East Energy Chiller 1
Cooling Tower Addition
State Project Number H27-1969

Addendum One

June 28, 2012

NOTE: The following amendments, additions, and deletions shall be made to the Construction Documents and Contract Documents. Insofar as those documents are at variance with this Addendum, this Addendum shall govern.

Clarifications

Item No.	Description
1.	Clarification: The new variable frequency drive(s) will be located inside on the same rack as the existing drives serving the existing towers for chiller 1.
2.	Clarification: The notice to proceed construction period of 60 days will begin after the Contractor receives all materials and equipment.
3.	Clarification: Any damage to the building caused by the contractor will be repaired at the Contractor's expense, to an as existing condition prior to the Contractor beginning work.
4.	Clarification: Make up water is indicated to the tower. The make up pipe will be connected as shown but a valve will be provided to shut the water off. Make up water is supplied via the common header.
5.	Clarification: The new pipe shall be flushed and cleaned by the Contractor but water treatment will be by USC.
6.	Clarification: Existing columns extend through the roof and are in place as shown on structural drawings.
7.	Clarification: Tower is indicated on schedule to be field erected by tower Manufacturer. Tower can be erected by contractor personnel under direct supervision of an on-site tower Manufacturer representative.
8.	Clarification: Electrical connections will be from the GE motor control center as indicated on the electrical drawings, NOT the Cutler Hammer.
9.	Clarification: Controls for cooling tower operation shall be by Johnson Controls as specified. Controls Contractor is to include all raceway and wiring in the controls scope of work.

10. Clarification: It was asked at the pre-bid meeting if the pipe could be tapped closer to the new tower at the existing header pipe feeding the existing 4 towers. The pipe needs to be connected as shown on the drawings due to existing header pipe size.

Drawings

Item No.	Description

11. Revision: Reference Drawing S1.0, Cooling Tower Location Plan. This plan revises the structural tower support in order to allow a level basin depth with the existing towers.

12. Revision: Reference Drawing S2.0, Details. This plan revises the structural tower support.

13. Revision: Reference Drawing M-2, Roof Plan. This plan adds an equalization pipe to the existing equalization pipe at the existing towers. This also notes the new valve at the water make up line.

Specifications

Item No.	Description

14. Revision: Reference Section 230500 Heating Ventilation and Air Conditioning, Part 2 Products. Under schedule of piping change Galvanized pipe to Black Steel Schedule 40.

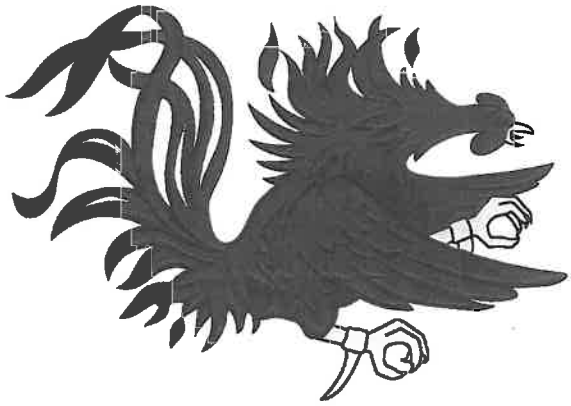
15. Revision: The following are listed as prior approved equals. Please note that this does not relive responsibility to meet the requirements in the specifications. In addition this does not relieve the contractor of responsibility to coordinate electrical requirements for a substituted tower. Counterflow cooling towers are an acceptable alternative however.

    Cooling Tower: Marley/SPX, Reymsa

END OF ADDENDUM

Attachments:

Pre-Bid Sign In Sheets
S1.0
S2.0
M-2



University of South Carolina
Columbia, South Carolina
Project Name & Number: East Energy Chiller I – Cooling Tower Addition/H27-I967
Pre-Bid, June 19, 2012 @ 10 am

ATTENDEE'S NAME	COMPANY NAME & MAILING ADDRESS
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Robby McCarthy	MSI Const. 745 Greenwood Rd West Columbia, SC. PHONE# 803-796-3324 FAX# 803-796-3482 EMAIL robbymccarthy@msiconst.com
Donald Livengood	Graham's Piping INC. 720 Boringer Rd. Salisbury NC. PHONE# 704-636-3251 FAX# EMAIL dLivengood@grahampiping.com

Make sure to include your company name (on this form) as registered with LLR.

