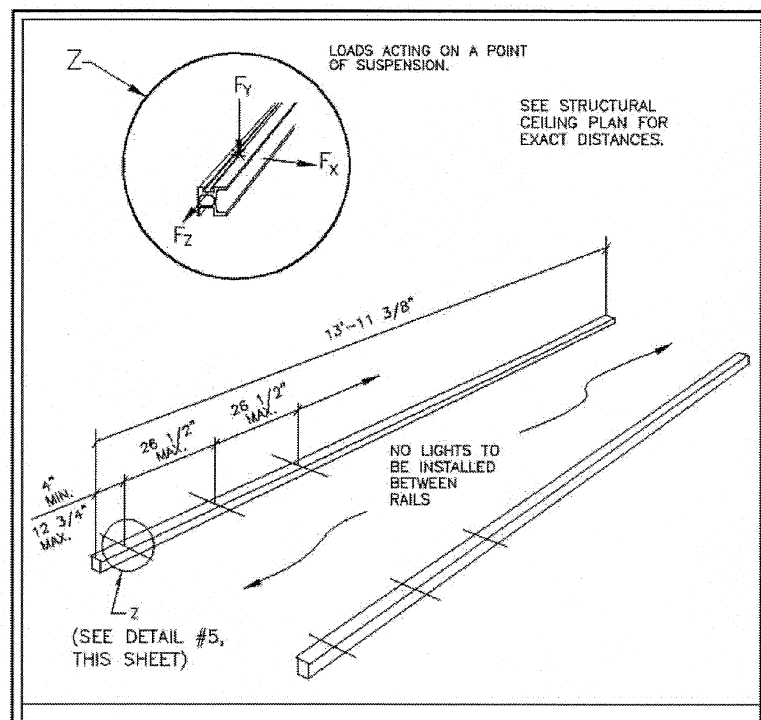


**STRUCTURAL CEILING PLAN**

SCALE: 1/4" = 1'-0"



**1 CEILING LOADS** SCALE: NONE

TYPICAL AT ALL INTERSECTIONS OF UNISTRUT AND C-ARM LONGITUDINAL RAILS "X"

MAXIMUM LOADS DURING OPERATION F<sub>MAX</sub> =

F<sub>y</sub> = VERTICAL CEILING LOAD PER MOUNTING POINT (2 SCREWS = 2,225 LBS PER SCREW) THE PRIMARY LOAD IS EXERTED ON EACH MOUNTING POINT BECAUSE THIS IS A FLOORING SHIELD LOAD.

F<sub>x</sub> = MAXIMUM TRANSVERSE FORCE EXERTED ON THE RAIL. 450 LBS.

F<sub>z</sub> = MAXIMUM LONGITUDINAL FORCE EXERTED ON THE RAIL. 900 LBS.

NOTES:

- A STRUCTURAL CEILING (IF UNISTRUT) MUST BE INSTALLED BY THE CUSTOMER/CONTRACTOR AND MUST MEET THE FOLLOWING SPECIFICATIONS:
  - THE BOTTOM SURFACE MUST BE POSITIONED HORIZONTALLY. (MAXIMUM DEVIATION IS 0.3MM/M (1/47.2").
  - THE UNISTRUT SUB CONSTRUCTION SHOULD BE DESIGNED SUCH THAT VIBRATION INDUCED BY THE LONGITUDINAL AND TRANSVERSE FORCES ARE LIMITED TO THE VIBRATION SPECIFICATION AS SPECIFIED ON THE ENVIRONMENTAL CONDITIONING TABLE LOCATED ON THE M-101 SHEET. IF NECESSARY, THE STRUCTURAL CEILING (IF UNISTRUT) MUST BE REINFORCED WITH LONGITUDINAL AND TRANSVERSE BRACING.
  - PROVIDE LONGITUDINAL AND DIAGONAL SUPPORT BEAMS.
  - IF WITH A HORIZONTAL CENTERED FORCE OF 130 LBS, THE STRUCTURAL CEILING (IF UNISTRUT) MOVEMENT MAY NOT EXCEED 0.3MM (1/64").
  - THE OVERHEAD SHIELDING SHIELD CEILING STAND AND BOSS EXERTS A FORCE OF 2,200 LBS ON THE CEILING. THE MAXIMUM DEVIATION ON THE INSTALLATION CEILING CAUSED BY THIS LOAD MAY NOT BE GREATER THAN 3MM (1/8").

