STANFORD LINEAR ACCELERATOR CENTER

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PROCEDURE FOR UNBOLTING/BOLTING BARREL CORNER BLOCKS

1.0 Scope.

Barrel Cradle shimming and instrumentation. Procedures for removal and installation of the corner plate bolting to the barrel.

2.0 Barrel Cradle Shimming.

To safeguard the barrel and greatly reduce deflection of the cradle due to any vertical seismic accelerations while any of the corner plates are removed, the bottom segment of both cradle rings at the Forward End will be shimmed to the track plates as shown on Figure 1, attached.
At each of the four location at least two 8" x 40" stainless steel plates will be installed. The thickness of the plates will be determined by the gap under the cradle beams at each location. The shim plates shall be centered on the flanges of the cradle beams and be reasonably tight, but not be forced.

3.0 Cradle Instrumentation.

To monitor any movements of the cradle during the IFR upgrade work the cradle will be instrumented at the Forward End, where shown on Figure 1.
At Locations A and B targets should be set up to detect vertical and horizontal movement, and at Location C vertical dial gages may be used to measure any vertical movement. Readings shall be taken after the doors are moved out and secured, just before, during (see Section 4.0) and after a corner plate is removed, and after 50% and all of the brass plates in a sextant are installed. Other readings may be required, as determined during brass installation. **Readings in excess of 2mm movement will require an immediate design review.**

4.0 Corner Plate Bolting Removal.

Unbolting of corner plates is performed in the following steps (See Figure 2):

- Loosen all but the Group A bolts, one turn.
- Read all instrumentation and review any movement.
- Loosen Group A bolts, one turn.
- Read all instrumentation and review any movement.
- Remove all bolts.

5.0 Corner Plate Bolting.

Bolting of corner plates is performed in the following steps:

- Inspect mating surfaces of the corner plate and barrel and remove any oil, grease and
- loose paint.
- Install all bolts "snug tight".
- Rotate Group A 1½"Ø x14"bolts by ½ to ¾ turn, ⅞"Ø x3" bolts by ¼ to ⅜ turn and ⅞"Ø x6" bolts by ⅜ to ½ turn.
- Rotate remaining bolts as described for Group A.

Note: Snug tightness is attained by a few impact of an impact wrench or the full effort of a man using an ordinary spud wrench.

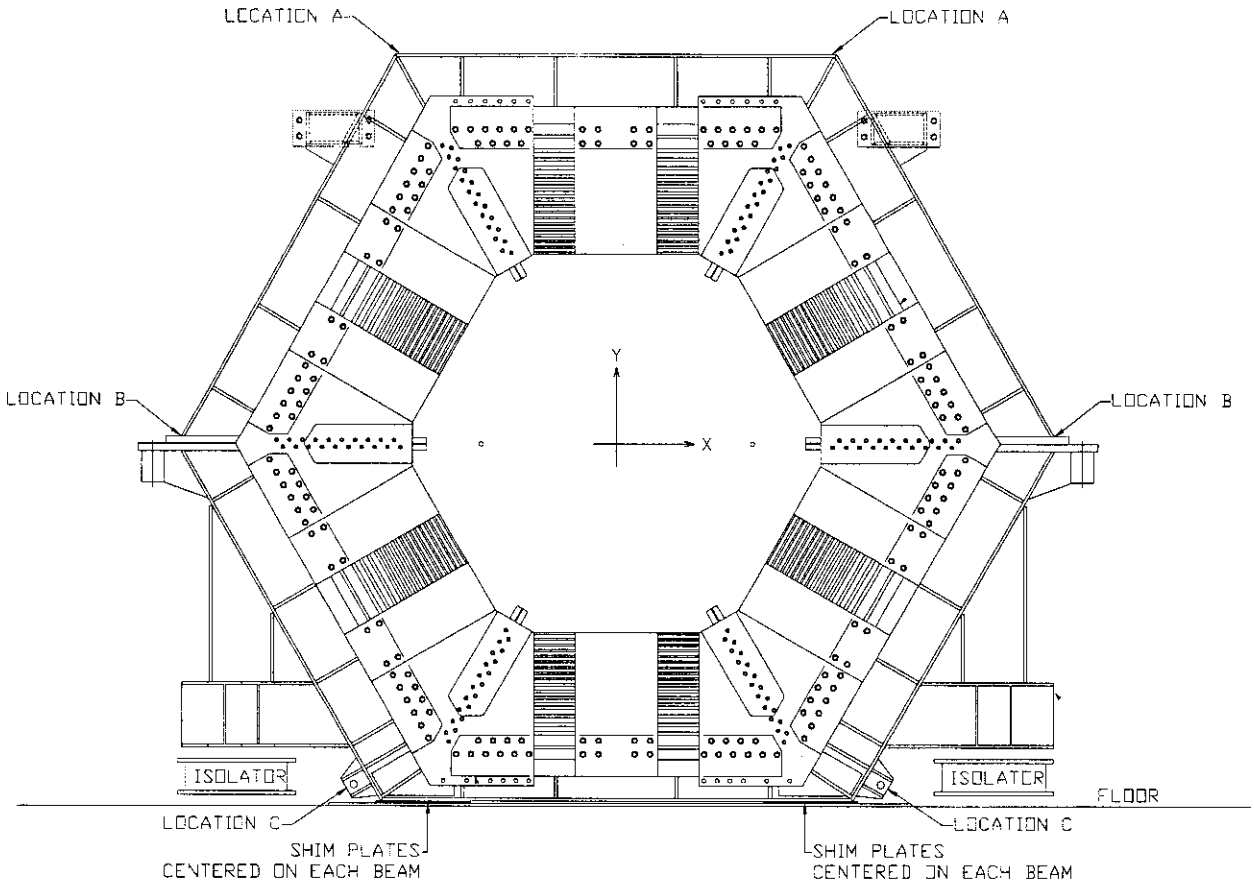
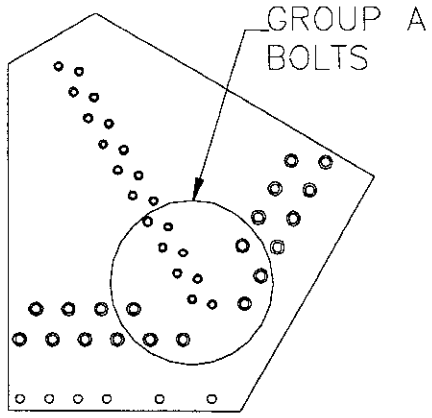

LOCATION A
LOCATION A
LOCATION B
LOCATION B
Y
X
ISOLATOR
ISOLATOR
FLOOR
LOCATION C
LOCATION C
SHIM PLATES
CENTERED ON EACH BEAM
SHIM PLATES
CENTERED ON EACH BEAM
FORWARD END

FIGURE 1



TYPICAL CORNER PLATE

FIGURE 2