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ATTENDEE'S NAME	COMPANY NAME & MAILING ADDRESS
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Aimee Rish	
	PHONE#
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	EMAIL Will t@mccartermechanical.com

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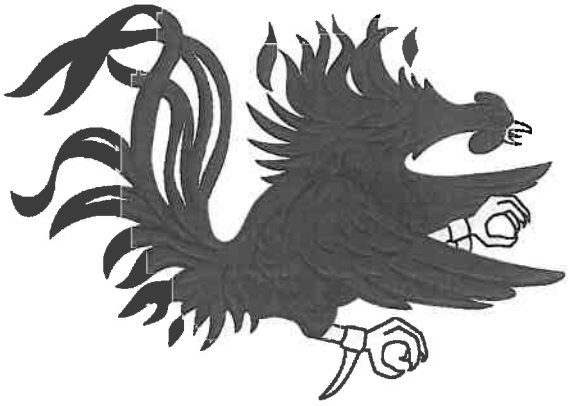

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ATTENDEE'S NAME	COMPANY NAME & MAILING ADDRESS
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	 PHONE# FAX# EMAIL
Nick Miller	 PHONE# FAX# EMAIL
	 PHONE# FAX# EMAIL

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ATTENDEE'S NAME	COMPANY NAME & MAILING ADDRESS
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	PHONE# FAX# EMAIL
Ken Morelli	SUPERIOR MAINTENANCE & PIPING INC 1665 AUGUSTA RD WARREENVILLE SC 29851 PHONE# 803.663.7286 FAX# 803.663.7290 EMAIL KMORELLI.SMPI@ATT.NET
TED PRICE SR	SOUTHERN INDUSTRIAL CONSTRUCTORS 200 ARBORETUM PL COLUMBIA SC 29209 PHONE# 803 7963072 FAX# 803 7966600 EMAIL TEDPRICE@SOUTHERNINDUSTRIAL

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Project Name & Number: East Energy Chiller I – Cooling Tower Addition/H27-I967
Pre-Bid, June 19, 2012 @ 10 am

ATTENDEE'S NAME	COMPANY NAME & MAILING ADDRESS
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Daniel Keels	Carolina Chillers Inc. 10600 Chris dr W. Cola SC 29169 PHONE# 803-201-5591 FAX# 803-926-8577 EMAIL DanielKeels@CarolinaChillers.com
Quinton Bolin	USC FACILITIES Dept. PHONE# 803-767-7182 FAX# EMAIL qbolin@fmc.sc.edu
Todd Yarbrough	PHONE# 803-777-7537 FAX# 803-777-7536 EMAIL TYARBRO@FMC.SC.EDU

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ATTENDEE'S NAME	COMPANY NAME & MAILING ADDRESS
RANDY OWENS	Columbia Cooling & Heating Co., Inc. PO Box 284 Columbia, SC 29202 PHONE# (803) 765-0430 FAX# (803) 779-0027 EMAIL ROWENS@ColumbiaCooling.COM
JOY MORAS	W.O. Blackstone & Co. Inc P.O. Box 88 Columbia, SC 29201 PHONE# 803.252-8222 FAX# 803.252-8720 EMAIL JMORAS@WOBLACKSTONE.COM
_____	PHONE# FAX# EMAIL
_____	PHONE# FAX# EMAIL

