

INTERNATIONAL MUNICIPAL LAWYERS ASSOCIATION, SEPTEMBR 12, 2011 ANNUAL CONFERENCE, CHICAGO

LAKESIDE

SUSTAINABLE DESIGN AT THE SCALE OF A NEW CITY

NASUTSA MABWA, PROJECT MANAGER, DEVELOPMENT
MCCAFFERY INTERESTS

McCAFFERY Interests

Chicago Lakeside Development, LLC

THE DEVELOPMENT TEAM

CITY OF CHICAGO

CHICAGO LAKESIDE DEVELOPMENT, LLC

MCCAFFERY INTERESTS, INC

UNITED STATES STEEL CORPORATION

THE DESIGN TEAM

Antunovich Associates
Retail Architect

SOM
Master Planner

Sasaki Associates
Landscape Architect

THE CONSULTANT TEAM

Legal Consultants
DLA Piper
Bryan Cave, LLP

Technical Consultants
Spaceco Inc.
CBBEL
KLOA
AECOM
Conestoga-Rovers
Laube Companies

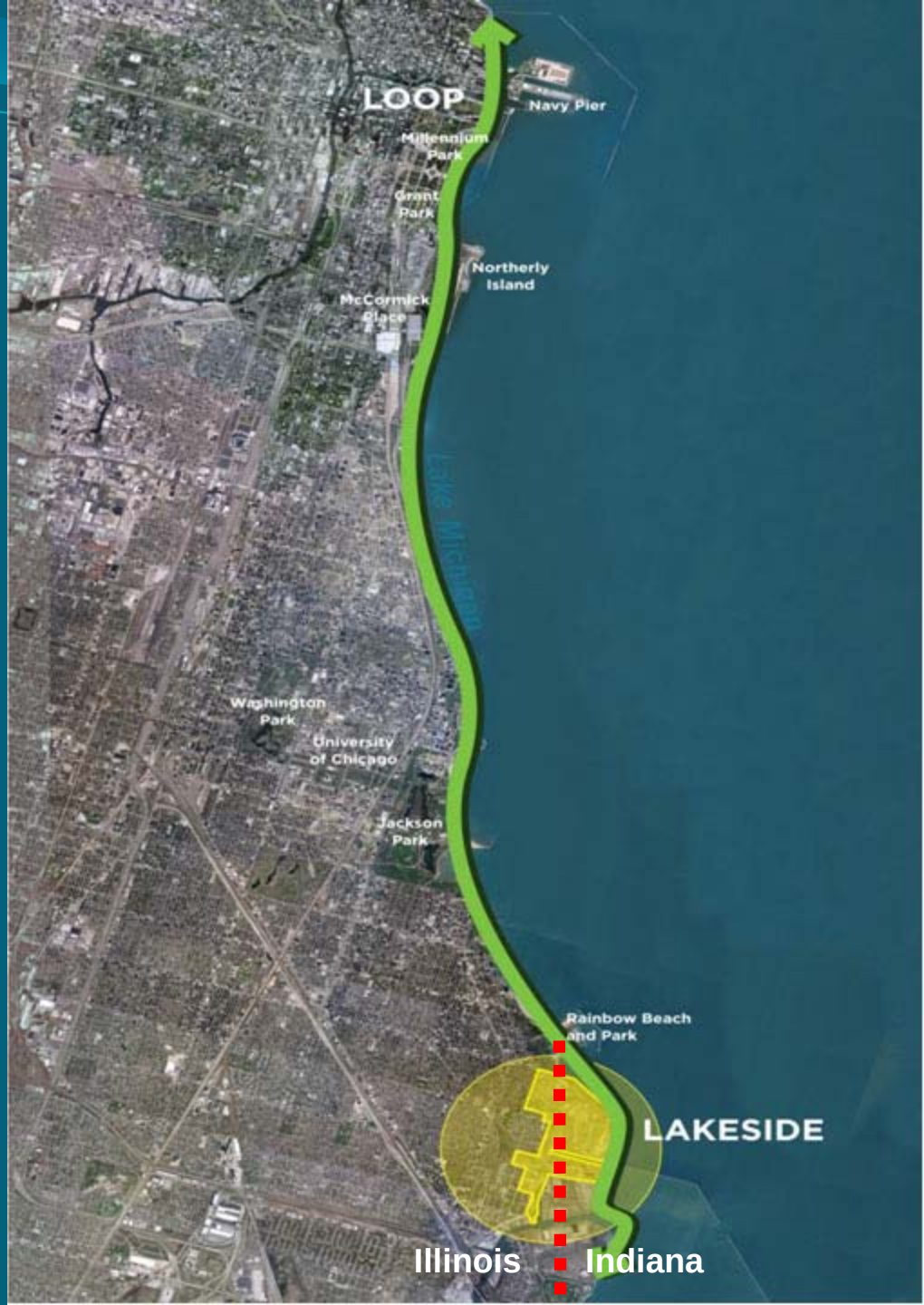
Construction Consultants
Kenny Construction
WE O'Neil Construction
Brandenburg Industrial



Chicago Lakeside Development, LLC
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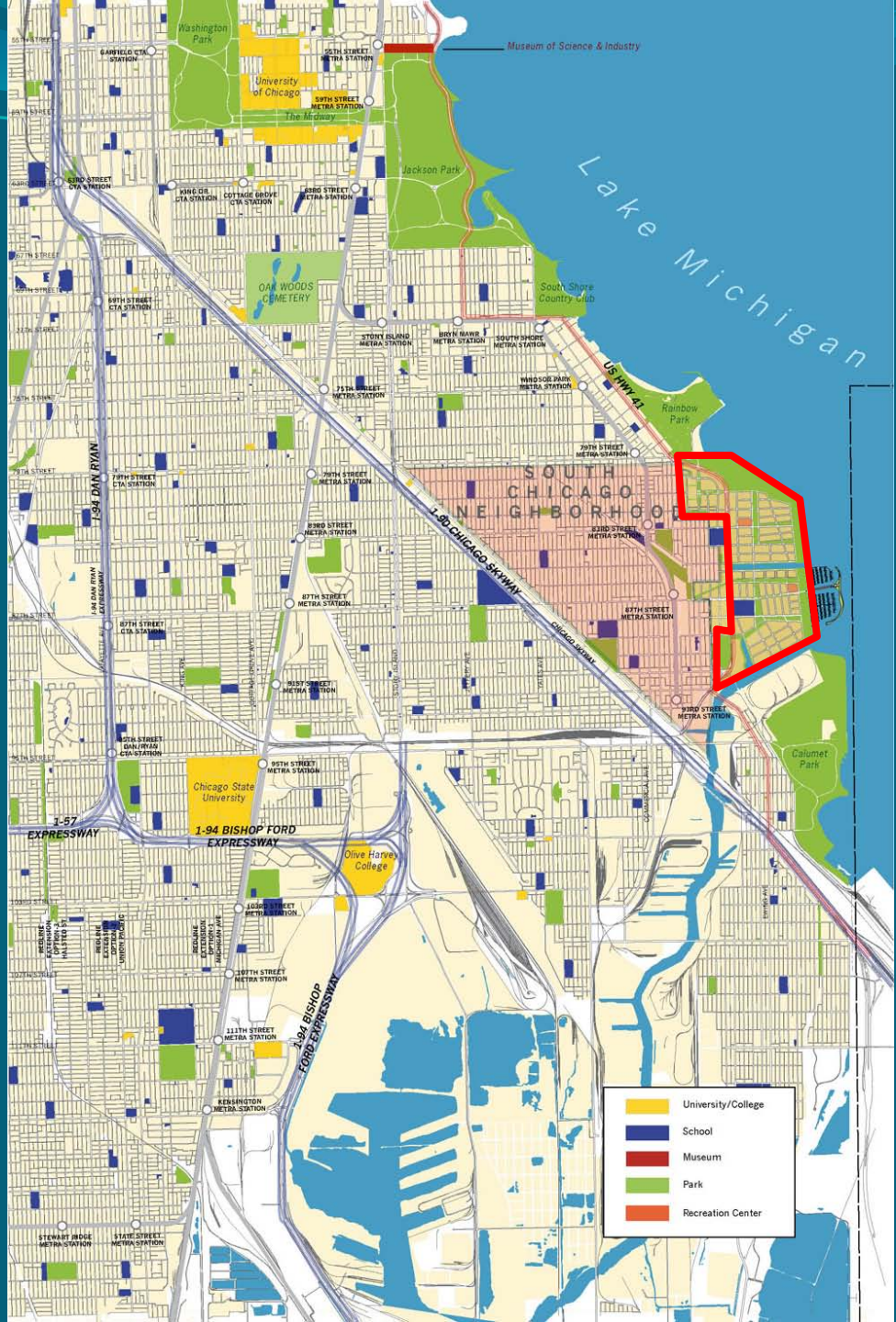
THE SITE LOCATION

- 10 miles south of The Loop
- 3 miles south of the University of Chicago
- Lake Michigan waterfront
- Illinois/Indiana border



THE SOUTHSIDE COMMUNITY

- Historic Chicago neighborhood
- Former steelworks community
- Schools, parks, shops
- Single family homes and apartments
- Commercial Avenue
- St. Michael's Church



