DISTRIBUTED ANTENNA AND IN-BUILDING WIRELESS SOLUTIONS

PACIFIC TELECOM COUNCIL, Honolulu, Hawaii

January 22, 2023

Jeffrey A. Moerdler, Esq.
Mintz Levin Cohn Ferris Glovsky and Popeo PC
IN BUILDING SOLUTIONS – KEY CONSIDERATIONS

• The Absolutely Key Consideration
  – DAS is an amenity that is becoming a necessity

• Tenants’ site selection decisions increasingly consider available telecommunications infrastructure
  – 87% of tenants rank connectivity second only to location
  – 84% of tenants would pay more per square foot for a space with better connectivity
IN BUILDING SOLUTIONS – KEY CONSIDERATIONS (cont.)

• DAS enables state of the art technology
  - Supports tenants networks
  - Supports visitors cell phones and data
  - Enables IoT and applications to control operating costs
  - Enables more devices to communicate with Building Management Systems
  - Provides improved security over WiFi
IN BUILDING SOLUTIONS – KEY CONSIDERATIONS (cont.)

• Three business models:
  – Owner Installed and Operated
  – Third Party Installed and Operated
  – Carrier Installed and Operated
## IN BUILDING SOLUTIONS – KEY CONSIDERATIONS

<table>
<thead>
<tr>
<th>Risk &amp; Rewards</th>
<th>Owner Installed</th>
<th>Third Party Installed</th>
<th>Carrier Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Owner Control</td>
<td>Yes</td>
<td>Some</td>
<td>Some</td>
</tr>
<tr>
<td>2. System Versatility</td>
<td>Owner Controls</td>
<td>Installer Controls</td>
<td>Carrier Controls</td>
</tr>
<tr>
<td>3. Ease of Installation:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) New Construction</td>
<td>Yes</td>
<td>Yes with coordination</td>
<td>Yes with coordination</td>
</tr>
<tr>
<td>b) Retrofit</td>
<td>Yes</td>
<td>Yes with coordination</td>
<td>Yes with coordination</td>
</tr>
<tr>
<td>4. Owner Time Commitment</td>
<td>Substantial</td>
<td>Supervisory and Plan Review</td>
<td>Supervisory and Plan Review</td>
</tr>
<tr>
<td>5. Owner Capital Expense</td>
<td>Substantial Pending Carrier Reimbursement</td>
<td>Minimal Cost for Consultants if not Reimbursed</td>
<td>Minimal Cost for Consultants if not Reimbursed</td>
</tr>
</tbody>
</table>
## IN BUILDING SOLUTIONS – KEY CONSIDERATIONS

<table>
<thead>
<tr>
<th>Risk &amp; Rewards</th>
<th>Owner Installed</th>
<th>Third Party Installed</th>
<th>Carrier Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Owner Capital Expense</td>
<td>System Cost, Consultants Fees, Possibly Plus Owner Profit</td>
<td>System Cost, Financing Costs, Consultants Fees and Profit</td>
<td>Most Cost Effective for Carrier</td>
</tr>
<tr>
<td>7. Owner Operating Expense</td>
<td>Consultant Costs if Not Reimbursed</td>
<td>Same</td>
<td>Same</td>
</tr>
<tr>
<td>8. Carrier Operating Expense</td>
<td>System Operating Expense</td>
<td>Same</td>
<td>Most Cost Effective for Carrier</td>
</tr>
<tr>
<td>9. Who Watches Who</td>
<td>Carrier Watches Owner</td>
<td>Owner and Carrier Watch Third Party</td>
<td>Owner Watches Carrier</td>
</tr>
<tr>
<td>Risk &amp; Rewards</td>
<td>Owner Installed</td>
<td>Third Party Installed</td>
<td>Carrier Installed</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------------------------------------</td>
<td>-----------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>10. Headache Factor</td>
<td>Headache for Carrier and Possibly for Owner</td>
<td>Same</td>
<td>Headache for Owner</td>
</tr>
<tr>
<td>11. Major Risks to Owner</td>
<td>Cost Overruns and Failure to Get Carriers</td>
<td>Profit Drives Decisions</td>
<td>Lack of Carrier Neutrality and Equality</td>
</tr>
<tr>
<td>12. Major Risks for Carrier</td>
<td>Will Owner Deliver on Time and on Budget</td>
<td>Profit Drives Decisions</td>
<td>Will Owner Timely Cooperate</td>
</tr>
</tbody>
</table>
DAS EXAMPLES