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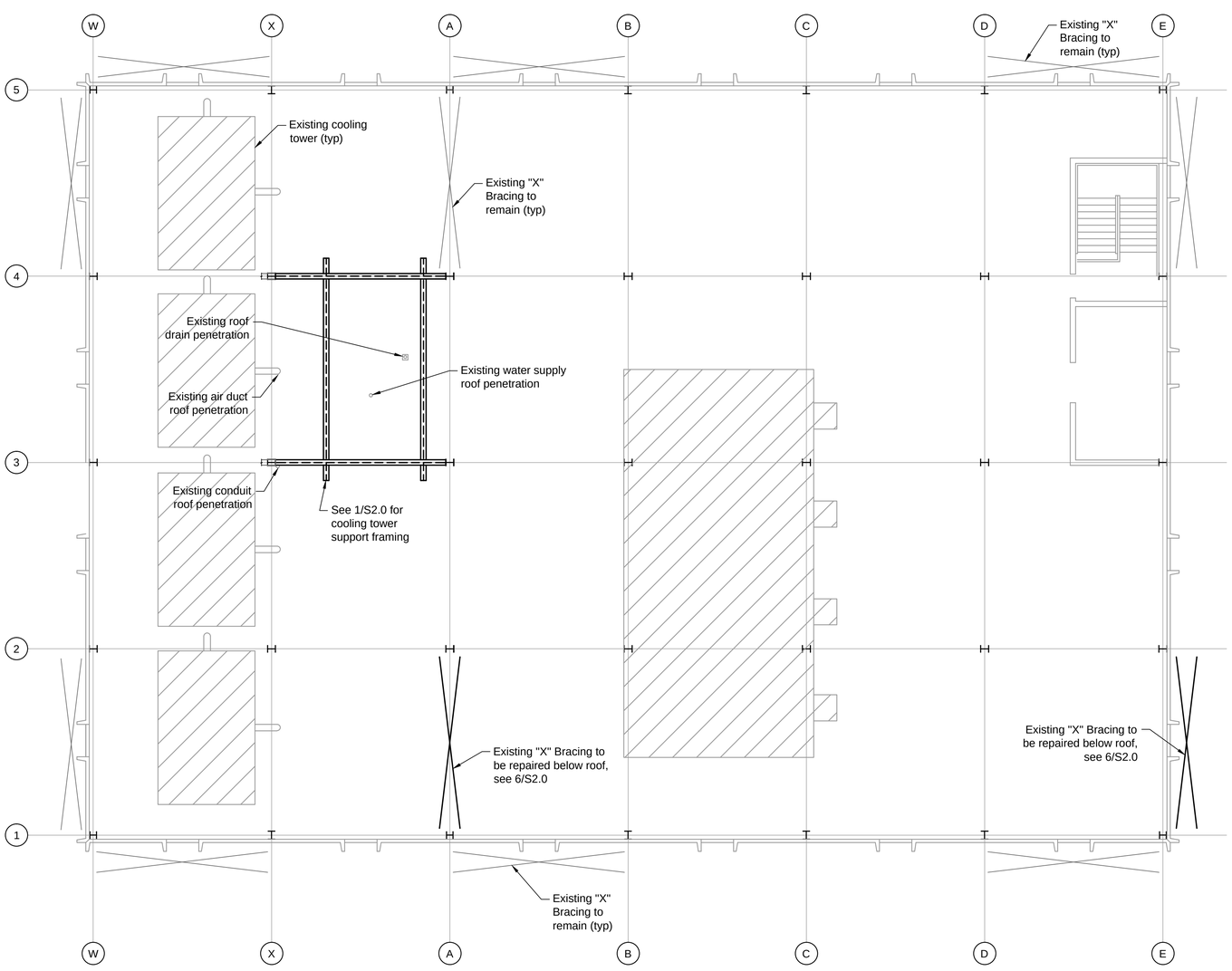

Cooling Tower Location Plan

Scale: 1/8" = 1'-0"

General Notes:

