Chao, Ming-tai

From: Amanda Bader <abader@harnett.org>
Sent: Thursday, August 04, 2016 9:02 AM
To: Chao, Ming-tai; Patterson, Elizabeth; Hammonds, Andrew
Cc: pieter@smithgardnerinc.com; Milton Holland; Randy W. Smith; Joseph Jeffries; Paula Stewart
Subject: Dunn Erwin Transfer Station Hopper Modifications and Closure
Attachments: 2016.02.08 Dunn-Erwin Transfer Station Sheet S-1.pdf; 2016.02.08 Dunn-Erwin Transfer Station Sheet S-2.pdf

Follow Up Flag: Flag for follow up
Flag Status: Flagged

Please find attached drawings showing our proposed improvements to the metal hopper at the Dunn Erwin Transfer Station. The current hopper is damaged and too narrow. We are proposing to begin replacement of the hopper on September 9, 2016. We propose to close the transfer station for two weeks for these modifications.

Thank you for your cooperation.
Amanda

Fac/Perm/Co ID #	Date	Doc ID#
43-07T	08/09/16	DIN 26589

Approval e-mail 26590

GENERAL STRUCTURAL NOTES

GENERAL:

1. UNLESS NOTED OTHERWISE, CONSTRUCTION MEANS AND METHODS SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION LOADS AND OTHER LOADS IMPOSED ON THE PARTIALLY COMPLETED STRUCTURE(S). THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SHORING, BRACING, ERECTION AIDS, AND OTHER NON-PERMANENT SUPPORTING ELEMENTS UTILIZED FOR CONSTRUCTION.
2. THE CONTRACTOR SHALL NOT SCALE DIMENSIONS FROM THE DRAWINGS.

DESIGN:

1. STRUCTURAL DESIGN OF NEW STEEL HOPPER STRUCTURE FOR THE TRANSFER STATION CONFORMS TO THE REQUIREMENTS OF THE FOLLOWING CODES:

   2012 NORTH CAROLINA BUILDING CODE
   2009 INTERNATIONAL BUILDING CODE (INCORPORATED BY 2012 NC BUILDING CODE)

2. DESIGN LOADS AND DESIGN DATA ARE AS FOLLOWS:

A. UNIFORM PUSH LOAD AGAINST HOPPER SURFACE	200 PSF
B. ROOF LIVE LOAD:	NOT APPLICABLE
C. ROOF SNOW LOAD:	NOT APPLICABLE
D. WIND LOAD:	NOT APPLICABLE
E. SEISMIC DESIGN DATA:	
SEISMIC OCCUPANCY CATEGORY	2
SEISMIC IMPORTANCE FACTOR (I_e)	1.0
SPECTRAL RESPONSE ACCELERATION, S_s	0.238
SPECTRAL RESPONSE ACCELERATION, S_1	0.088
SPECTRAL RESPONSE COEFF, S_{DS}	0.254
SPECTRAL RESPONSE COEFF, S_{D1}	0.141
SITE CLASS (ASSUMED)	D
SEISMIC DESIGN CATEGORY	C

EXISTING STRUCTURES:

1. SIZES, ELEVATIONS, AND DIMENSIONS OF EXISTING STRUCTURAL AND ARCHITECTURAL ELEMENTS ARE BASED ON EXISTING DRAWINGS PROVIDED BY THE OWNER AND/OR FIELD MEASUREMENTS AND ARE FOR GENERAL REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE STARTING WORK.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND MAINTAIN ANY AND ALL WORK NECESSARY TO PROTECT EXISTING FACILITIES AND UTILITIES (THIS INCLUDES BUT IS NOT LIMITED TO: BUILDINGS, PIPING, DUCTWORK, POWER, CONDUIT, AND COMMUNICATION LINES). ANY DAMAGE TO EXISTING FACILITIES AND UTILITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE ARCHITECT AND OWNER AT THE SOLE EXPENSE OF THE CONTRACTOR.
3. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF AN ITEM IN QUESTION IS BELIEVED TO HAVE BEEN DAMAGED DURING CONSTRUCTION AND THERE IS NO PHOTOGRAPHIC PROOF OF ITS STATE PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING TO THE SATISFACTION OF THE ARCHITECT AND OWNER AT THE SOLE EXPENSE OF THE CONTRACTOR AND/OR HIS SUB-CONTRACTORS.