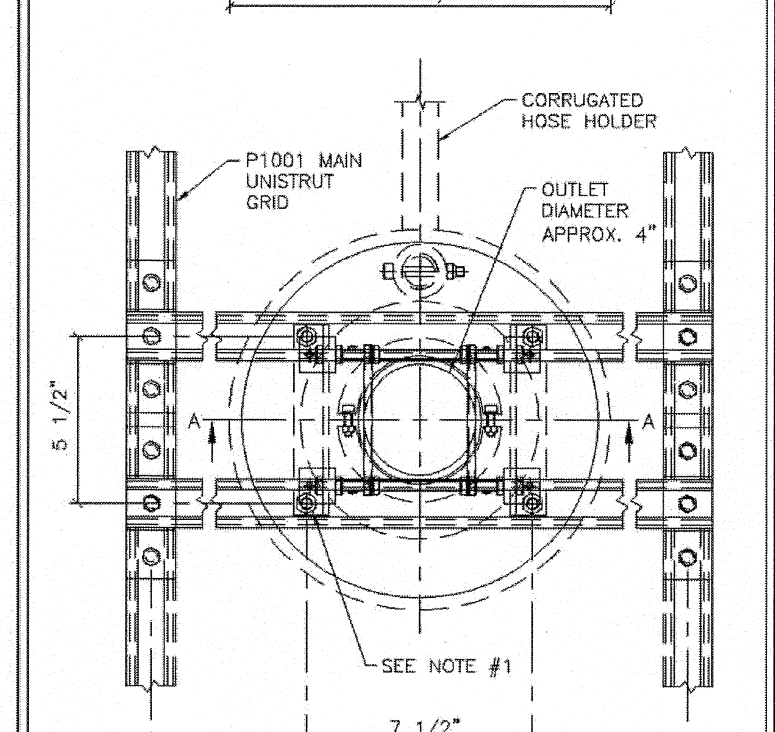
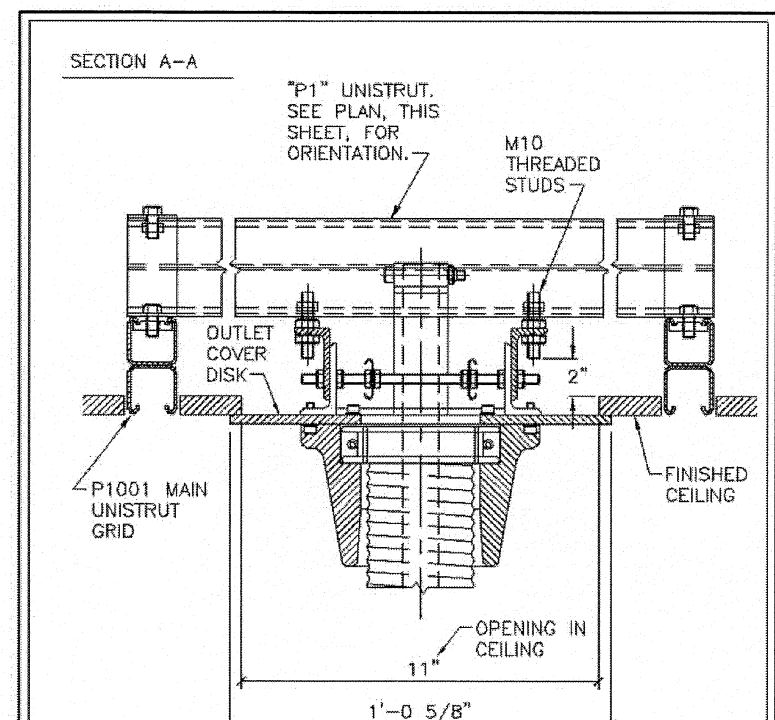
**CEILING PLAN LEGEND**  
SUPPLIED/INSTALLED BY SIEMENS

