

ENERGY  
SERVICES

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August 16, 1984  
84056.021

Mr. J. B. George  
Project General Manager  
Texas Utilities Generating Company  
Highway FM 201  
Glen Rose, Texas 76043

Subject: Cable Tray Support Walkdown Questions  
Comanche Peak Steam Electric Station  
Independent Assessment Program - Phase 4  
Texas Utilities Generating Company  
Job No. 84056

Dear Mr. George:

Cygna conducted a walkdown of the various cable tray supports to assure that the as-built condition properly reflects the designed support. Some discrepancies were discovered during the course of the walkdown. These discrepancies are listed in Attachment A. Please provide the information requested for each item.

If there are any questions, don't hesitate to call.

Very truly yours,

*N. H. Williams*

N. H. Williams  
Project Manager

NHW:jm

cc: Mr. S. Burwell  
Mr. S. Treby  
Mr. D. Wade  
Mr. G. Grace  
Mrs. J. Ellis  
Mr. R. Ballard

50-445/446

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ADD: Region IV  
NSIC

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**Attachment A**  
**Cable Tray Support Walkdown Questions**

1. Support 332, Type: Detail "A", Drawing 2323-E1-0700-01-S.

The lower cantilevered channel section, C6 x 8.2, is in contact with the insulation of the Train B Component Cooling Water heat exchanger. Please explain what criteria, if any, the CPSES project used for separation of safety related components and cable tray supports.

2. Support 408, Type: B<sub>4</sub>.

- a. This support was modified to provide a notched corner in CMC 9916. Part of this modification included the addition of a channel section, C4 x 7.25. Cygna's walkdown documentation shows that a C6 section was used instead of the C4. Although the use of this larger section does not impair the load resisting capabilities of the support, it is important to ensure that proper controls exist authorizing construction to deviate from a design. Please provide documentation permitting the use of a C6 section rather than the C4 section specified on CMC 9916.

- b. Cygna noted that the lower north corner of support 408 was in contact with the insulation of the Train B Component Cooling Water heat exchanger. Please explain what criteria, if any, the CPSES project uses for separation of safety related components and cable tray supports.

3. Support 455, Type: SP-8.

Cygna's walkdown documentation shows that the southern angle brace from the C6 x 8.2 vertical hanger member is attached to the base angle between the anchor bolt and the end of the angle as shown in the attached sketch. The original design configuration specifies that the brace shall be located between the anchor bolts with a maximum eccentricity from the bolt centerline. Cygna notes that the installed brace connection configuration matches the original fabrication drawing (Sheet 455, revision 2, of drawing FSE-00159). Please provide the existing calculations which demonstrate the acceptability of the installed brace connection configuration since it is different than the original design assumptions.

4. Support 649, Type: A<sub>1</sub>.

Cygna observed that the installed single base angle attachment is a 5" x 5" x 3/4" angle. Drawing 2323-S-0903, revision 5 specifies that the angle shall be 6" x 6" x 3/4". The use of a smaller angle may result in

**Attachment A (Continued)**  
**Cable Tray Support Walkdown Questions**

stresses which exceed design allowables. Please provide justification for the use of the smaller angle section for this support.

5. Supports 722 and 2606, Type: Detail "N", drawing 2323-E1-0601-01-S.

Cygna's walkdown documentation shows that the working point of the brace connection to the base angle is through the centerline of the top anchor bolt as shown in the attached sketch. This configuration forces the entire brace load to be resisted by a single anchor bolt which is not consistent with the original design. Please provide justification for the adequacy of the installed connections.

6. Support 3022, Type: Detail "F", drawing 2323-E1-0601-01-S.

Cygna's walkdown noted that the base plate for support 3022 has excessive gaps under approximately 50% of the base plate surface area. Please provide justification on the acceptability of such large gaps.

7. Support 2953, Type: Detail "F", drawing 2323-E1-0601-01-S.

Cygna noted that support 2953 is attached to an 8" wide embedded plate. The lower edge of the plate is 4" from a penetration sleeve. Please describe the guidelines used on the CPSES project to ensure that penetrations and embedded plates are sufficiently spaced to allow for full development of the embedded plate load carrying capability.

