

# PBOT

PORTLAND BUREAU OF TRANSPORTATION

1120 SW Fifth Avenue, Suite 800 Portland, OR 97204 503.823.5185

Fax 503.823.7576 TTY 503.823.6868 [www.portlandoregon.gov/transportation](http://www.portlandoregon.gov/transportation)

Steve Novick Commissioner Leah Treat Director

## MEMO

TO: Tim Heron, Senior Planner, Bureau of Development Services  
FR: Steve Hoyt-McBeth, Bike Share Project Manager  
DATE: April 12, 2016  
RE: Design Commission Presentation on Bike Share

Attached are print copies of the presentation for the April 21<sup>st</sup> presentation to Design Commission. Below is a primer on Portland's bike share project.

Bike share is a system of public bicycles available for short term rental at unattended locations. It operates in over 65 US cities. BIKETOWN is the Portland Bureau of Transportation (PBOT's) bike share system. It will launch in July 2016 with 1,000 bicycles and 100 stations in the Central City and several eastside neighborhoods. The system's title sponsor is NIKE. PBOT contracts day-to-day operations to Motivate, the operator of systems in Boston, Chicago, New York City, Washington, D.C. and several other cities.

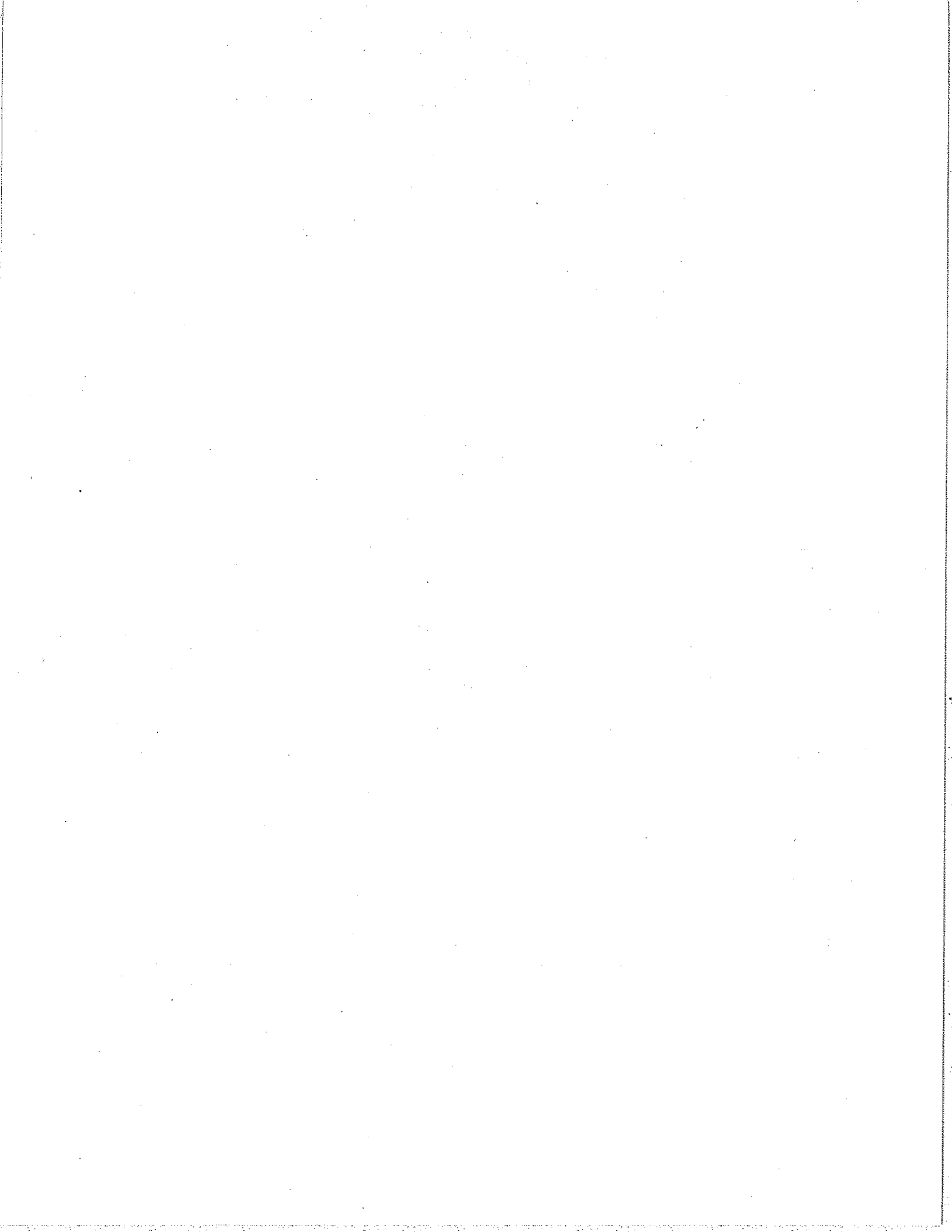
Research by the Mineta Transportation Institute has shown that bike share users make dramatic changes in their travel behavior, increasing bike trips and reducing those auto-related. Bike share is used for a host of trip purposes, commute and trips to university are the most common. The average bike share trip length is approximately one mile in length and 20 minutes in duration. Although bike share will provide a trip amenity to tourists, residents will make the vast majority of trips.