South Shore neighborhood character



89th & Commercial Ave


Russell Park


Residential Street

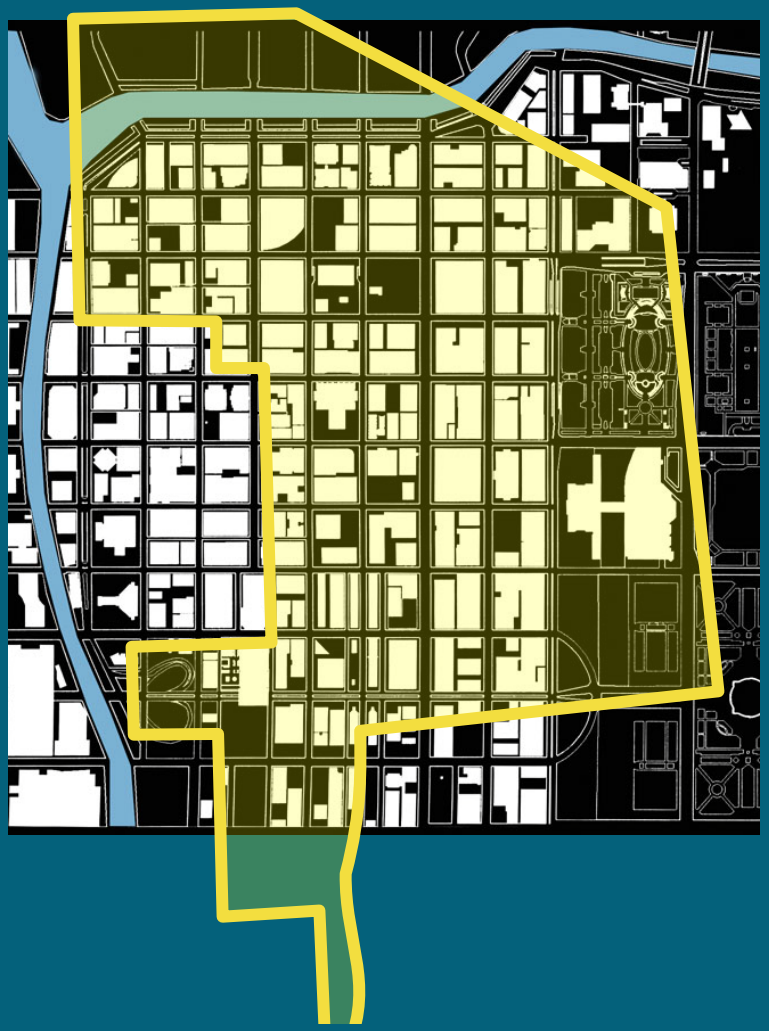

Scattered Site Housing


Residential


St Micheal Church

SCALE COMPARISON

CHICAGO LOOP





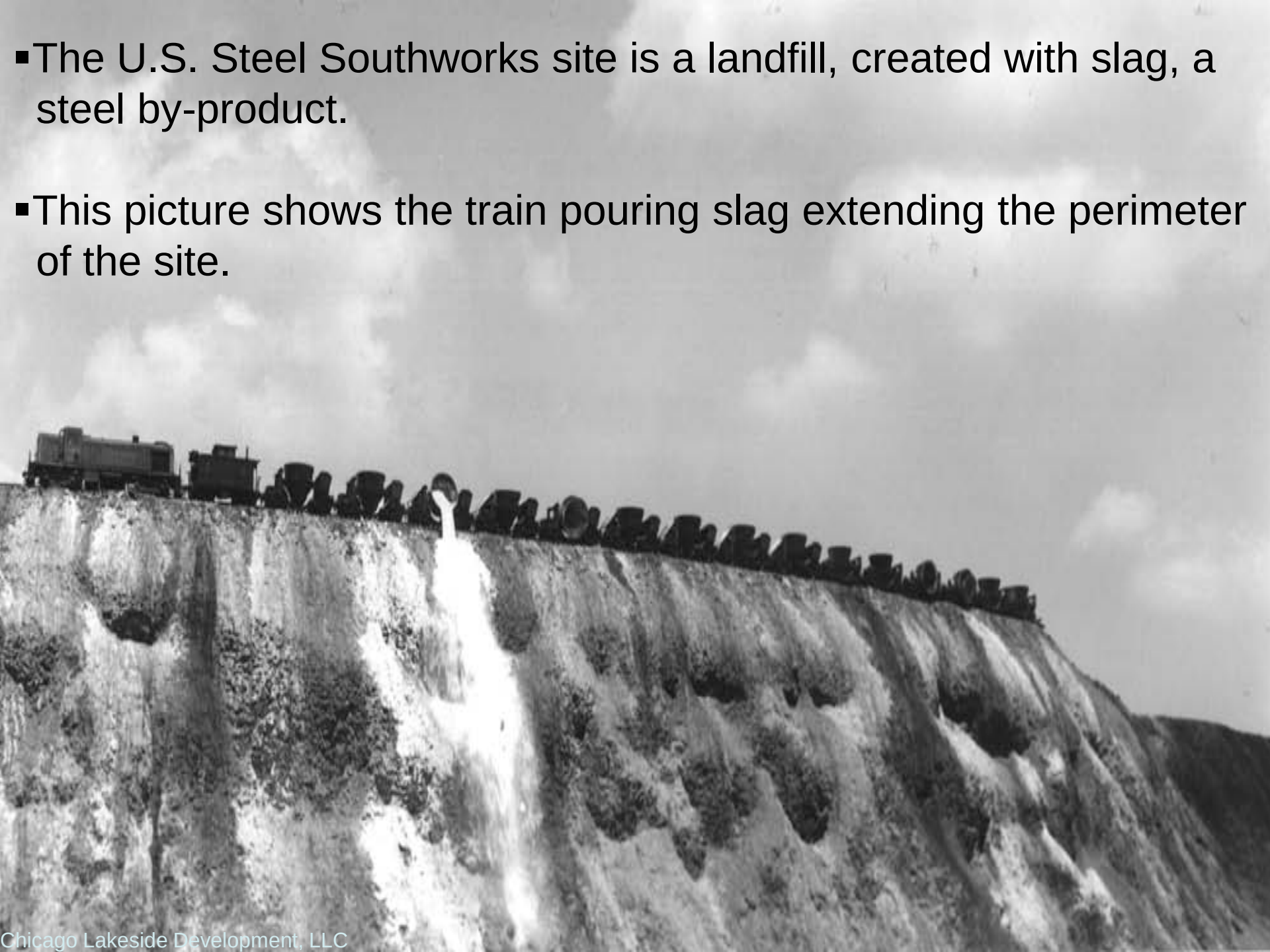

THE SITE



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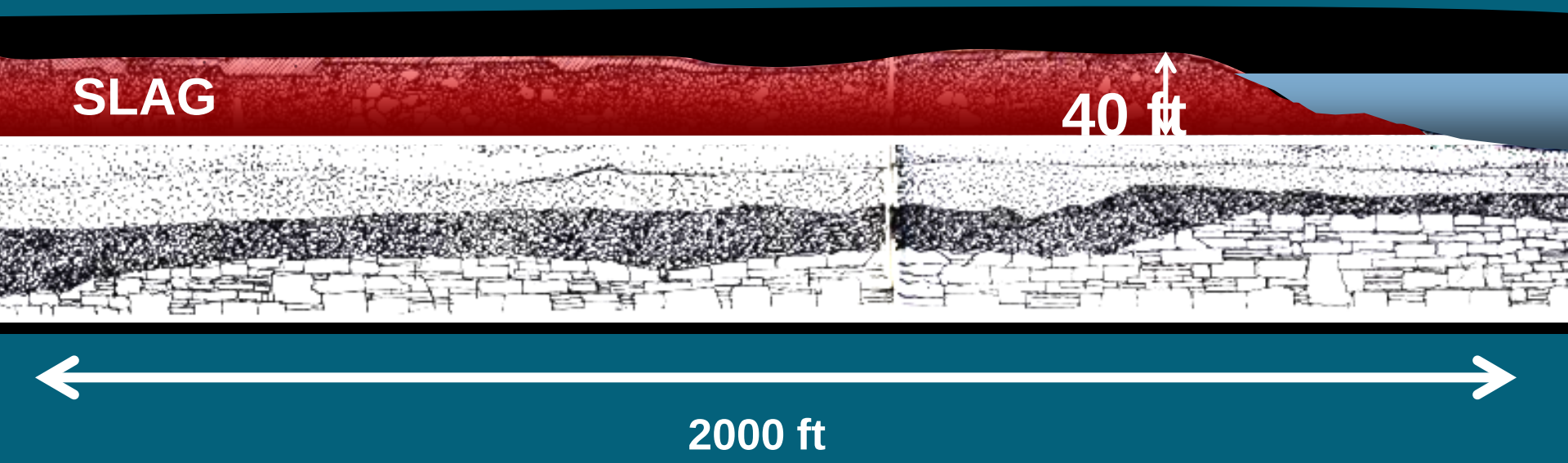


- The U.S. Steel Southworks site is a landfill, created with slag, a steel by-product.
- This picture shows the train pouring slag extending the perimeter of the site.



REMNANTS OF THE SITE

Slag varies from 10-40 ft, with 25 ft being the average depth of slag and runs from the original shoreline into the lake by approximately 2000 ft.



