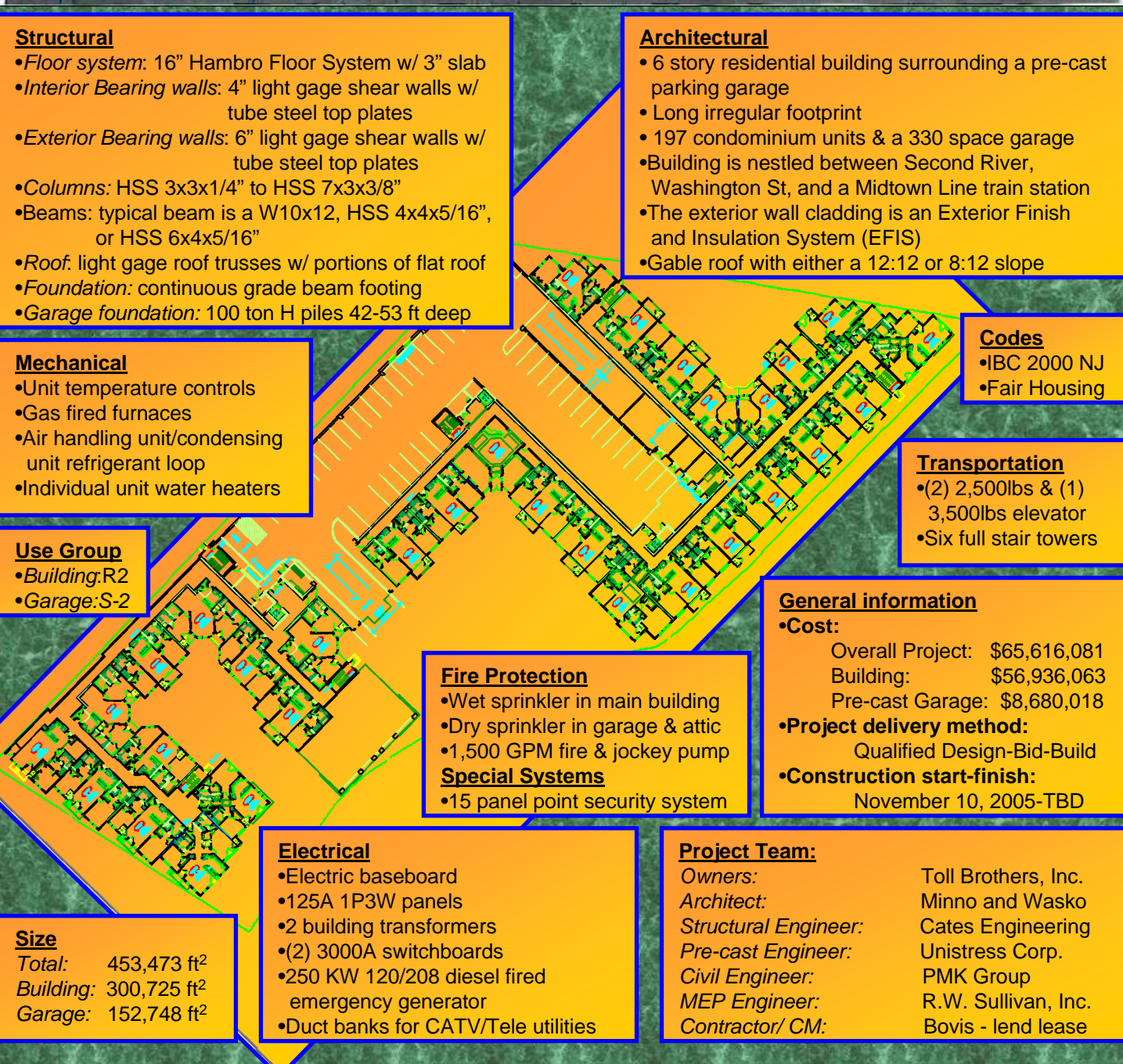


# Robert Whitaker

**Robert S. Whitaker**  
**Structural Option**  
**Parkview at Bloomfield Station**  
**Bloomfield, NJ**  
[www.arche.psu.edu/thesis/eportfolio/current/portfolios/rsw153/](http://www.arche.psu.edu/thesis/eportfolio/current/portfolios/rsw153/)



### Structural

- Floor system: 16" Hambro Floor System w/ 3" slab
- Interior Bearing walls: 4" light gage shear walls w/ tube steel top plates
- Exterior Bearing walls: 6" light gage shear walls w/ tube steel top plates
- Columns: HSS 3x3x1/4" to HSS 7x3x3/8"
- Beams: typical beam is a W10x12, HSS 4x4x5/16", or HSS 6x4x5/16"
- Roof: light gage roof trusses w/ portions of flat roof
- Foundation: continuous grade beam footing
- Garage foundation: 100 ton H piles 42-53 ft deep

### Architectural

- 6 story residential building surrounding a pre-cast parking garage
- Long irregular footprint
- 197 condominium units & a 330 space garage
- Building is nestled between Second River, Washington St, and a Midtown Line train station
- The exterior wall cladding is an Exterior Finish and Insulation System (EFIS)
- Gable roof with either a 12:12 or 8:12 slope

### Codes

- IBC 2000 NJ
- Fair Housing

### Mechanical

- Unit temperature controls
- Gas fired furnaces
- Air handling unit/condensing unit refrigerant loop
- Individual unit water heaters

### Transportation

- (2) 2,500lbs & (1) 3,500lbs elevator
- Six full stair towers

### Use Group

- Building: R2
- Garage: S-2

### General information

- Cost:
  - Overall Project: \$65,616,081
  - Building: \$56,936,063
  - Pre-cast Garage: \$8,680,018
- Project delivery method:
  - Qualified Design-Bid-Build
- Construction start-finish:
  - November 10, 2005-TBD

### Fire Protection

- Wet sprinkler in main building
- Dry sprinkler in garage & attic
- 1,500 GPM fire & jockey pump

### Special Systems

- 15 panel point security system

### Electrical

- Electric baseboard
- 125A 1P3W panels
- 2 building transformers
- (2) 3000A switchboards
- 250 KW 120/208 diesel fired emergency generator
- Duct banks for CATV/Tele utilities

### Project Team:

- |                      |                     |
|----------------------|---------------------|
| Owners:              | Toll Brothers, Inc. |
| Architect:           | Minno and Wasko     |
| Structural Engineer: | Cates Engineering   |
| Pre-cast Engineer:   | Unistress Corp.     |
| Civil Engineer:      | PMK Group           |
| MEP Engineer:        | R.W. Sullivan, Inc. |
| Contractor/ CM:      | Bovis - lend lease  |

### Size

- Total: 453,473 ft<sup>2</sup>
- Building: 300,725 ft<sup>2</sup>
- Garage: 152,748 ft<sup>2</sup>