420 CHAPTER FOURTEEN

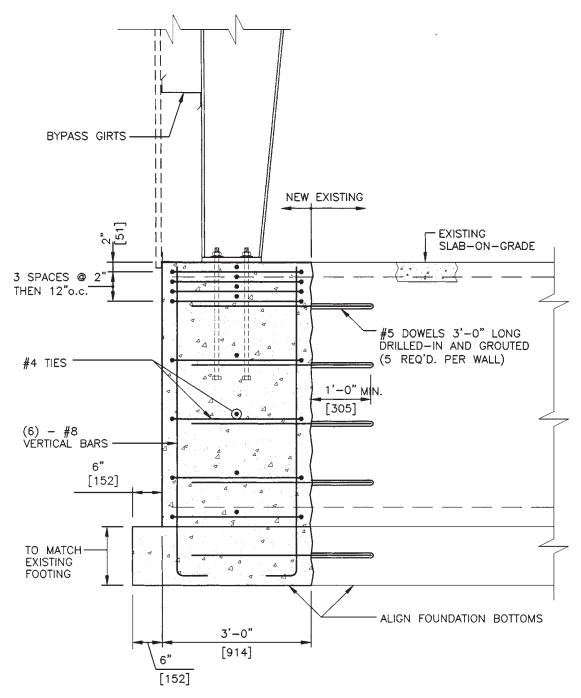


FIGURE 14.20 Section through new foundation piers at rigid frame in the Case Study.

REFERENCES

- James E. Grimes, "Metal Reroof Systems Deserve a Closer Look by Specifiers," Metal Architecture, November 1993
- Maureen Eaton, "Re-covering Roofs Requires Careful Evaluation," Building Design and Construction, December 1994.
- 3. Wayne Tobiasson, "Some Thoughts on Snowloads," Structure, Winter 1995.
- 4. NuRoof Design/Installation Information, MBCI Publication, October 7, 1993.
- 5. Rene Dupuis, "How to Prepare Comprehensive Re-roofing Specifications," 1989 Handbook of Commercial Roofing Systems, Edgell Communications, Inc., Cleveland, OH, 1989.
- Alexander Newman, Structural Renovation of Buildings: Methods, Details, and Design Examples, McGraw-Hill, New York, 2001.
- 7. Product Technical Guide (HVA Adhesive System), Hilti Corp., Tulsa, OK, 2000.

REVIEW QUESTIONS

- **1** Explain some pitfalls in attempting to make a side-by-side addition to an existing pre-engineered building.
- **2** A builder proposes to erect a new framework for roof slope change and to place the framework columns on a regular 7×7 ft grid. The spacing of the existing roof secondary members is unknown, because they are covered by a drywall ceiling and the owner does not want to remove it. What advice would you give to the builder and the owner?
- **3** What would you suggest to the owner who wishes to replace rusting metal siding with brick veneer?
- **4** Name at least two methods of increasing flexural capacity of primary framing.
- **5** Can rusted-through metal roofing be reliably recoated?
- **6** What can be done about rusting screws in a 30-year-old through-fastened metal roof?
- **7** It is proposed to re-cover the existing metal building roof with new metal roofing, fiberglass insulation, and a good vapor retarder. The existing roof also has fiberglass insulation faced with a vapor retarder. Is there a problem with this plan?
- **8** The owner asks for your "gut feel" about feasibility of adding a 20-ton HVAC unit on top of an existing metal building. What is your "gut feel" in the absence of any design data?