1. Design Specifications: International Building Code (2006 Edition).
   Design Loads:
   - Roof live load: 20 PSF flat (less than 4" per foot)
     16 PSF pitched
   - Snow load: 10 PSF
   - Floor live load: Office with fixed partion: 50 PSF
     Storage (Light Duty): 125 PSF
     File Room: 150 PSF
     Balconies: 100 PSF
   - Dead load: Actual
   - Wind Velocity: 130 MPH
   - Exposure Category: C
   - Site Class: D
   - Seismic Use Group: I
   - Mapped Spectral Response Accelerations: Ss=1.66 g, S1=0.47 g
   - Site coefficients: Fa=1.0, Fv=1.53
   - Seismic design category: D
   - Basic seismic resistance system: Building frame systems
   - Special steel concentrically braced frames
   - Response modification factor: (R): 6
   - Deflection amplification factor:(Cd): 5
   - Seismic Analysis Procedure: Equivalent lateral force procedure.
2. The construction falsework design (if any) is the responsibility of the Contractor. The design shall be performed by a Registered Engineer and shall be submitted for approval before commencing of the work.
3. Where a detail is shown on Structural Drawings for one condition, it shall apply to all similar or like conditions, unless noted or shown otherwise on plans.
4. All items shall be tightly anchored or attached square, plumb, and true, or in other planes and shapes as shown on the drawings. Joints shall be tight, even,and free of offsets. No field altering of any members will be allowed that will cause them not to be in accordance with the drawings and specifications, without written approval of the Project Engineer.
5. The dimensions shown with a suffix "±" are approximate and shall be verified by the Contractor before fabrication.
6. If the Contractor finds a difference between these drawings & existing conditions, or finds any other conditions which prohibit execution of the work as directed in these drawings, the Contractor shall notify the Engineer immediately.
7. The Contractor shall employ a laboratory to perform the quality assurance, sampling, testing and/or inspection at his expense. Final selection of such laboratory shall be approved by the Engineer.
8. Any revision/modification to the original design during the shop drawing process, the Contractor shall clearly cloud line all the changes and shall receive approval from the Engineer in writing before fabrication. Any costs associated with correcting the unapproved change shall be at the Contractor's expense.

Structural and Miscellaneous Steel

1. All structural and miscellaneous steel shall conform to the Thirteenth Edition of the AISC "Specification for the Design, Fabrication & Erection of Structural steel for Buildings" and all its supplements, and to the AISC "Code of Standard Practice for Steel Buildings and Bridges".
2. All structural steel shall conform to ASTM A-36, FY=36,000 PSI unless otherwise noted.
3. Steel W-Shapes shall conform to ASTM A992, FY=50,000 PSI.
4. All rectangular or square steel HSS-Shapes shall conform to ASTM A500 grade B, FY=46,000 PSI. All round steel HSS-Shapes shall conform to ATSM A500 grade B, FY=42,000 PSI.
5. All welded connections shall be done with E70XX electrodes with 3/16" min. material. All welding shall comply with AWS D1-1 structural welding code the latest edition.
6. All bolts shall be A325-SC slip critical bolts, unless otherwise noted.
7. The structural steel shall have one coat of anti-rust paint and one coat of finish paint of color determined by the owner. Prior to painting, all steel surfaces shall be prepared in accordance with SSPC-SP3. All paints shall be approved by the Owner/Architect prior to their use.
8. Fabrication and assembly of bolted connections shall comply with applicable sections of AISC "Specification for Structural Joints using ASTM A325 or A490 bolts."
9. No openings in beams shall be permitted without the written permission of the engineer.
10. The use of a gas-cutting torch in the field for cutting holes or for correcting fabrication errors will not be permitted on structural framing members except with the written approval of the Engineer for each specification.
11. An independent inspection agency shall be employed by the contractor and approved by the engineer to inspect the structural steel in the field and verify that it conforms to the requirements of the contract documents.

CHAO & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS

Chao & Associates, Inc.
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7 Clusters Court
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Email: consult@chaoinc.com

SOUTH CAROLINA
CHAO & ASSOCIATES
No. C00357
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
23511
6/24/12
JAMES D. CHAO

