

# Downtown Denver- 16th Street Mall Small Steps Towards Big Change

## APPENDIX 2 Survey Data Findings and Synthesis- Summer 2016

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# Introduction

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*The Mall project is led by the Community Planning Department in the City and County of Denver with the goal of turning the 16th Street Mall into a vibrant and diverse Downtown Denver destination. The survey that this report presents was created in collaboration with the Downtown Denver Partnership and with the consultancy of urban architects Gehl.*

## **SMALL STEPS TOWARDS BIG CHANGE**

The 16th St Mall was originally designed and designated as a transit street in the 1970s, when better public transit services in Downtown were much needed. In the last couple of decades, these conditions have changed and the street has subsequently lost some of its stature as the vibrant spine of Downtown Denver that it was intended to be. In 2014, the City and County of Denver launched a project to determine how the street could be upgraded and renewed to better meet the current demands. By using a different approach to typical planning processes, involving communities, iteration and evidence-based decision-making, the City hopes to find a solution that fits in with the rapidly evolving urban culture of Denver, both in the short-, medium- and long-term timeframe. The overall goal of this [ongoing] project is to reclaim the 16th St Mall as an important destination in Downtown with the ability to attract local and tourists alike. Moving towards the third year of “taking small steps” it is becoming ever clearer how the method will eventually induce the “big change” that the Mall deserves.

## **PUBLIC SPACE/PUBLIC LIFE SURVEY 2016**

This report summarizes the data from Denver Community Planning Department’s (CPD) and Downtown Denver Partnership’s (DDP) “Public Space/Public Life Survey”, which was conducted between

June-August 2016 with the guidance of Gehl, urban quality consultants. The survey focused on eight blocks of the Mall (16th Street), primarily the symmetrically designed segments, from block 300 to block 1000. This document presents the key data statistics that have come out of the Summer’s survey and begins to highlight their impact on the future decisions that regard changes in the Mall’s design, functions and activities.

The 2016 survey was designed based on the recommendations and questions that came out of the 2015 survey, in accordance with the iterative process that has been at the center of the Mall project since its commencement in 2014. The 2015 report is entitled “Downtown Denver, 16th Street Mall, Small Steps Towards Big Change”, and is available online from CPD’s online resources.

## **KEY FIGURES OF A COLLABORATIVE APPROACH**

The measure-test-refine method that is leading the Mall project has already engaged vast amounts of Mall patrons throughout the two to three years that the process has been on-going. In 2016 alone, more than half a million people have “voted with their feet” and through on-street community engagement.

Some key figures from 2016 are:

- **262,757** pedestrians have been counted in person
- **80,521** people have been recorded engaging in stationary activities
- **149,115** people have been tallied in the age and gender registrations
- **8,518** cyclists have been counted on their trip cycling down the Mall
- **581** people have provided feedback and comments in on-street engagement
- **91** volunteers have been on the streets for 153 shifts, clocking 765 hours of surveying

# Methodology and Overviews

# Public Life Survey Methodology

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## DATA SUMMARY NOTES

Public life data for Downtown Denver was collected over 20 non-consecutive days under baseline conditions and special event conditions between June 11th and August 14th, 2016. Not all hours or all count locations were surveyed on every survey day – some dates and locations were surveyed more than others, making the raw data asymmetrical in this regard. To overcome the potential for statistical bias towards certain locations or hours (both strong influencers on the numbers) where more counts over more hours were conducted, our data summary algorithm first segments survey dates by condition (Baseline Weekend, MITS Weekend, Baseline Saturdays, Baseline Weekdays, etc.), then finds the mean number of pedestrians, women over the age of 65, people waiting for transport, and so on, by hour for each location for each condition. Once the hourly means by location are identified, they are further aggregated into a daily average for each location. This method insures that locations with more counts are simply more accurate representations of their condition, rather than misleadingly skewing the mean in one direction or another, as would occur with a cruder aggregation of counts by hour, location, and condition.

Aggregations by condition include only count locations directly on 16th St: Arapahoe to Curtis, Curtis to Champa, Champa to Stout, Stout to California, California to Welton, Welton to Glenarm, and Glenarm to Tremont. Other aggregations (like hourly aggregations) includes data from all locations, including the counting location on the cross streets (Glenarm St and Curtis St) and the counting locations on the parallel streets (15th and 17th St).

Dates aggregated by condition are as follows:

- MITS Weekends: June 25 + June 26 + July 9 + July 10 + July 16 + July 17 + July 23 + July 24.
- Baseline Weekends: June 11 + June 12 + June 18 + June 19 + August 6 + August 7 + August 13 + August 14.
- Baseline Weekdays (Thursdays): July 14 + July 28 + August 11.
- MITS Saturdays: June 25 + July 9 + July 16 + July 23.
- MITS Sundays: June 26 + July 10 + July 17 + July 24.
- Baseline Saturdays: June 11 + June 18 + August 6 + August 13.

- Baseline Sundays: June 12 + June 19 + August 7 + August 14.
- All days in 2016 unless otherwise listed in the individual footnotes section. All data aggregated between 10am-8pm unless otherwise listed in the individual footnotes section.

## NOTES ON TERMINOLOGY

- The term “the Mall” refers to the eight studied blocks, Court Place to Arapahoe St.
- If MITS is not indicated, the terms “Weekend”, “Saturday”, “Sunday”, “Weekday” or “Thursday” refers to baseline days, i.e. days when no special activities were organized by the City or DDP.
- “Weekends” always refer to Saturday and Sunday registrations combined.
- The public life data has been accumulated over many hours and days to ensure a holistic understanding – all aggregated data has been aggregated first across all surveyed hours and secondly across days, to make sure each data set is weighted evenly.
- 8 Baseline Weekends (Saturday and Sunday) have been surveyed from 10am-8pm in 8 locations. (“Weekends”)
- 8 MITS Weekends (Saturday and Sunday) have been surveyed from 10am to 8pm in 8 locations. (“MITS”)
- 3 Weekdays (Thursdays) have been surveyed from 10am to 8pm in 8 locations. (“Weekdays”)

## PEDESTRIAN AND BIKE COUNTS

- All pedestrians walking or running/jogging along the street are counted, from facade to facade.
- Pedestrians are counted moving in both directions.
- Children are counted as pedestrians, also children being carried in strollers.
- People on skateboards and roller skates are counted as pedestrians.
- People riding bicycles are counted separately.
- Pedestrians and bicycles are registered in 10 minute intervals, each hour between 10am-8pm.

## AGE/GENDER COUNTS

- Age and gender is registered for people moving, like pedestrians, from facade to facade across the street.

- Age and gender is registered by volume, at least 200 people counted each hour for a representative amount.
- If there are many people and it is not possible to register everyone, a randomized selection process is applied (like every fifth person is tallied).
- Age and gender counts were carried out for 200 people, each hour between 10am-8pm.

## STATIONARY ACTIVITY COUNTS

Mapping people spending time is like taking a snapshot of all activities taking place in the survey area. It is therefore not based on time, like pedestrian counts, or on volume, like age/gender counts.

The categories are:











- People standing – looking at shop windows, talking etc.
- People waiting for public transport – at bus stops etc.
- People sitting on public benches – also at picnic tables
- People sitting at cafes – only outdoor seating where you have to pay to sit
- People sitting on secondary seating – like on curbs, stairs, planters, etc.
- People sitting on movable furniture – like folding chairs, not related to cafe function
- People lying down – anyone lying down, whether on the curb, on grass, etc.
- Children playing – any child playing in the area and the parents supervising them
- People engaged in physical activity/sports – playing football etc. DO NOT count people jogging through the space
- People engaged in cultural activities – performing, painting, playing music etc.
- People engaged in commercial activities – street vendors, fast-food stands, waiters etc.


People soliciting have been tallied separately. Soliciting is categorized as actively or passively requesting a favor, monetary or other. People involved in roadwork and people waiting at crosswalks are not counted.

Stationary counts have been carried out across eight areas, defined by the blocks 300-1000, once every hour between 10am-8pm.

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# Overview of Summer Weekend Activities

	DATE	1000	900	800	700	600	500	400	300	OTHER BLOCKS/DOWNTOWN
<b>BASELINE</b> 	June 11/12	no special activity	no special activity	no special activity	no special activity	no special activity	no special activity	no special activity	oversized bunny exhibition on Republic Plaza	<i>SLEEP 2016 (5,000 ppl.)</i>
<b>BASELINE</b> 	June 18/19	no special activity	no special activity	no special activity	no special activity	no special activity	no special activity	no special activity	oversized bunny exhibition on Republic Plaza	<i>comic con (66,000ppl.) pridefest</i>
<b>MTS</b> 	June 25/26	DJ street games	expanded patio ping-pong performances yoga in median	DDPL installation red-top seating mountain bike skateboard course	kids train animal land kids music toys in Patio 16	picnic tables TBW container live music	turf/grass lounge seating expanded patios live music	shade structures seating art fair extended patios	bunny exhibition art fair expanded patios live music	<i>sip and paint in alley (block 500) ISTE Annual Conference (21,000 ppl.)</i>
<b>MTS</b> 	July 2/3	DJ street games	expanded patio ping-pong performances	red-top seating live music	mountain bike football+baseball kids music toys in Patio 16	picnic tables TBW container live music	turf/grass lounge seating expanded patios live music	shade structures seating expanded patios	expanded patios	<i>live music on Glenarm St GALA Choruses Festival (6,500ppl.) Independence Eve at Civic Center</i>
<b>MTS</b> 	July 9/10	DJ street games	expanded patio ping-pong performances	red-top seating live music	mountain bike DMNS rockets kids music toys in Patio 16	picnic tables TBW beer garden live music night market	turf/grass lounge seating expanded patios live music	shade structures seating expanded patios	expanded patios projected music street games	<i>wrestling comedies on Glenarm St</i>
<b>MTS</b> 	July 16/17	DJ street games	expanded patio ping-pong BBQ evening event performances	red-top seating live music	face painting DMNS rockets mobile library toys in Patio 16	picnic tables TBW beer garden live music	turf/grass lounge seating expanded patios live music	shade structures seating expanded patios	expanded patios	<i>GBTA Convention (6,000 ppl.)</i>
<b>MTS</b> 	July 23/24	DJ street games prototyping festival	expanded patio performances evening dancing prototyping festival	red-top seating live music prototyping festival	kids music climbing wall kids crafts toys in Patio 16	picnic tables TBW beer garden vendors live music	turf/grass lounge seating expanded patios live music	shade structures seating expanded patios	expanded patios	<i>prototyping festival</i>
<b>FESTIVAL</b> 	July 30/31	prototyping festival	prototyping festival	prototyping festival	no special activity	no special activity	no special activity	no special activity	no special activity	<i>prototyping festival</i>
<b>BASELINE</b> 	Aug 6/7	prototypes out no other special activity	prototypes out no other special activity	prototypes out no other special activity	no special activity	no special activity	no special activity	no special activity	no special activity	<i>APA Annual Convention (11,000 ppl.)</i>
<b>BASELINE</b> 	Aug 13/14	art fair	art fair	no special activity	no special activity	no special activity	no special activity	no special activity	no special activity	



