

APPENDIX S

Midtown Parking Garage: Roof Slab Load Carrying Capacity

May 9, 2008

Mr. Stephen M. Golding
City of Rochester
Department of Economic Development
30 Church Street, Room 005A
Rochester, New York 14614

Re: City of Rochester – Midtown Redevelopment
Midtown Parking Garage – Structural Assessment: Mall Slab Load Rating
LaBella Project No. 208149

Dear Mr. Golding:

A 3D structural model of the midtown parking garage has been developed utilizing SAP 2000 structural modeling software in addition to completing a structural analysis of the mall slab for purposes of developing a load rating of the slab. The analysis was performed utilizing a working stress methodology to develop the load capacities of the slab.

The assumptions made for the analysis are as follows:

- The “empirical method” of flat slab design (outlined in ACI 318-63) was used in the original design of the slab
- The allowable stress in the reinforcement is 20,000 psi.
- The load carrying capacities developed are that of the roof slab only. Additional existing loadings such as M.E.P., surface finishes, and overfills must be included in any slab loadings.
- Uniform loading over entire slab surface (no skip loading analysis)

All other data required for calculation purposes was obtained via investigation of the original structural plans for the Garage.

The allowable loads published in the record drawings in pounds per square foot by slab thickness are as follows:

- 6” slabs: 125 psf ; not analyzed in this investigation, this area is located outside the parking garage structure at the first sub-level only.
- 12” slabs: 250 psf
- 13” slabs: 250 psf

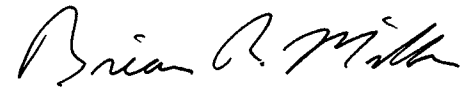
A graphical summary of the results is attached, see SK-S1.

FOR REVIEW ONLY

May 9, 2008
Page 2

Respectfully submitted,

LABELLA ASSOCIATES, P.C.