STRUCTURAL STEEL:

1. UNLESS NOTED OTHERWISE, DESIGN, DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AISC 303-05 AND 360-05.
2. UNLESS NOTED OTHERWISE, STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MATERIAL SPECIFICATIONS:

   A. HOLLOW STRUCTURAL STEEL (HSS) — ASTM A500 GR. B (F_y = 46 KSI)
   B. PLATES AND BARS — ASTM A36
   C. ALL OTHER STRUCTURAL STEEL — ASTM A36 (F_y=36 KSI)

3. ALL TUBE STEEL SHALL BE CAPPED WITH A 1/4" PLATE, MINIMUM.
4. ANCHOR RODS SHALL CONFORM TO ASTM F 1554, GRADE 36.

   A. CONFIGURATION: STRAIGHT
   B. NUTS: ASTM A 563 HEAVY-HEX CARBON STEEL.
   C. WASHERS: ASTM F 436, TYPE 1, HARDENED CARBON STEEL.

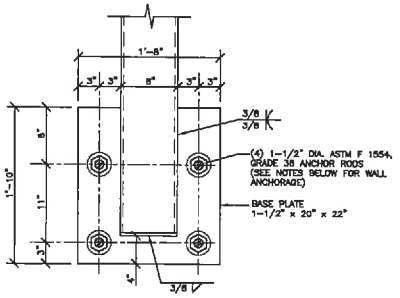
5. ALL WELDING SHALL BE DONE BY WELDERS CURRENTLY CERTIFIED BY THE AMERICAN WELDING SOCIETY (AWS) AS HAVING PASSED AWS QUALIFICATION TESTS FOR THE TYPE OF WELDING THEY ARE TO PERFORM. ALL WELDERS SHALL USE E7000X ELECTRODES AND SHALL CONFORM TO AWS STANDARDS.
6. ALL COPES, BLOCKS, CUTS, AND OTHER CUTTING OF STRUCTURAL MEMBERS SHALL HAVE ALL RE-ENTRANT CORNERS SHAPED, NOTCH-FREE, TO A RADIUS OF AT LEAST 1/2" INCH.
7. UNLESS NOTED OTHERWISE, DETAILS INDICATED ON THE DRAWINGS DEPICT GENERAL CRITERIA FOR CONNECTION DESIGN AND DETAILING. THESE DETAILS ARE NOT INTENDED TO DESCRIBE ANY SPECIFIC ELEMENTS OF THE CONNECTIONS INCLUDING, BUT NOT LIMITED TO, CONNECTION GEOMETRY, ELEMENT THICKNESS, WELD SIZE OR LENGTH, AND BOLT QUANTITY. CONNECTION WORK POINT SHALL BE THE INTERSECTION OF MEMBER CENTERLINES UNLESS NOTED OTHERWISE.
8. THE USE OF OVERSIZED OR SLOTTED HOLES FOR ANY CONNECTIONS IS PROHIBITED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.
9. STRUCTURAL STEEL SHALL RECEIVE A TWO (2) COATS OF FABRICATOR'S STANDARD LEAD-FREE AND CHROMATE-FREE, NONASPHALTIC, RUST-INHIBITING PRIMER. PRIMER COLOR SHALL BE GREY.
10. SUBMIT STRUCTURAL STEEL SHOP DRAWINGS FOR REVIEW. SHOW FABRICATION OF STRUCTURAL-STEEL COMPONENTS.

    A. INCLUDE DETAILS OF CUTS, CONNECTIONS, HOLES, AND OTHER PERTINENT DATA.
    B. INDICATE WELDS BY STANDARD AWS SYMBOLS, DISTINGUISHING BETWEEN SHOP AND FIELD WELDS, AND SHOW SIZE, LENGTH, AND TYPE OF EACH WELD.
    C. INDICATE TYPE, SIZE, AND LENGTH OF BOLTS, DISTINGUISHING BETWEEN SHOP AND FIELD BOLTS.