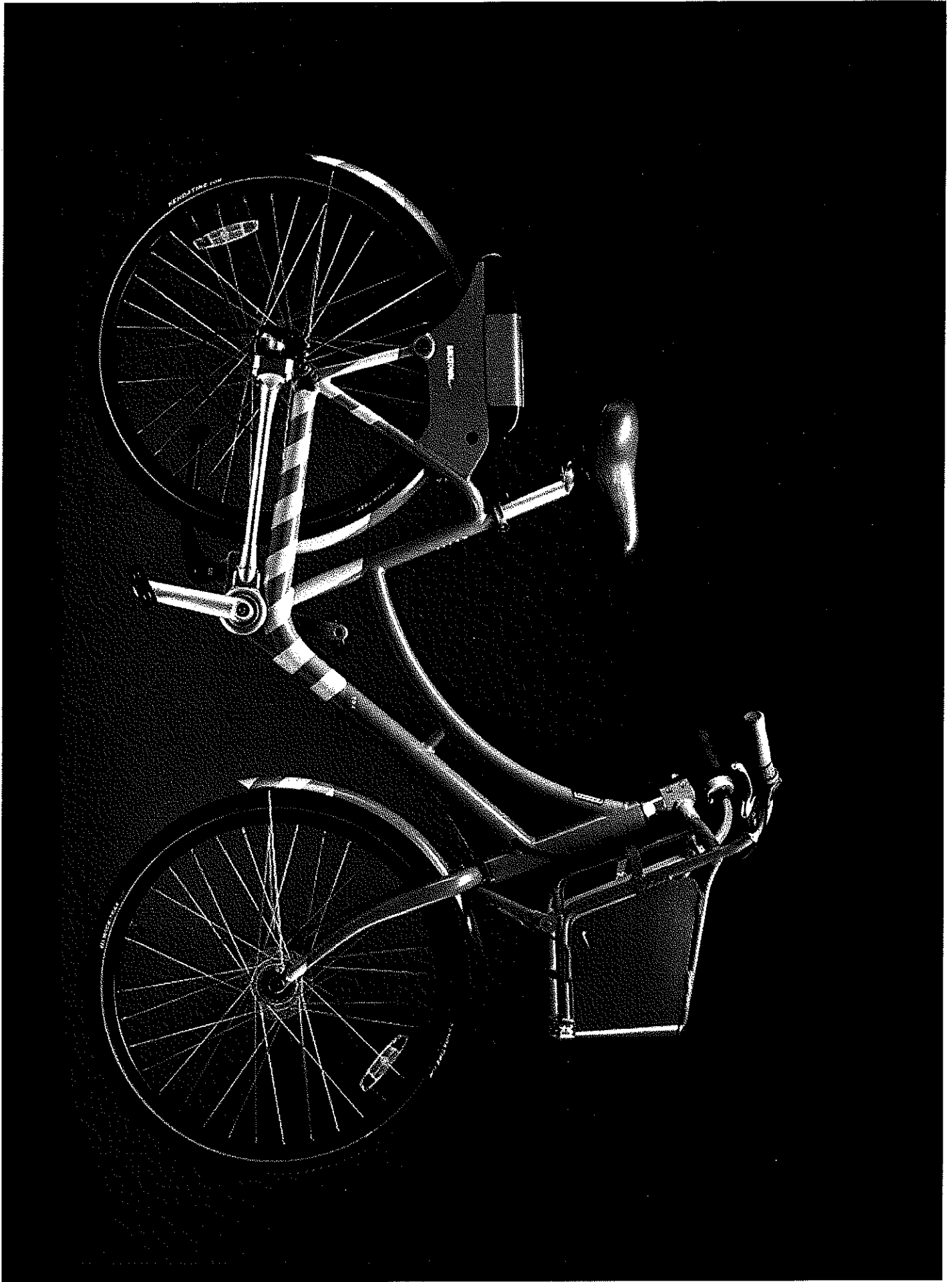
BIKETOWN will differ from most large US bike share cities with its "smart-bike" equipment, which allows the user to reserve and lock the bike directly from technology installed on the bike itself. Although 20% of the 100 stations will include kiosks with credit card readers, the vast majority of trips will be made via a RFID "tap" member card, the bike's pin pad, or the smart phone app. The average BIKETOWN station will be 20 racks, which is 54' in length and 6' in width. The racks are mounted on modular base plates which usually obviate the need for drilling or auguring into pavement. This modularity allows stations to negotiate around barriers (e.g., street trees, benches, etc.). Similar to a bus stop, PBOT deems these stations to be temporary. Although PBOT will not consider a station location for less than a year's time, the system architecture allows entire stations to be moved in less than two hours.

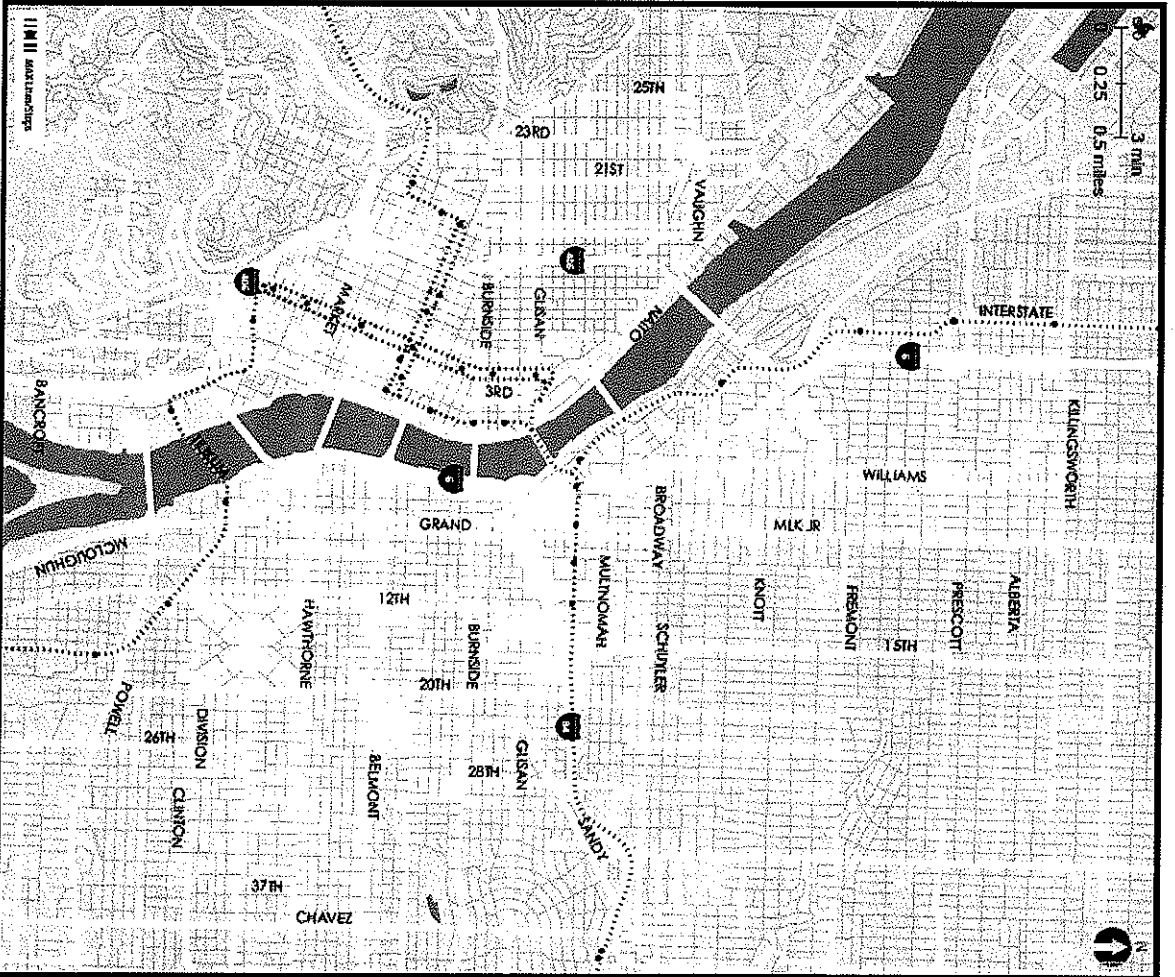
PBOT is amidst a public station planning process which closes on April 15<sup>th</sup>. PBOT has proposed over 300 station candidate locations and is utilizing public input to narrow the list to the final 100 sites. Response through the online interactive map (<http://suggest.biketownpdx.com>) and five open houses has been voluminous and positive.