2000 ft

Lakeside site today



EXISTING FOUNDATIONS





EXISTING UTILITIES




APPROVALS

VALUE ADDED

1998

"FROM STEEL TOWN TO HOMETOWN"

DWELLING UNITS: 4,800
COMMERCIAL SF: 500,000

2006

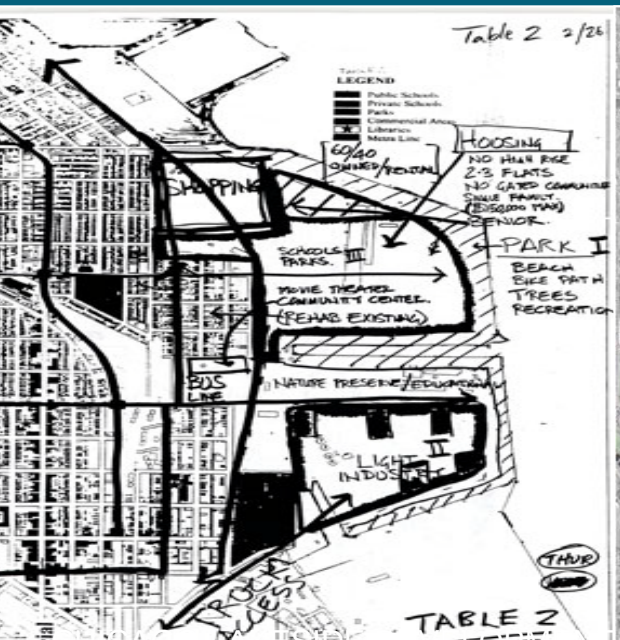
TIF/MASTER PLAN

DWELLING UNITS: 11,800
COMMERCIAL SF: 1,600,000

2010

ZONING ENTITLEMENTS

DWELLING UNITS: 13,575
COMMERCIAL SF: 17,500,000







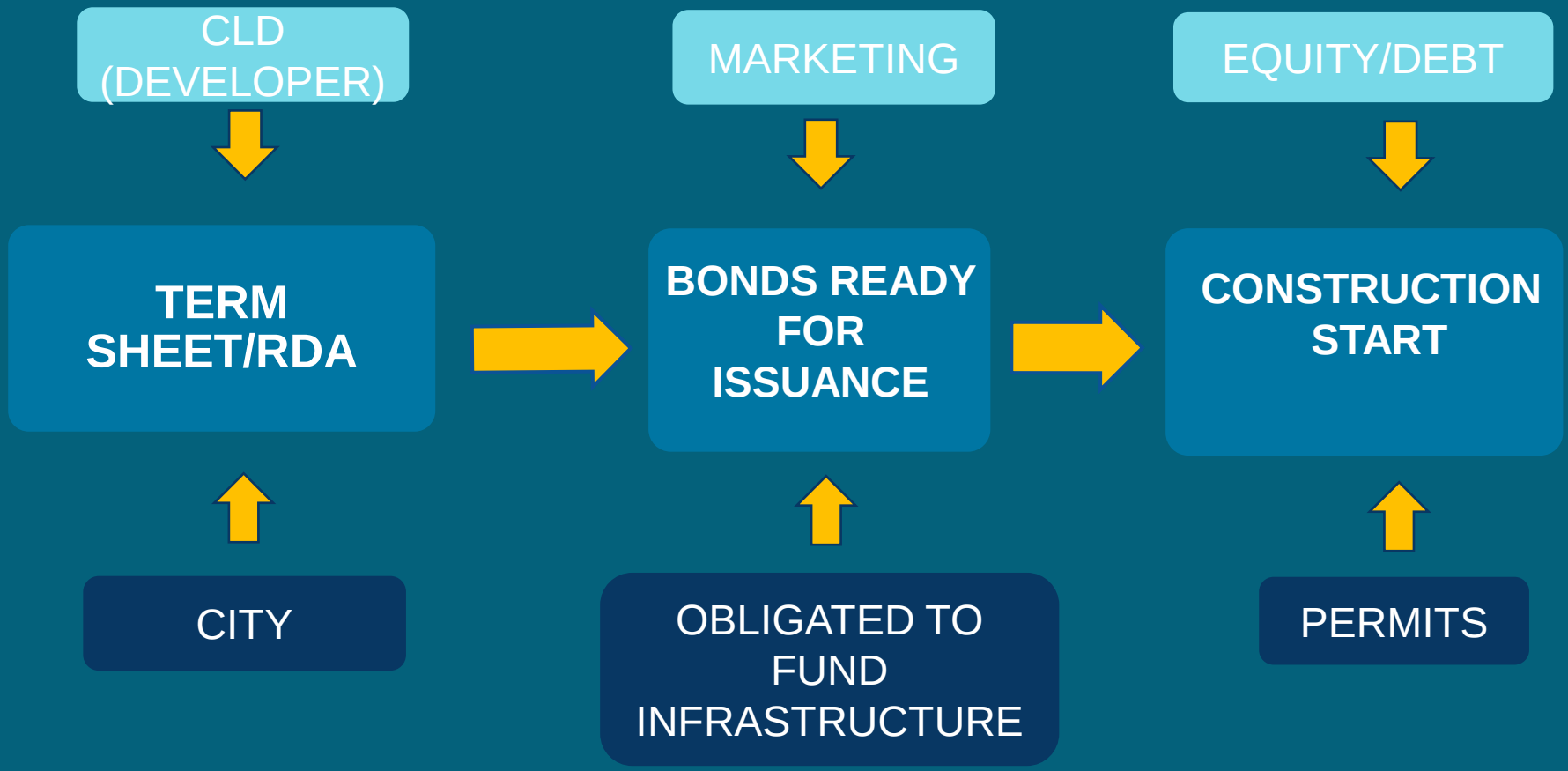
TAX INCREMENT FINANCE (TIF)

- PUBLIC TIF FUNDS TO BE USED FOR PUBLIC INFRASTRUCTURE

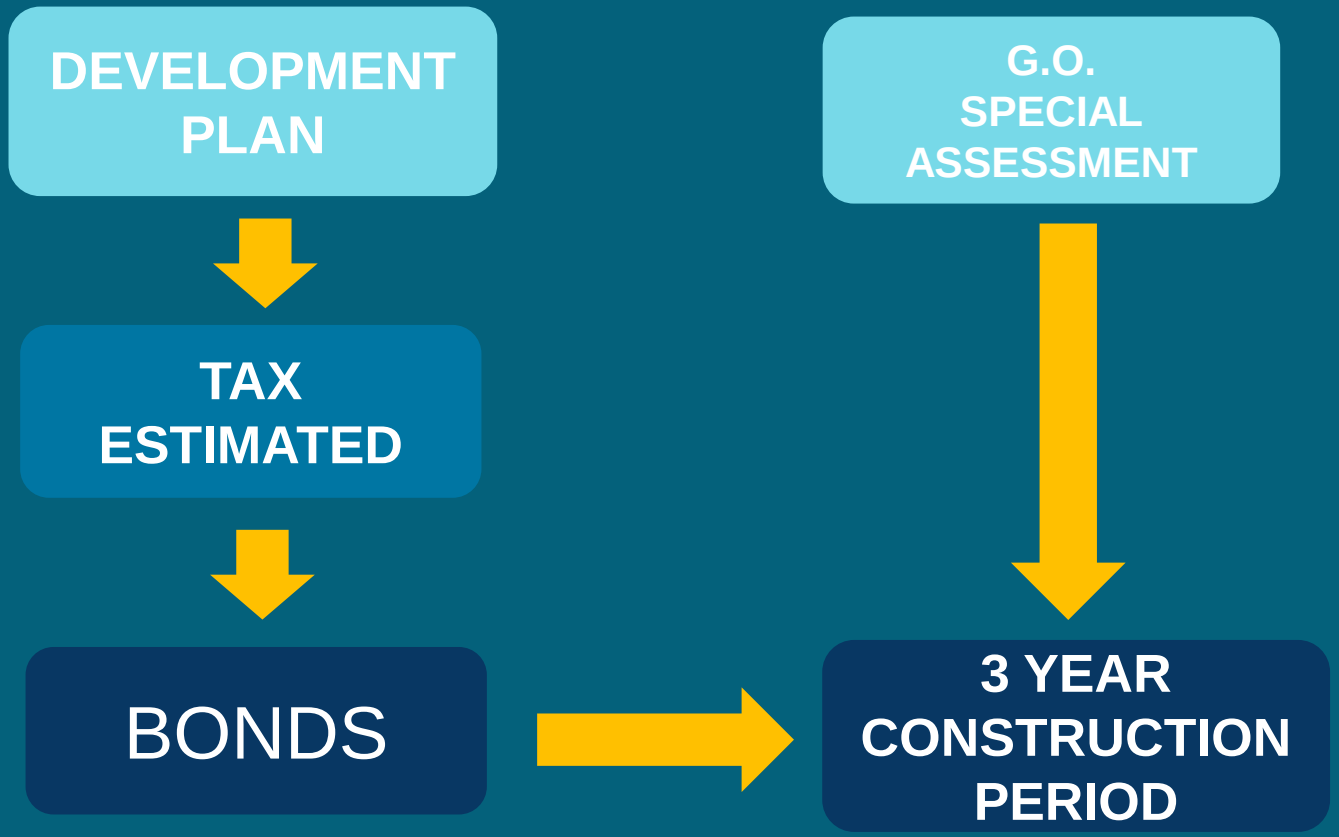
PHASE 1 = $98MM

ENTIRE SITE = $450MM

CITY FINANCING COMMITMENT



TAX INCREMENT FINANCING




MASTER PLAN

URBAN DESIGN FRAMEWORK

- Extension of existing community to the lake
- A connected public space system
- A new lakefront park
- Small walkable blocks
- Views within the development
- Views to the downtown
- Boulevards, bikeways, and parks
- Integration of realigned South Shore Drive
- Extend urban fabric and connect to transit



LAKESIDE MASTER PLAN

- 2.5 miles of lakefront land
- 135 acres of public open space
- 13,575 new residential units
- 20M SF of commercial, civic and retail
- High school and elementary school
- Research and development
- A new high school
- A marina
- Relocated Lakeshore Drive



