Integrating Indicators of Smart Growth and Walkability into Real Estate Listings

February 4, 2011

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Background

- Wide range of indicators on healthy neighborhoods and smart growth exist. The most common types include:
  - Access and proximity to key community resources (i.e., retail and service locations, recreational spaces)
  - Street connectivity and walkability
  - Availability and quality of public transportation
  - Health and safety metrics are frequently employed as a complement to these measures

- Homebuyers often do not have ready access to key information on the smart growth characteristics of neighborhoods
  - Real estate listings and agents are a homebuyer’s most important source of information
  - Most real estate listings provide little or no relevant information on neighborhood characteristics such as walkability and proximity to services and transit
EPA/CDC’s project goals

- Identify potential indicators of smart growth and walkability that could be incorporated into multiple listing services (MLS) or other consumer-based real estate listings

- Conduct research on typical MLS operations to determine feasibility of incorporating indicators into real estate listings

- Develop implementation strategy to facilitate integration of indicators into real estate listings
Identification of potential indicators

### Indicators for Potential Inclusion into MLS and Other Real Estate Listings

<table>
<thead>
<tr>
<th>Property/neighborhood characteristics</th>
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<tbody>
<tr>
<td>Intersections per square mile</td>
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<tr>
<td>Façade distance from property line</td>
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<tr>
<td>% land zoned for commercial or residential uses</td>
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<tr>
<td>Residential density</td>
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<tr>
<td>Proximity to diverse uses</td>
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<tr>
<td>Proximity to civic or public use space</td>
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<table>
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<th>Public transportation</th>
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<tr>
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<table>
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<tr>
<td>% on-street parking available</td>
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<tr>
<td>% sidewalks shaded by trees</td>
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<tr>
<td>Street design speed</td>
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<tr>
<td>Presence of sidewalks</td>
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<tr>
<td>Proportion of sidewalks in good repair</td>
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<tr>
<td>Proportion of street with adequate lighting</td>
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<td>Vehicle-pedestrian injury collision rate</td>
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- **IEc identified 35 distinct indicators**
  - Property and neighborhood characteristics
  - Public transportation availability
  - Street design

- **Evaluation criteria:**
  - Utility to homebuyers and real estate agents
  - Relationship to activity and health
  - Scale (i.e., household, neighborhood, city)
  - Use in existing “meta-indicator”
  - Data availability

- **Overall, we identified 16 potential indicators for further evaluation**
Review of Existing Meta-indicators

IEc also reviewed “meta-Indicators”
- Walk Score™/ Transit Score™ (WS)
- The CNT’s Housing + Transportation Affordability Index (H+T)
- San Francisco Department of Public Health’s Pedestrian Environmental Quality Index (PEQI)
- Urban Design 4 Health’s Walkability Index (WI)
- Transpo Group’s Route Directness Index (RDI)

Recommended moving forward with WS/TS and H+T Affordability Index
- Relatively easy to understand
- Demonstrated usability
- National coverage
- Note: neither provides information on street design

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✓ = Indicator currently covered by tool
★ = Indicator may be covered by tool in the future
Walk Score / Transit Score

- **Advantages**
  - Easy to understand: WS measures walkability of an address (0 - 100) based on proximity to nearby amenities
  - Based on Google local database (automatically updates)
  - Application programming interface (API) for integration into other web-based applications
  - TS considers proximity to and quality of nearby transit

- **Challenges**
  - Costs
  - Currently measures straight-line distance (soon to be improved)
  - Only rates distance to nearest amenity in each category—e.g., does not account for concentration of amenities (soon to be improved)
  - Does not account for pedestrian friendly street design
H+T Affordability Index

- **Advantages**
  - Highlights financial advantages of walkable neighborhoods
  - Assesses the combined cost of housing and transportation
  - Application programming interface (API) for integration into other web-based applications

- **Challenges**
  - Methods are not easily explained to homebuyers (i.e., it uses regression)
  - Not address specific - relies on averages across census block group
  - Does not account for user-specific commuting/travel patterns
  - Does not account for pedestrian friendly street design
Feasibility research

• IEc conducted interviews with 20 real estate professionals
  • Investigated market structure and internal dynamics of MLS systems and other online real estate listings
  • Collected lessons learned from prior attempts incorporate green building information into real estate listings
  • Solicited industry opinion on how EPA can best play a role in using real estate listings to communicate walkability to homebuyers
  • Gathered feedback on the feasibility of incorporating the previously identified indicators and meta-indicators
Feasibility research findings

• Market structure and internal dynamics
  • Over 900 MLS operating in the U.S.
  • Serve as a data repository
  • Assist selling agents and brokers in marketing their portfolio of properties
  • Differ widely in the structure and capabilities of their technological systems
  • Updating fields is relatively routine - many use third-party vendors
  • Realtors typically responsible for updating listings and can be liable for accuracy
  • MLS systems face increasing competition from consumer-facing websites

• Lessons from green buildings
  • Technical issues to adding fields are relatively minimal for most MLSs
  • Persuading realtors of the value on new information is important
  • Education for realtors is critical
  • Liability concerns loom large

• EPA’s potential role
  • Reduce financial hurdles associated with implementation of meta-indicators
  • Target educational campaign at real estates agents
  • Launch educational campaign at consumers to help increase awareness
Feedback on suitability of indicators for real estate listing integration

• 16 stand-alone indicators
  • Generally did not make a strong impression on the interviewees
  • Respondents felt that most indicators would not play well to the real estate agent or homebuyer
  • Proximity to transit and transit trips (i.e., frequency) received positive responses
  • Interviewees also viewed the presence of sidewalks indicator favorably

• Meta-indicators
  • Walk Score and Transit Score received favorable support
    • Ease of use/understanding by agents and consumers
    • No work/liability on the part of agents
    • Address specific results important to buyers
    • API facilitates technical implementation
  • H+T Affordability Index received some support
    • Concept was well-received, but concerns about ease of use/understanding
    • Average monthly transportation costs may be the best indicator to focus on
    • Reliance on averages (not buyer-specific data) may reduce utility in this context
Recommendations for implementation

• Establish pilot-tests
  • Identify willing MLS and consumer-facing websites
  • Suggested indicators for pilot projects
    • Walk Score and Transit Score
    • H+T ~ focus on transportation costs
    • Presence of sidewalks (if data are available)
• Develop pilot projects
  • Coordination and planning ~ find pilot, establish guidelines and timing
  • Finalize indicators
  • If necessary, provide assistance with data assemblage
  • Provide outreach materials to realtors
  • Provide homebuyer education materials
  • Develop performance measurement plan

• Potential barriers
  • Costs to piloting organizations ~ time and money
  • Skepticism from the real estate community
Next Steps...

- Set up pilot project(s) with an MLS and potentially a consumer-facing website

- Develop targeted realtor and homebuyer outreach materials
  - Use literature on property value retention of walkable neighborhoods as a selling point to homebuyers

- Establish pilot performance measurement plans to investigate effect of new information on sales patterns

- Demonstrate potential benefits to realtors
  - Provide better information and services to homebuyers and sellers
  - Lead to sales of higher-priced properties?
  - Lead to shorter time on market for walkable homes?

- Scale up pilot program to additional MLSs and consumer-facing websites