< ARAPAHOE ST >

1000

CURTIS ST >

900

< CHAMPA ST >

800

STOUT ST >

700

< CALIFORNIA ST >

600

WELTON ST >

500

< GLENARM ST >

400

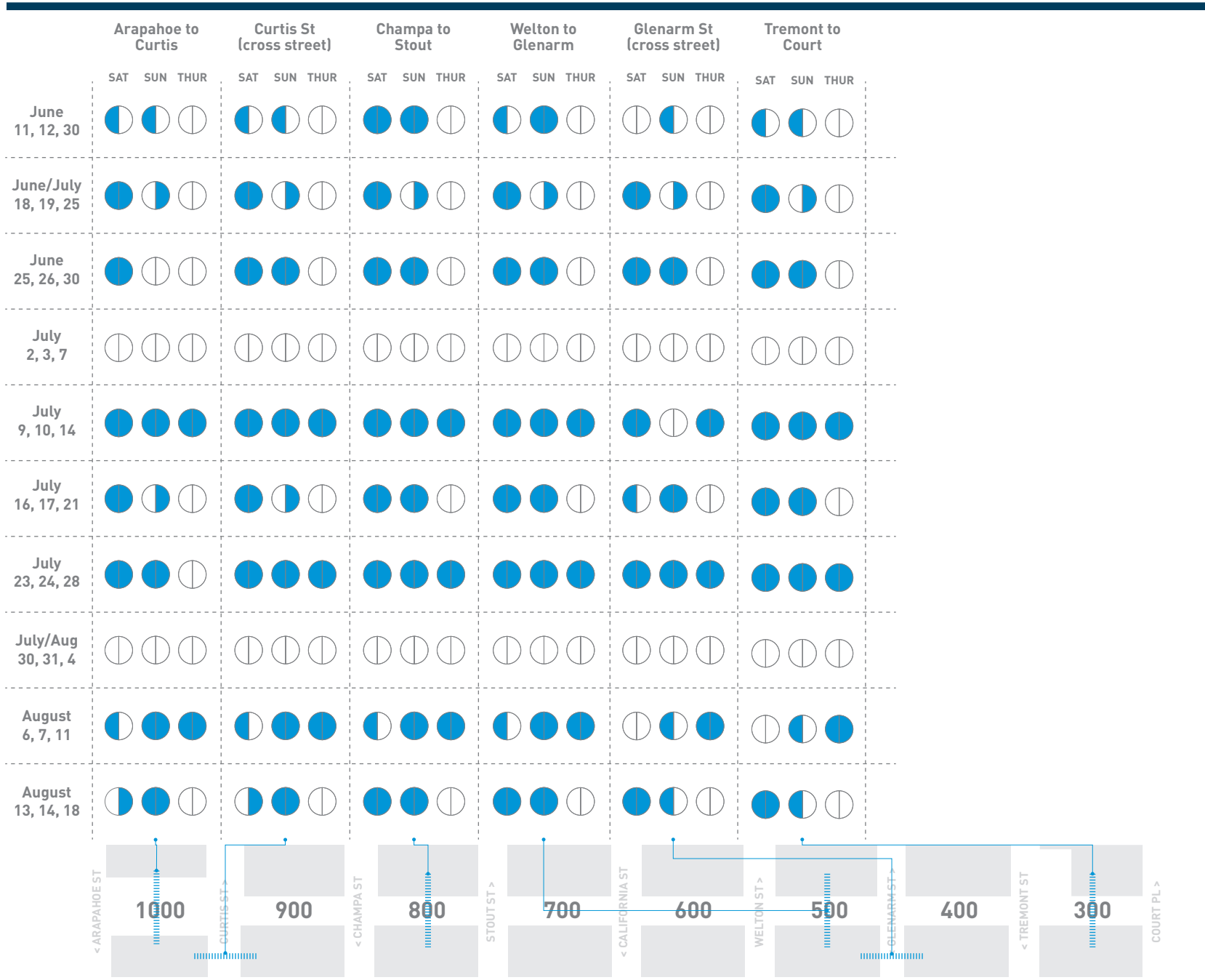
< TREMONT ST >

300

16th St Block

Note: Only larger events taking place in Downtown or events specifically on 16th St have been added in the column "Other Blocks/Downtown"

# Data Collection Times - Pedestrian Counts

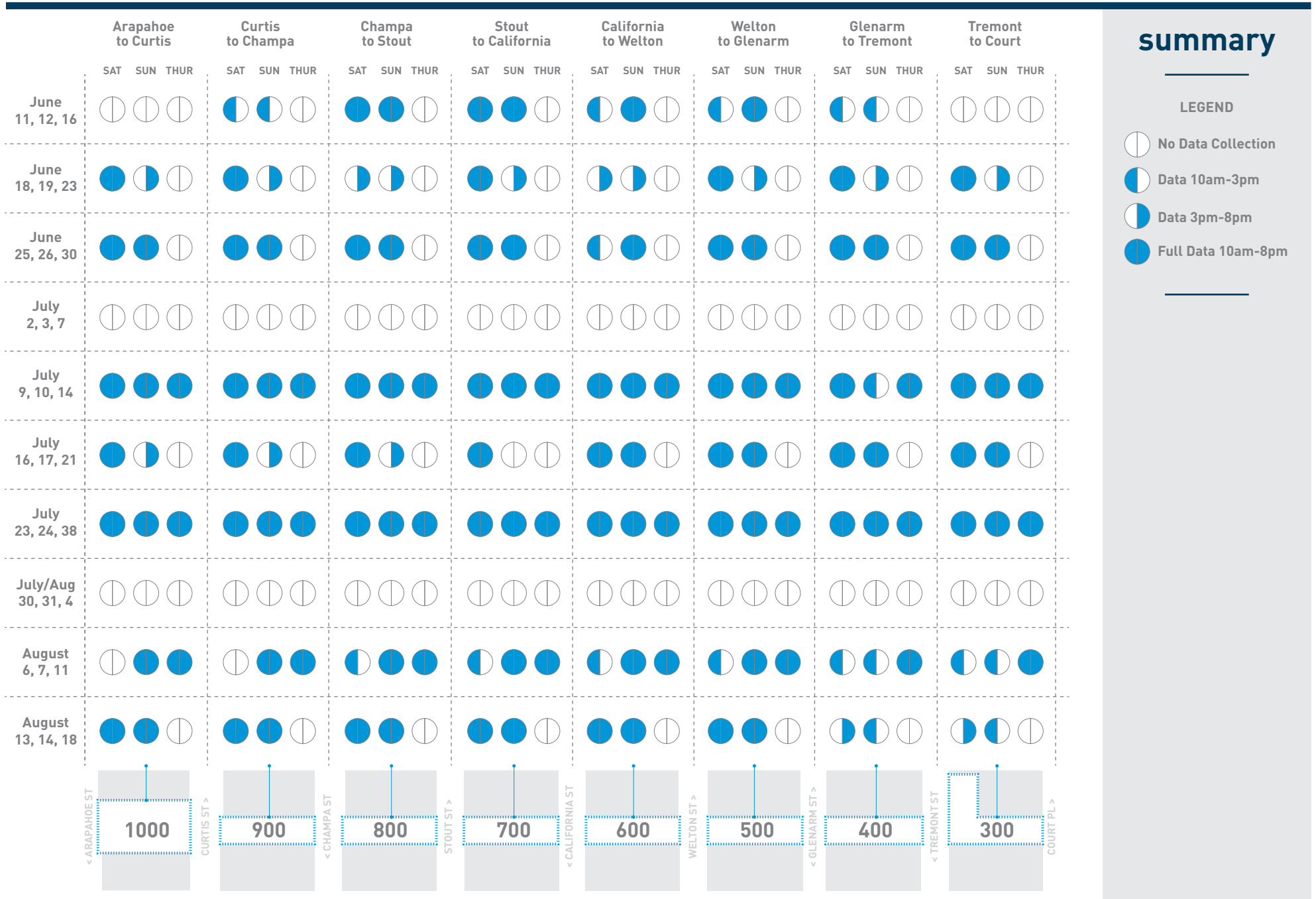


## summary

### LEGEND

- No Data Collection
- Data 10am-3pm
- Data 3pm-8pm
- Full Data 10am-8pm

# Data Collection Times - Stationary Activity Counts



## summary

### LEGEND

- No Data Collection
- ◐ Data 10am-3pm
- ◑ Data 3pm-8pm
- Full Data 10am-8pm



# Public Space Survey

# Public Street Furniture

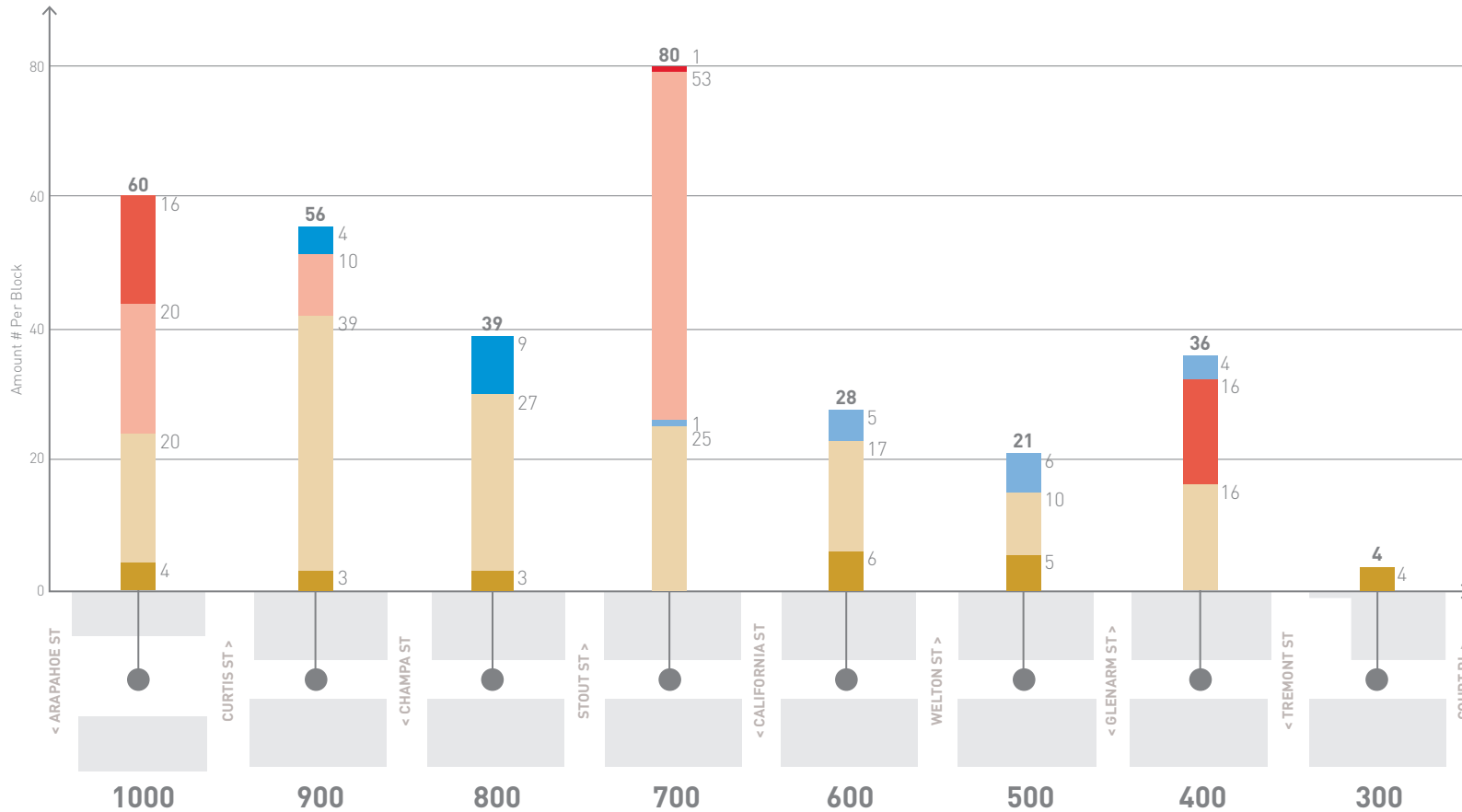
only **one in ten** items on 16th Street Mall are permanent seating options

there are more than **150 planters**

but seating on the edges of the planters is currently not allowed

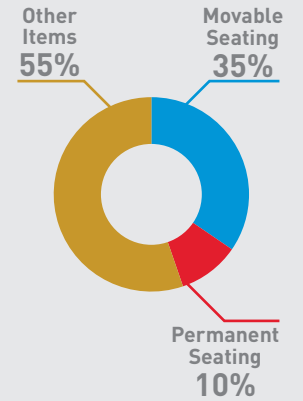
STREET FURNITURE - ON 16TH STREET FROM COURT ST TO ARAPAHOE ST - REGISTRATION FROM AUGUST 2016

