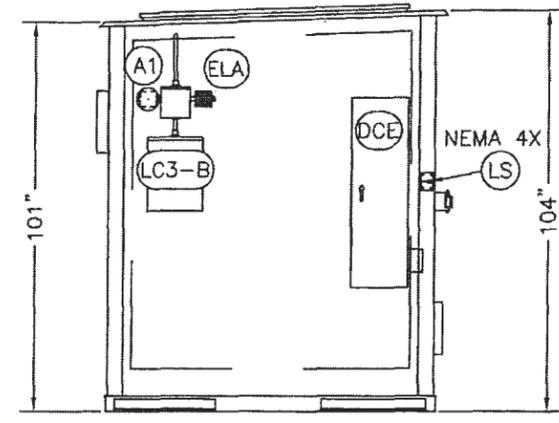


LEGEND

A1:	ALARM, DRY-CHEM (NON-EP)
AR:	ADJUSTABLE REGISTER
AV:	AIR INLET VENT, FIRE RATED BUILDING
BGFS:	BREAK GLASS FAN SWITCH (EP)
DC:	DRY CHEM NOZZLE
DCE:	DRY-CHEM ENCLOSURE WITH AGENT CYLINDER
ELA:	EMERGENCY LOCAL ALARM (NON-EP)
ELAS:	EMERGENCY LOCAL ALARM SWITCH, WITH GUARD (EP)
FE-10:	FIRE EXTINGUISHER, 4A60BC, 10# CHARGE
GC:	GROUNDING CONNECTION
HD:	HOLD-DOWN BRACKET
L1:	LIGHT, 135 WATT (EP)
LC3-B:	LOAD CENTER, 3 PHASE, BOLT-IN BREAKERS (NEMA 3R)
LR1:	LOADING RAMP, STEEL, GALVANIZED (48"x88")
LS:	LIGHT SWITCH, NEMA 4X (NON-EP)
MVH-12:	MECHANICAL VENTILATOR, 12", INTERIOR HIGH MOUNT, 450 CFM FAN (EP)
N:	NFPA 704M RATING SIGN
PB3:	PANIC BAR, 3-POINT LATCH (FOR INSIDE OPENING OF DOOR)
PP:	PERMANENT D.O.T. PLACARD
PW-2FR:	PARTITION WALL, 2HR FIRE RATED WITH SUMP DIVIDER
REVP:	ROOF EXPLOSION VENT PANEL
SC:	SELF CLOSER
SG:	STEEL FLOOR GRATING (GALVANIZED)

APPROVED
John Silva
MAR 06 2014
 T.R. ARNOLD & ASSOCIATES, INC.
 Review of this document does not authorize or approve any omissions or deviations from the applicable requirements.

DURHAM HHW FACILITY
 2115 EAST CLUB BLVD.
 DURHAM, NC 27704
 SSI MODEL: 3208FRE
 SERIAL #: 24723



NORTH CAROLINA
 PROFESSIONAL
 SEAL
 04/07/14
 ENGINEER
 EMMY M DOWDEN
 2/27/14


SAFETY STORAGE
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BUILDING ELEVATIONS

D2

APPENDIX D

CONTINGENCY PLAN

**Contingency Plan for the City of Durham Permanent
Household Hazardous Waste Collection Facility
(Revised June 6, 2014)**

Staff will dial 911 to contact emergency services. Staff will also contact the City and Contractor emergency coordinators. During normal operation hours, the Contractor primary contact will serve as the prime emergency coordinator. During non-operating hours, City staff will be the prime emergency coordinator.

