

Quality Assurance Plan for Seismic Resistance
Mercy Fore River Short Stay Hospital
Portland, Maine

Systems Description

- Roof diaphragm - Steel roof deck.
- Roof load transfer mechanism – Puddle welds to framing.
- Primary lateral force resisting elements – Special steel concentrically braced frames.
- Floor diaphragms – Composite steel deck and concrete slab.
- Floor load transfer mechanism – Shear connectors.
- Foundation load transfer mechanism – Column uplift loads are resisted by headed anchor rods through column base plates at braced bays. Horizontal loads are transferred to foundation through shear lugs welded to the column base plates at braced bays.
- Foundations –The walls and footings are capable of transferring lateral loads to surrounding soils which are resisted by friction and passive earth pressure. Uplift loads are transferred to the foundation walls and footings, which provide adequate dead load to retain stability. Downward vertical loads are supported by conventional spread footings without exceeding the allowable soil bearing pressure.

Inspection and Testing

Inspection and testing requirements are incorporated into the “Schedule of Special Inspections.” They include inspection of deck welds, and shear connector welds, inspection of member sizes and connection details at diagonally braced column bays, inspection of field and shop welds, inspection of anchor bolt installation, verification of material certifications, and measuring of concrete strength.

Inspection and testing reports shall be distributed immediately after each day’s activities. Copies shall be provided to SMRT, the general contractor, the Owner, and the Building Code Official.