Breaking Down Silos between Planning & Public Works

THIS SESSION WILL BE CONDUCTING POLLING

PLEASE USE YOUR SMARTPHONE WEB BROWSER AND GO TO RESPONSEWARE.COM

TYPE IN SESSION ID APA2016

THEN PROVIDE YOUR NAME AND EMAIL (NO USER ID NEEDED)
Breaking Down Silos between Planning & Public Works

APA National Planning Conference
April 3, 2016
Session Agenda

Welcome and Overview of Session
Introduction
APWA’s Perspective on Sustainability
Overview of Tools & Resources
Phoenix Case Study
Q&A
Who are you representing today?

A. Local Government
B. State or Federal Government
C. Non-Profit
D. Consulting Firm
E. Institution
F. Myself

- Local Government: 76%
- State or Federal Government: 12%
- Non-Profit: 1%
- Consulting Firm: 4%
- Institution: 4%
- Myself: 4%
Which tools are you familiar with?

A. Envision™
B. GreenRoads
C. LEED
D. Asset Management Software
E. Sustainability Dashboards
Which tools do you actively use?

A. Envision™
B. GreenRoads
C. LEED
D. Asset Management Software
E. Sustainability Dashboards
Are you the lead in your organization for Sustainability?

A. Yes
B. No
Which Department is the most challenging to work with on sustainability issues?

<table>
<thead>
<tr>
<th>Rank</th>
<th>Responses</th>
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<tbody>
<tr>
<td>1</td>
<td>PUBLIC WORKS</td>
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<tr>
<td>2</td>
<td>ENGINEERING</td>
</tr>
<tr>
<td>3</td>
<td>FINANCE</td>
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<td>4</td>
<td>PLANNING</td>
</tr>
<tr>
<td>5</td>
<td>UTILITIES</td>
</tr>
<tr>
<td>6</td>
<td>Other</td>
</tr>
</tbody>
</table>

![Bar chart showing department rankings and responses]

1. PUBLIC WORKS: 26%
2. ENGINEERING: 16%
3. FINANCE: 5%
4. PLANNING: 5%
5. UTILITIES: 5%
6. Other: 43%
Challenges & Opportunities

• Communication

• Scope of Focus

• Climate & Sustainability
About APWA

- Formed January 1, 1937
- 28,500 members in US and Canada
- 64 chapters
- Promote education, advocacy and networking.
- Public Works covers many different skill sets from engineering, transportation, facilities, solid waste, parks, etc.
About APWA C4S

Created in 2008 to assist Public Works Professionals to confront the challenges facing their communities.

Consists of 12 Leaders from US and Canada

Mission

- Establish and promote framework
- Develop professional development and training
- Identify strategic partners at Federal, State and Local levels
- Advocate for sustainability principles at Federal, State & Local levels
1. Recognize Community as a System
2. Redevelop First
3. Provide Efficient Infrastructure
4. Support Concentrated Development
5. Restore and Enhance the Environment
6. Enhance Recreational and Heritage Resources
7. Plan Regionally; Implement Locally
8. Be Fair
9. Support Community Revitalization and Development
10. Practice Fiscal Responsibility
11. Communication and Civic Engagement
12. Provide Leadership
C4S Activities & Resources

– Sustainability Toolkit
– Click, Listen, and Learns (Webinars)
– May Reporter
– In the Know’s
APWA’s Tools of Choice

- Sustainable Return on Investment (SROI)
- Sustainability Dashboards
- Asset Management Software
- Envision
- Other Rating Systems: Greenroads, INVEST, LEED
SROI

Data Inputs ➔ SROI Process ➔ Cost & Benefit Output

- Buildings
- Community Values
- Corporate Responsibility
- Emissions
- Energy
- Market Conditions
- Mobility
- Site Development
- Waste
- Water

Environmental
Economic
Social

SROI
Our Goals

772K → 540K → 432K
mtCO2e

Total Government Operations GHG Emissions

This graph shows the track that GHG emissions need to follow in order to meet our short- and long-term reduction goals for government operations.

Land Use & Transportation

Environmental indicators that are environmentally healthy, economically prosperous, short-term results and long-term goals that will transform our city, the nearest-term goals identified in the pLAN. This dashboard is how we—in city operations, and collectively as Angelenos...
What is Asset Management?