SYM	DESCRIPTION	DET
A	LONGITUDINAL RAILS ATTACHED TO "P-1001" UNISTRUT	1
C	CEILING STAND MOVES ALONG LONGITUDINAL RAILS	1
D	DCS RAILS ATTACHED TO "P-1001" UNISTRUT	5
E	DCS CARRIAGE MOVES ALONG LONGITUDINAL RAILS	-
F	RAID. SHIELD RAILS ATTACHED TO "P-1001" UNISTRUT	-
G	RADIATION SHIELD SUPPORT CARRIAGE MOVES ALONG RAILS	-
Z	LONGITUDINAL RAIL SUPPORT MOUNTING POINT BOLTED TO UNISTRUT FRAME.	1

SUPPLIED/INSTALLED BY CUSTOMER/CONTRACTOR

SYM	DESCRIPTION	DET
X	"P-1001" UNISTRUT MOUNTED FLUSH WITH FINISHED CEILING. MUST BE LEVEL AS SPECIFIED BY SIEMENS ON STRUCTURAL NOTES AND DETAILS.	4
P1	CEILING OUTLET SUPPORTS.	2

NOTE:  
ALL STRUCTURAL SUPPORT DETAILS SHOWN ARE SAMPLE DETAILS BASED UPON TYPICAL AND STANDARD BUILDING PRACTICES AND ARE NOT INTENDED AS ACTUAL CONSTRUCTION DETAILS. ALL CONSTRUCTION DETAILS AND SUPPORT CALCULATIONS SHALL BE PREPARED BY A PROFESSIONAL STRUCTURAL ENGINEER AT THE CUSTOMER'S EXPENSE. IN THE EVENT AN EXISTING SUPPORT SYSTEM IS TO BE USED, IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO VERIFY THE INTEGRITY OF THAT SYSTEM.

