IndyGo Downtown Transit Center
Transforming Indianapolis

Ben Smith, Steve Robinson, Joe Fischer
“Market East”
Indianapolis’s 7th Cultural District

Indy Announces Creation of Market East District
Design Contest Launched for City County Building Plaza

INDIANAPOLIS—Mayor Greg Ballard today joined Indianapolis Downtown Inc. to announce a goal of creating Indy’s 7th cultural district - Market East. The district centers on new development taking place on and around the former Market Square Arena site.

“We see our other great cultural districts, urban residents want unique places to live, work, shop and dine,” said Mayor Ballard. “Market East will be a place for an intellectual and urban planning audience that will help Indianapolis attract new people and companies to this thriving area of downtown.”

Market East will build on the great architectural history of the City Market and Old City Hall and add new signature structures like the IndyGo Downtown Transit Center, the Market Square North Tower, Cummins Global Innovation Center, and the newly completed first phase of the Artsy Project – City Theatre. Additionally, Market East will create a new cultural landmark similar to that of the existing cultural districts: Broad Ripple Village, the Loyal and White River State Park, Mass Ave, and World Wide Plaza District.

“Just as our velocity plan replacement, Market East is about 10 become one of the hottest addresses in the state of Indiana,” said Barry Street, president of Indianapolis Downtown Inc. “From the continued use of the City Market to the growth and energy coming from our other Market East stakeholders, the focus and naming of Market East will define the new collective urban momentum and create something truly fantastic that will impact and redefine Downtown for years to come.”

In order to provide a signature public space, in this new district, the City is launching a competition to design the plaza at the City Market Building. The current plaza overlooking Washington Street is deteriorating. The competition will be funded by a $40,000 grant from the Indiana Landmarks Community Foundation through its matching grants program. Once a design is selected, the City will then seek design partners and funding for construction of the project.

The City will issue a call for design team proposals later today. Final designs will be reviewed by a panel of key city stakeholders. The winning design is expected to be announced in October. Details on the submission guidelines and requirements are available at: www.indygo downtown.com/design

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March 11, 2015 Purdue Road School
Site Studies & Site Influences
City County Building
Project Challenges & Opportunities

• Logical bus routing
• Functional efficiency
• Gateway to the city
• Dignity of ridership
• Multi-modal hub
• Safe flow on site
• LEED certification
• Be an asset for the city
Bus Routing

Proposed Routing to Transit Center Developed by CTG
Conceptual Site Layouts

CONCEPT 1
25 Bus Bays (22 internal)

CONCEPT 1A
25 Bus Bays (21 internal)

CONCEPT 1A
20 Bus Bays (16 internal)

CONCEPT 2
21 Bus Bays (16 internal)

CONCEPT 3
23 Bus Bays (17 internal)
Previous Transit Center
Gateway along Washington Street
NE Corner Welcoming Pedestrians
Floor Plans
Interior

Purdue Road School
March 11, 2015
Site Plan
Traffic Operations
Central Business District = Significant traffic operations analysis

RECOMMENDATIONS:
• Contraflow bus-only lane along Alabama Street
• Mid-block traffic signals to help buses exit Transit Center
Countraflow Bus-Only Lane

One-way streets create challenges for site access and bus routing.

Under-utilized lanes along Alabama Street.
Countraflow Bus-Only Lane

CHALLENGES:

• Coordination with parking garage operators
• Consider both daily commuter traffic and special event traffic
• Modify overhead blank-out parking sign structure
Bus “Pulse” Traffic Signals

BUS “PULSE”:
• 15 minute “pulse” interval
• Create traffic breaks for up to 16 buses at once

GOALS:
• Maintaining traffic flow along Delaware Street
• Providing safe & efficient access for buses
Signal Spacing

• 250-foot spacing
• Requires careful synchronization and coordination
• Bus demo to help fine-tune opening day signal timing
• Piggyback on DPW’s recent signal fiber optic and Ethernet upgrades
Triggering a green for the bus pulse ("Placing a call to the controller")

Three mechanisms were considered to place the call for a green phase:

1. IndyGo Control Center
2. Transit Signal Priority
3. In-Pavement Vehicle Detection
IndyGo Control of Signals
IndyGo Control of Signals

INDY GO SERVER

(THE BUS PULSE SCHEDULE IS PROGRAMMED AND STORED HERE)

CONTACT CLOSURE

ETHERNET SWITCH

ATOMIC CLOCK

THIS WILL KEEP THE 4 TRAFFIC SIGNALS SYNCHED UNTIL CENTRACS IS BROUGHT ONLINE. AND WILL SERVE AS A BACKUP SYSTEM THEREAFTER.

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MM FIBER OPTIC
IndyGo Control of Signals

Pros:

• Allows for full integration between IndyGo server, buses, and traffic signals
• Prevents “cut through” traffic from delaying traffic on Delaware Street and Alabama Street
• Gives IndyGo control to adjust their route scheduling

Cons:

• IndyGo concerns with connecting to an unsecure network
• Traffic equipment locked in the IndyGo server room creates additional burden on DPW traffic signal electricians to provide 24/7 support
Transit Signal Priority

Pros:
• Allows for integration between buses and traffic signals (and maybe IndyGo servers)
• Prevents “cut through” traffic from delaying traffic on Delaware Street and Alabama Street
• Gives IndyGo control to adjust their route scheduling

Cons:
• Requires to additional traffic signals to take full advantage of corridor-wide TPS
• Requires buses to be outfitted with transponders

OPPORTUNITY FOR FUTURE UPGRADE AS $$ BECOMES AVAILABLE
In-Pavement Vehicle Detection

Pros:
- Least expensive to implement
- Easiest system to maintain
- Bus drivers have control to adjust for any changes to route scheduling
- Allows and buses that are “stragglers” to catch the next light cycle

Cons:
- No integration between IndyGo server, buses, and traffic signals
- Does not prevent “cut through” traffic from delaying traffic on Delaware Street and Alabama Street
- Call cannot be placed to signal controller until buses queue up
LESSONS LEARNED

8. Talk to local stakeholders and neighbors.
7. Think through the user experience from each mode.
6. Apply extra contingency in a dense environment.
5. Understand your approach to public restrooms.
4. Optimize between bus turning and pedestrian crossing distances.
3. Uncover and explore the site before design where possible.
2. Plan for future IT integration and upgrades.
1. And the number one recommendation…
Bus Mock Ups

TYP. 40' BUS BAY ALONG STRAIGHT DRIVE

TYP. 60' BUS BAY ALONG STRAIGHT DRIVE
Thank You

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