- Permanent Bench
- Permanent Single Seat
- Movable Public Seating
- Picnic Tables\*
- Prototypes with Seating\*
- Planters
- Trash/Recycling Bins



## summary

CATEGORIZED BY TYPE OF STREET FURNITURE



## COMMUNITY ENGAGEMENT COMMENTS

Anonymous  
**“I wish there were more benches and places to sit”**  
 DDP engagement booth  
 July 24 '16

Jonathan Papsin  
**“I noticed people tend to linger when seats are available”**  
 Survey Volunteer  
 July 9 '16

Notes: Data collected August 2016 by CPD/DDP / Quotes collected through DDP's on-site engagement booth (anonymous respondents) and from the Public Life Study volunteers (source known)

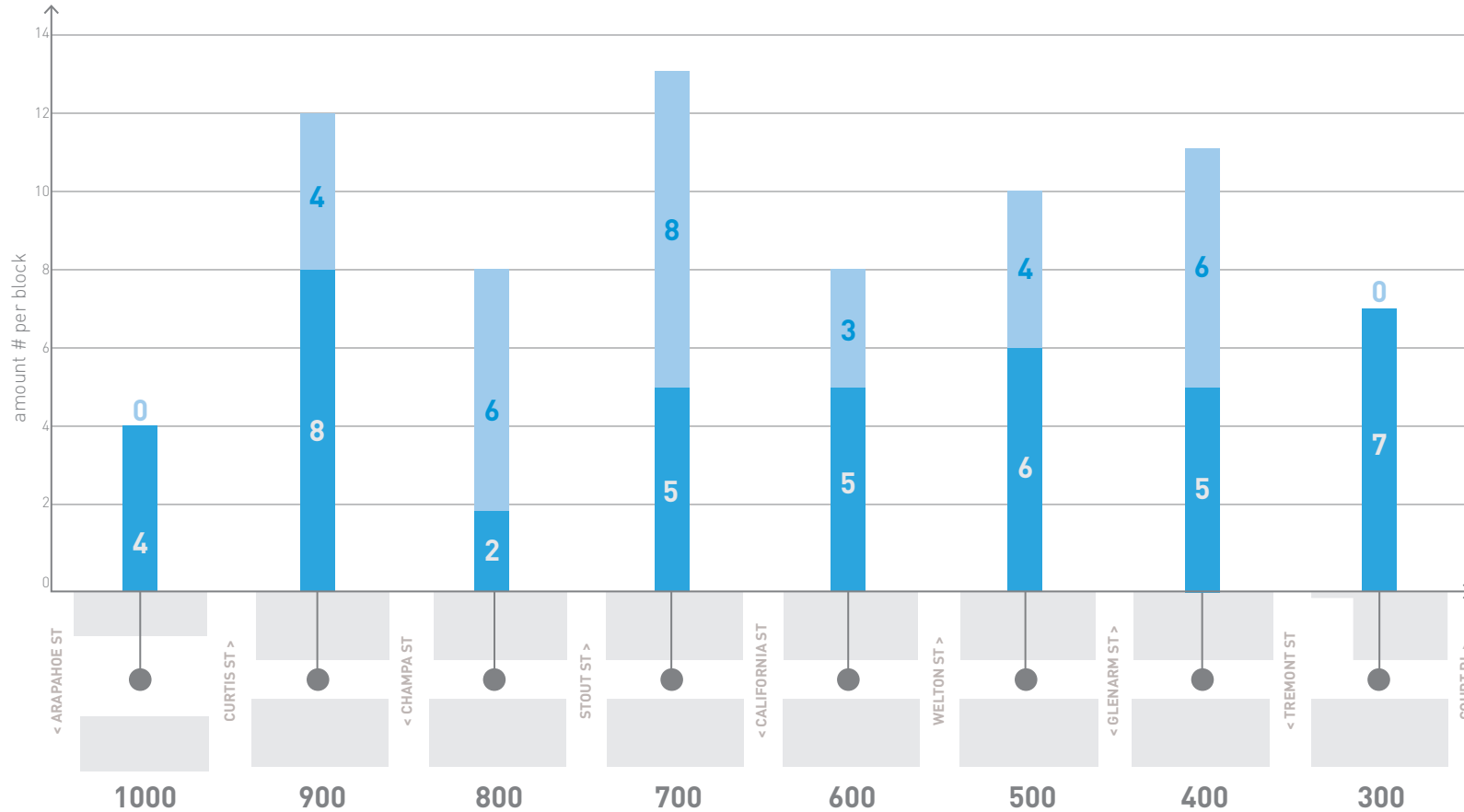
\*Many picnic tables were temporary installations - because each picnic table seats 6 ppl. the category is separate from "Prototypes with Seating". The category "Prototypes with Seating" includes DDP's red top chairs on block 800.

# Active Groundfloor Functions

the variety of functions is almost **5 times less** on the Mall than on Larimer Square - that means that people have to **walk 5 times further** for the same amount of offers

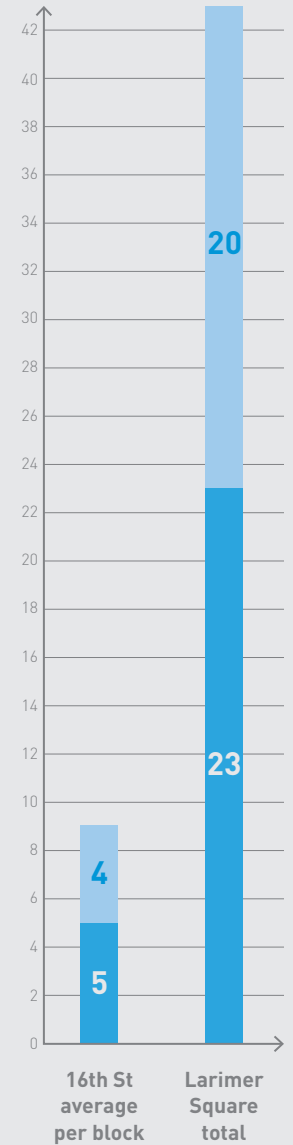
ACTIVE GROUNDLOOR FUNCTIONS (SHOPS AND RESTAURANTS) ON 16TH STREET BETWEEN COURT PL AND ARAPAHOE ST - REGISTRATION JUNE 2016

- Shops/Retail
- Restaurants/Bars/Cafes



## summary

### COMPARATIVE STUDY



Notes: Study of functions executed in June 2016 by the consultant, Gehl.

# Groundfloor Facade Quality - 16th Street

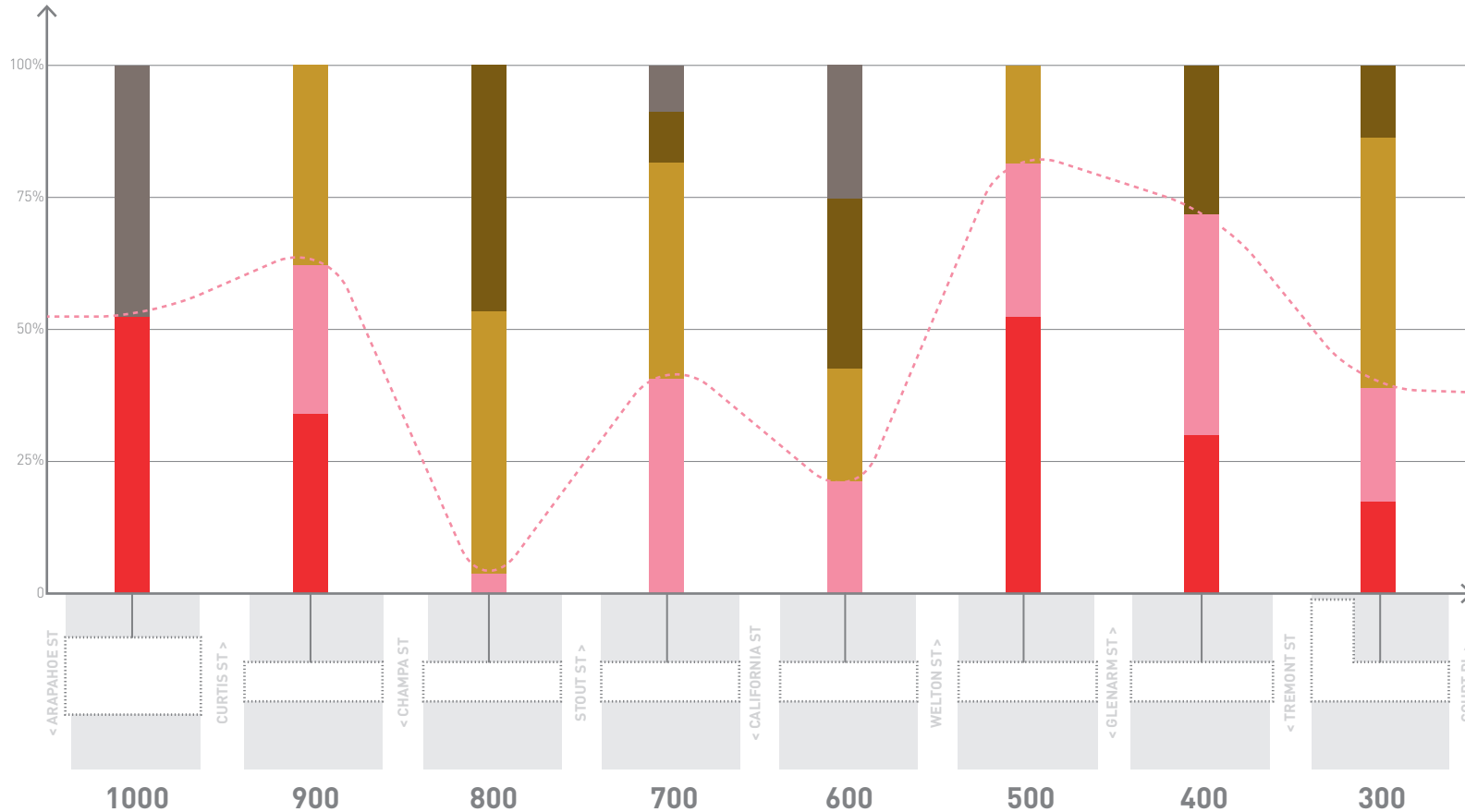
overall there are only **21% active or pleasant facades**

in the downtown area *(15th St, 16th St and 17th St between Court Pl and Wynkoop St)*

there is a **gap in the active/pleasant facades** on the middle blocks

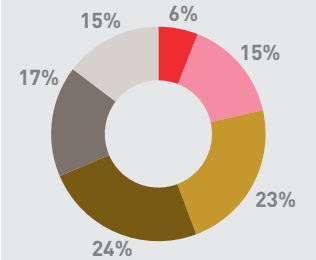
FACADE QUALITY ALONG 16TH STREET BETWEEN COURT ST AND ARAPAHOE ST - REGISTRATION BASED ON GEHL'S FACADE CATEGORIES

- A - Active
- B - Pleasant
- C - Somewhere in Between
- D - Dull
- E - Inactive
- F - No Frontage



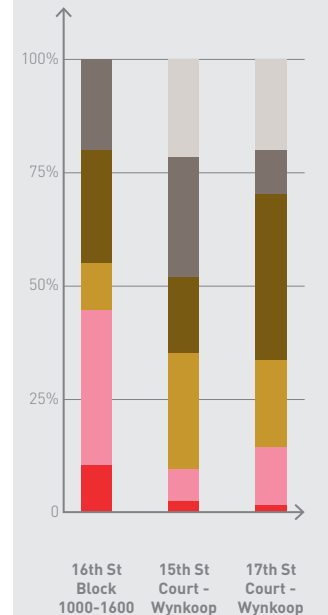
## summary

FACADE QUALITY IN THE DOWNTOWN NETWORK



Includes 15th, 16th & 17th Street from Court St to Wynkoop St and cross streets

## COMPARATIVE STUDY



Notes: The study was first executed in May 2015 and later updated August 2016 by the consultant, Gehl / The nature of this Public Space Study is to generalize, with the goal of highlighting trends, and should be interpreted as such.