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**Portland  
Bike Share**

**BIKETOWN Service Area**

**PBOT**

**alta**  
TRANSIT SYSTEM

MARCH 2015

Source: City of Portland, Altaba

**FLEET:**  
1,000 Bicycles

**STATIONS:**  
100

**Kiosks + Large Sign Panels:**

20

**Hubs (Small sign panel):**

80

**AVERAGE STATION SIZE:**  
54' L x 6' width

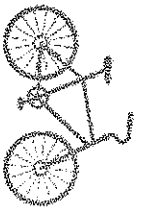
**STATION PLACEMENT:**  
Furnishing zone, parking lane,  
transit areas\*, plazas/parks\*

**SERVICE AREA:**  
8.6 square miles

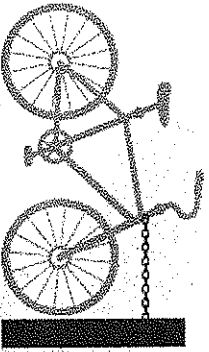
**STATION DENSITY:**  
11.6 miles/square mile

# Bike Share Equipment Evolution

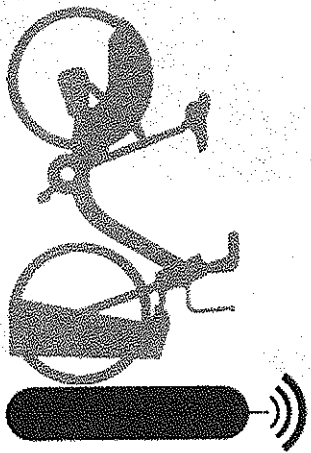
## PROGRESS



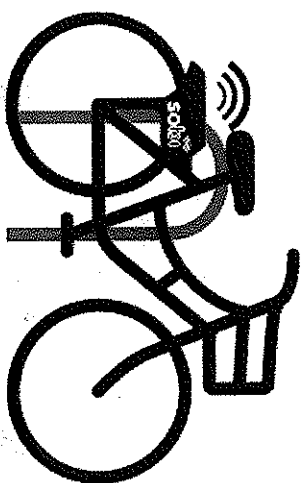
1965  
DUMB BIKE



1994  
DUMB DOCK



2005  
SMART DOCK



2013  
SMART BIKE



**motivate**  
get going

# Where to place stations?

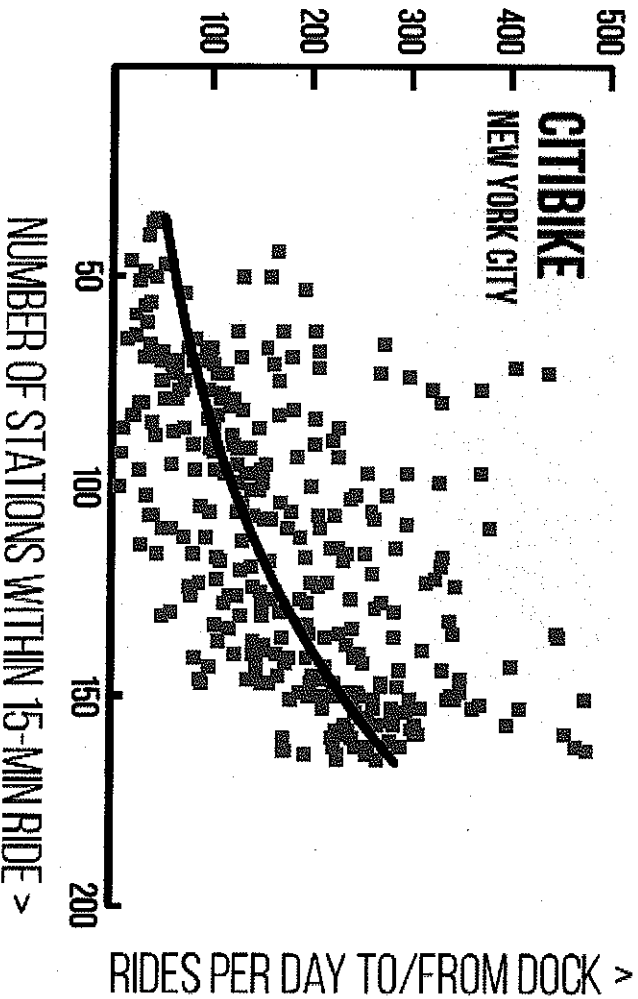
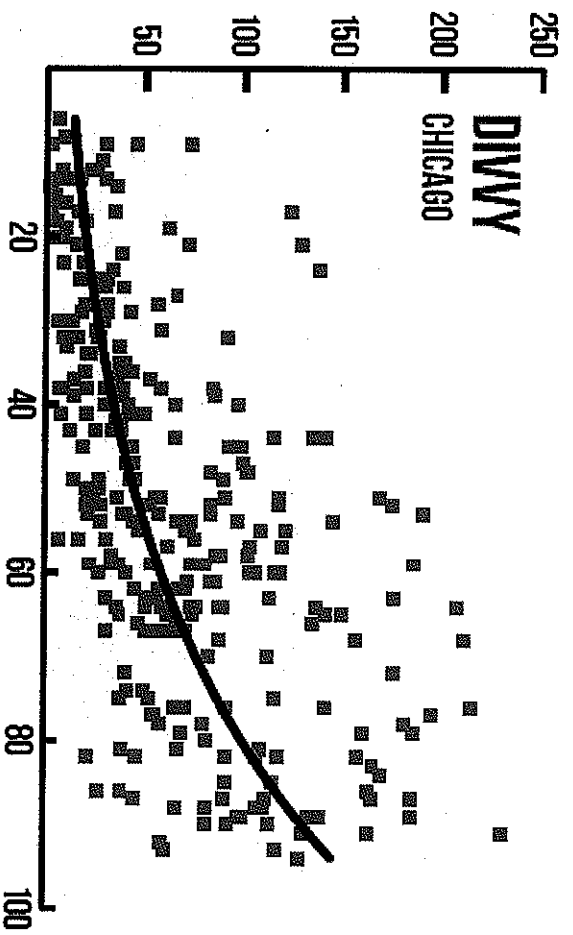
## Land Use & Transportation Criteria