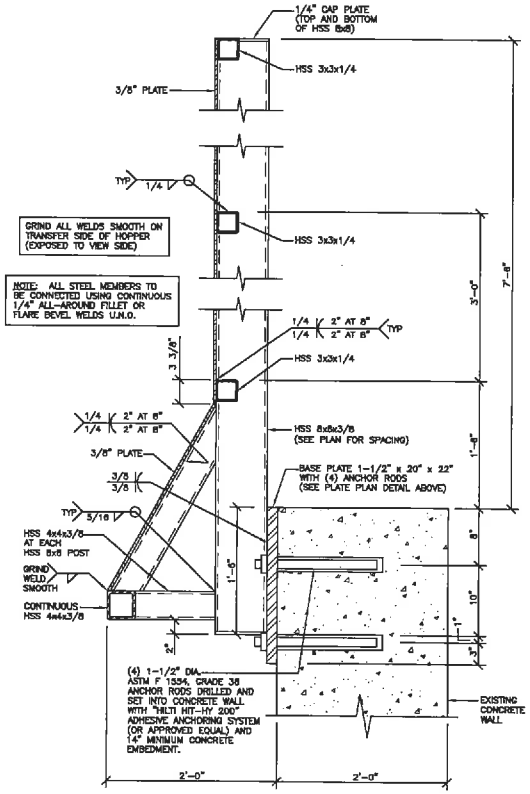
11. OWNER WILL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO INSPECT FIELD WELDS AND PREPARE TEST REPORTS. FIELD WELDS WILL BE VISUALLY INSPECTED ACCORDING TO AWS D1.1. IF ANY WELDS FAIL VISUAL INSPECTIONS, THEN SUSPECT FIELD WELDS SHALL BE TESTED BY ONE OF THE FOLLOWING PROCEDURES:

    A. LIQUID PENTRANT INSPECTION: ASTM E 165.
    B. ULTRASONIC INSPECTION: ASTM E 164.
    C. RADIOGRAPHIC INSPECTION: ASTM E 94.

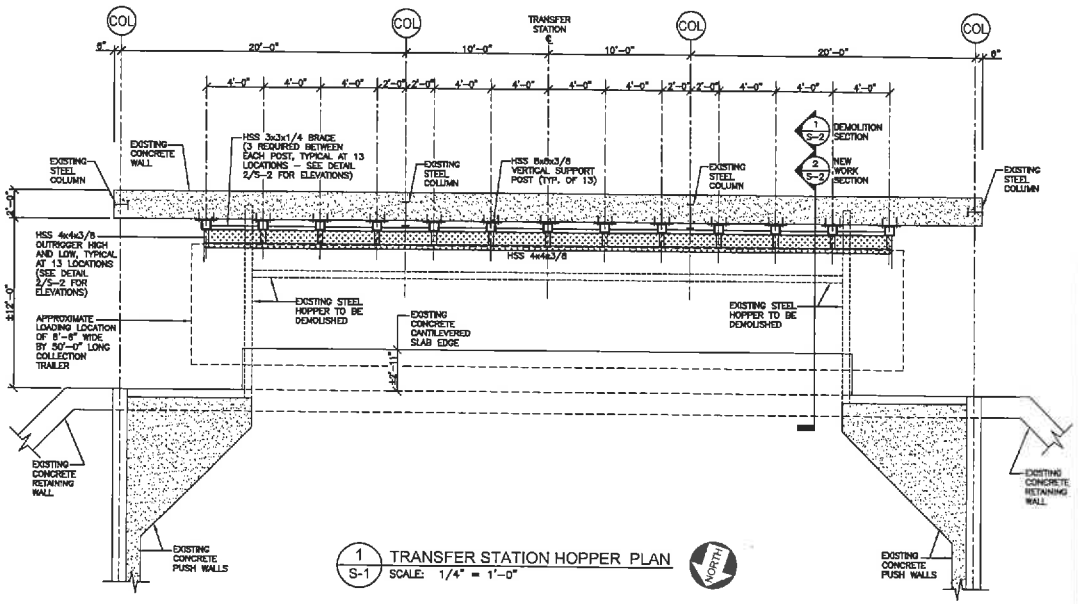
12. CORRECT DEFICIENCIES IN WELDS THAT TEST REPORTS AND INSPECTIONS INDICATE DO NOT COMPLY WITH THE CONTRACT DOCUMENTS.