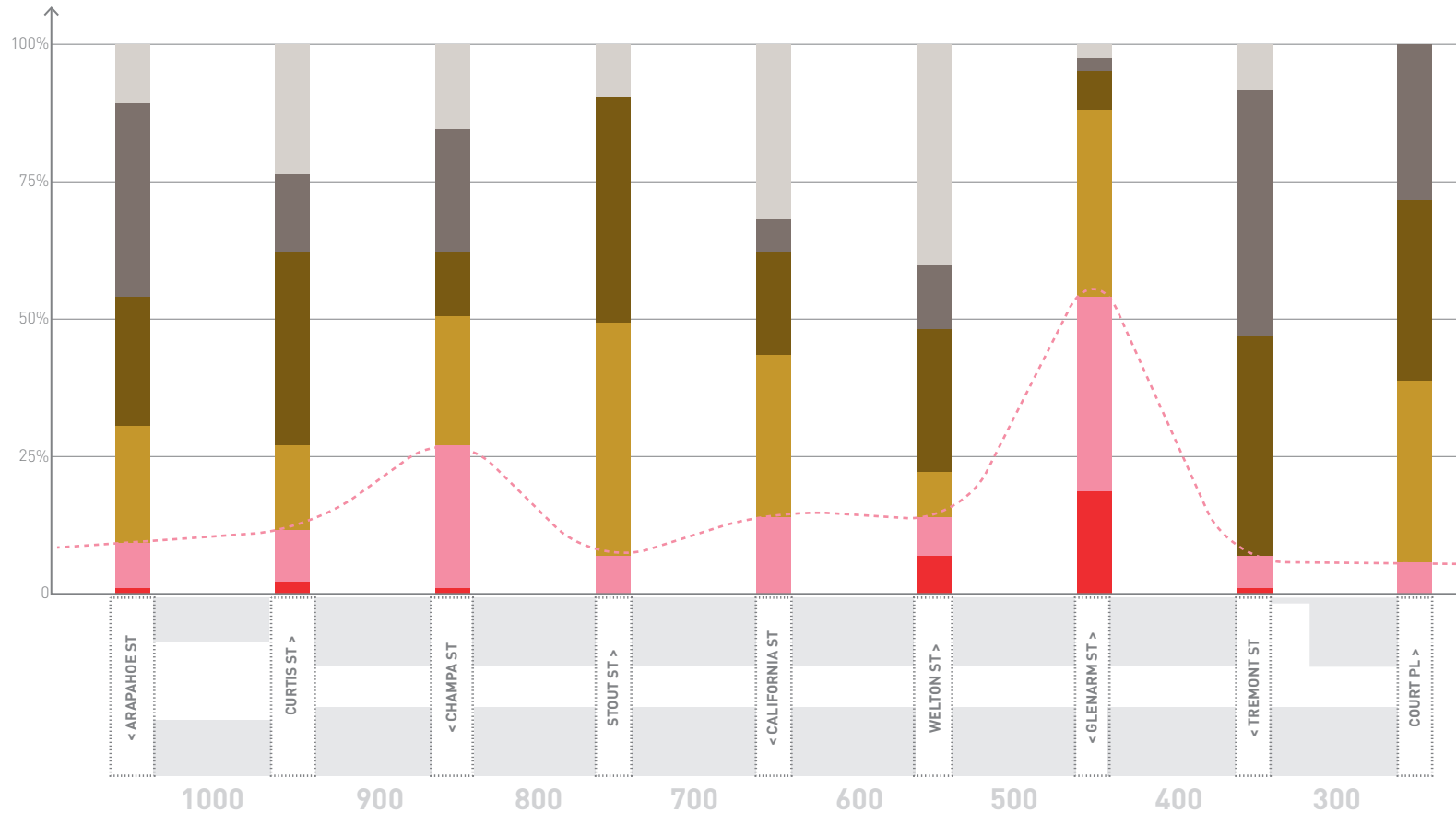
# Groundfloor Facade Quality - Cross Streets

overall the most active cross street is **Glenarm St**, while only one block away the least active is **Tremont St**

**one in three feet is less active** or without a facade altogether

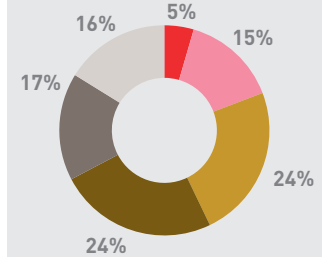
FACADE QUALITY ALONG 16TH STREET BETWEEN COURT ST AND ARAPAHOE ST - REGISTRATION BASED ON GEHL'S FACADE CATEGORIES

- A - Active
- B - Pleasant
- C - Somewhere in Between
- D - Dull
- E - Inactive
- F - No Frontage



## summary

OVERALL CROSS STREET FACADE QUALITY



Includes all cross streets from Court St to Araphoe St between 15th St and 17th St

# Groundfloor Facade Quality - Categories



## A Active

Small units, many doors  
(15-20 doors per 100m/328 feet)  
Large variation in function  
No blind and few passive units  
Lots of character in façade relief  
Primarily vertical façade articulation  
Good details and materials

## B Pleasant

Relatively small units,  
(10-14 doors per 100m/328 feet)  
Some variation in function  
Few blind and passive units  
Façade relief  
Many details

## C Mixed

Large and small units  
(6-10 doors per 100m/328 feet)  
Modest variation in function  
Some blind and passive units  
Modest façade relief  
Few details

## D Dull

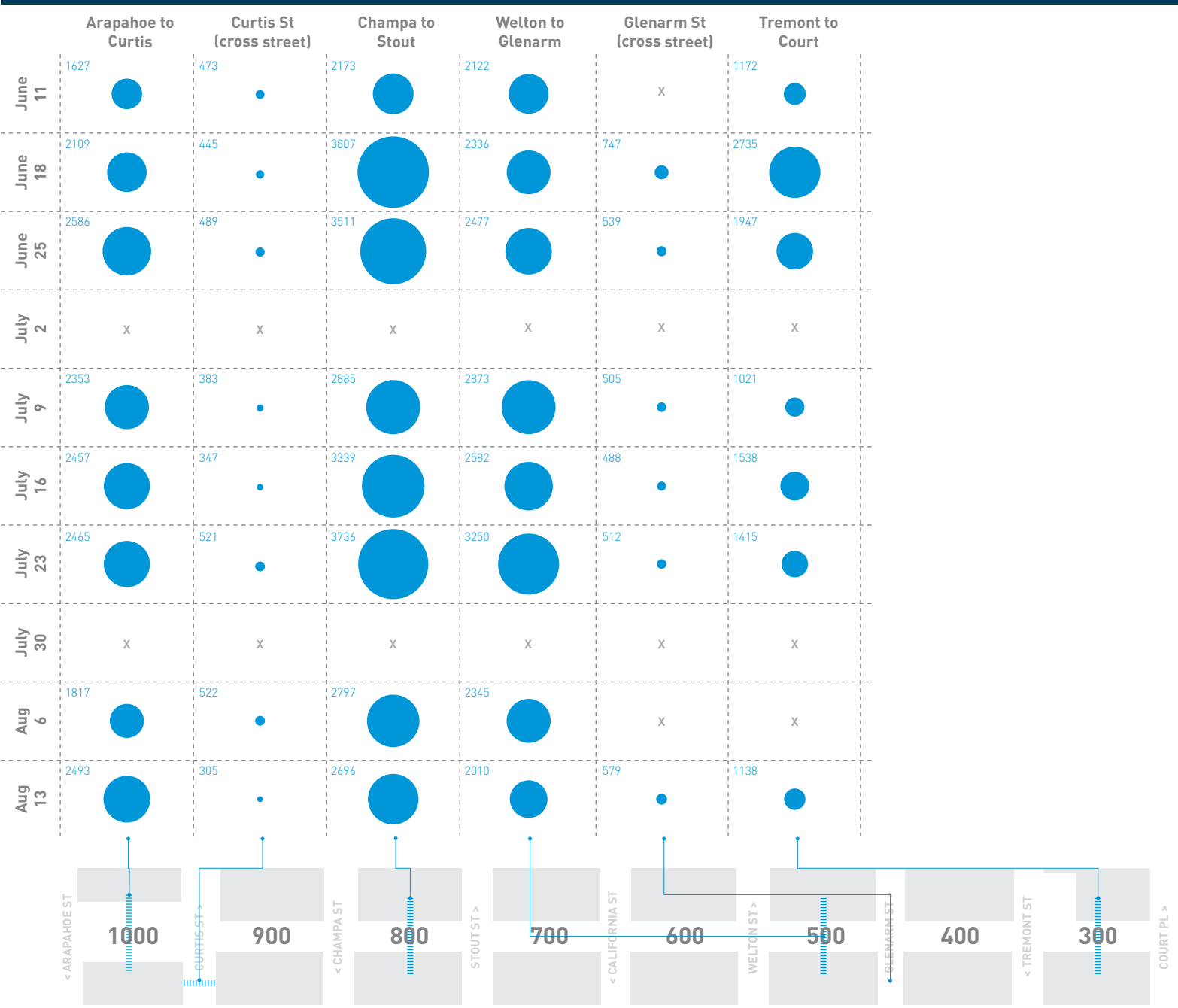
Large units, few doors  
(2-5 doors per 100m/328 feet)  
Almost no variation in function  
Many blind or uninteresting units  
Few or no details

## E Inactive

Large units, few or no doors  
(0-2 doors per 100m/328 feet)  
No visible variation in function  
Blind or passive units  
Uniform facades, no details  
Nothing to look at

