Design & Construction Break-Out

*Key Trends for Developers & Investors*

2016 NMHC Annual Meeting
January 19-21, 2016
DESIGN & CONSTRUCTION BREAK-OUT

Key trends for developers & investors

Moderator: Dick Knapp, Senior Vice President, Foulger-Pratt

Panelists: Rohit Anand, Principal, KTGY Group, Inc.
   Mike Schlegel, President, Bozzuto Construction Company
   Jared Ford, Senior Vice President, Crescent Communities
   Steve Hefner, Senior Vice President of Construction/Facilities, Camden
BOZZUTO ACROSS THE COUNTRY

MID- ATLANTIC | VA, DC, MD, PA
Development, Management, Construction & Homebuilding

NEW ENGLAND | Boston Metro
Development & Construction

TRI-STATE | NJ, NY, CT
Management

MIDWEST | Chicago
Management

SOUTHEAST | Atlanta, Charlotte
Management
HOW WE MEASURE UP

54,000 UNITS | Total Managed by Bozzuto
32,000 UNITS | Total Constructed by Bozzuto
19,000 UNITS | Total Developed by Bozzuto
5,300 HOMES | Total Built by Bozzuto

2015 YEAR IN REVIEW

4,644 UNITS | Started Construction
1,459 UNITS | Started Development
2,500 UNITS | Acquired by Management
TYPES OF PROPERTIES

GARDEN
URBAN
MIXED USE
HIGH RISE
# Multi-Family Ecology

<table>
<thead>
<tr>
<th>Rents ($/SF)</th>
<th>Land Value (for 1 Acre)</th>
<th>Multi-Family Product</th>
<th>Product Icon</th>
<th>Average Density (Units/Acre)</th>
<th>Land Price ($/unit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.75</td>
<td>$1,200,000</td>
<td>Garden</td>
<td>![Garden Icon]</td>
<td>24</td>
<td>$50,000</td>
</tr>
<tr>
<td>$2.00</td>
<td>$4,000,000</td>
<td>Donut</td>
<td>![Donut Icon]</td>
<td>100</td>
<td>$40,000</td>
</tr>
<tr>
<td>$2.50</td>
<td>$9,625,000 - $11,000,000</td>
<td>Podium (“5 over 1”)</td>
<td>![Podium Icon]</td>
<td>175 - 200+</td>
<td>$55,000</td>
</tr>
<tr>
<td>$2.65</td>
<td>$7,425,000</td>
<td>Hybrid</td>
<td>![Hybrid Icon]</td>
<td>225</td>
<td>$33,000</td>
</tr>
<tr>
<td>$2.90</td>
<td>$10,500,000</td>
<td>High-Rise – Suburban</td>
<td>![High-Rise Icon]</td>
<td>300</td>
<td>$35,000</td>
</tr>
<tr>
<td>$3.25</td>
<td>$15,000,000</td>
<td>High-Rise – Urban</td>
<td>![High-Rise Icon]</td>
<td>300</td>
<td>$50,000</td>
</tr>
</tbody>
</table>

- ** Biggest Rent Jump **
- **Higher Rents Drive Higher Land Value**
- **Higher Land Value Drives Higher Density Product**
Construction Types (2009 IBC)

**Type V:** Combustible Construction

**Type IV:** Heavy Timber Construction  
(not used for multi-family)

**Type III:** Non-Combustible Exterior with Combustible  
Interior Elements [Podium]

**Type II:** Non-Combustible, Limited Construction*  
[Not Used]

**Type I:** Non-Combustible, Unlimited Construction*  
[Hi-Rise]

* Regarding Building Height, Number Of Stories and Allowable Area
## Products & Construction Types

<table>
<thead>
<tr>
<th>Multi-Family Product</th>
<th>Avg. Density Units/Acre</th>
<th>IBC Const. Type</th>
<th>Applicable Materials</th>
<th>Building Height Limit</th>
<th>Stories Allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garden</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Story Donut</td>
<td>100</td>
<td>( V_A )</td>
<td>Standard wood</td>
<td>60’ or 70’ 13 R or 13 Sprinkler System</td>
<td>4</td>
</tr>
<tr>
<td>4 Over 1 Podium</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Story Donut</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Over 1 Podium</td>
<td>175-200+</td>
<td>( III )</td>
<td>Exterior - Non-combustible including Fire Retardant Treated Wood (FRTW) Interior - Standard Wood</td>
<td>75’ or 85’ Depending on IIIB or IIIA</td>
<td>5</td>
</tr>
<tr>
<td>Hybrid</td>
<td>225</td>
<td>( I_B )</td>
<td>Concrete, Steel, Metal Studs (proprietary Systems)</td>
<td>95” +/-</td>
<td>8 Structurally Limited</td>
</tr>
<tr>
<td>High Rise</td>
<td>300</td>
<td>( I )</td>
<td>Concrete, Steel, Metal Studs</td>
<td>Unlimited</td>
<td>9 +</td>
</tr>
</tbody>
</table>
Type VA: Podium “4 over 1”

Building Height:

- 60’ - NFPA 13R or
- 70’ - NFPA 13

Density: up to 125 units /Acre (if residential at podium)

Key Features:
- Code allows for extra story
- 5 stories effectively
- Combustible construction above podium
- Non-combustible construction below podium
- Residential now allowed below podium
Type IIIA: Podium “5 over 2” 2015 IBC

Pending amendment (IBC Section 510.2):

- Strikes existing Condition 2 that now limits only one story above grade plane below the ‘podium’ level
- Allowable height still limited by lesser construction type- no change
- Only Hazardous use group is excluded from being allowed use below the podium
**Type IIIA: Potential Podium “5 over 3”? 2015 IBC**

**High rise requirements (IBC Section 403):**

- Enhanced emergency systems including: standpipes, fire command center, stair pressurization, standby power, fire alarm, smoke detection, voice/alarm communication, responder radio and fire pump (likely)
- Maybe others?
Type IB: Hybrid – Infinity & Epicore

“INFINITY & EPICORE”: pre-panelized load bearing metal stud walls (infinity) supporting composite metal and concrete floor deck (epicore)
Type IB: Hybrid - Infinity & Epicore

Key Features:
- Concrete Slab Between 3 1/2” to 6” Thick
- Panelized Metal Stud Bearing Walls Allow For Speedy Erection Time
- Thinner Slab Allows for Reduced Building Heights

Challenges:
- Finish Of Metal Deck Ceiling
- STC Rating Of The Floor System
- Limited Spans Limits Possibility of Open Floor Plans
Parking Costs

Surface (Site Work)
- $450,000/Acre
- $18,000/Unit

Above Grade Pre-Cast Garage
- $12,000/Stall

Underground Parking
- $30,000 - $36,000/Stall

Above Grade Cast In Place (Podium or HR)
- $22,000/Stall
## Cost Estimates

<table>
<thead>
<tr>
<th>Type</th>
<th>4 Story Donut</th>
<th>5 Over 1 Podium</th>
<th>5 Over 2 Podium</th>
<th>Metal Composite/Hybrid</th>
<th>High-Rise (Cast in place)</th>
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<tbody>
<tr>
<td>Garden</td>
<td>$95</td>
<td>Included in Site Work</td>
<td>$12,000</td>
<td>$113</td>
<td>$118</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>$18,000</td>
<td>$11,000</td>
<td>$8,800</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>1,300</td>
<td>1,150</td>
<td>1,000</td>
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<td></td>
<td></td>
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<td>$141,500</td>
<td>$145,550</td>
<td>$142,460</td>
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<td>1.7</td>
<td>1.3</td>
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<tr>
<td>Parking</td>
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<td></td>
</tr>
<tr>
<td>Ratio</td>
<td></td>
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</tr>
<tr>
<td>Per Unit</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parking</td>
<td>Surface (Parking in Site-work)</td>
<td>Pre-Cast Above Grade Garage</td>
<td>Underground Parking</td>
<td>Underground Parking</td>
<td>Underground Parking</td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### Cost Estimate Notes

- Assumes 250 Unit Project; Compact Unit Design; Efficient Site; No extraordinary Site Work Costs
- Net/Gross From 76%-78%: Gross Includes Balconies (60% of units) that add avg. 58 sq. ft. per unit

#### Site Work Assumptions

<table>
<thead>
<tr>
<th>Type</th>
<th>Density</th>
<th>Acres</th>
<th>Cost Per Acre</th>
<th>Total Cost</th>
<th>Site Work Cost Per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garden</td>
<td>24/Acre</td>
<td>10</td>
<td>$450,000</td>
<td>$4,500,000</td>
<td>$18,000</td>
</tr>
<tr>
<td>4 Story Donut</td>
<td>100/Acre</td>
<td>2.5</td>
<td>$1,100,000</td>
<td>$2,750,000</td>
<td>$11,000</td>
</tr>
<tr>
<td>4 Story Over 1 Podium</td>
<td>150/Acre</td>
<td>1.67</td>
<td>$1,100,000</td>
<td>$1,833,000</td>
<td>$7,300</td>
</tr>
<tr>
<td>5 Story Donut</td>
<td>125/Acre</td>
<td>2.0</td>
<td>$1,100,000</td>
<td>$2,200,000</td>
<td>$8,800</td>
</tr>
<tr>
<td>5 Story Over 1 Podium</td>
<td>188/Acre</td>
<td>1.33</td>
<td>$1,100,000</td>
<td>$1,463,800</td>
<td>$5,850</td>
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<tr>
<td>5 Story Over 2 Podium</td>
<td>200/Acre</td>
<td>1.25</td>
<td>$1,100,000</td>
<td>$1,355,000</td>
<td>$5,500</td>
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<tr>
<td>Hybrid or High-Rise</td>
<td>250/Acre</td>
<td>1</td>
<td>$1,100,000</td>
<td>$1,100,000</td>
<td>$4,400</td>
</tr>
</tbody>
</table>
CREATE THE BUZZ!

AMENITY LOBBY WITH COFFEE SHOP

AMENITY LOUNGE WITH FOOD COURT