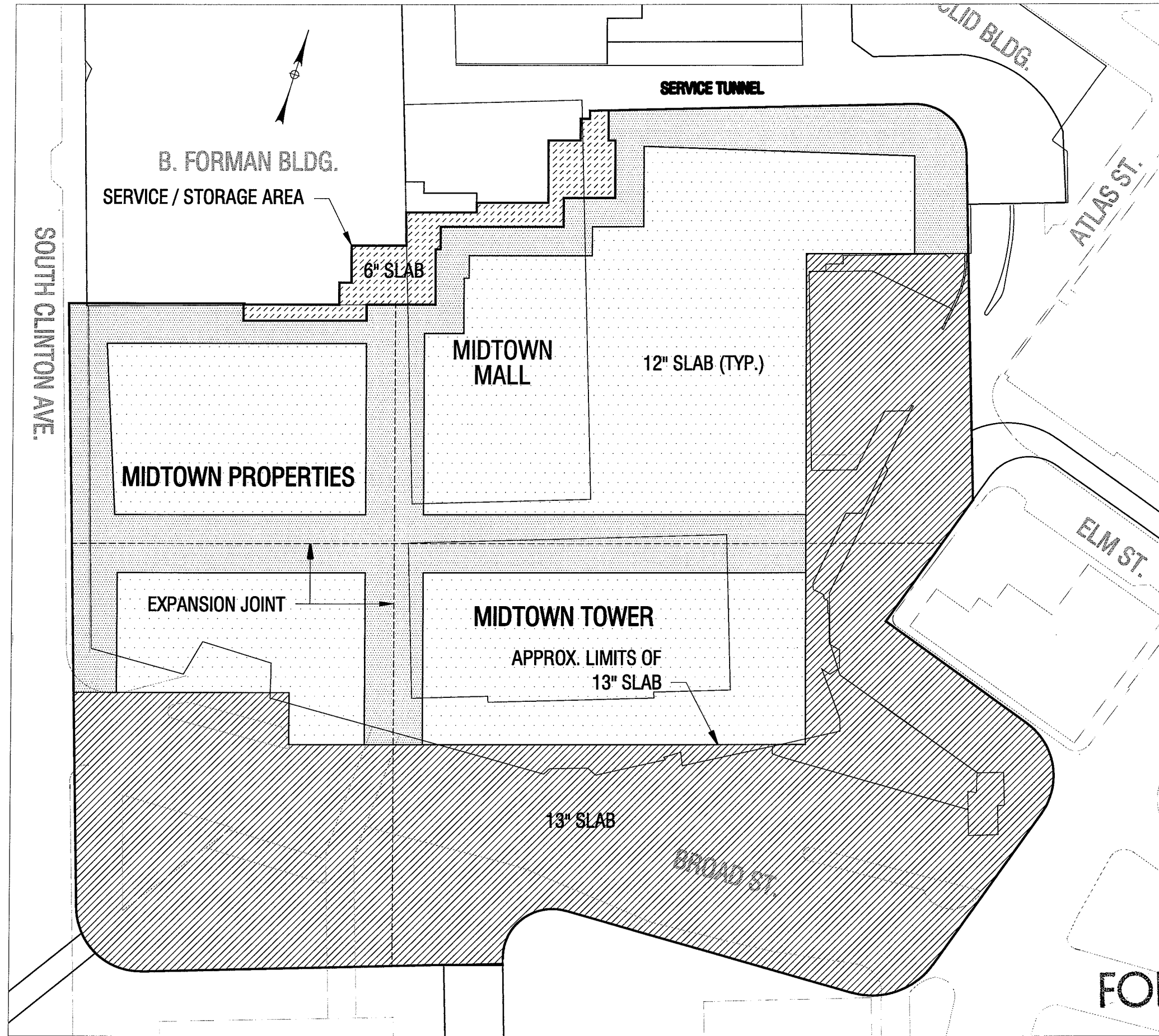


Brian R. Miller, P.E.
Sr. Structural Engineer

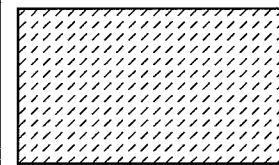
BRM/brm

Attachment

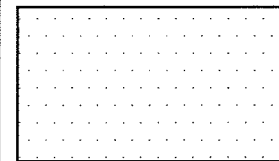
cc: Jim McIntosh, P.E., City of Rochester
Michael Fitzner, Empire State Development Corp.



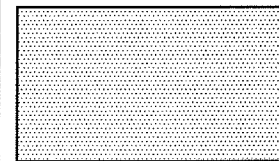
LEGEND:



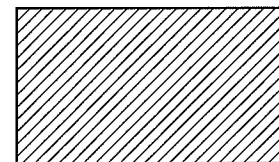
125 PSF



300 PSF



400 PSF



450 PSF

NOTE:
THE LOAD CARRYING CAPACITIES SHOWN
ARE THAT OF THE ROOF SLAB ONLY.
ADDITIONAL EXISTING LOADS SUCH AS
M.E.P., SLAB SURFACE FINISHES, AND
OVERFILLS MUST BE INCLUDED WHEN
ASSESSING SLAB LOADINGS.

FOR REVIEW ONLY

NO.	REVISION	BY	DATE

LABELLA
Associates, P.C.

300 STATE STREET
ROCHESTER, NY 14614
P: (585) 454-5110
F: (585) 454-3066
WWW.LABELLA.COM
COPYRIGHT © 2008

PROJECT/CLIENT
**MIDTOWN PARKING GARAGE
STRUCTURAL ASSESSMENT**

CITY OF ROCHESTER
80 CHURCH STREET
ROCHESTER, NY 14614

DRAWING TITLE
**ROOF SLAB
LOAD CARRYING CAPACITY**

ISSUED FOR
REVIEW

DESIGNED BY: **JAM**
DRAWN BY: **JAM**
CHECKED BY: **JAM**
DATE: **5/20/2008**

LOAD REVIEWED BY: **JAM**

208149

SK-S1