A methodology to efficiently and equitably allocate resources amongst valid and competing goals and objectives.
## Building Systems List

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Expected Life Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>C Interiors</td>
<td>C20 Stairs</td>
<td>C2010 Stair Construction</td>
<td>50 Years</td>
</tr>
<tr>
<td>C Interiors</td>
<td>C30 Interior Finishes</td>
<td>C3010 Wall Finishes</td>
<td>10 Years</td>
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<td>D Services</td>
<td>D10 Conveying</td>
<td>D1020 Escalators &amp; Moving Walks</td>
<td>40 Years</td>
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<tr>
<td>D Services</td>
<td>D20 Plumbing</td>
<td>D2010 Plumbing Fixtures</td>
<td>25 Years</td>
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<tr>
<td>D Services</td>
<td>D20 Plumbing</td>
<td>D2040 Rain Water Drainage</td>
<td>30 Years</td>
</tr>
<tr>
<td>D Services</td>
<td>D20 Plumbing</td>
<td>D2090 Other Plumbing Systems</td>
<td>30 Years</td>
</tr>
<tr>
<td>D Services</td>
<td>D30 HVAC</td>
<td>D3020 Heat Generating Systems</td>
<td>20 Years</td>
</tr>
<tr>
<td>D Services</td>
<td>D30 HVAC</td>
<td>D3030 Cooling Generating Systems</td>
<td>20 Years</td>
</tr>
<tr>
<td>D Services</td>
<td>D30 HVAC</td>
<td>D3040 Distribution Systems</td>
<td>20 Years</td>
</tr>
<tr>
<td>D Services</td>
<td>D30 HVAC</td>
<td>D3050 Terminal &amp; Package Units</td>
<td>20 Years</td>
</tr>
</tbody>
</table>
The City of Tempe has identified the following next steps towards promoting asset management.

- Strengthening preventative maintenance programs
- Promote strategic systems improvements
- Increase energy management programs
Envision

• What is Envision®
  – Envision® helps evaluate the sustainability of civil infrastructure.
  – Joint collaboration between the Institute for Sustainable Infrastructure (ISI) and the Zofnass Program for Sustainable Infrastructure at the Harvard Graduate School of Design.
What is Envision®?

• The Envision® system includes:
  – A self assessment checklist
  – The Envision rating tool
  – A credential program for individuals
  – A project evaluation and verification program
  – A recognition program for sustainable infrastructure
60 Credits in 5 Categories

- Purpose, Community, Wellbeing
- Collaboration, Management, Planning
- Materials, Energy, Water
- Siting, Land & Water, Biodiversity
- Emission, Resilience
What are the Issues?

- Importance of public input from multiple stakeholders
- Starting the conversation
- Willingness to incorporate input
Why Use Envision®?

- Improve Performance
- Increase Citizen Satisfaction
- Promote Public Confidence
- Provide Sustainability Framework
• Quality of Life
  – QL 1.1 Improve Community Quality of Life
  – QL 1.2 Stimulate Sustainable Growth and Development
  – QL 2.4 Improve Community Mobility and Access
  – QL 2.6 Improve Site Accessibility, Safety, and Wayfinding

• Leadership
  – LD 1.3 Foster Collaboration and Teamwork
  – LD 1.4 Provide For Stakeholder Involvement
Mill Creek Transmission Main and Recreational Trail
Kansas City, MO

• Resource Allocation
  – RA 1.3 Use Recycled Materials
  – RA 1.6 Reduce Excavated Materials Taken Off Site

• Quality of Life
  – QL 1.1 Improve Community Quality of Life
  – QL 2.5 Encourage Alternative Modes of Transportation
  – QL 3.3 Enhance Public Space

• Leadership
  – LD 1.4 Provide For Stakeholder Involvement
Projected Population Growth

Maricopa County

Population Growth
(in thousands)

Year

Population

2014

7.3 Million people in 2050
Resource Innovation Campus
RISN Resource Innovation and Solutions Network

Become a partner
Create a global hub
Share a solution
Composting/Mulching Facility
Technology Solutions Incubator
Technology Solutions Incubator

- Start-Up/Emerging Technologies and Manufacturing Processes
- Office, workshop, and/or testing R&D space
- Support and technical services
- Access to sustainability researchers
Business Development

- Recycled Plastics (#1 - #2) Diversion RFP
- Recycled Paper Diversion RFP
- Recycled Plastics (#3 - #7) Diversion to Liquid Fuel RFP
- Glass Diversion RFP
- Anaerobic Digester RFP
- Boxes and Packing Materials Diversion RFP
- Materials Exchange Program RFP
- Landfill Gas RFP
- Palm Fronds RFP
- Education and Communication RFP
- Composting/Mulching RFP
Resource Innovation Campus

RESOURCE INNOVATION CAMPUS
27th Avenue & Lower Buckeye Road

LEGEND
- LAND AVAILABLE FOR FUTURE LEASING
- PROPOSED COMPOSTING FACILITY SITE
Solutions

• Know your audience
• Engage early and often- informally as well
• Understand & take into account our priorities and schedules
• Help us with areas we are weak