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LAKESIDE PARKS




ACCESS

Chicago Lakeside Development

Access to the Site



BUS SERVICE



Bus Lines

- The entire community is within a 5-minute walk to a bus line



COMMUTER RAIL



METRA

- 30% of proposed residents are within 10 minute walk (1/2 mile) of existing METRA Stations



BIKEWAYS



- 6.5 miles of new bike paths
- Connects and extends the city bicycle system
- Cycle storage at rail stations



REALIGNMENT OF US 41

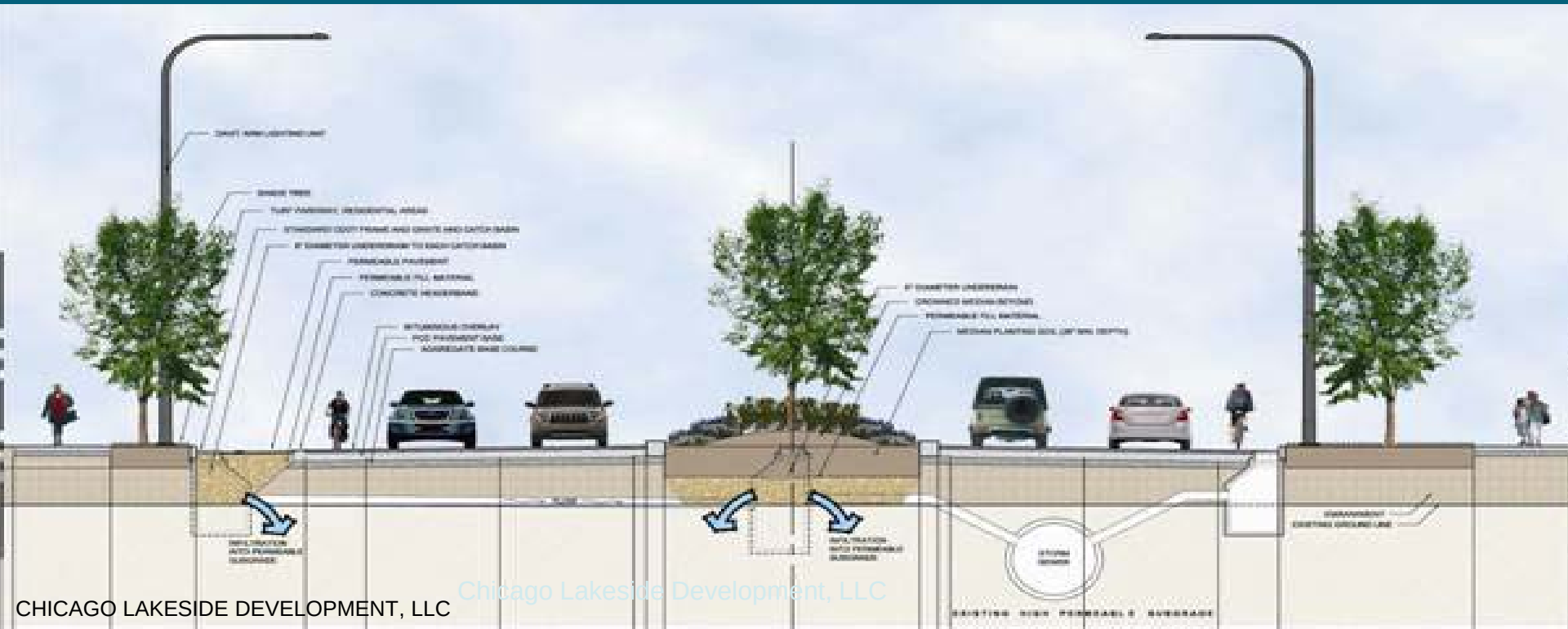
- Create an urban landscaped boulevard
- Allow for the integration of neighborhoods on both sides of US 41
- Incorporate bike lanes
- Align with existing Avenue O



US-41 STREET SECTION

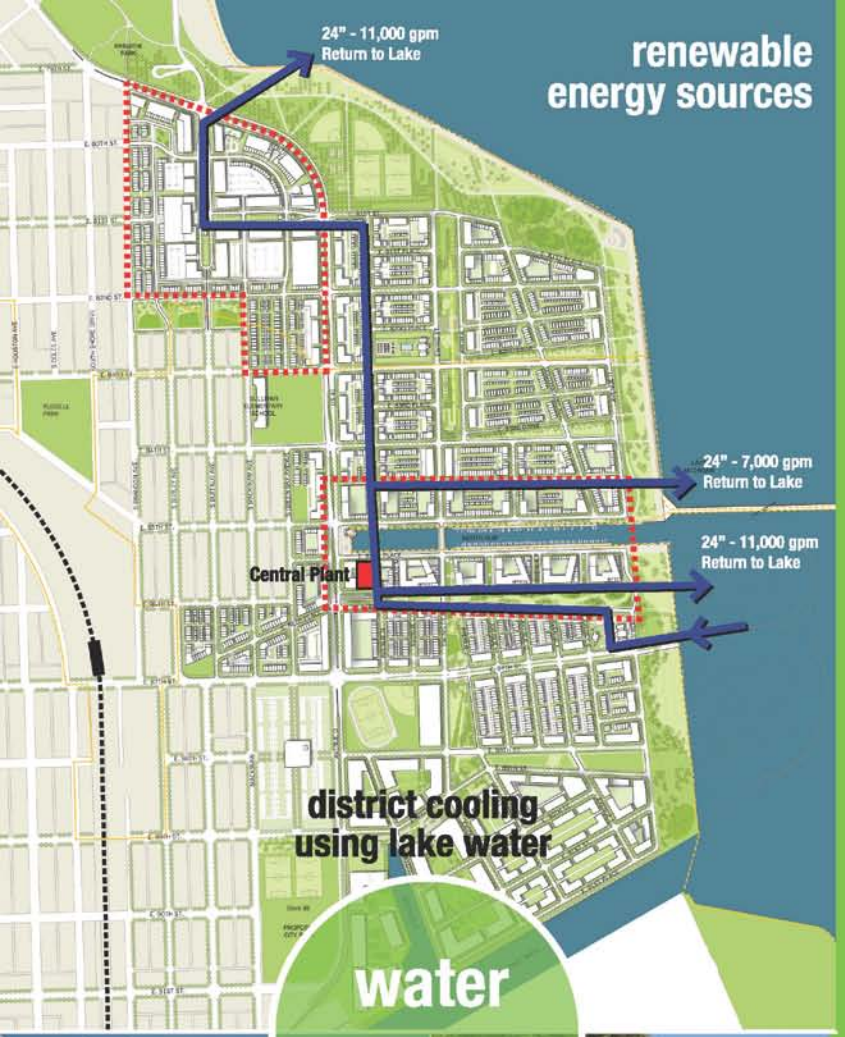
- 130’ ROW
- 2 lanes each direction
- On-street bike lanes
- Parking lanes