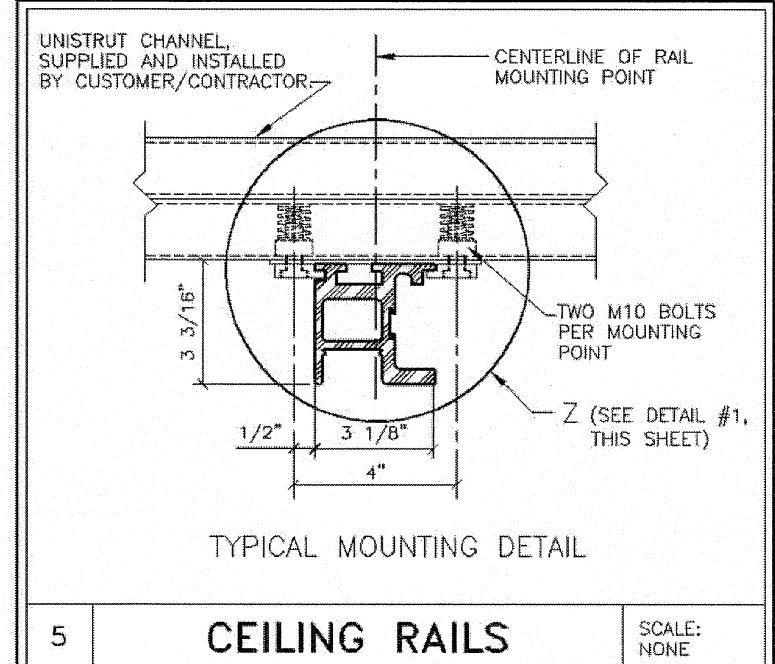


**2 CEILING OUTLET DETAIL** SCALE: NTS

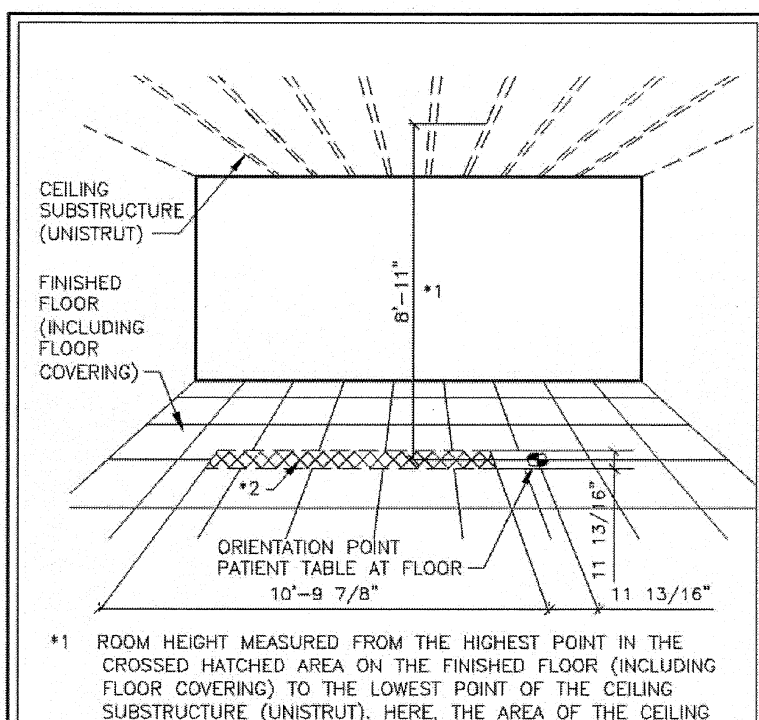
NOTES:

- CEILING ATTACHMENT WITH A PULLING FORCE ON EACH SCREW OF LESS THAN 330 LBS.
- UNISTRUT PIECES AND UNISTRUT HARDWARE/ACCESSORIES SUPPLIED BY CUSTOMER/CONTRACTOR. ALL OTHER ATTACHMENT ITEMS SUPPLIED BY SIEMENS.

CEILING STAND CEILING OUTLET FOR A UNISTRUT CEILING (P1)



**4 UNISTRUT DETAIL** SCALE: NONE



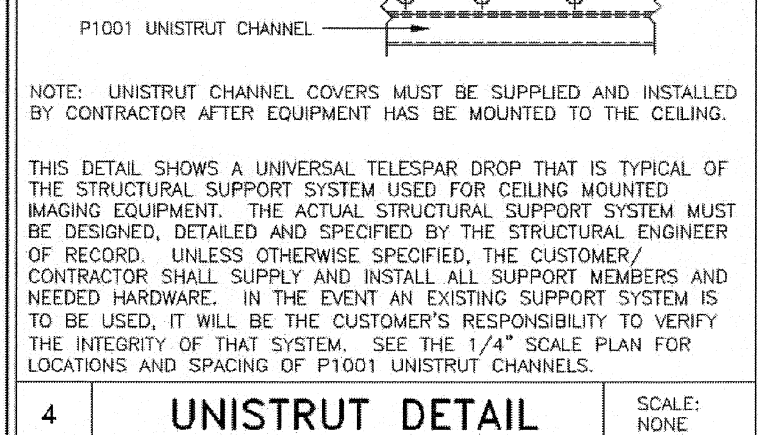
**3 ADMISSIBLE ROOM HEIGHT** SCALE: 1/4"

\*1 ROOM HEIGHT MEASURED FROM THE HIGHEST POINT IN THE CROSSED HATCHED AREA ON THE FINISHED FLOOR (INCLUDING FLOOR COVERING) TO THE LOWEST POINT OF THE CEILING SUBSTRUCTURE (UNISTRUT). HERE, THE AREA OF THE CEILING SUBSTRUCTURE (UNISTRUT) IN WHICH THE LONGITUDINAL RAILS FOR THE CEILING STAND ARE INSTALLED IS THE DETERMINING FACTOR.