Emergency Contacts:

DAIL 911 to reach each of the following in case of emergency:

- Fire Department
- HAZMAT
- Ambulance Service

Responsible Agency:

Solid Waste Management
City of Durham
1833 Camden Avenue
Durham, NC 27704

Facility Address:

City of Durham's
Transfer Station-Convenience Center
2115 E. Club Blvd
Durham, NC 27704
919-560-4611

Emergency Coordinators
(Listed in the order they should be contacted)

City of Durham
Solid Waste Management:

PRIMARY CONTACT:
Work Location: 1833

Bruce Woody, Disposal Manager
Camden Avenue Durham, NC 27704
919-560-4186 (office) X 32228
919-452-5919 (cell)

SECONDARY CONTACT:
Work Location:

Robert Williams, Assistant Director SWM
1833 Camden Avenue Durham, NC 27704
919-560-4186 (office) 919-201-3483 (cell)

Contractor Staff:
ECOFLO

PRIMARY CONTACT:

Pat Grogan, HHW Program Manager
2750 Patterson Street
Greensboro, NC 27407
336-855-7925 (office) 336-706-0099 (cell)

SECONDARY CONTACT:

Antoine Freeman
2750 Patterson Street
Greensboro, NC 27407
336-855-7925 (office) 919-244-5448 (cell)

Emergency Procedures:

1. Notify other personnel and customers of an imminent or actual emergency. Due to the close proximity of the facility being located at the convenience center, verbal notification should be sufficient.
2. Notify emergency responders of the situation using the 911 phone system.
3. Secure the area immediately to prevent unauthorized entrance into the area.
4. Contact the City and Contractor Emergency Coordinators.
5. Determine the character, source, amount, and areal extent of any discharge materials and assess the possible hazards to the public health or the environment that may result from the discharge.
6. Take all reasonable measures necessary to contain the discharge.
7. Be prepared to inform the emergency responders of the types of HHW involved in any special reactivity concerns (i.e. reactions to water suppression).
8. Observe the situation for changing conditions.
9. Provide treatment, storage or disposing of recovered waste, contaminated soil, surface water, or any other material that results from the event.
10. Ensure that all emergency equipment is clean and fit for its intended use before operations are resumed. Notify NCDENR of the situation within 24 hours of the emergency event.
11. Complete the incident Report Form and submit to the City of Durham and NCDENR within 15 days of the incident.

Evacuation:

Attachment A contains an area map, including the location of local hospitals. There is also a site layout, showing exits from the HHW area.

Equipment:

1. **Telephone:** In case of emergency a landline telephone is in the office. Staff also carries cell phones.
2. **Fire Extinguishers:** Fire extinguishers are located throughout the facility with an CO₂ device in addition to the regular ABC devices on hand.
3. **Spill Control/Decontamination Equipment:** Vermiculite absorbent material is kept onsite to control spills.
4. **Eyewash:** Allows for rapid flushing of eyes in case of chemical exposure. It is located near the containment building area and another located on the tire platform.
5. **First Aid Kit:** Contains bandages etc. for treatment for minor injuries. **It is located near the containment building area.**

LIST OF WASTES AND ASSOCIATED HAZARDS

WASTE	HAZARD(S)
Latex paint	Contamination of ground/surface waters
Oil based paint	Heavy metal contamination of ground/surface waters, flammable
Paint thinner	Highly flammable, toxic
Motor Oil	Heavy metal contamination of ground/surface waters
Pesticides, herbicides	Toxic, can be flammable
Aerosols	Can be flammable, explosive, poisonous
Cleaners, polishers	Toxic
Fluorescent light bulbs	Toxic
Freon	Toxic
Mercury debris	Toxic
Alkaline batteries	Toxic
Lithium batteries	Toxic
Ni-Cad batteries	Toxic
Lead Acid batteries	Acid can burn skin, lead can contaminate water sources

A copy of this Contingency Plan (the Plan) and all revisions of the Plan shall be kept at the facility. The plan shall be reviewed and amended, if necessary, whenever:

1. The facility determines revisions are needed;
2. The contingency plan fails in an emergency;
3. The facility changes its design, construction, operation, maintenance or other circumstances in a way that increases the potential for fire, explosion or discharge of household hazardous waste or their constituents, or changes the response necessary in an emergency;
4. The list of emergency coordinators changes; or,
5. The list of emergency equipment changes.
- 6.

Facility and Contractor Personnel shall be familiarized with all emergency procedures, equipment, and systems contained in the Contingency Plan.