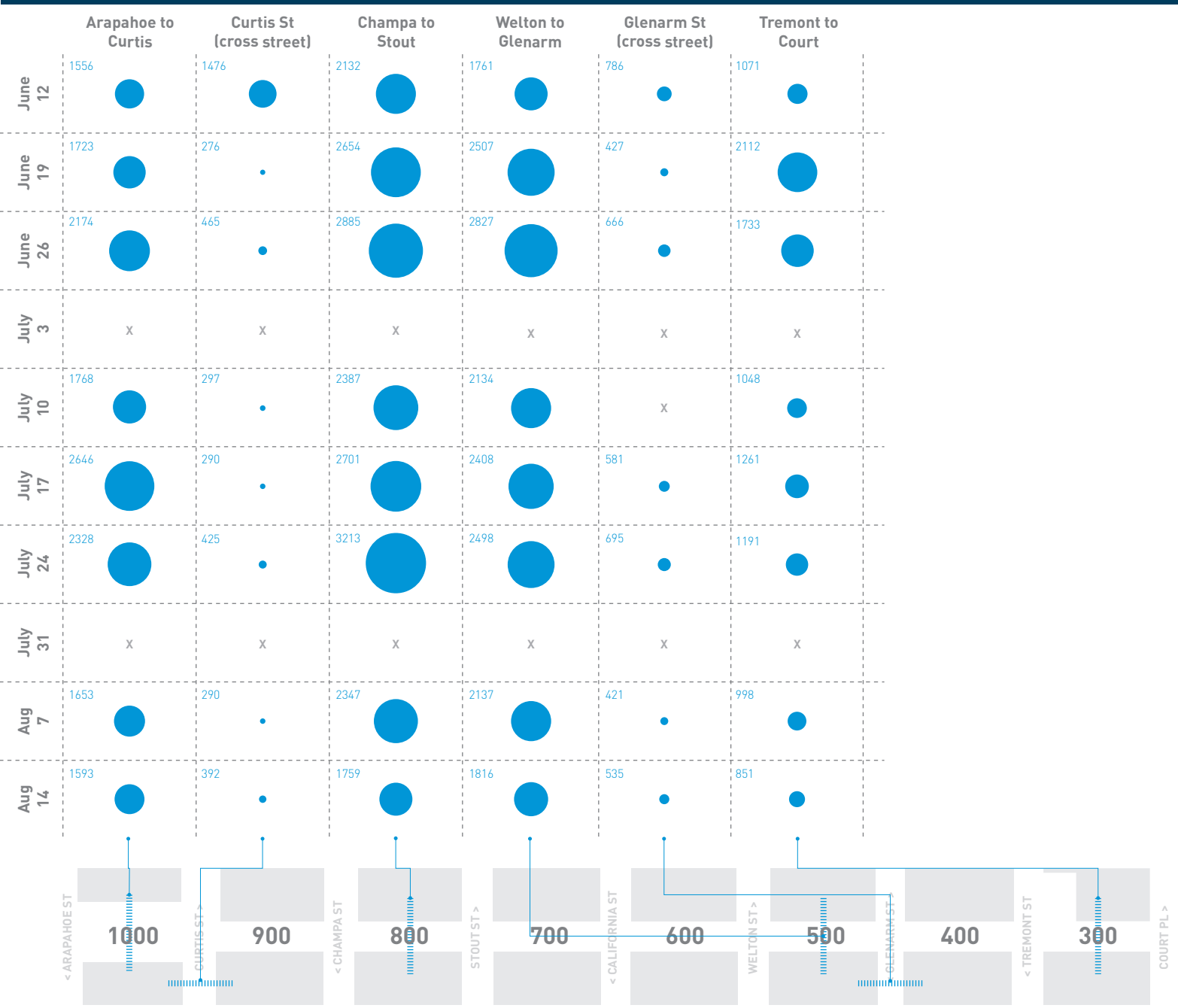
# Public Life Data Movement Counts

# Pedestrians - Hourly Averages - Weekend (Saturday)

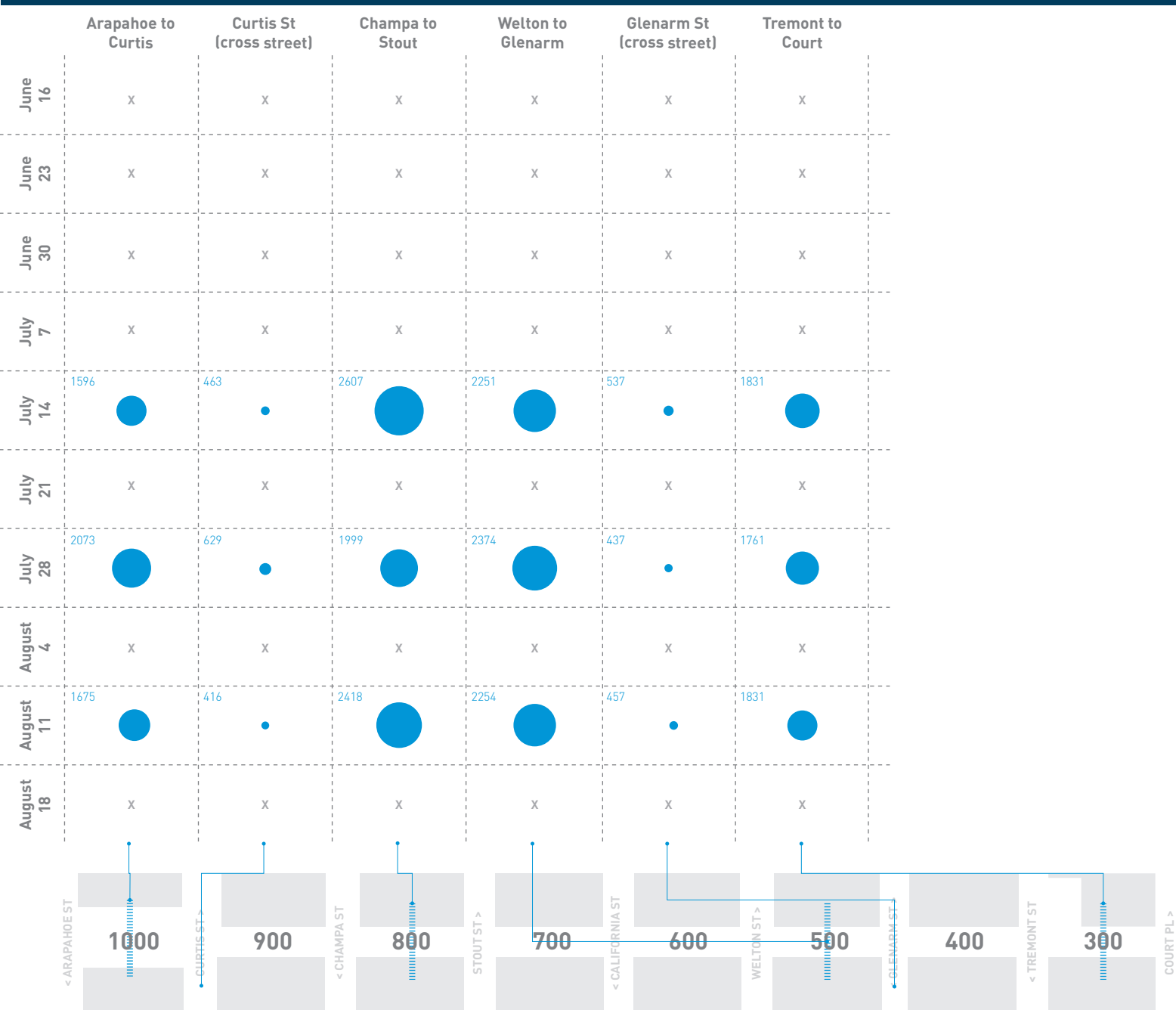




# Pedestrians - Hourly Averages - Weekend (Sunday)



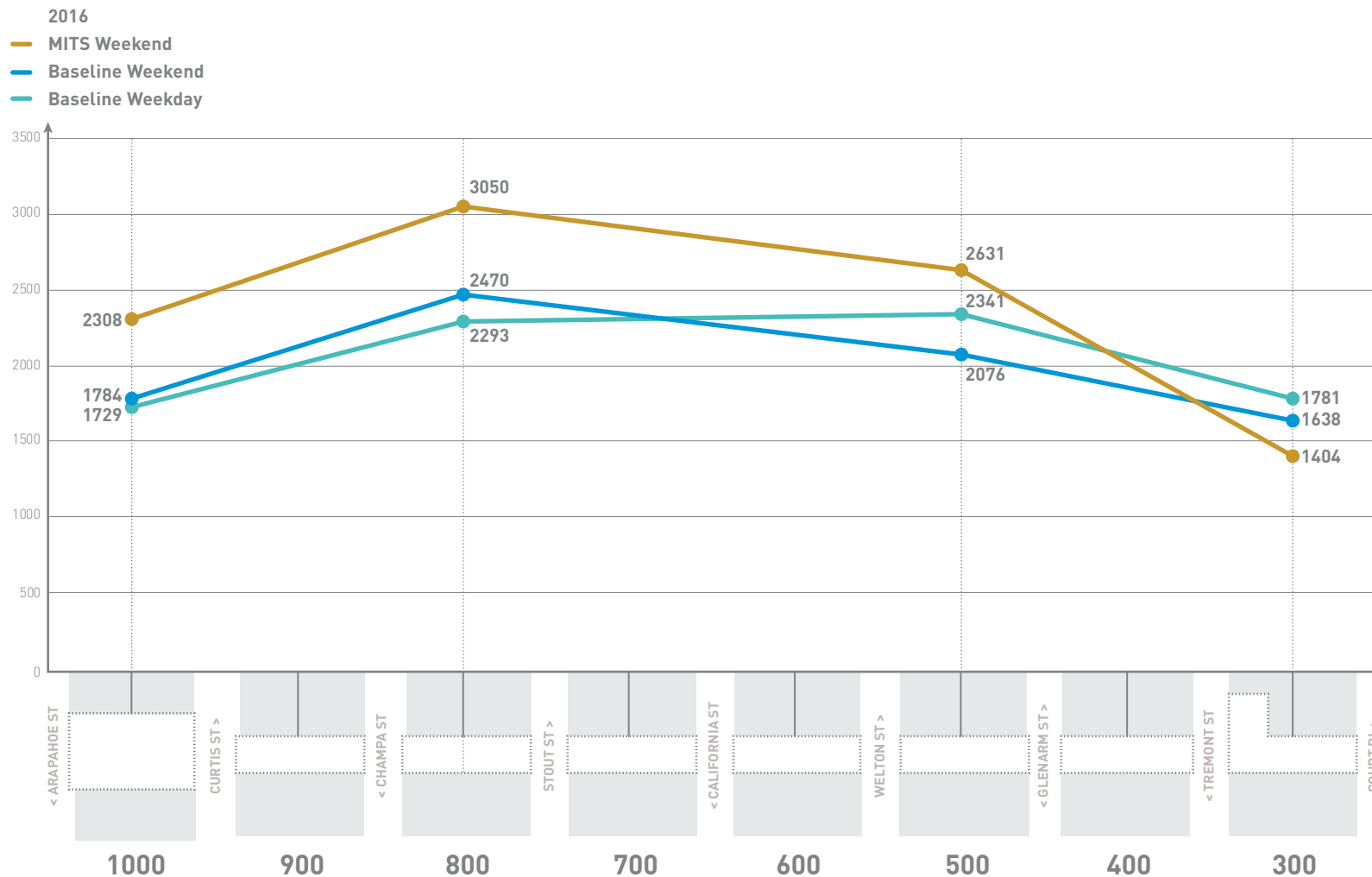
# Pedestrians - Hourly Averages - Weekday (Thursday)



# Pedestrian Volumes by Location - 16th St

the **consistent pedestrian rhythms** from weekday to weekend, suggest that people move along several blocks at a time

AVERAGE HOURLY PEDESTRIAN COUNTS



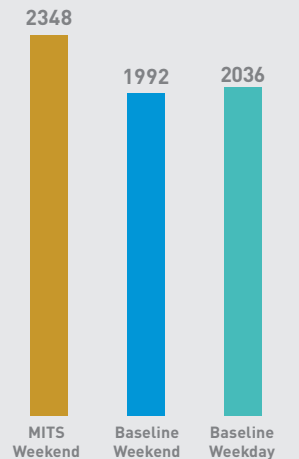
## summary

HIGHEST COUNT  
Saturday July 23  
**5814 people/h**  
between 3pm-4pm  
between Welton and Glenarm

NETWORK STREETS  
On Baseline Weekends  
the network streets\* have  
**78% less activity**  
than the Mall

On MITS Weekends  
the network streets\* have  
**85% less activity**  
than the Mall

TOTAL HOURLY AVERAGES



Locations: 16th St block 300, 500, 800, 1000.