REQUIRED ROOM HEIGHT: 8'-11"

\*2 THE CROSS-HATCHED AREA IS DETERMINED BY THE MOVEMENT RANGE OF THE CEILING STAND C-ARM.

MAXIMUM ADMISSIBLE FLOOR UNEVENNESS IN THE HATCHED AREA: 5/16".



**4 UNISTRUT DETAIL** SCALE: NONE

NOTE: UNISTRUT CHANNEL COVERS MUST BE SUPPLIED AND INSTALLED BY CONTRACTOR AFTER EQUIPMENT HAS BEEN MOUNTED TO THE CEILING.

THIS DETAIL SHOWS A UNIVERSAL TELESPEAR DROP THAT IS TYPICAL OF THE STRUCTURAL SUPPORT SYSTEM USED FOR CEILING MOUNTED IMAGING EQUIPMENT. THE ACTUAL STRUCTURAL SUPPORT SYSTEM MUST BE DESIGNED, DETAILED AND SPECIFIED BY THE STRUCTURAL ENGINEER OF RECORD. UNLESS OTHERWISE SPECIFIED, THE CUSTOMER/CONTRACTOR SHALL SUPPLY AND INSTALL ALL SUPPORT MEMBERS AND NEEDED HARDWARE. IN THE EVENT AN EXISTING SUPPORT SYSTEM IS TO BE USED, IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO VERIFY THE INTEGRITY OF THAT SYSTEM. SEE THE 1/4" SCALE PLAN FOR LOCATIONS AND SPACING OF P1001 UNISTRUT CHANNELS.

**CEILING HEIGHT REQUIREMENT**  
8 FT. - 11 IN.

**ATTENTION:**

- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.

- THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.

- THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

SYM	DATE	DESCRIPTION
Δ	08/19/10	ADD MARK TRACK BACK PL.
Δ	07/08/10	REVISE 8'-9" TO 8'-11" FOR ROOM HEIGHT APPROVED BY CUSTOMER FOR FINALS

PROJECT MANAGER: RICH DEISTER  
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EMAIL: richdeister@siemens.com

**SIEMENS**  
**MAINE MEDICAL CENTER**  
22 BRAMHALL STREET, PORTLAND, ME 04102  
ANGIO EXAM ROOM #3 B 429 - ARTIS ZEE CEILING

PROJECT #:  
**1001341**

SHEET: **S-102**

SHEET 4 OF 8 DRAWN BY: S. DOUGLAS  
DATE: 08/19/10 CHECKED:

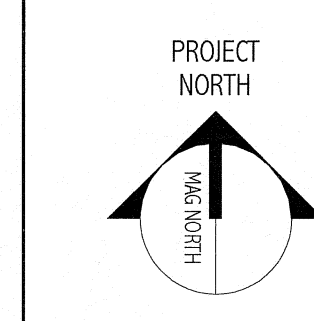
SCALE: AS NOTED REF. # 50141773

NOTE: THIS DRAWING WAS NOT PREPARED BY SMRT. IT IS PROVIDED FOR COORDINATION AND REFERENCE PURPOSES ONLY.

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Bramhall Radiology  
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PORTLAND, ME

ISSUED FOR CONSTRUCTION  
8.24.10

CURRENT ISSUE STATUS:

NO.	DATE	DESCRIPTION
1	08/19/10	RE ISSUED FOR CONSTRUCTION

GRAPHIC SCALE:  
0' 1'

SCALE:  
PROJECT MANAGER: DIV  
IC/DRAWN BY:  
DATE OF RECORD: DIV  
PROJECT NO.: 09022-01  
DATE: 8.24.10

SHEET TITLE:  
VENDOR EQUIPMENT  
DRAWINGS SHEET 5

SHEET No.  
**Q-005**