- Landscaped median
- Sidewalks
- Lighting
- Drainage system
- Traffic signals



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SUSTAINABILITY

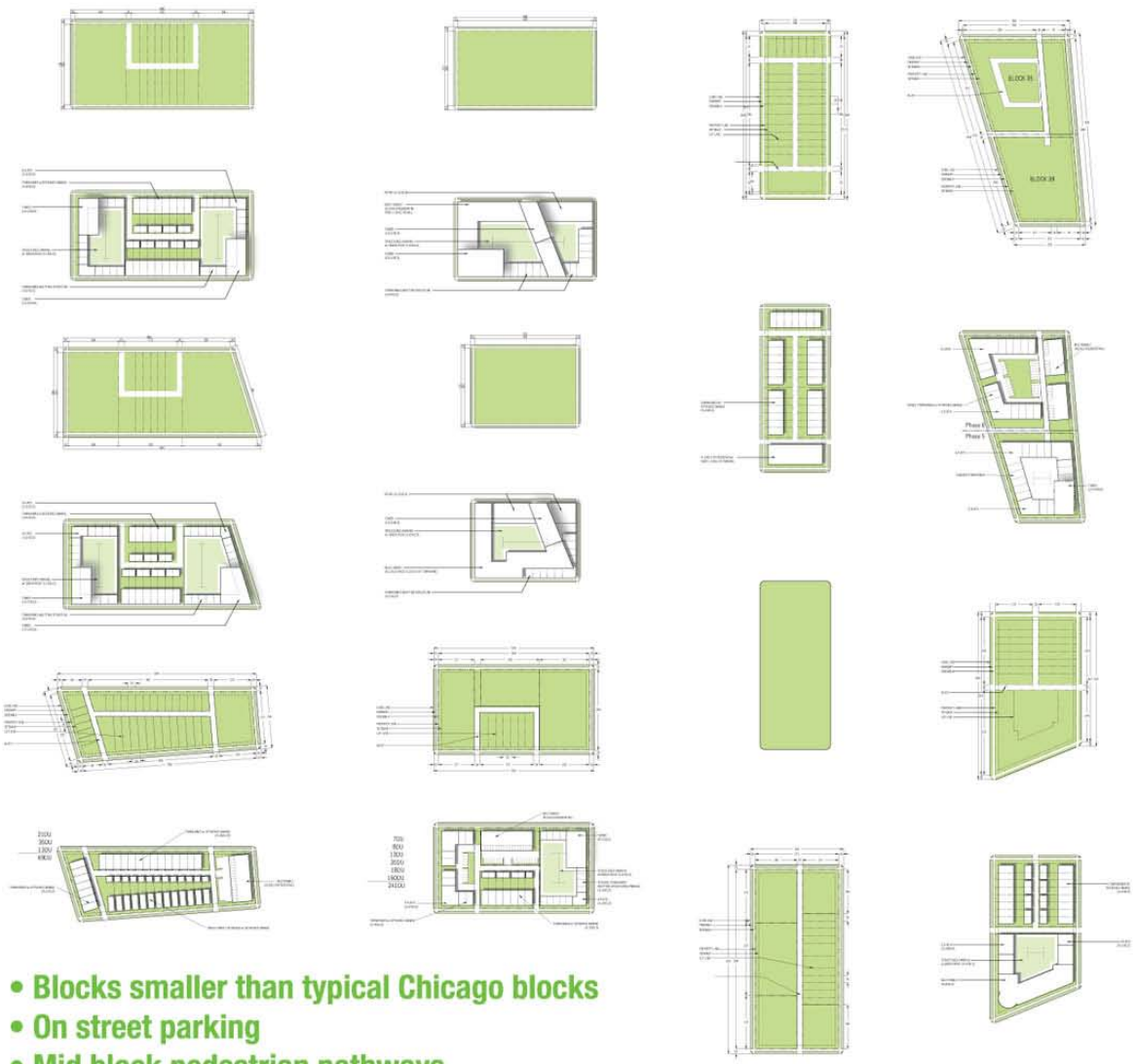






LEED-Neighborhood Development pilot program

LEED-ND pilot summary	LAKESIDE master plan
SMART LOCATION & LINKAGE	**SMART LOCATION & LINKAGE**
1. Adjacent, infill, and brownfield sites	1. Redevelopment of former steel mill
2. Protect natural resources: farmland, wetlands, water bodies, and native habitat	2. Extensive use of native vegetation, promote Lake Michigan recharge
3. Connected network of streets	3. US-41 as urban boulevard, connection to South Chicago neighborhood
4. Close to transit and provide alternative means of transportation	4. Walk to train, extension of city bus and bike networks
5. Job-housing balance	5. New commercial, entertainment and retail districts
6. Close to neighborhood amenities and schools	6. Adjacent to Sullivan school and future high school
NEIGHBORHOOD PATTERN & DESIGN	**NEIGHBORHOOD PATTERN & DESIGN**
1. Promote urban density	1. 66 du/net ac
2. Compact and connected grid of streets	2. Typical Chicago grid
3. Mixed use	3. Over 13,000,000 sf of non-residential, mixed use, institutional
4. Diversity of housing type, size and affordability	4. Mix of single-family detached, townhomes, stacked flats, condominiums and apartments
5. Universally accessible	5. Variety of accessible units
6. Minimize impact due to parking	6. On-street and structured parking
7. Walkable neighborhoods	7. Buildings address street, tree lined parkways
8. Access to parks and open space	8. Over 100 acres of open space
9. Community involvement	9. Respect spirit of 1999 Steeltown to Hometown
10. Local food production	10. Opportunities for roof top gardens and farmer's market
GREEN CONSTRUCTION & TECHNOLOGY	**GREEN CONSTRUCTION & TECHNOLOGY**
1. Reduce energy consumption	1. Active and passive strategies, reduced energy loads, heat island reduction
2. Energy efficient buildings	2. Energy efficient building materials and methods
3. Adaptive reuse	3. Preserve and celebrate Ore Wall
4. Minimize impact of construction process	4. Best practices for construction
5. Manage stormwater in sustainable ways	5. Infiltrate over 90% of stormwater
6. On-site and renewable energy sources	6. Harness energy from wind, solar, water
7. Reduce waste and recycle	7. Recycle construction
8. Sustainable infrastructure	8. Energy efficient lighting, recycled materials
INNOVATION & DESIGN PROCESS	**INNOVATION & DESIGN PROCESS**
1. Innovation	1. Innovative energy strategies
2. LEED AP professionals	2. LEED recognized, knowledgeable and qualified design team



- Blocks smaller than typical Chicago blocks
- On street parking
- Mid block pedestrian pathways

small, walkable blocks
chicago green alley program

high performance buildings

- Buildings will be designed to meet LEED Silver or better
- Diversity of density and housing types
- A national model for a “green city”



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DISTRICT ENERGY

- District Heating and Cooling combined with Co-generation will take advantage of the site's mixed-use development
- Can be phased along with the development
- District Energy can use various fuel sources: natural gas, which can later be phased into bio-gas from waste-to-energy plants, lakewater, wind, etc
- District Energy should be coupled with Energy Storage, to reduce peak demand



WIND POWER

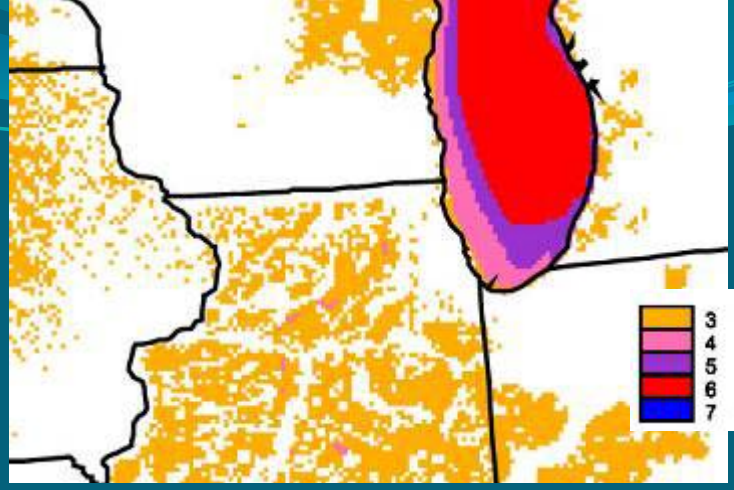
OPPORTUNITY
- Off shore wind farm
- Wind power increases in the lake
- Existing break wall provides maintenance access

BASE CASE
- Fifteen 850 KW turbines
- 55 meter hub height

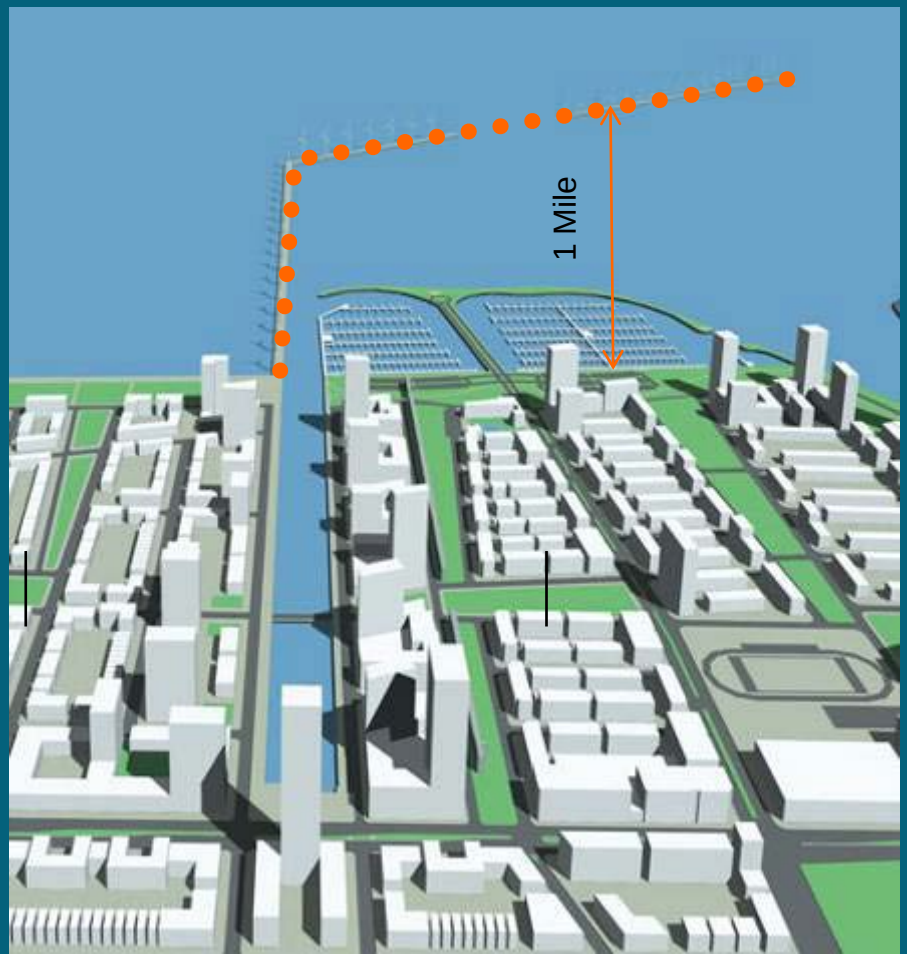
POTENTIAL LAKESIDE APPLICATION
- 25% of Lakeside residential demand
- OR 341 miles of street lighting

ENERGY SAVINGS
- Total energy production: 28,000 MWh
- CO2 emissions reduction by 27,000 tons/year

Finding of "no fatal flaw":
Report By Conestoga-rovers & Associates: *Initial Pre-feasibility Investigation Off-shore Windfarm Development*



Source: NREL



DEEP LAKE WATER COOLING

OPPORTUNITY

- Direct access to Lake Michigan
- Consistent 40 degree water at 1 to 2 miles out, 250 feet down

BASE CASE

- Open or closed loop
- 20,000 ton system

POTENTIAL LAKESIDE APPLICATION

- 100% of cooling demand for high density neighborhoods:
  - 2,800,000 sf Retail +
  - 4,800 Dwelling Units
- Potential partnership with neighbors

ENERGY SAVINGS

- 70,000 MWh/year



GEOTHERMAL HEATING AND COOLING

OPPORTUNITY

- Synergies with solar thermal
- Can be implemented at the Neighborhood, Block, and/or Building Scale
- Site conditions conducive for geothermal