### Demand Inputs

Population	Total Employment
Transit	Retail Employment
Higher Education	Arts/Recreation Employment
Major Attractions	Hotel/Service Employment

**\*\*\*** *If it's dense and walkable, it's good for bike share*

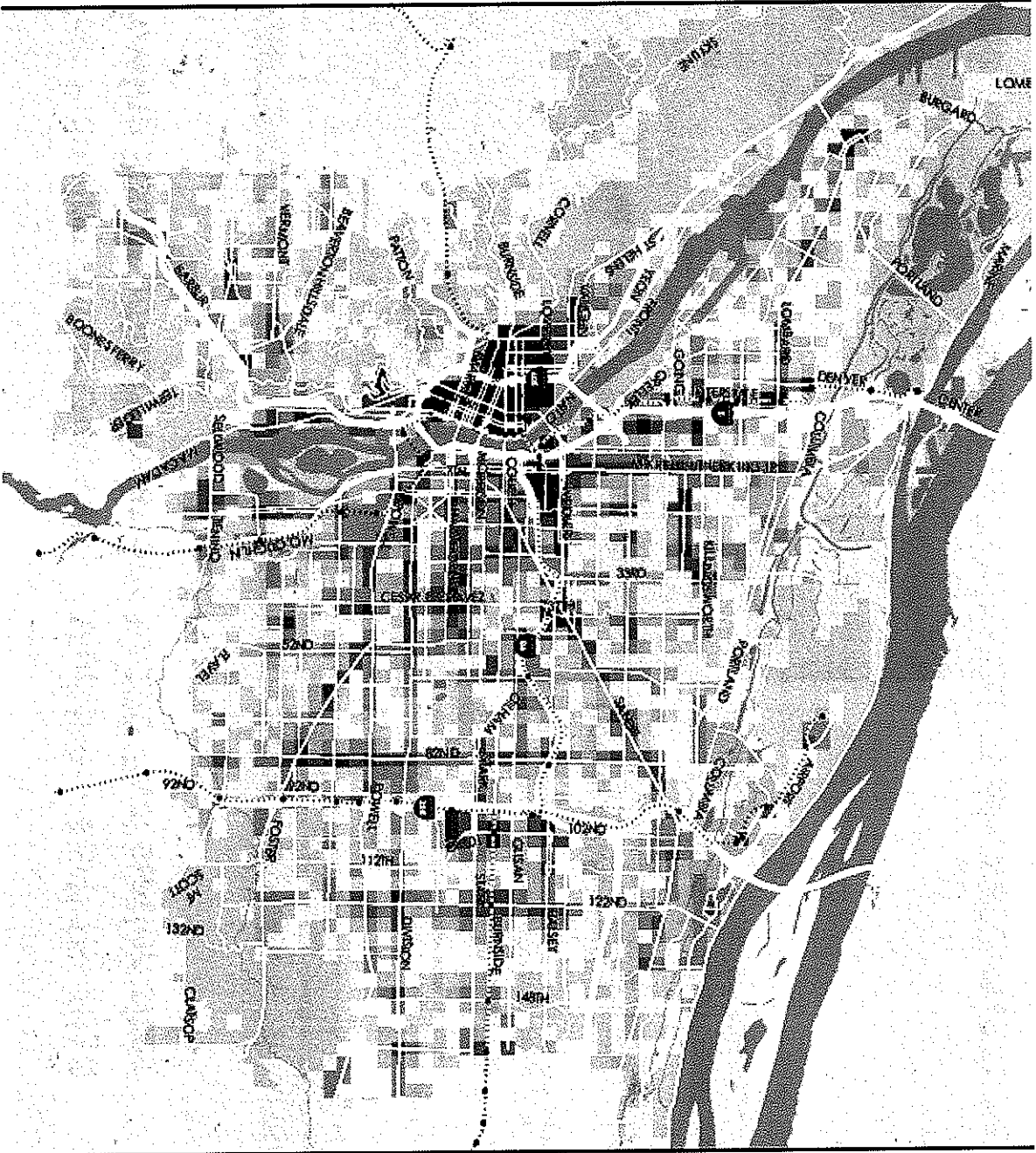
**Higher density of stations generates ridership**



Source: National Association of City Transportation Officials



# Projected Bike Share Demand



# Station Planning Public Outreach - March 9 – April 15, 2016

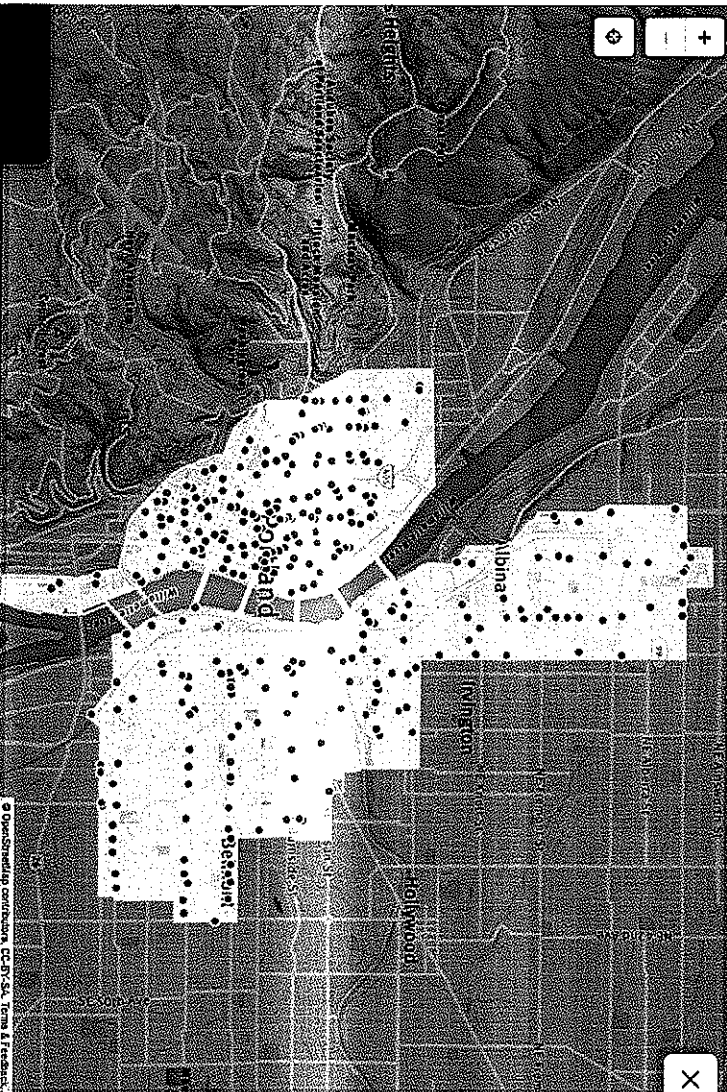
## Narrowing 300 candidate locations to 100 final station sites

Where do you want  
BIKETOWN?