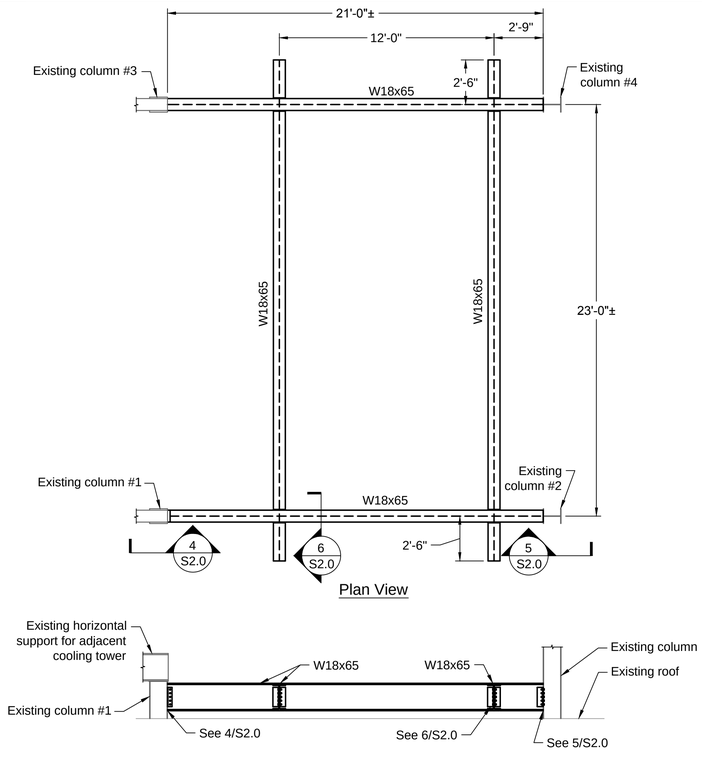
USC East Energy Cooling Tower
Prepared for University of South Carolina
Columbia, SC

Drawn: MAB Checked: DC
Revised:
Addendum 1 6-28-12

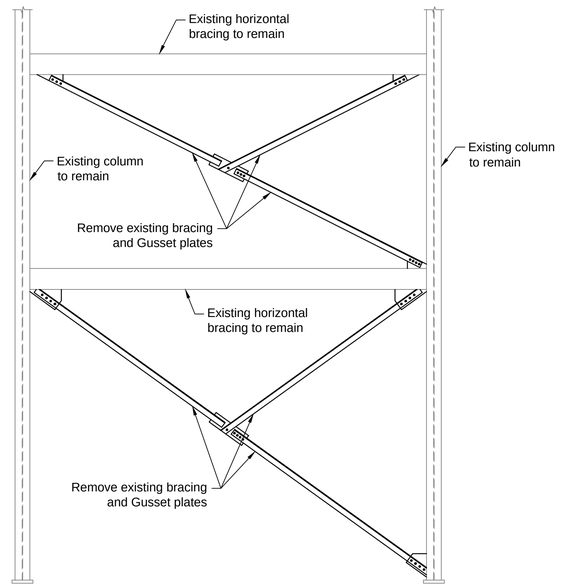
File: COOLING TOWER.dwgProject No.: 391539-11

S1.0
Sheet Number
June 25, 2012
Date

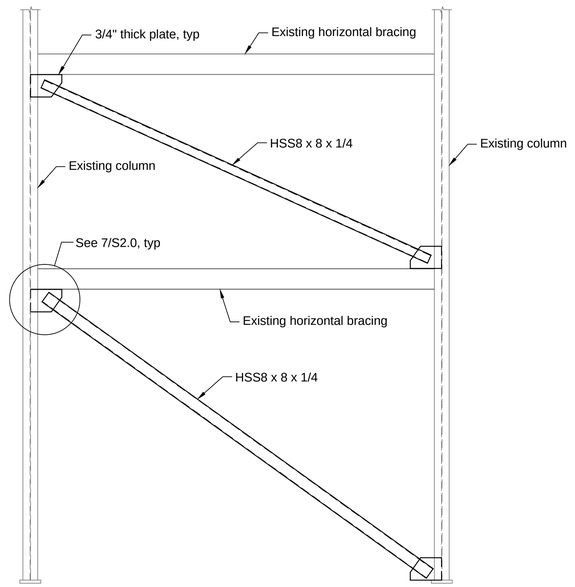
Drawing file: COOLING TOWER.dwg Plotted: Jun 25, 2012 - 3:24pm



