## The Villager

## ATRIUK




## Existing/Demo

Sheets DO-Basement D1 - First Floor D2 - Second Floor D3 - Elevation D4 - View D5 - Section D6 - Section

## Proposed

Sheets AO-Basement A1 - First Floor
A1 - First Floor
A3 - Elevations
A4 - Views
A5 - Sections
A6 - Section
A7-Information
S1 - Structural






上
Existing Partial Park Street View


Existing Atrium Section
$\qquad$

 $\begin{array}{lll}55.29 & \square \\ 5.78 & \square \\ 51.83 & \square \\ 7.10 & \square\end{array}$ Provided by City of Madison Discrey Strang, Inc). There are and Prior to Any Construction erify True Conditions.






Section A-A


Section B-B


Section C-C


## For 'Building' From South Firewall To North Firewall

| APPLICABLE CODES: |  | Wisconsin Enrolled Commercial Building Code - IBC 2006 Edition |
| :---: | :---: | :---: |
|  |  | National Fire Protection Association, NFPA 101 Life Safety Code - Latest Edition |
|  |  | Americans with Disabilities Act and ICC/ANSI A117.1 |
|  |  | City of Madison - Zoning Ordinance \& Adminitrative Code |
|  |  | The Villager Site Development and Master Plan |
| ZONING: |  | C-2 General Commercial District (MGO 28.09(3)) |
| FIRE SEPARATION: | 602, 702 | This portion of building separated from rest of building by 4 Hr . Fire Division Walls at north and south edges. |
| OCCUPANCY: | $\begin{array}{r} 304,309 \\ 304,309 \end{array}$ | First Floor: Assembly A-3, Business B and Mercantile M (Separated Uses A-3 to B/M) 2nd and 3rd Floors: Business B and Mercantile M |
| TYPE OF CONSTRUCTION: |  | Type III-B (Verify), Non-Combustible, Fully Sprinklered (Currently Only Basement is Sprinklered, Entire Building must be brought up to NFPA13) |
|  |  | Element Hours Ref./Page |
|  |  | Exterior Exterior Walls 22 Table $601 \& 602$ |
|  |  | $\begin{array}{ll}\text { Interior Bearing Walls } & 0\end{array}$ |
|  |  | $\begin{array}{lll}\text { Shafts } & 1 & 707.4 \text { and } 1005.3 .2 \\ \text { Stairs } & 1 & 707.4 \text { and 1005.3.2 }\end{array}$ |
|  |  | $\begin{array}{lll}\text { Elevator Hoistways } & 1 & 707.14\end{array}$ |
|  |  | Floors 00 Table 601 |
|  |  | Roof 0 - |
|  |  | Roof Covering Class $\quad$ C Table 1505.1 |
|  |  | Columns (for multiple floors) 0 Table 601 |
| ALLOWABLE HEIGHT AND BUILDING AREAS: |  | CASE TAKEN FOR FIRST FLOOR, SEPARATED USES A-3 AND M See Table 503 for A-3 Assembly, Type IIIA Construction Sprinkler Increase: <br> Height Modifications per IBC 504.2 $=1$ story and 20 feet to Table 503 Frontage Increase $\begin{aligned} & \text { A-3 Area Modifications per IBC 506 }= \\ & \qquad I_{\mathrm{If}}=100[119 / 229-0.25] 24 / 30=21.6 \end{aligned}$ Therefore, $\mathrm{A}_{\mathrm{a}}=9,500+[[(9,500 \times 21.6) / 100]=11,552]+$ $[19,500 \times 200 / 100]=19,000]=30,552$ <br> Ratio of A-3 Proposed/A-3 Allowable 1st Floor $=2,052 / 30,552=.07$ |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  | Sprinkler Increase: |
|  |  | Height Modifications per IBC 504.2 $=1$ story and 20 feet to Table 503 |
|  |  | Frontage Increase |
|  |  | M Area Modifications per IBC 506= |
|  |  | Therefore, |
|  |  | $\mathrm{A}_{\mathrm{a}}=12,500+[[(12,500 \times 34.5) / 100]=16,812]+$ |
|  |  | [ $[12,500 \times 200 / 100]=25,000]=54,312$ |
|  |  | Ratio of M Proposed/M Allowable 1st Floor $=44,880 / 54,312=.83$ |
|  |  | RATIO $.07(\mathrm{~A}-3)+.83(\mathrm{M})=0.9<1.0$ |
| BUILDING HEIGHT: |  | Highest Point above Grade - 32 '-8" |