WELCOME

STATION PLANNING FAQ

ABOUT YOU



Total Responses

OpenStreetMap contributors, CC-BY-SA, Imagery © Mapbox

×

### Welcome

BIKETOWN is coming to Portland this July! The Portland Bureau of Transportation wants your feedback on where to locate stations.

### 300 options for 100 stations

This map shows approximately 300 options (pins on the map) for bike share stations locations. PBOT needs your help to choose the best 100 stations.

### How can I learn more?

Check out the [Station Planning FAQ](#) and visit the [BIKETOWN project page](#) for more maps and analysis.

**GET STARTED**

# Detail: Comment page when map location is clicked



## NE Broadway at NE 15th



Is this a good spot for a bike share station?

YES  NO

Do you want to tell us anything else about this location?

Comment...

What's your email?

Email

What's your name?

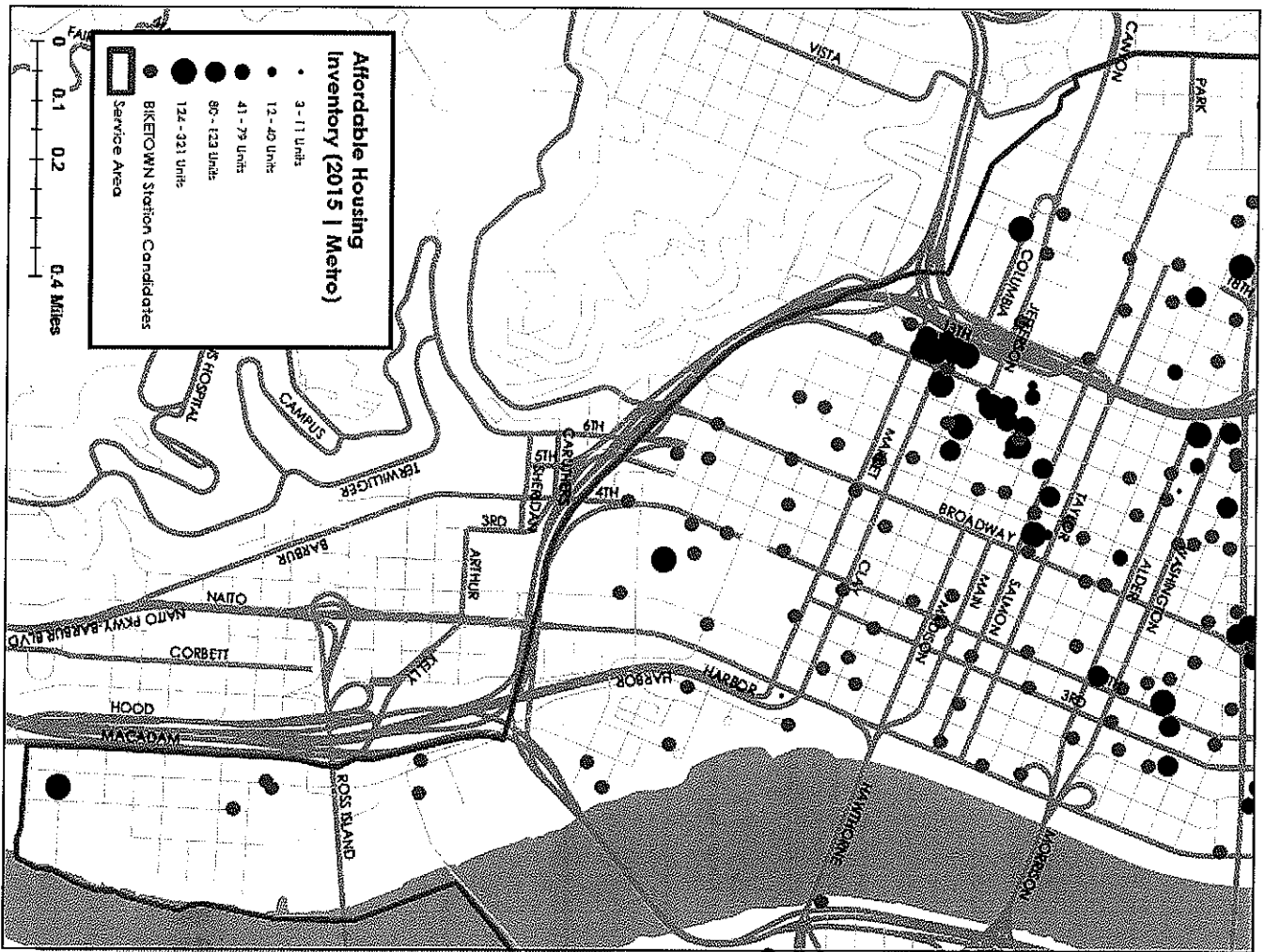
Name

**SUBMIT**

38 responses

- 13,000+ Affordable Housing units in Service Area
- 80% within 500' of station candidate
- 99% within ¼ mile of station candidate