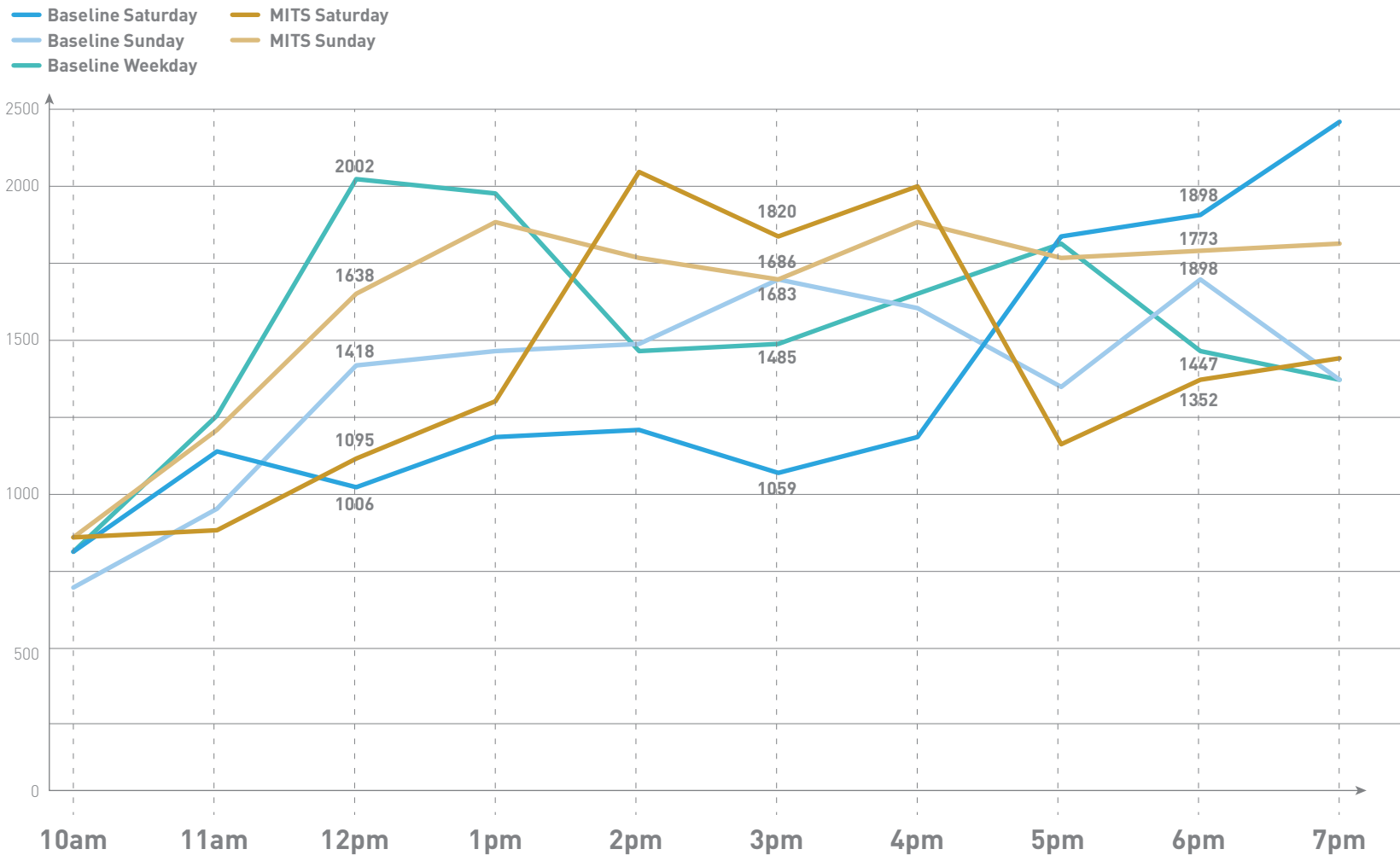
Dates: Baseline Weekends: June 11, June 12, June 18, June 19, August 6, August 7, August 13, August 14. MITS Weekends: June 25, June 26, July 9, July 10, July 16, July 17, July 23, July 24. Baseline Weekdays: July 14, July 28, August 11

# Pedestrian Volumes by the Hour - All Locations

there are **36% more pedestrians between 2pm-5pm** on MITS Weekends than on Baseline Weekends

Baseline Saturdays are the slowest during the day, but the busiest at night

AVERAGE PEDESTRIAN COUNTS PER HOUR - ACROSS ALL LOCATIONS (INCLUDING 15TH ST AND 17TH ST) - 10AM-8PM



## summary

BASELINE SATURDAY PEAK  
Average of  
**2201 ped/hour**  
at 7pm

BASELINE SUNDAY PEAK  
Average of  
**1683 ped/hour**  
at 3pm

BASELINE WEEKDAY PEAK  
Average of  
**2002 ped/hour**  
at 12pm

SATURDAY MITS PEAK  
Average of  
**2036 ped/hour**  
on each block  
at 2pm

SUNDAY MITS PEAK  
Average of  
**1883 people**  
at 4pm

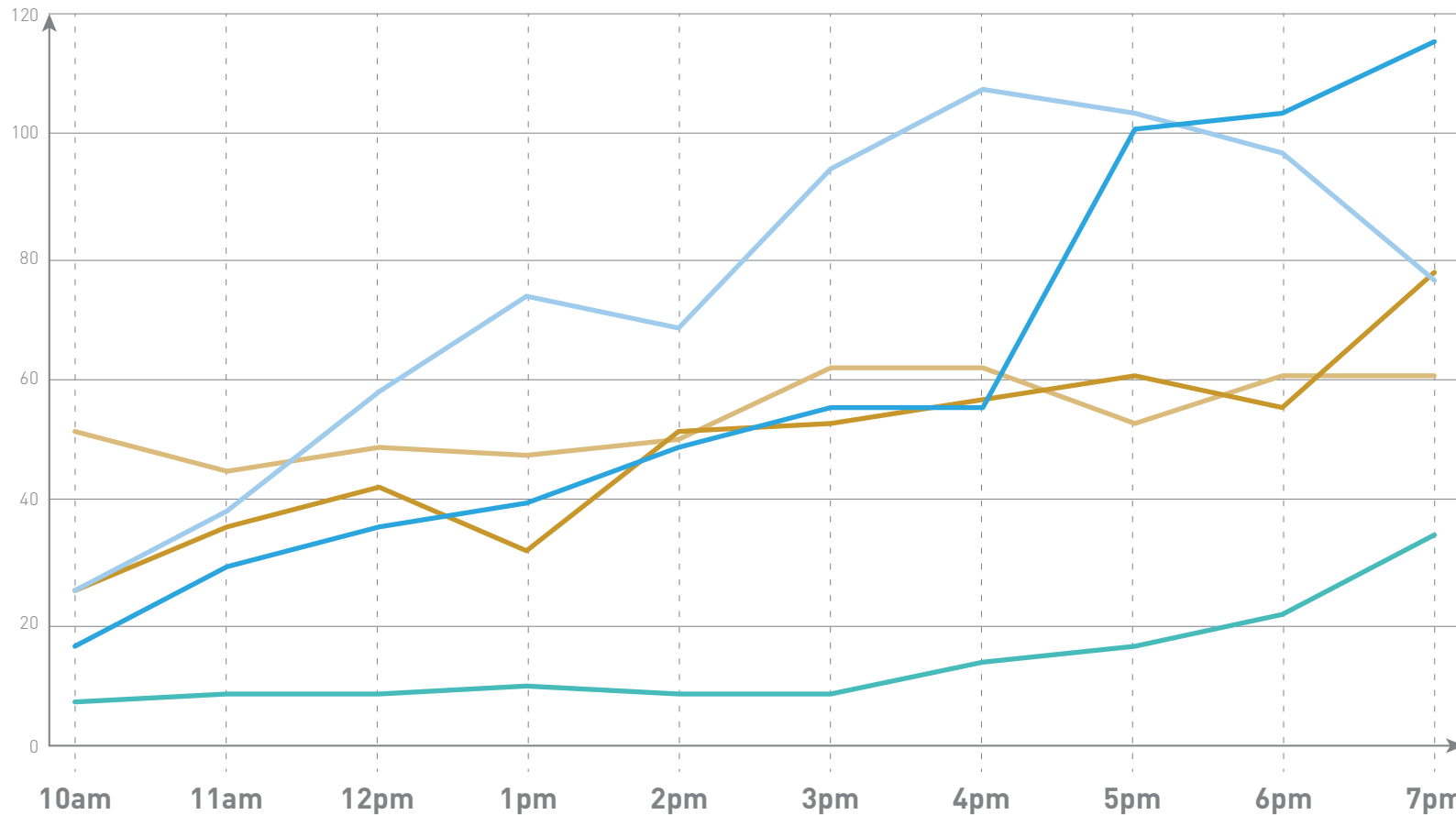
# Cyclist Volumes by the Hour - All Locations

on Baseline Weekends there is approximately **one cyclist per minute**

the **cycling ban on weekdays** keep the Baseline Thursday count low but there is still a small rise in the evening commuting hours

AVERAGE CYCLIST VOLUMES PER HOUR - ACROSS ALL LOCATIONS (INCLUDING 15TH ST AND 17TH ST) - 10AM-8PM

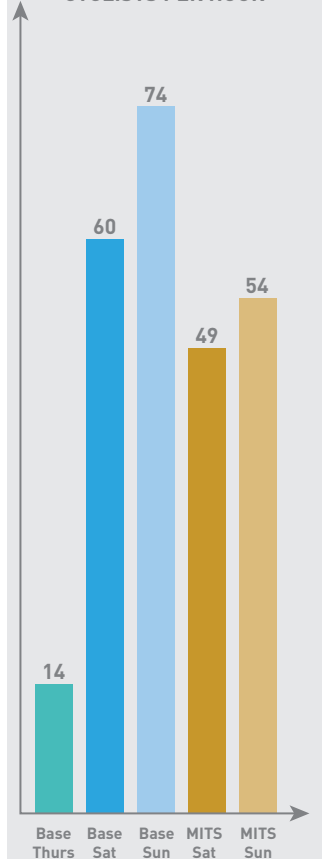
- Baseline Saturday
- Baseline Sunday
- Baseline Weekday
- MITS Saturday
- MITS Sunday