NUMBER OF STORIES:

Wiscosin Enolled Conme Building Code - IBC 2006 Editio

City of Madiso Zoring Ordin Adine Code
he Villager Site Development and Master Plan
EXIT WIDTH:

SANITARY FIXTURES:
FIRE SUPRESSION DETECTION, ALARM \&
COMMUNICATION SYSTEMS MANUAL FIRE EXTINQUISHERS:

EMERGENCY LIGHTING:

Atrium" Section (between Fire Division Walls) only: Basemen

| Interior IBC Floor Area | 31,775 |
| :---: | :---: |
| Exterior Wall Area | 1,122 |
| Vent Shafts Area | 0 gs |
| Total Basement |  |

First Floor

| Interior IBC Floor | 2,05 |
| :---: | :---: |
| Interior IBC Floor Area M/ | 44,880 gsf |
| Exterior/Division Wall Ar | 1,016 gsf |
| Exterior AreaUnder Roo | 680 gsf |
| ent Shafts Area | gsf |
| tal First Floor |  | Exterior AreaUnder Roof

Vent Shafts Area Total First Floor
Second Floo
$\begin{array}{lr}\text { Inter } \\ \text { Interior IBC Floor Area M/B } & 26,297 \mathrm{gsf} \\ \text { Exterior Wall Area } & 730 \text { gsf } \\ \text { Vent Shafts Area } & 0 \text { gsf } \\ & \end{array}$
Total Second Floor

$$
\begin{array}{lr}
\hline \text { Total (Not Including Basement) } & 76,385 \mathrm{gsf} \\
\text { Total (Including Basement) } & 109,282 \text { gsf }
\end{array}
$$

## (By Tenant At Build-Out)

$$
\begin{aligned}
& \text { Suppression Required per 903.2(.6) } \\
& \text { Basement.1st Floor and 2nd Floor - NFPA } 13
\end{aligned}
$$

Manual Fire Alarm system per NFPA 72 and IBC 907.2.2 and 907.2.7
Portable fire extinguishers installed per NFPA 101-36 and 38-3.5 IBC 9061 and City of Madison Ordinance. Max. 75 ' travel distance and 1500 sf floor area per extinguisher per NFPA 10 Table 3-2.1.

Provided per IBC 1003.2.11 and NFPA 101-7.9 in all corridors, stairs and passageways throughout building.
Basement
ax. Occupant Load under M/B - 1,059 (at 30 gross) Stair - $1059 \times 0.2^{\prime \prime} /$ occupant $(1008.5 .1(4))=212$ " Required Other Egress - $1059 \times 0.15^{\prime \prime} /$ occupant $(1008.5 .1(4))=159^{\prime \prime}$ Required 16 Provided

## First Floor:

Max. Occupant Load under A-3 Assembly - 260 (at 7 net) Max. Occupant Load under A-3 Assembly
$260 \times 0.15 " /$ occupant (1008.5.1(4)) $=3$ " Required
108 " Provided
$1496 \times 0.15$ "occupant (1008.5.1(4)) $=22^{\prime \prime}$ " Required ( 32 " min.) 792" Provided

Scond Foor
Max. Occupant Load under B Business - 263 (at 100 gross)
Stair - $263 \times 0.2^{\prime \prime} /$ occupant $(1008.5 .1(4))=53$ " Required
Other Egress - $263 \times 0.15 " /$ occupant $(1008.5 .1(4))=40 "$ Required

General Notes:
12" Bar Joist @ Roof Framing 2. Typical Column is TS $12 \times 12$. Size due to height and need to stabilize. 3. Columns to be braced at the
existing roof level into the exis existing roof level into the existing
structure. No existing drawings for tructural, so will require invasive nvestigation.
W16 $\times 40$ beams. Moment connection to new columns.

Floor Framing Notes:
The floor framing would mirror Floor in direction.
6. Floor joists would be 14 " deep
rather than the $12^{\prime \prime}$ at the roof, and be spaced at roughly $2^{\prime}-6^{\prime \prime} 0 / c$. 7. Floor structure would be $4.5^{\prime \prime}$ in otal depth (possibly more per ${ }^{1}$ hour rating)
8. Floor beams would be $16^{\prime \prime}$ deep matching the roof. 9. Joist seats for both floor and roof are $2^{1 / 2^{\prime \prime}}$ deep.


2: Proposed Roof Framing


