

Executive Summary

Technical Assignment #1 is an existing conditions report describing the as-built structural system for Pearl Condominiums, Philadelphia, PA. Codes used in the original design are listed in this report. The structural system is described to the reader through the use of written description, plans of the building and diagrams. The design of gravity and lateral loads are described based on assumed loads based on the codes. The spot checks are performed on typical members including steel roof joist, wide flange column, metal stud from bearing wall, and masonry shear wall. The spot checks will compare the actual as-built members and the thesis designed members. The Appendix contains calculations to obtain loads and spot check members.

Building Description:

Pearl Condominiums is a mixed use development housing including 10 retail units on the ground floor and 90 condominium units on the upper floors. The gross floor area is 111,570 square feet and has 6 stories above grade.

The start of construction was March 30, 2006 and the finish date is October 2007. The zoning is C-4 Commercial. Design considerations for the site included the site location existing above a SEPTA commuter rail tunnel.