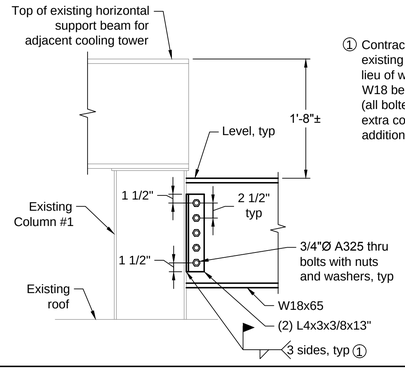
1 - Cooling Tower Support Framing — Scale: 1/4" = 1'-0"



2 - Bracing and Gusset Demolition Plan — Scale: 1/4" = 1'-0"

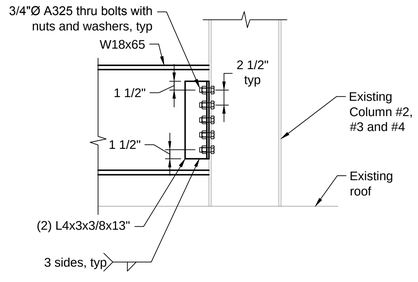


3 - Bracing and Gusset Replacement Plan — Scale: 1/4" = 1'-0"

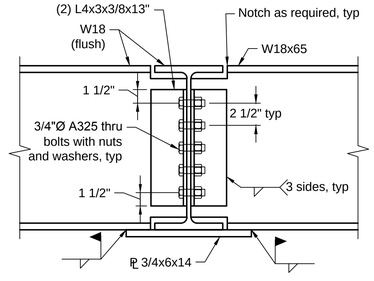


① Contractor may opt to utilize existing holes on column #1 in lieu of welding to connect new W18 beam to existing column (all bolted connections) at no extra cost to owner. (Note additional holes required)

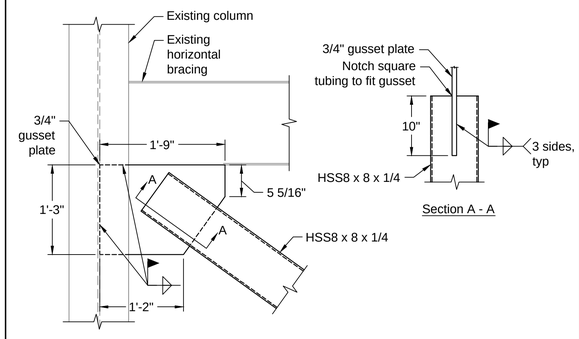
4 - Beam to Column Connection Detail — Scale: 1" = 1'-0"



5 - Beam to Column Connection (Column #2, #3 and #4 — Scale: 1" = 1'-0"



6 - Beam to Beam Connection — Scale: 1-1/2" = 1'-0"



7 - Section — Scale: 1-1/2" = 1'-0"

8 - Typical Stiffener Detail — Scale: 1-1/2" = 1'-0"

9 - Bracing and Gusset Assembly — Scale: 1" = 1'-0"

CHAO & ASSOCIATES, INC.
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SOUTH CAROLINA — CHAO & ASSOCIATES No. C00357 — CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA — REGISTERED PROFESSIONAL ENGINEER — 6/24/12 — WEI D. CHAO

USC East Energy Cooling Tower
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Columbia, SC

Drawn: MAB Checked: DC
Revised: Addendum 1 6-28-12
File: COOLING TOWER.dwg Project No.: 391539-11

