Streets are being re-conceptualized as the most important public space in many urban areas, both big and small. The role of streets has devolved from ancient times when streets were essential to public life, to the present day where most streets are focused on automobile usage and the conveyance of stormwater to nearby water bodies as fast as codes allow. To restore their value to public life contemporary streets must offer a compelling invitation for walkability, bikeability and safety for all, especially the most vulnerable. They need to be considered a vital part of the public realm that prioritizes pedestrians, public space, transit choices, and green infrastructure as a way to create socially vibrant livable cities.

As notions about our culture’s car dependency are being questioned, forward thinkers are also questioning the amount of public space that is dedicated to auto use at the expense of pedestrian use. From governmental agencies, to planning and design consultants, to artists and activists, people from all walks of life are beginning to ask for more from the streetscapes that dominate our built environments. Two concepts, complete streets and green streets, have promoted the movement away from low-performance, vehicle-dominated public space.

Complete streets are streets for everyone. They are designed and operated to engage safe access for all users. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a complete street. Green streets use living, green infrastructure systems to manage stormwater runoff as a resource, which offering other ecological and social benefits, in addition to long-term cost savings. Design integration is now combining these philosophies in high-performance public space that this panel has extensive experience implementing complete and green streets within built work across the United States, with creativity, sustainability and published results.

MARKETING STATEMENT
As vital elements of the public realm, contemporary streets need to inspire pedestrian activity, provide welcoming public spaces, connect to a variety of transit choices, and, in short, contribute meaningfully to a community’s green infrastructure. This panel will present recent award-winning examples of complete/green streets.

LEARNING OBJECTIVES
• Promote implementation strategies to enhance sustainability, aesthetics, and stormwater infrastructure savings.
• Understand the complete/green-street design concept and suggest modifications to improve performance.
• Understand how redesigned streets work as public gathering spaces, stormwater filters and catalysts for economic development.
• Understand the importance of public input into the design process and associated modifications.

SPEAKERS
Jim Schuessler, ASLA  
BNIM | Studio Director  
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David Yocca, FASLA  
Conservation Design Forum | Principal  
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Tim Duggan, ASLA  
Phronesis | Principal  
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Rainwater falling within the project area is collected and treated by the four rainwater system BMPs. See below for a description of each system component.

1. Porous Unit Paving
2. Amended Soil Infiltration Areas
3. Cobble Infiltration Areas
4. Alley Trench Grate
Green infrastructure elements selected through an open community process for their long-term value to the town vision:

- Traffic calming for improved pedestrian safety and comfort
- Universal design/accessibility for all abilities
- High-performance, permeable unit paving in streets and sidewalks
- Streetside rain gardens
- Non-glare, energy-efficient LED lighting
- Geothermal-sourced district heating and cooling system
- Vehicle charging stations
- Local art and craft integrated into materials, signage, and furnishings
- Performance plaza/seating
- Adaptive, mixed re-use of historic buildings

Optimize Parking for Downtown Businesses

Integrated water, energy, and utility systems
**Permeable, interlocking pavement system**

- Pavement must be designed to perform as suitable, resilient walking and driving surface throughout the year
- Interlocking concrete (or clay) unit pavers- durable, flexible, adaptable, attractive
- Porous unit pavers- provide multiple benefits
District Goethernal Heating and Cooling

- Long-term cost-renewable energy provides stability and security for residents and businesses
- Environmentally-friendly, leading edge practices
- Infrastructure provides opportunity for district snow/ice melt system

<table>
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<th>Year</th>
<th>District-Wide Geothermal Heating and Cooling with Snowmelt System (60% Participation)</th>
<th>Conventional Electric Cooling, Natural Gas Heating (60% of Total Use)</th>
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Integration of Art and Craft Authentic to West Union

Designing to the natural and cultural history of a tall grass prairie town:

- Natural - color, texture, form, pattern, natural resources (water, sun, wind), local materials
- Cultural - familiar cultural motifs, stories, and local talent
PILOT STREET DEMONSTRATION PROJECT
LOWER 9TH WARD, NEW ORLEANS, LOUISIANA
Pervious Concrete Streets

- Stormwater Streets
- Durable Solutions
- Cost Sharing Opportunities
MIDDLE BLUE RIVER BASIN
KANSAS CITY, MISSOURI

WATERSHED PLANNING & DESIGN APPROACH

DE-PAVE:
- Turn streets into permeable sponges

GREEN CONNECTORS:
- Connect public spaces to parks & plazas
- Vegetated swales & boulevards

PONDS & PARKS:
- Invest in urban stormwater parks
- Collect + connect

INTUITIVE + TECHNICAL + PRAGMATIC

VEGETATED SWALES
- Primary Corridors
- Streetscape Improvements
- Neighborhood Connectors
- Separated Sewer System

PERVIOUS STREETS
- MINIMIZE UTILITY CONFLICTS < 3 DEPTH
- SING Storage Capacity
- ADAPTIVE STORAGE

Update water in pervious
Attach the pipe in the swale to the soil profile of the swale

Stormwater System Diagram

INTUITIVE + TECHNICAL + PRAGMATIC

Regenerative Infrastructure

$3.27/Gallon

12,756 ft.
19,430 ft.
2,005 ft.
2,300 ft.

REGENERATIVE INFRASTRUCTURE
- 2013 Recycled Glass Greenhouse
- 2013 Recycled Glass Greenhouse
- 2013 Recycled Glass Greenhouse
- 2013 Recycled Glass Greenhouse
- 2013 Recycled Glass Greenhouse
- 2013 Recycled Glass Greenhouse
- 2013 Recycled Glass Greenhouse
- 2013 Recycled Glass Greenhouse
MAIN STREET
GREENSBURG, KANSAS
12TH STREET

KANSAS CITY, MISSOURI
GRAND BOULEVARD

KANSAS CITY, MISSOURI
Lessons Learned:
Fewer lanes? No Problem

Lessons Learned:
People Will Linger if You Give Them a Reason

Lessons Learned:
Crosswalks Really Do Change Driver Behavior

Lessons Learned:
Huge Right of Way = Huge Potential

Lessons Learned:
Bikes and Buses Can Work Together

Lessons Learned:
More people + slower traffic = Stronger Local Retail