## summary

CYCLIST PEAK  
**115**  
 cyclists per hour  
 on Baseline Saturdays  
 at 7pm

## DAILY AVERAGES CYCLISTS PER HOUR



# Public Life Data Stationary Activities

# Stationary Activity Averages - Weekend (Saturday)



# Stationary Activity Averages - Weekend (Sunday)





# Stationary Activity Averages - Weekday (Thursday)



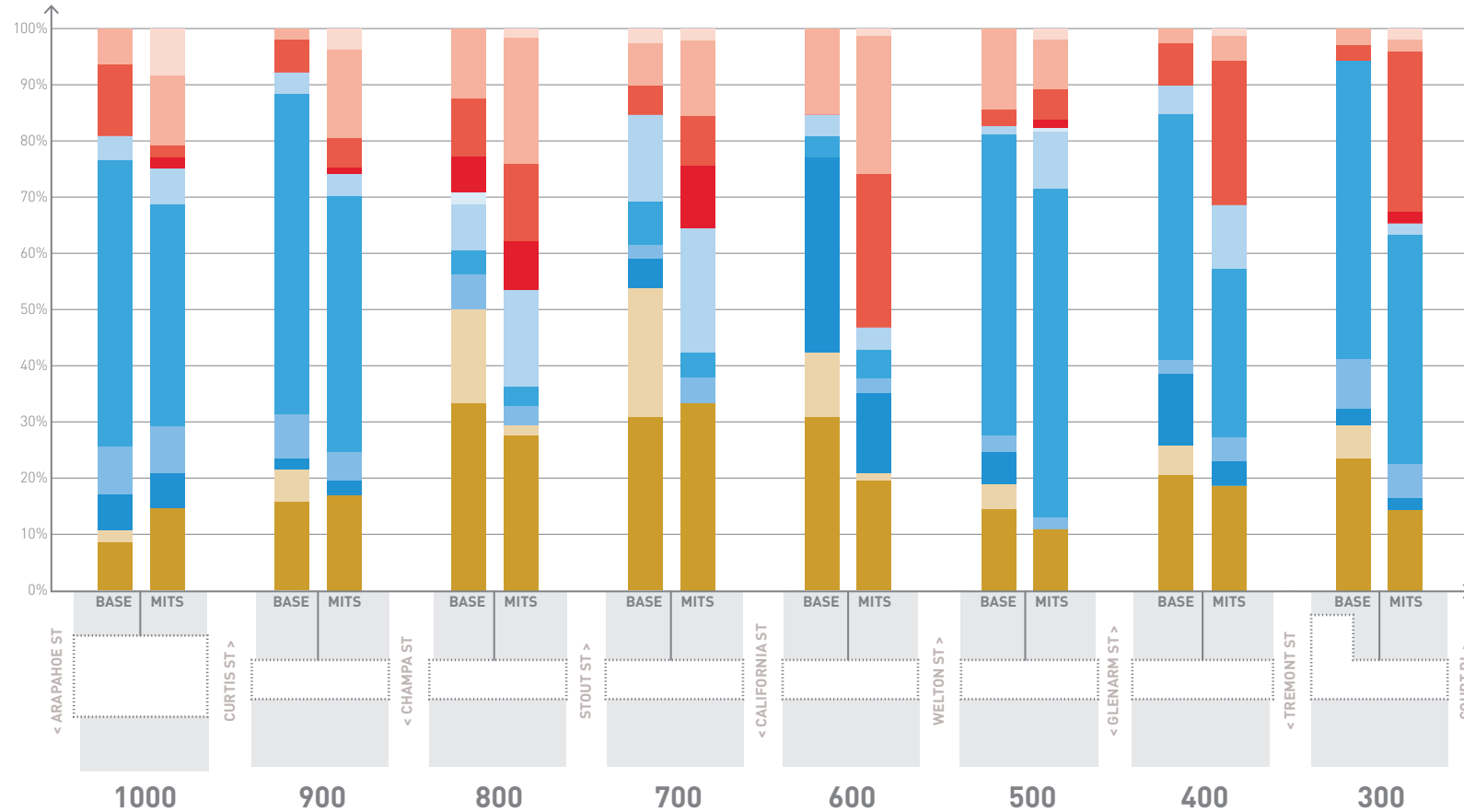
# Stationary Activity Counts by Location - Relative Scale Gehl

on a Baseline Weekend more than **a third of the share** of all activities on 16th Street is **cafe seating**

MITS Weekends created a more varied distribution of activities

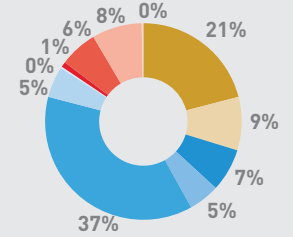
PERCENTAGE SHARE OF PEOPLE ENGAGED IN STATIONARY ACTIVITY PER BLOCK - BASELINE WEEKENDS AND MITS WEEKENDS

- Involved in Physical Activity
- Involved in Cultural Activity
- Involved in Commercial Activity
- Children Playing (and Guardians)
- Lying Down
- Sitting on Movable Seating
- Sitting at Cafes
- Sitting on Secondary Seating
- Sitting on Benches
- Waiting for Transport
- Standing

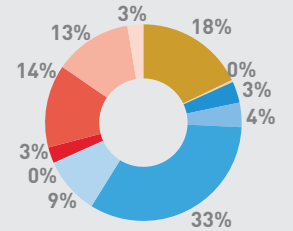


## summary

OVERALL BASELINE WEEKEND



OVERALL MITS WEEKEND



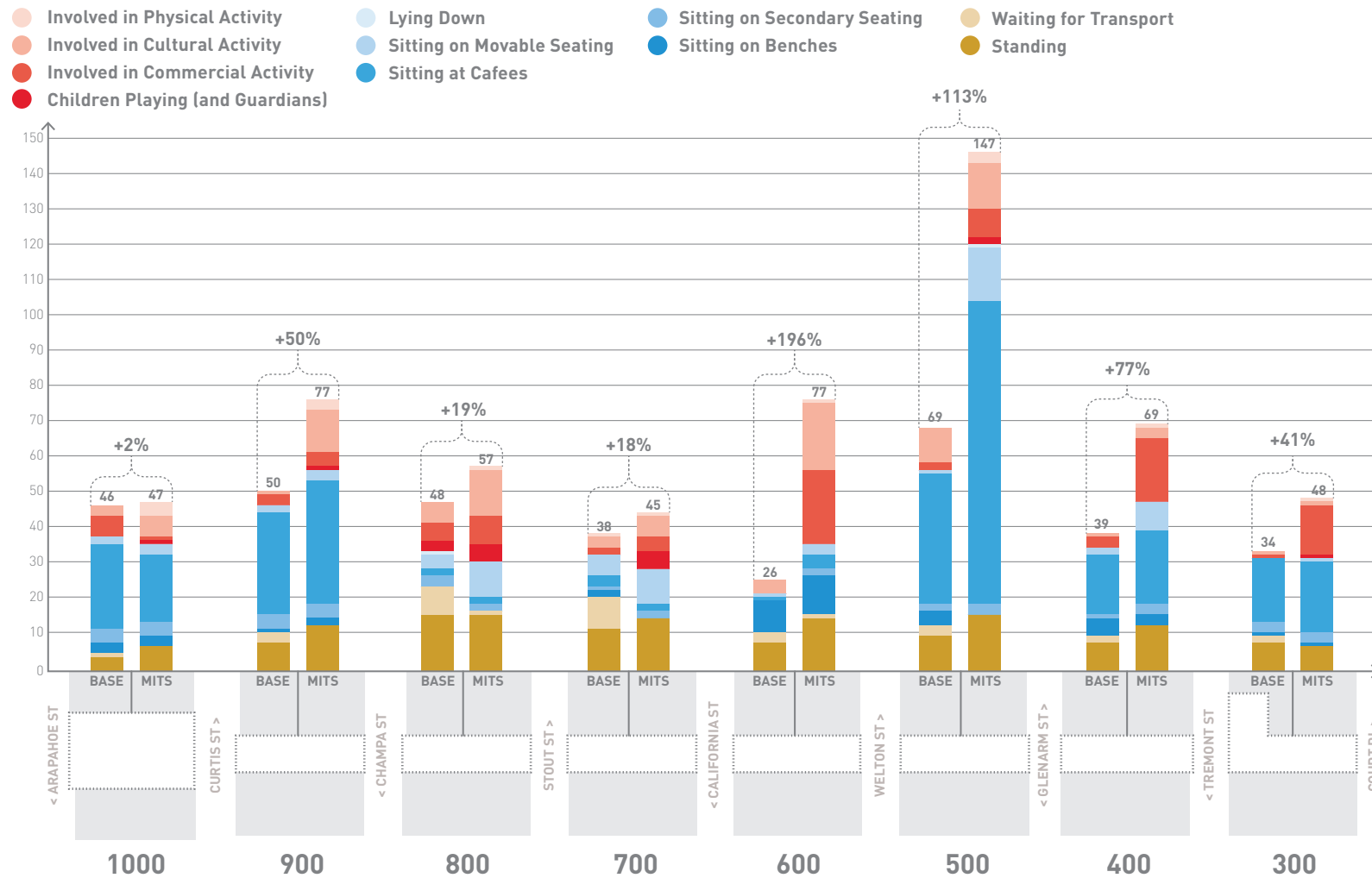
Locations: Averages from locations on 16th St block 300-1000.

Dates: Baseline Weekends: June 11, June 12, June 18, June 19, August 6, August 7, August 13, August 14. MITS Weekends: June 25, June 26, July 9, July 10, July 16, July 17, July 23, July 24 / Hours: 10am-8pm.

# Stationary Activity Counts by Location - Actual Scale

overall **activity levels increased by +62%** for MITS Weekends that is average of 27 additional people per block at any point in time  
 the activity levels almost **tripled on block 600**

AVERAGE AMOUNT OF PEOPLE ENGAGED IN STATIONARY ACTIVITIES PER BLOCK AT ANY POINT IN TIME - BASELINE WEEKENDS AND MITS WEEKENDS