S2.0
Sheet Number
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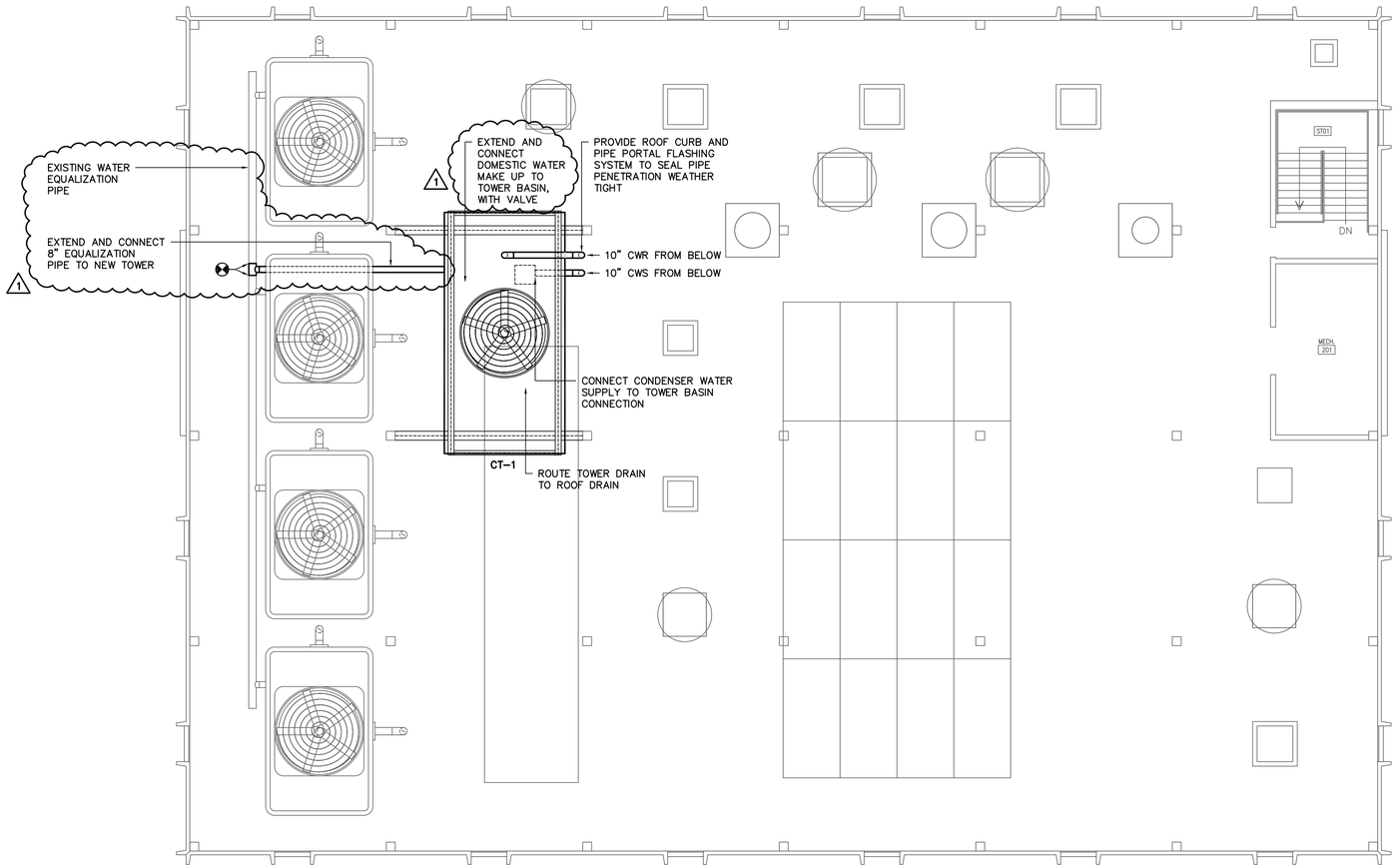
Drawing file: COOLING TOWER.dwg Plotted: Jun 25, 2012 - 3:24pm



N

1 / M-2 ROOF PLAN

SCALE: 1/8" = 1'-0"

CAMPUS PLANNING
AND CONSTRUCTION
COLUMBIA, SC 29208

SEAL:

BUILDING:	REV:	DESCRIPTION	DATE	DRAWN BY:	CHECKED BY:
DRAWING: CP00331757	1	ADDENDUM 1	30MAY12	DEM	WCL
			6.28.12	ORIG. BY: WCL	DRAWN BY: WCL

PROJECT TITLE:
EAST ENERGY CHILLER 1
COOLING TOWER ADDITION
STATE PROJECT NO.: H27-1969

University of South Carolina

SOUTH CAROLINA
SWYGERT AND ASSOCIATES, LTD.
NO. C00227
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SHEET: M-2
OF 3

SHEET IN SET:
OF