A 21st Century Plan for Connectivity

The City of Lansing, Michigan
Comprehensive Telecommunications Plan

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Introduction
Our Project

• Client:
  – Bill Rieske and the City of Lansing Planning Department

• Project:
  – To create a Comprehensive Telecommunications Plan to facilitate cellular tower siting
Overview

• General issues
• Wireless coverage
• Tower siting challenges
• Recommendations
  – Proposed Model Wireless Telecommunications Ordinance
  – Other recommended actions
General Issues
General Issues

- Most local ordinances fail to address tower siting
- Residents and providers conflicting priorities
- Telecommunications Act of 1996
  - Ensures coverage
  - Backs FCC regulations
  - Protects competition among providers
Wireless Coverage in Lansing
• Towers in all zones
• Higher concentration in the northern half
• Less dense in the southern half
• With a 0.8-mile coverage radius, significant gaps would occur.

• Cellular phone service quality is based upon coverage and capacity.

• Simply filling the gaps may not necessarily improve cellular services.
Public Resistance

- Aesthetics
  - NIMBY (Not In My Backyard) response
  - Stealth towers
• Stealth towers are more expensive to build

• May reduce the tower review and approval process by gaining community support
Public Resistance

- Health concerns
  - RF emissions
  - American Cancer Society
  - FCC exposure guidelines
Current Tower Siting Process

- Zoning Ordinance does not address cellular tower facilities.
- Siting a tower requires a special land use permit.
Recommendations
Coverage Goals and Improving Services

- Pro-active role
- Lansing’s Goals
  - Providing full coverage and improving services
  - Siting on public land
Coverage Goals and Improving Services

- Providers choose location
- Number of new towers related to capacity
- Lansing can get an idea of future development looking at density
Population Density

Map showing population density across various areas indicated by different shades.

Data Classes:
- 96 - 1214
- 1524 - 2801
- 2951 - 4100
- 4454 - 5345
- 5805 - 7615

Features:
- Major Road
- Street
- Stream/Waterbody

Approx. 20 miles across.
• If wireless companies experience too much difficulty siting on public land, they may locate on private land instead.

• Lansing may encourage companies to build on public land by offering a lease price that is competitive with the private sector market rate.
Proposed Model Ordinance

- Based on Telecomm. Act and other communities’ policies
- Promotes adequate and reliable telecommunications service provision
- Minimizes aesthetic and safety concerns
Model Ordinance: Administrative Review and approval process

- New support structures lower than 60 feet in any district
- New support structures as tall as 199 feet in any industrial district
- Stealth towers in any district
Model Ordinance: Aesthetic Standards

- Design standards
  - Unobtrusive colors
  - Co-location
Model Ordinance: Aesthetic Standards

- Visual impact requirements
  - Lighting and marking
  - Commercial signage
  - Landscaping
Model Ordinance: Safety Provisions 1

• Setback and height regulations
  – Residential setbacks
  – Heights may not exceed 150 feet in residential districts
  – Heights may not exceed 199 feet in non-residential districts
Model Ordinance: Safety Provisions 2

- Must comply with all current FCC RF emission regulations
- Must adapt to any new emission laws
- Base facilities surrounded and secured by a fence
Model Ordinance: Abandonment and Removal

- Existing towers not in use for 120 days are considered abandoned
- Abandoned towers must be removed within 90 days
Other Recommended Actions

- Initiate dialogue with the Lansing School District
- Encourage neighborhoods to create potential tower site plans
- Provide information about towers on the City’s website
Questions?