8. Support 6654, Type: A-2.

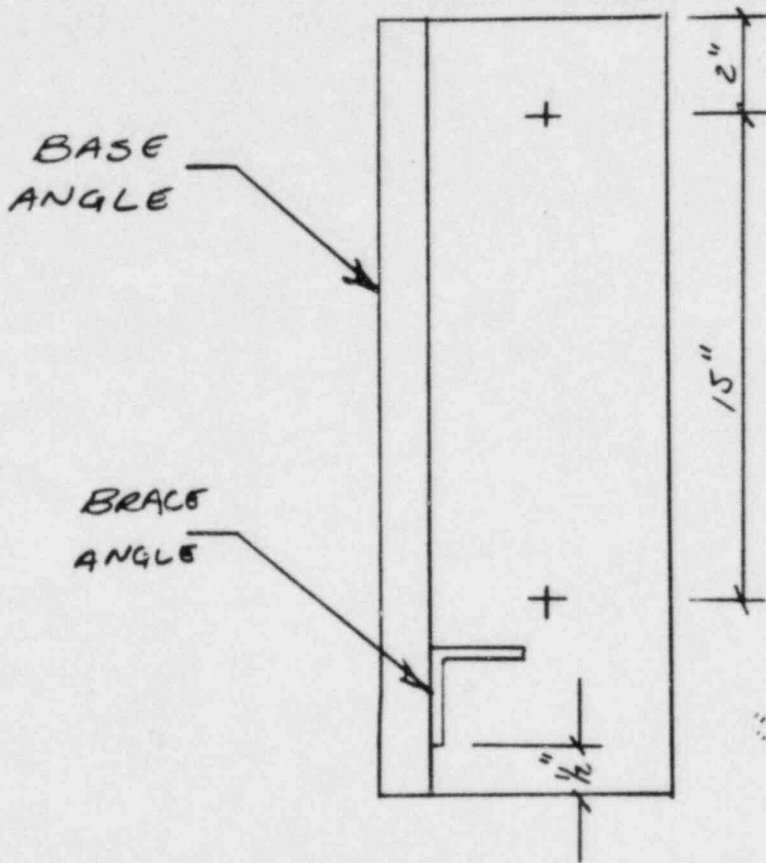
CMC 90714 details the connection between the east leg and the base angle of the support. The attached sketch shows the constructed configuration of the connection. The installed detail provides more weld length than originally specified, but the points of attachment and weld length are different than that specified on CMC 90714. Please provide documentation which permits the change in the connection detail as noted above.



# Calculation Sheet

LTR. 84056.021

Project	TEXAS UTILITIES - CPSES IAP	Prepared By	J. P. R.	Date	13 AUG. 1984
Subject	WALKDOWN QUESTION 3	Checked By		Date	
System	CTH 408, SP-8	Job No.	84056	File No.	
Analysis No.	WD-CTS-07	Rev No.	0	Sheet No.	



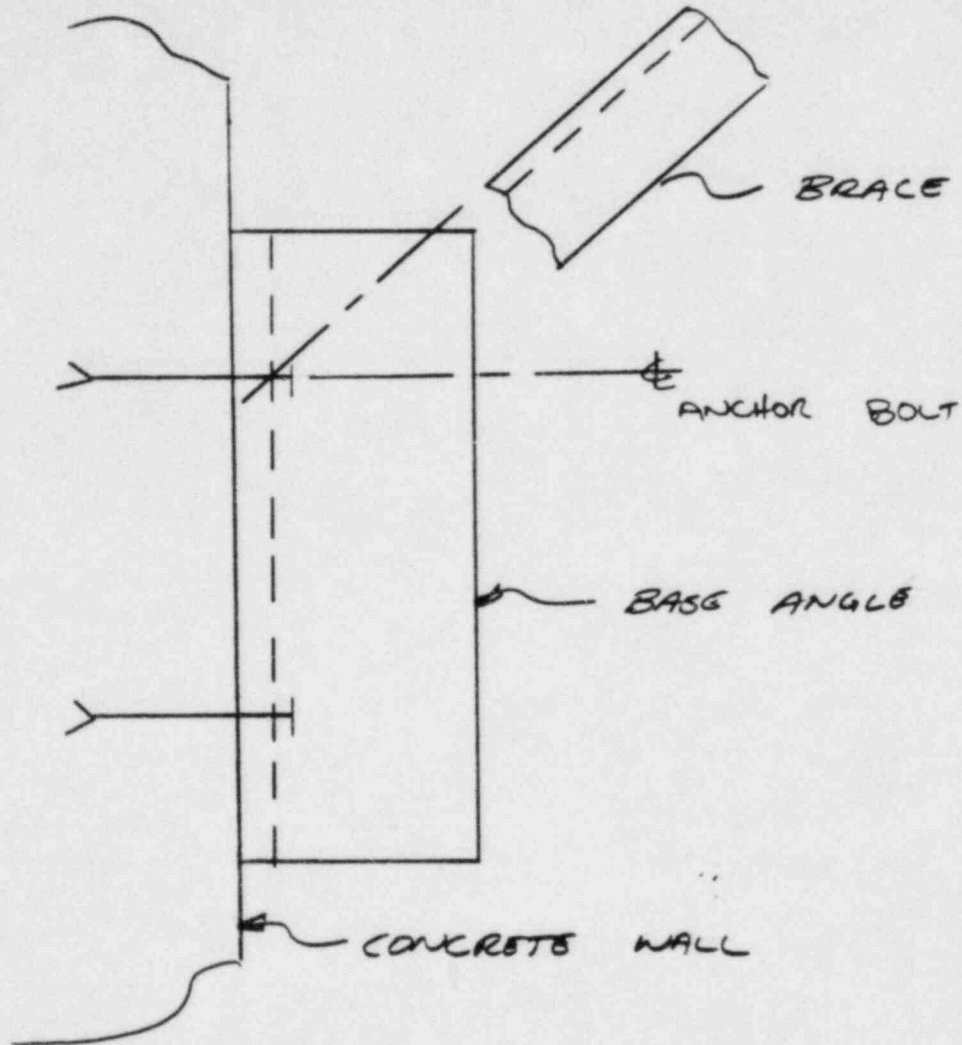
ELEVATION OF SOUTHERN  
ANGLE BRACE FOR SUPPORT  
408, TYPE SP-8  
(NOT TO SCALE)