BASE CASE

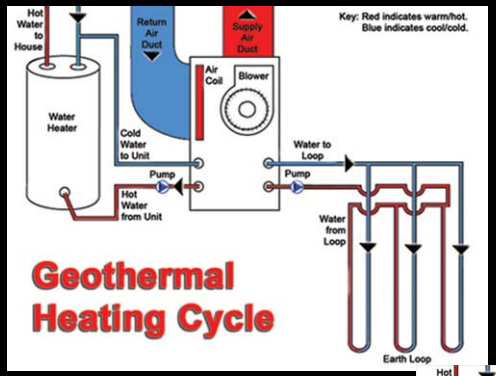
- Closed loop: vertical system
- 6,000 of wells, 500’ deep
- In open space and under surface lots

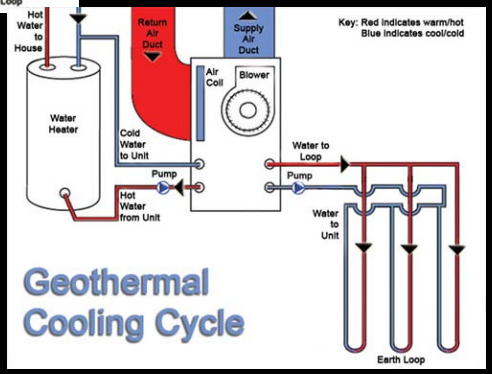
POTENTIAL LAKESIDE APPLICATION

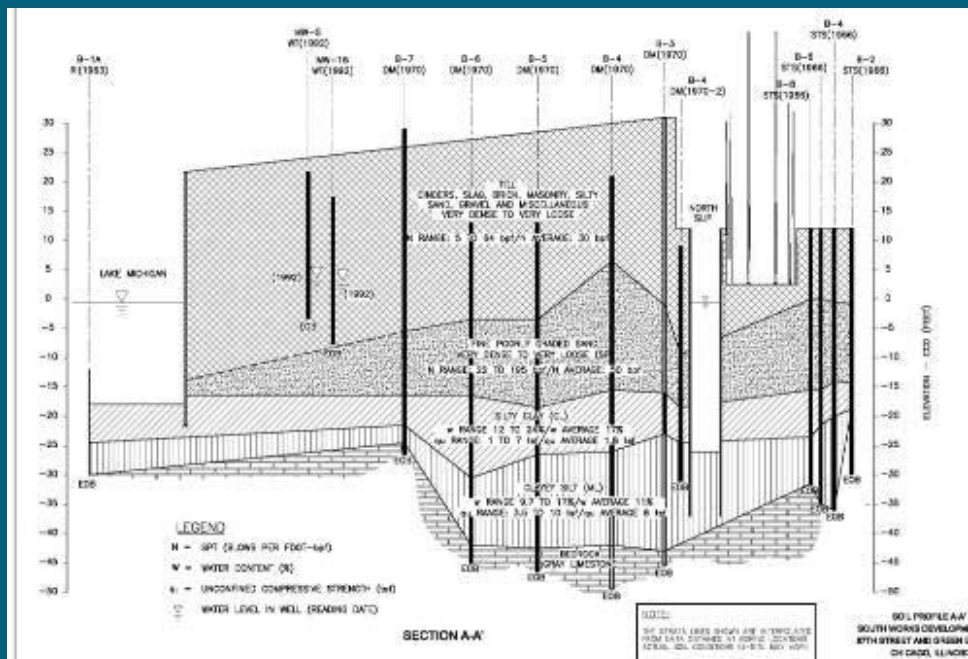
- Heating and cooling for residential

ENERGY SAVINGS

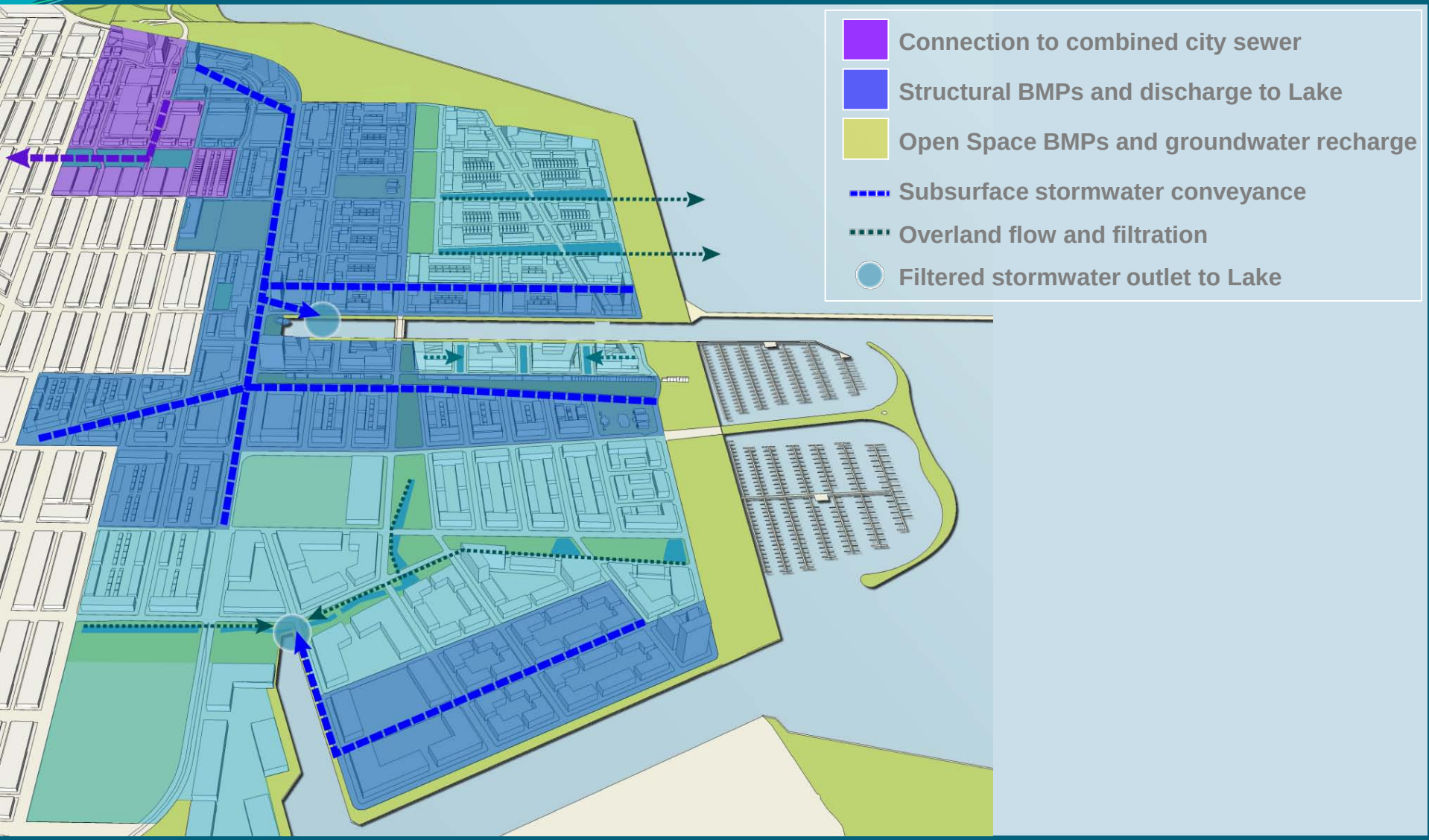
- 200,000 MWh







INTEGRATING PARKS AND STORMWATER MANAGEMENT



STORMWATER MANAGEMENT PLAN



New Lakefront Parks

- Link to Chicago lakefront park system
- A bike trail system along waterfront
- Areas for active recreation
- Areas for habitat
- Native species





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ore wall plaza

MUD TO PARKS

- Dredged mud from Lake Peoria.
- Brought to site on barges.
- Spread and aerated for park development .
- A project with the Lieutenant Governor’s office and the Chicago Park District.