• Owner Installed
  – Madison Square Garden, NY, NY
  – The Sphere at the Venetian, LV, NV
  – Durst Residential Portfolio

• Third Party Installed
  – Boston Properties Office Building Portfolio

• Carrier Installed
  – Golden State Warriors Chase Center, SF
  – New York Islanders UBS Arena, LI, NY
FIRST RESPONDER SYSTEMS

• Prompted by September 11th World Trade Center communications problems
• Emergency Responder Radio Coverage System (ERRCS)
• Required by National Fire Protection Association (NFPA) and the International Fire Code (IFC)
• Generally not required for existing buildings
• Must be separate system from DAS
FIRST RESPONDER SYSTEMS (Cont.)

• Can be cost effectively installed at the same time as a DAS system
• Can be leaky coax or radio repeater system
• Transmitter at fire command center in lobby
• Must transmit individual firefighters radio ID number
• Backup power required
• Ongoing system maintenance and testing required
IN BUILDING SOLUTIONS – KEY CONSIDERATIONS

• Business and Legal Issues
  – Diverse, Redundant POE’s, Routes and Fiber is Required
  – Revenue Disruption Risk – Watch the Core Business
  – Obligation to Install System
  – Frequency Coverage of System
  – Timing of System Installation
  – Will the System Really be a Neutral Host
  – Landlord Liability Concerns
IN BUILDING SOLUTIONS – KEY CONSIDERATIONS

- Term, Renewal Options and Cancellation Options
- No Charge for Rights or Payment to Owner: Flat Fee or Percentage Rent and Rent Increases
- Creditworthiness of Party
- Security and Control of Risers
- Lease vs. License Agreement
- Subordination Provision and Non-Disturbance Agreement
- Assignability
IN BUILDING SOLUTIONS – KEY CONSIDERATIONS

– Alterations and Plan Approval
– Use Clause and Exclusivity
– Location of Equipment Space and Riser Space
– Electrical and Other Utility Connections
– Owner’s Right to Use System
– Interference with Other Telecommunications Equipment
– Restoration at End of Term
IN BUILDING SOLUTIONS – KEY CONSIDERATIONS

- Compliance with Laws
- Relocation
- Buildout in Occupied Space Where Tenant Doesn't Want Antennas Installed
- Service Level Agreement
- Right to Upgrade Equipment
- Exterior Building Cellular Antennas or Exterior DAS
- Dispute Resolution
Jeff is the head of the Real Estate and Communications practices in New York. During the past 30+ years, he has developed a unique specialty practice in the intersection of real estate with technology, communications, and energy issues. He has extensive experience representing landlords, tenants, and communications service providers in the leasing, purchase, sale, and financing of data centers and switch facilities, colocation facilities, radio and television broadcast antennas, distributed and in-building antenna systems, rooftop antennas, and fiber-optic transactions as well as the wiring of buildings for broadband communications access. Jeff has also negotiated thousands of rooftop and cellular antenna leases, inside wiring agreements, antenna tower leases, and data center, colocation and switch facility leases throughout the country — covering over 500 million square feet.
QUESTIONS? FEEL FREE TO CONTACT ME:

Jeffrey A. Moerdler
Member, Real Estate and Communications & Data Centers Practices
JAMoerdler@mintz.com
212-692-6700