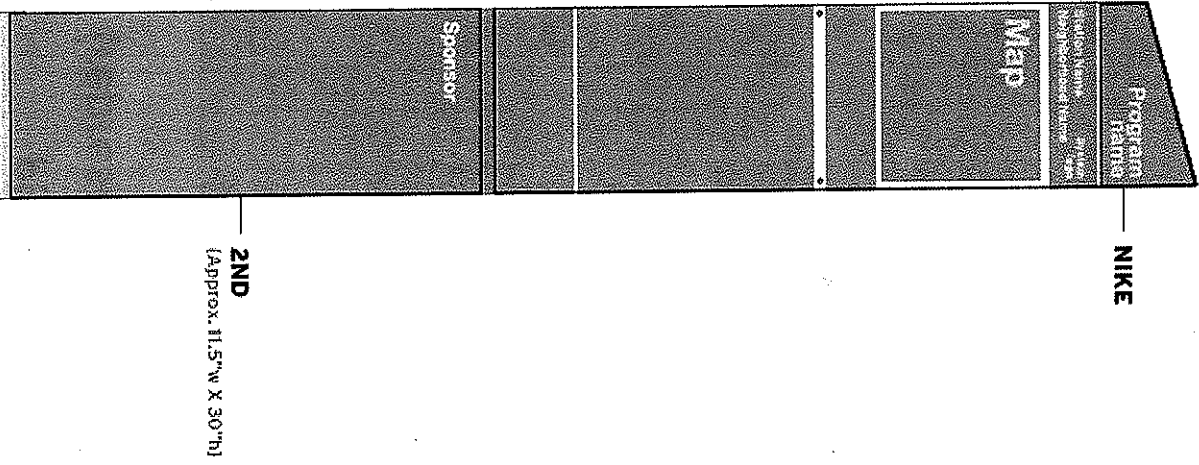
SW Quadrant →



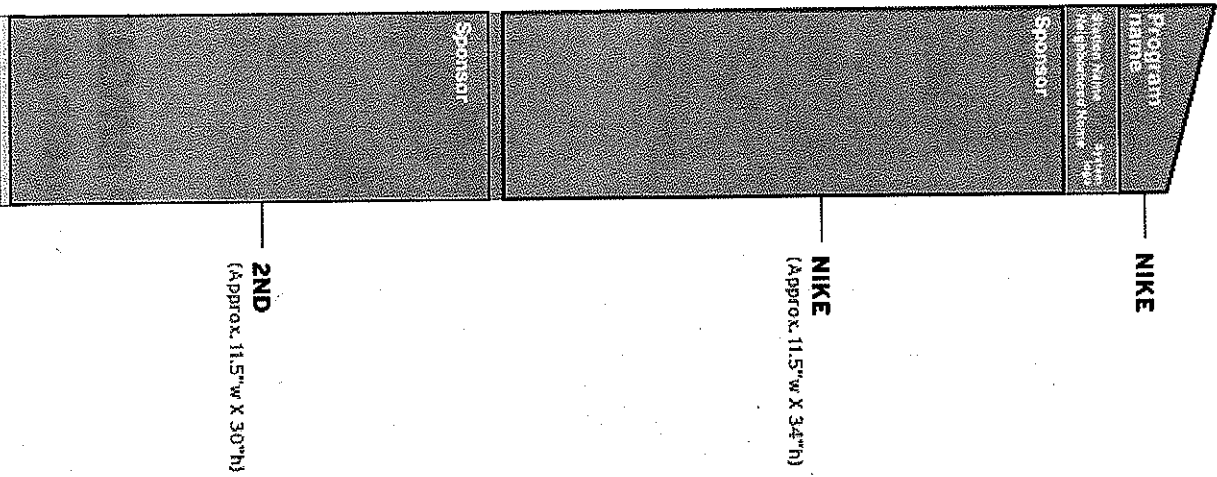
# Small Sign Panel

80  
small  
signs  
72"  
height  
11.5"  
width

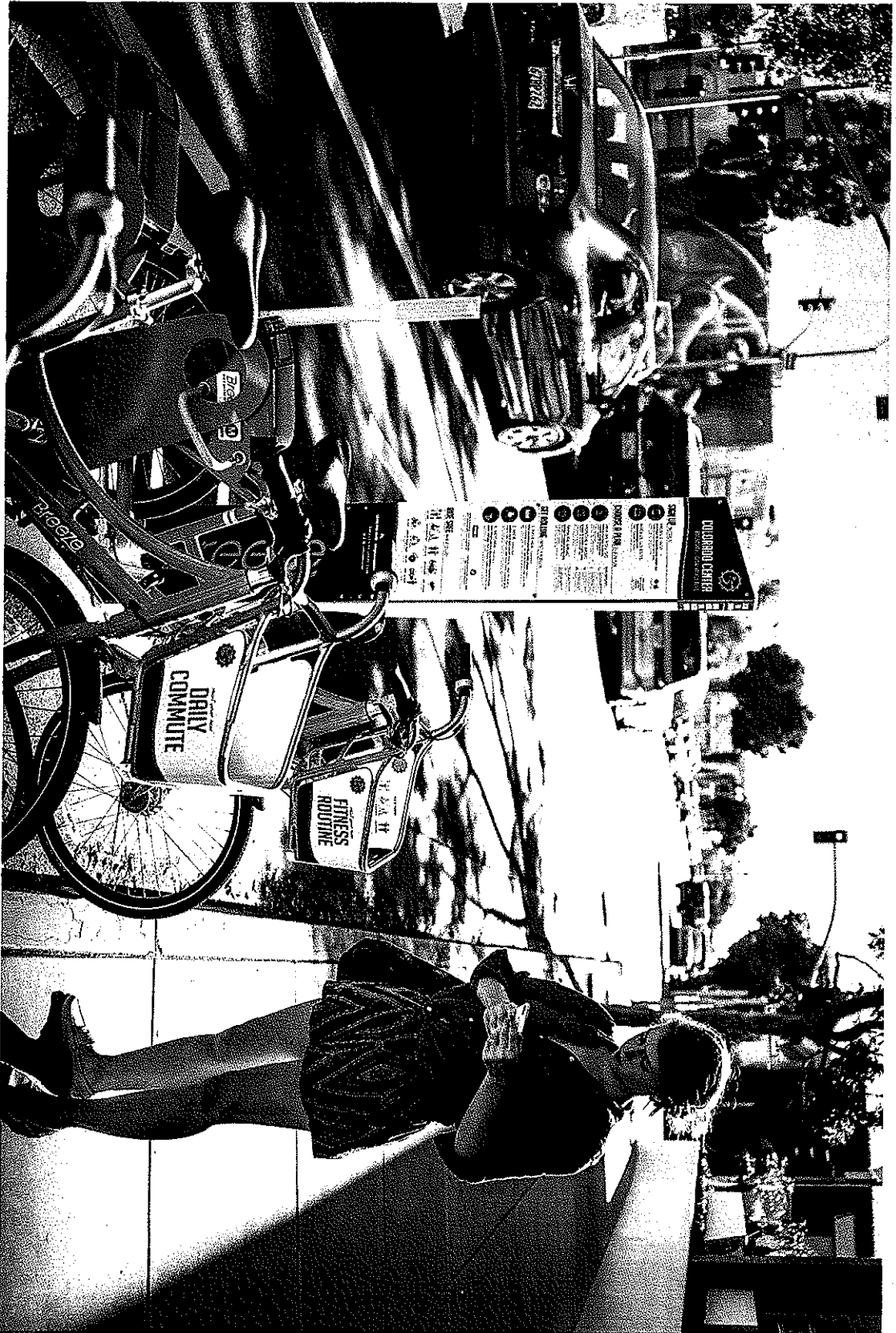
## MAP SIDE - LAYOUT



## SPONSOR SIDE - LAYOUT



**Photo of small sign panel at station  
(representing 80 of 100 BIKETOWN stations)**



**Photo of Small Sign Panel Station  
(representing 80 of 100 BIKETOWN stations)**

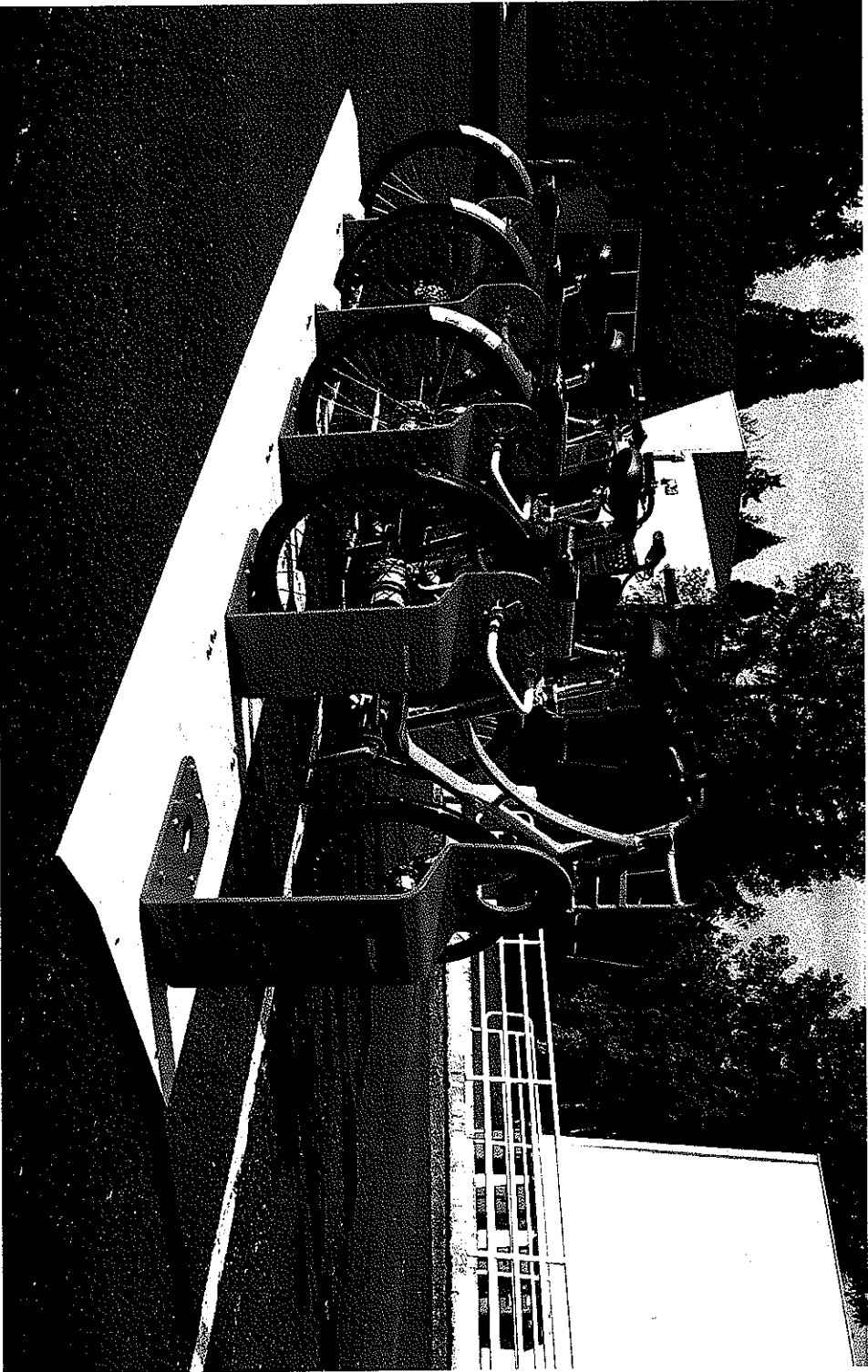