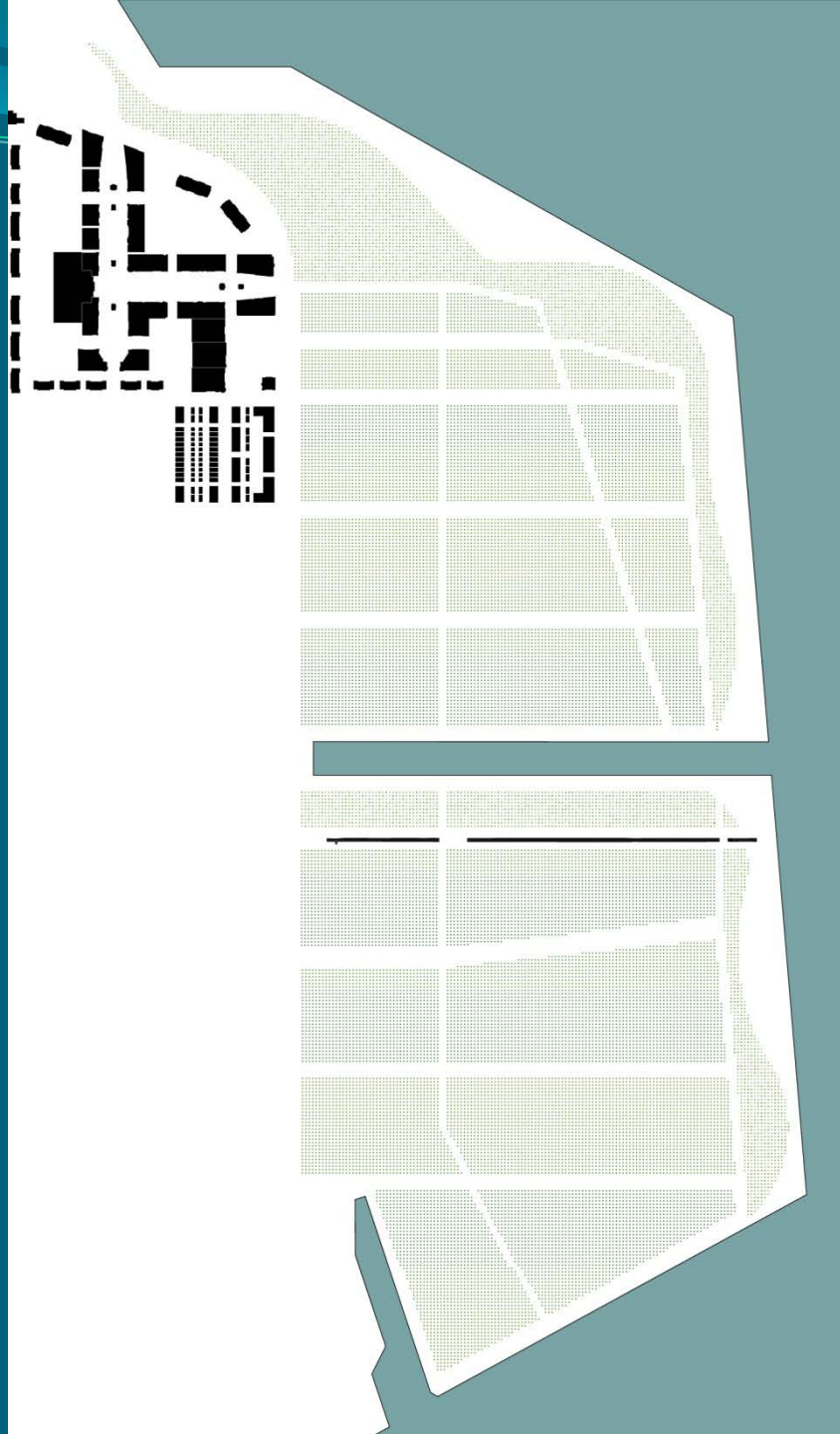




The first public park at the site developed with Mud to Parks dredged mud – picture taken in 2009.


PHASING

Phasing



Phasing

II



Phasing

III




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- The Lakeside Marketing Center fully renovated November 2010.
- The last remaining building on the site
- Formerly a Credit Union for Southworks mill steelworkers and more recently a US Steel office building.
- Lakeside seeking LEED-CI Silver Rating

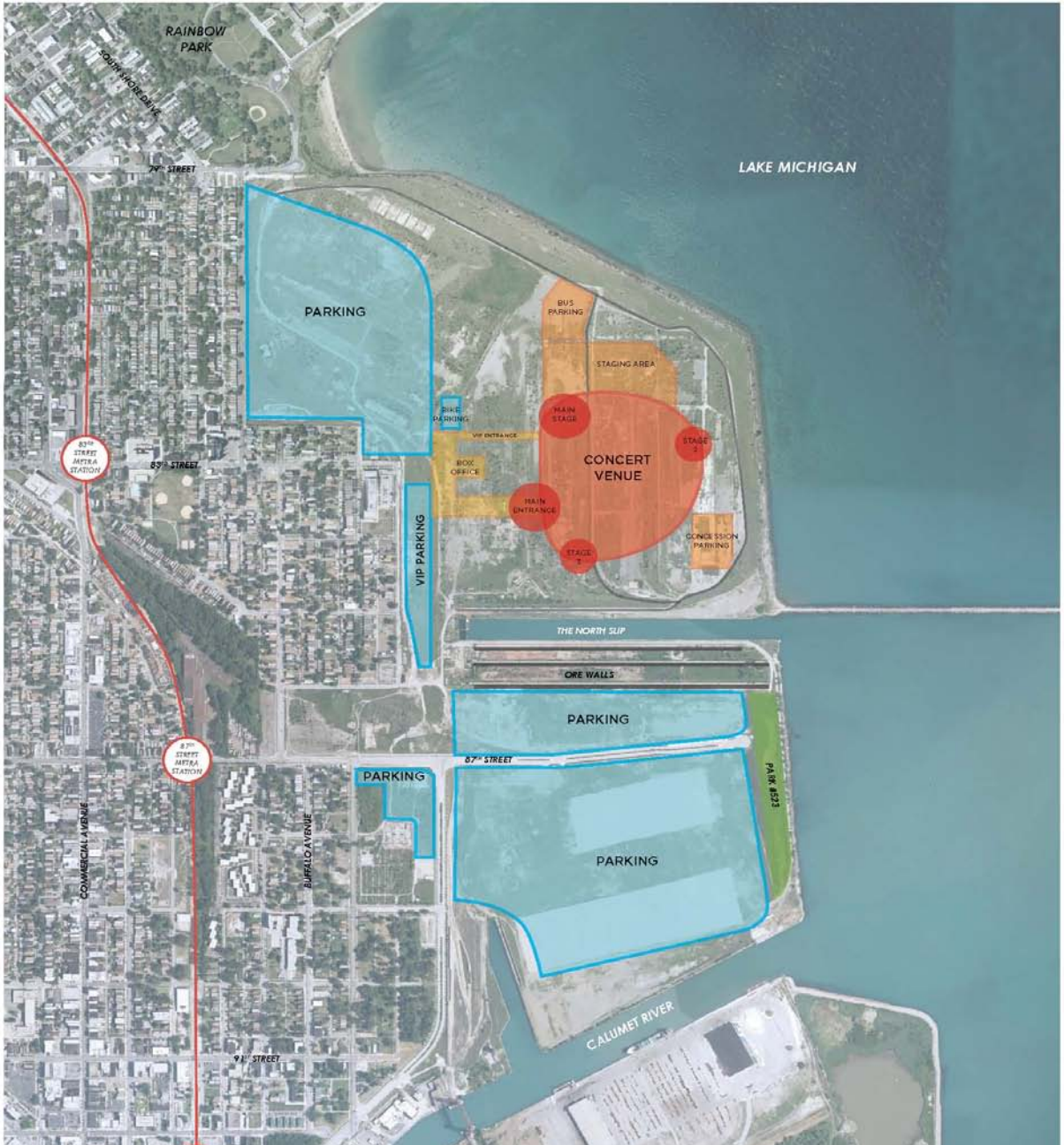

Alderman Sandi Jackson, 7th Ward
Alderman John Pope, 10th Ward
CESSIBILITY
Hop on a bus, walk to the train, ride your bike, or take Lake Shore Drive or the Skyway. Lakeside residents will be perfectly situated to get around the neighborhood and the city.
This new community, designed to provide just the right urban density, will tie into the Chicago street grid and public transit networks.
STREET CARS
BIKE PATHS
WATER TAXI
CTA BUS ROUTES
LAKE SHORE DRIVE
REVITALIZED
WATERFRONT
INVITING
OPEN SPACE
LIVABLE
NEIGHBORHOODS
Chicago Lakeside Development, LLC