BASE PLATE DETAIL



2 / S-1 HOPPER DETAIL
SCALE: 1-1/2" = 1'-0"



1 / S-1 TRANSFER STATION HOPPER PLAN
SCALE: 1/4" = 1'-0"

Dewberry

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HARNETT COUNTY
DUNN / ERWIN
TRANSFER STATION
MODIFICATIONS

HARNETT COUNTY
NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 17384 ENGINEER JOSEPH A. MCMAHON
2-8-2016

SCALE

AS NOTED

No.	DATE	BY	Description

REVISIONS

DRAWN BY MKM / JAW
DESIGNED BY JAW
CHECKED BY MKM
DATE FEBRUARY 8, 2016

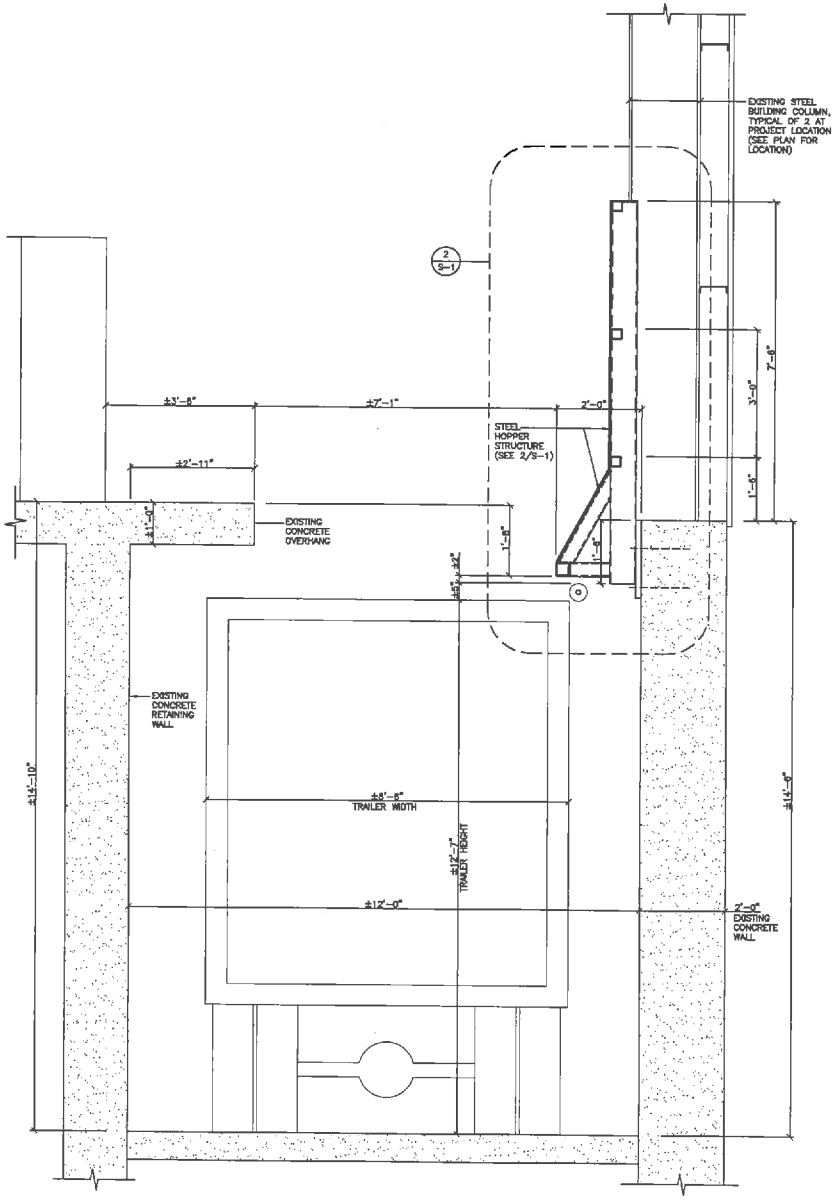
TITLE

STRUCTURAL DETAILS

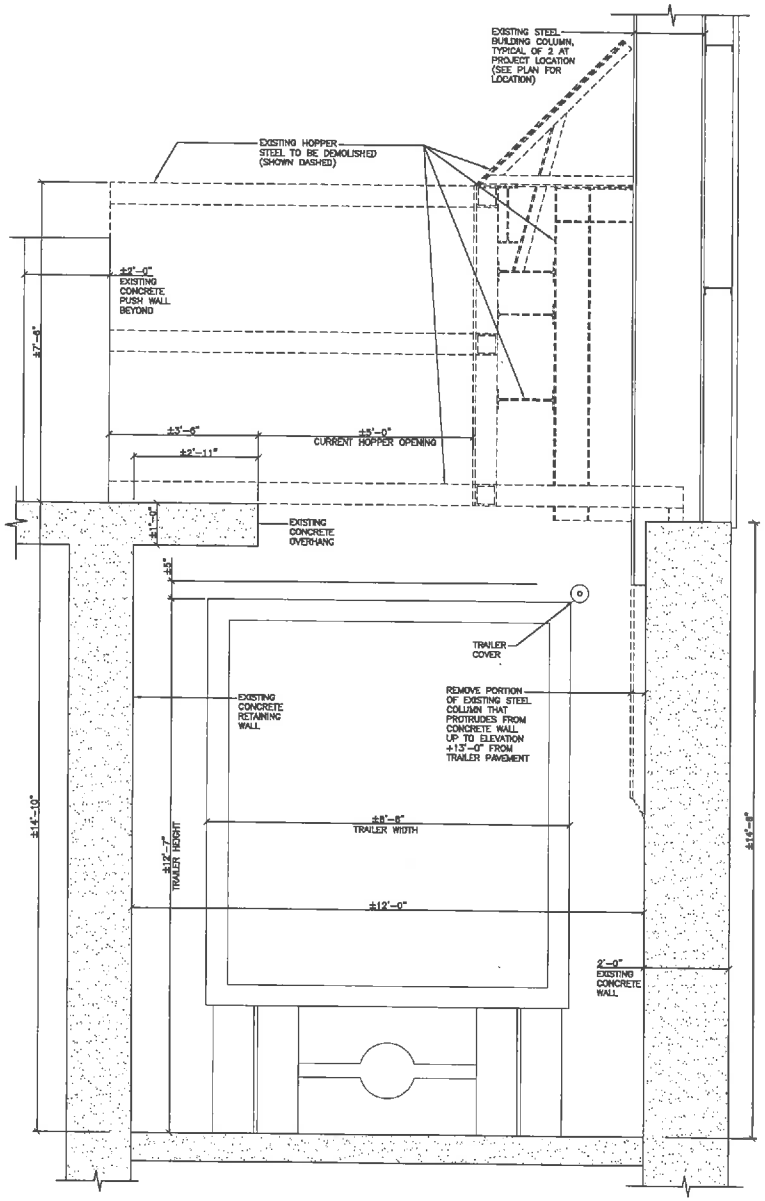
PROJECT NO. 50078443

S-1

SHEET NO.



2 S-2 TRANSFER STATION NEW WORK SECTION
SCALE: 3/4" = 1'-0"



1 S-2 TRANSFER STATION DEMOLITION SECTION
SCALE: 3/4" = 1'-0"

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HARNETT COUNTY
DUNN / ERWIN
TRANSFER STATION
MODIFICATIONS

HARNETT COUNTY
NORTH CAROLINA

NORTH CAROLINA SEAL 17364 ENGINEER JOSEPH A. WOLHAR 2-6-2016

SCALE

AS NOTED

No.	DATE	BY	Description

REVISIONS

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CHECKED BY MKM
DATE FEBRUARY 8, 2016

TITLE

STRUCTURAL DETAILS

PROJECT NO. 50078443

SHEET NO. S-2