**Small sign panel station example  
(sign panel not visible)**

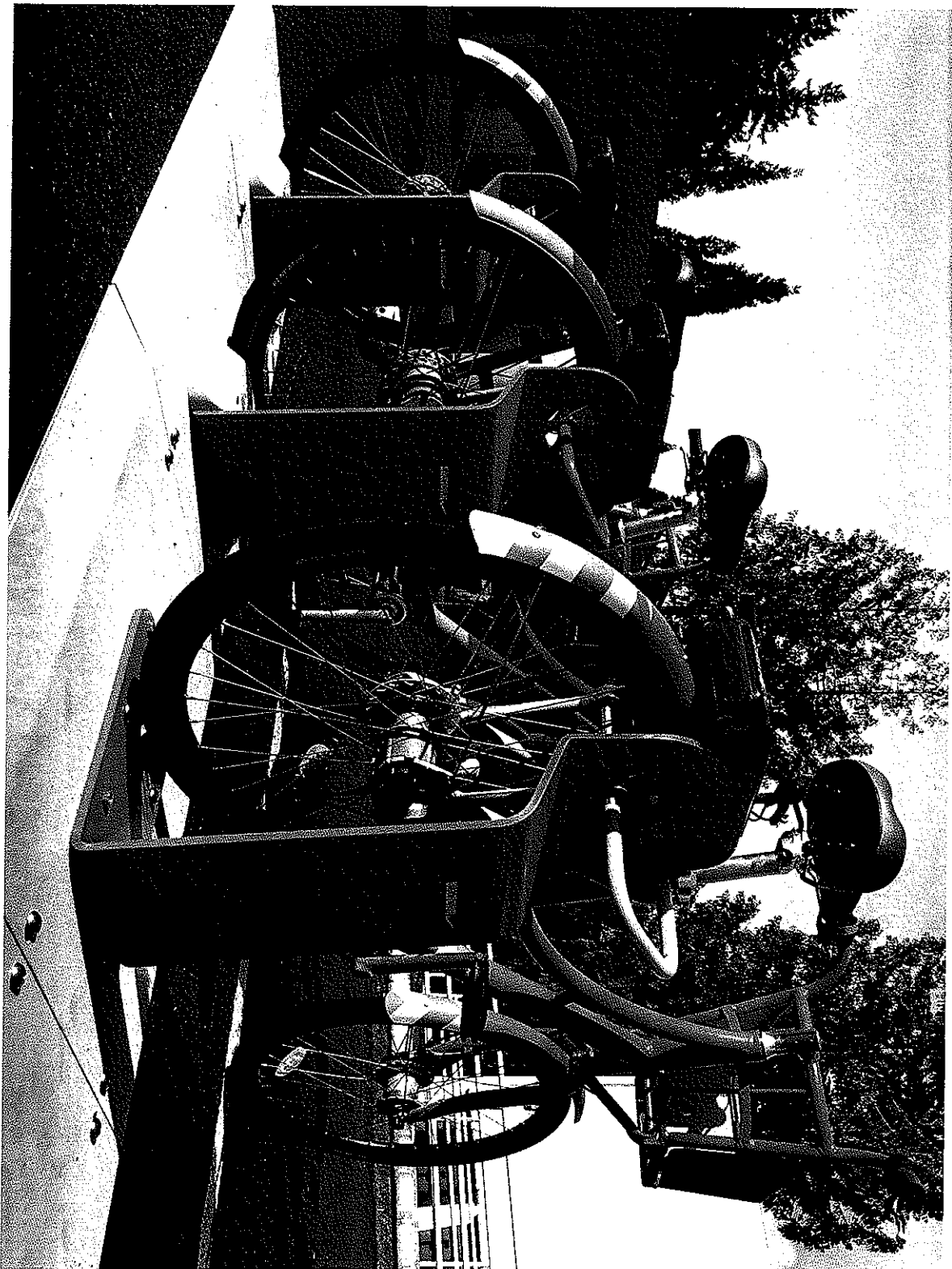




**Photo of BIKETOWN rack prototype  
(base plate will be darker)**



**Photo of BIKETOWN rack prototype – close up  
(base plate will be darker)**

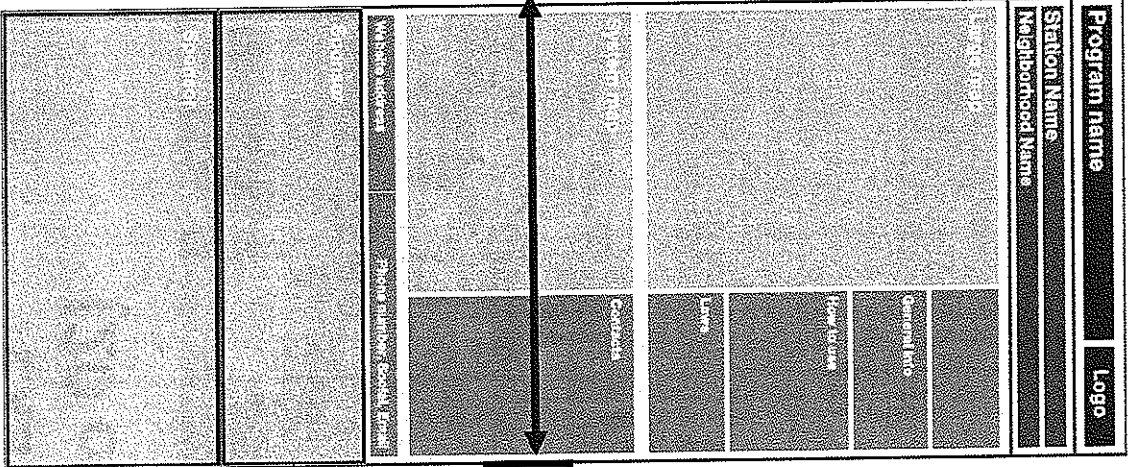


# Large Sign Panel

20 Large Signs  
(with credit card readers)



## MAP SIDE - LAYOUT



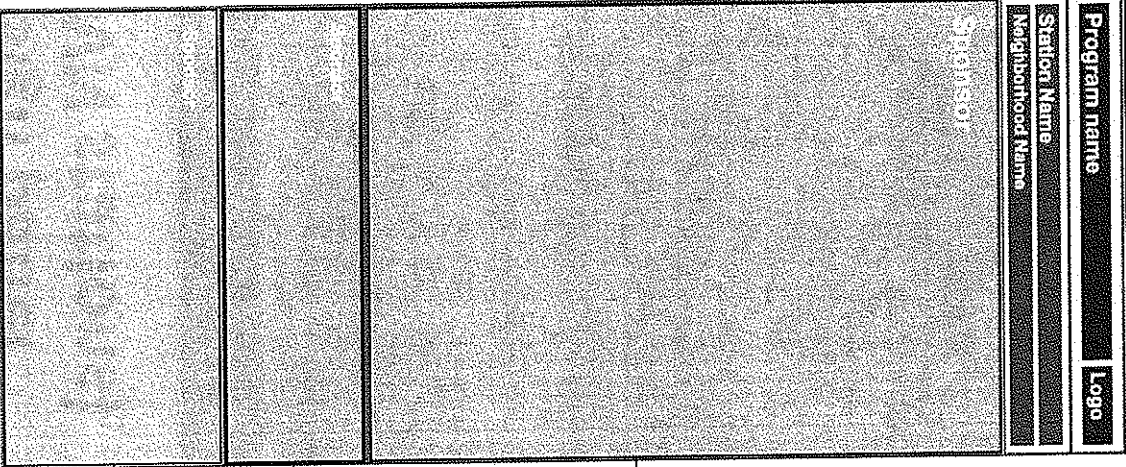
73.8" height

39" width

**2ND**  
(Approx. 29.79" W X 8" H)

**NIKE**  
(Approx. 29.79" W X 13.98" H)

## SPONSOR SIDE - LAYOUT



**NIKE**  
(Approx. 29.79" W X 42" H)

**2ND**  
(Approx. 29.79" W X 8" H)

**NIKE**  
(Approx. 29.79" W X 13.98" H)

**Example of large sign panel  
(20 of 100 BIKETOWN stations)**



# Example of large sign panel – close up (20 of 100 BIKETOWN stations)



# Example\* of credit card kiosk (20 of 100 BIKETOWN stations)

Dimensions:

Front and Back Side:  
15" w x 80" h.

Left and Right Side:  
20" w x 80" h



**Example of kiosk  
(20 of 100 BIKETOWN stations)**