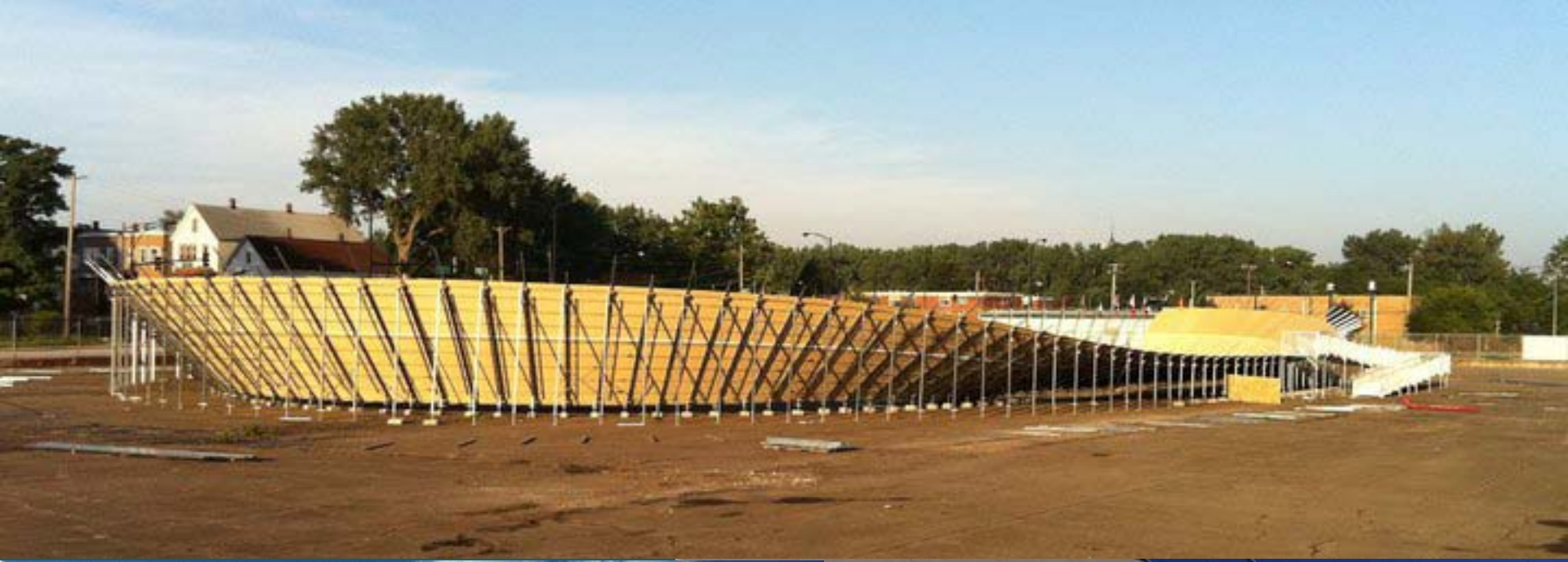


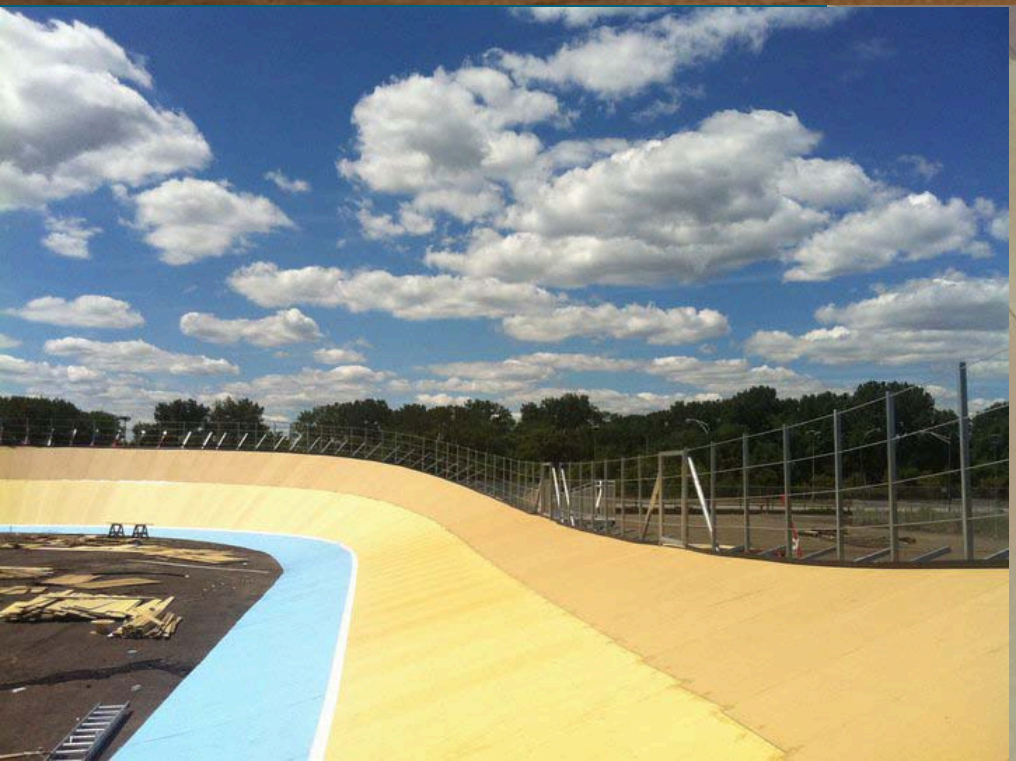
- 1st public marketing effort.
- Huge event with14 bands per day, for a 3 day festival every July for 5 years.
- 50,000 attendees each day

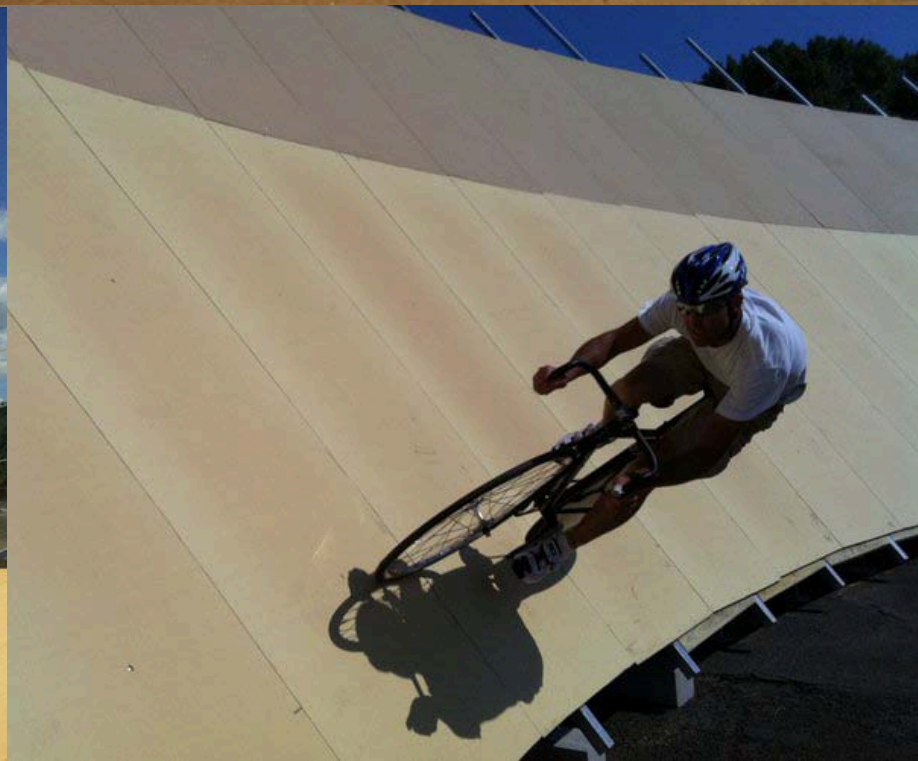
CHICAGO LAKESIDE DEVELOPMENT

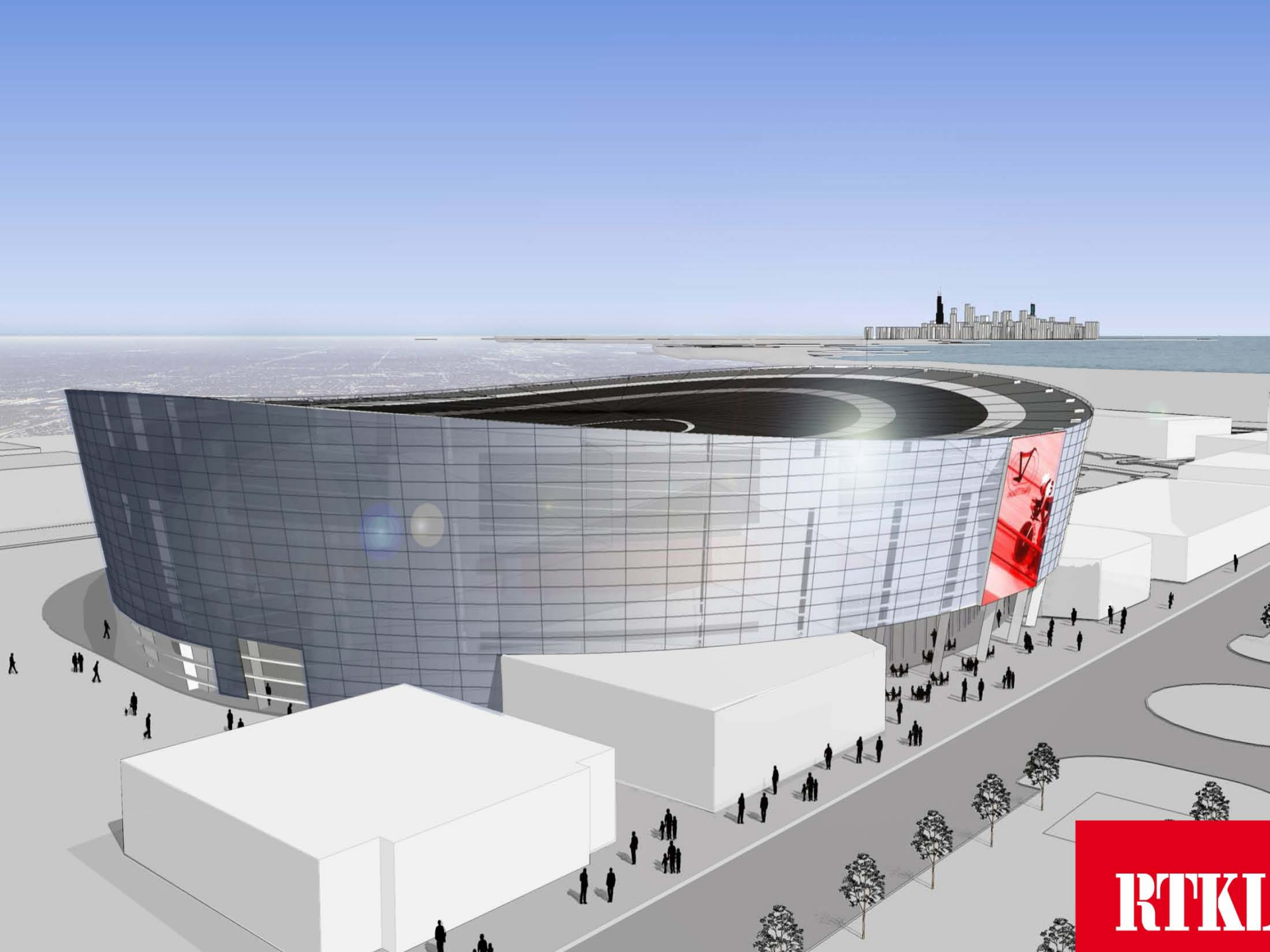
Jam Productions










RTKL



Visit Chicago Lakeside on face book and also learn more at

www.mccafferyinterests.com

or call Nasutsa Mabwa at (312) 784-2764

email/nmabwa@mccafferyinterests.com