# Calculation Sheet

LTR. 84056.021

Project	TEXAS UTILITIES - CPS&S IAP	Prepared By	J.P.R.	Date	13 Aug '82
Subject	WALKDOWN QUESTION 5	Checked By		Date	
System	CTH 722, DETAIL "N"	Job No	84056	File No	
Analysis No	ND-CTS-22	Rev No	0	Sheet No	



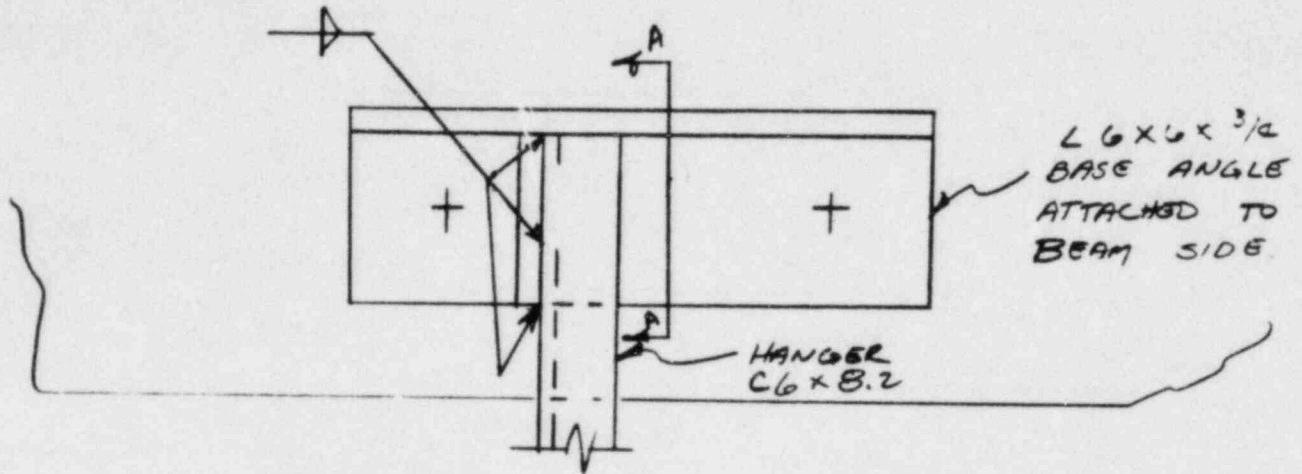
ELEVATION OF BRACE - CONNECTION  
TO BASE ANGLE  
DETAIL "N" - SUPPORTS 722 & 2606  
(NOT TO SCALE)



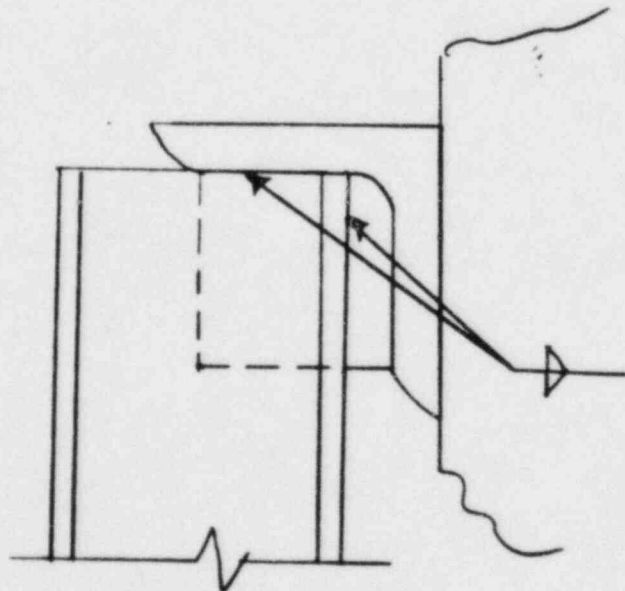
Calculation Sheet

LTR. 84056.021

Project	TEXAS UTILITIES - CPSES IAP	Prepared By	J.P.R.	Date	13 Aug. 84
Subject	WALKDOWN QUESTION 8	Checked By		Date	
System	CTH 6654, A2	Job No	84056	File No	
Analysis No	WD-CTS-47	Rev No	0	Sheet No	



ELEVATION OF HANGER CONNECTION  
SUPPORT 6654  
(NOT TO SCALE)



SECTION A-A  
(NOT TO SCALE)