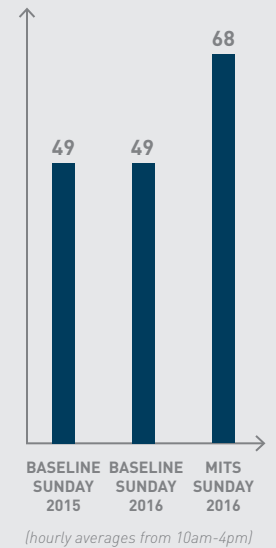


## summary

PERCENTAGE INCREASES BY CATEGORY

- +1400%
- +152%
- +255%
- +400%
- +0%
- +194%
- +44%
- +28%
- 20%
- 94%
- +38%

AVERAGE ACTIVITIES PER BLOCK



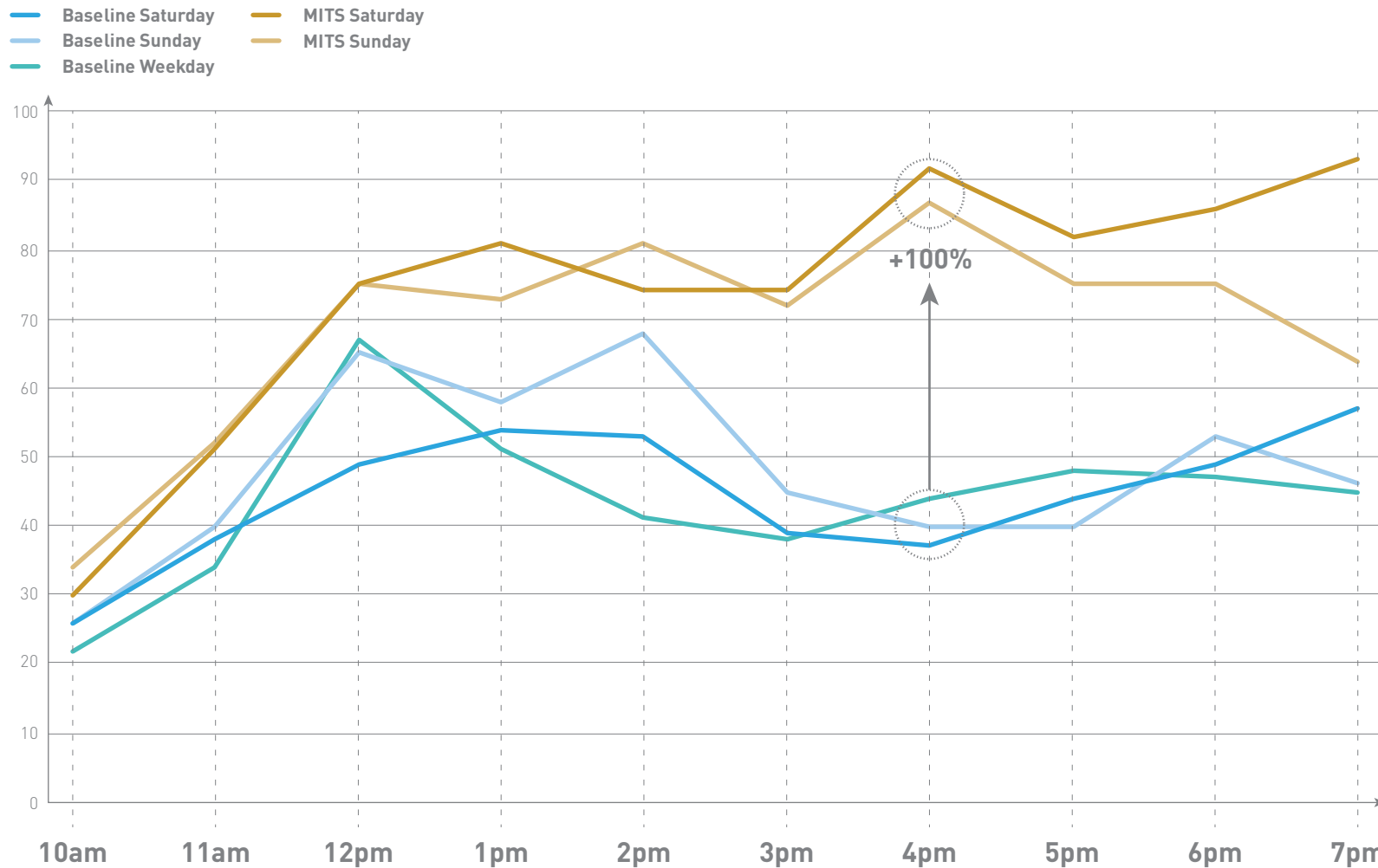
Locations: Averages from locations on 16th St block 300-1000.

Dates: Baseline Weekends: June 11, June 12, June 18, June 19, August 6, August 7, August 13, August 14. MITS Weekends: June 25, June 26, July 9, July 10, July 16, July 17, July 23, July 24 / Hours: 10am-8pm.

# Stationary Activity Counts by the Hour - 16th St

MITs increased the **daytime activity levels** between lunch and dinner, when people are predominantly engaged in optional, leisure activities

AVERAGE STATIONARY ACTIVITIES COUNTS PER HOUR - AMOUNT OF PEOPLE COUNTED PER BLOCK AT ANY POINT IN TIME - 10AM-8PM



## summary

**BASELINE SATURDAY PEAK**  
Average of  
**57 people**  
on each block  
at 7pm

**BASELINE SUNDAY PEAK**  
Average of  
**68 people**  
on each block  
at 2pm

**BASELINE WEEKDAY PEAK**  
Average of  
**67 people**  
on each block  
at 12pm

**SATURDAY MITS PEAK**  
Average of  
**93 people**  
on each block  
at 7pm

**SUNDAY MITS PEAK**  
Average of  
**87 people**  
on each block  
at 4pm

**4PM COMPARISON**  
**TWICE AS MANY**  
activities on each block  
in the afternoon of  
MITs Weekends than on  
Baseline Weekdays

# Public Life Data Movement vs Stationary

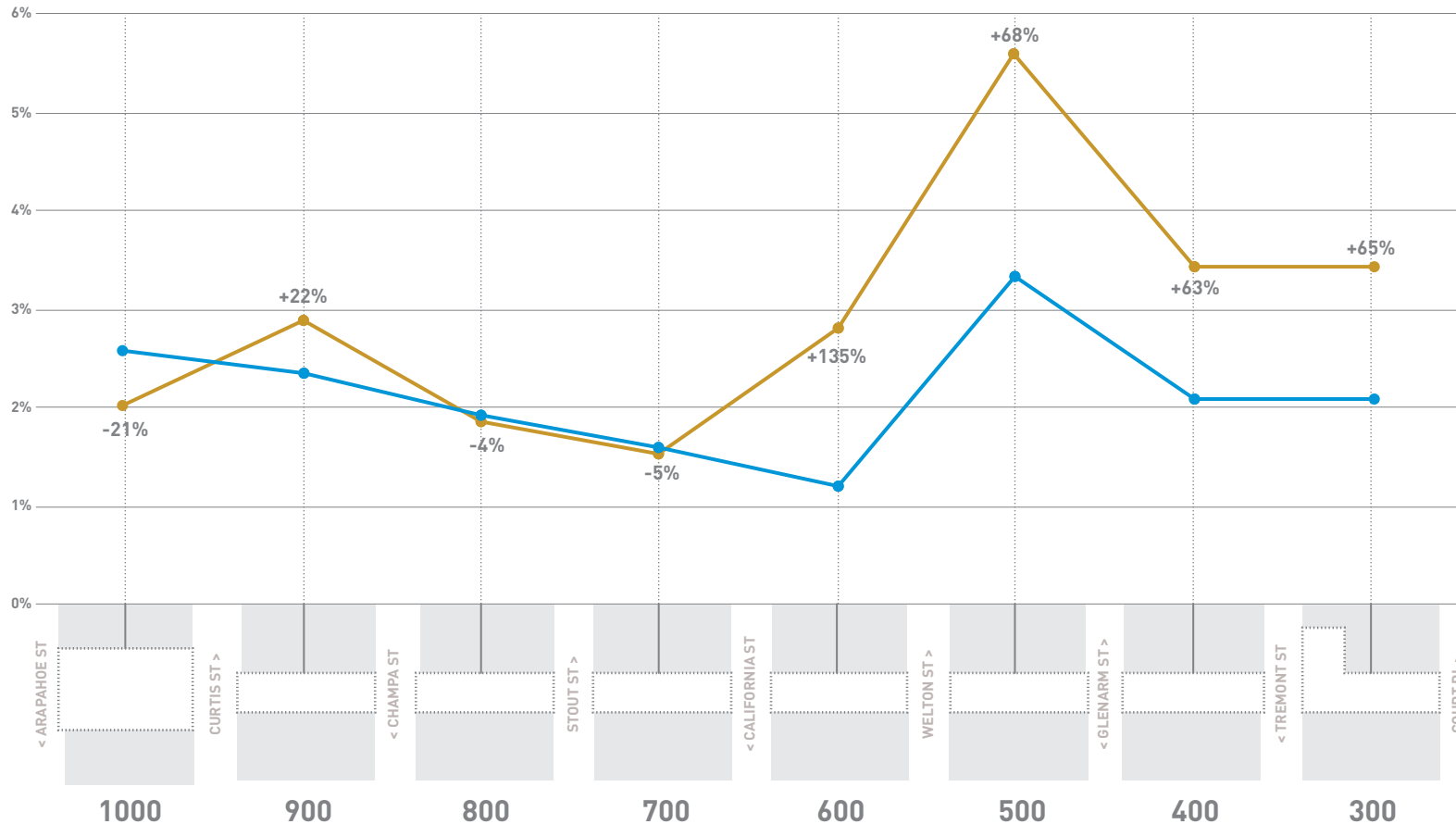
# Ratio of People Staying to Pedestrians by Location

blocks **300-500** are the **most sticky** in general, but MITS doubled the stickiness on block 600

**more invitations** (like during MITS) attracts more pedestrians to spend time

STICKINESS CALCULATION - AMOUNT OF PEOPLE SPENDING TIME PER PEDESTRIAN

- MITS Weekend
- Baseline Weekend



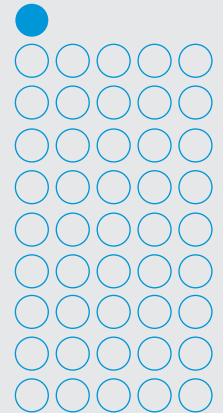
## summary

### AVERAGE STICKINESS

Baseline Weekends

1 / 46

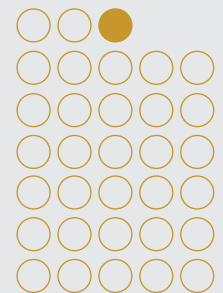
Person Staying / Pedestrians



Baseline Weekends

1 / 33

Person Staying / Pedestrians



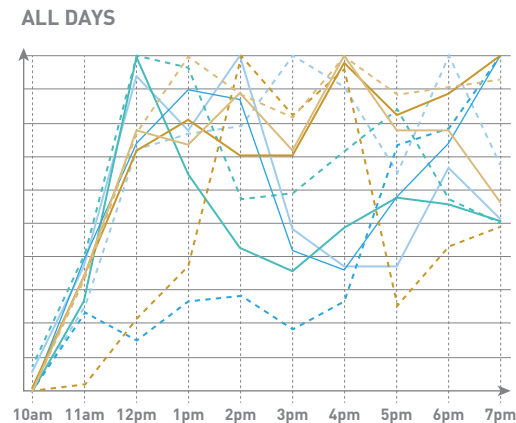
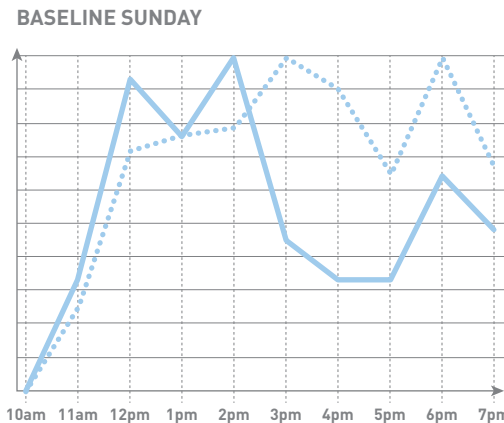
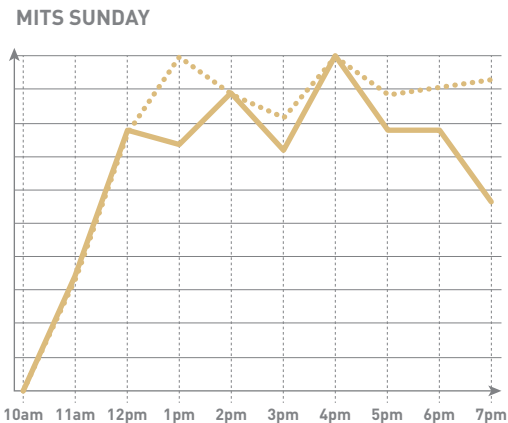
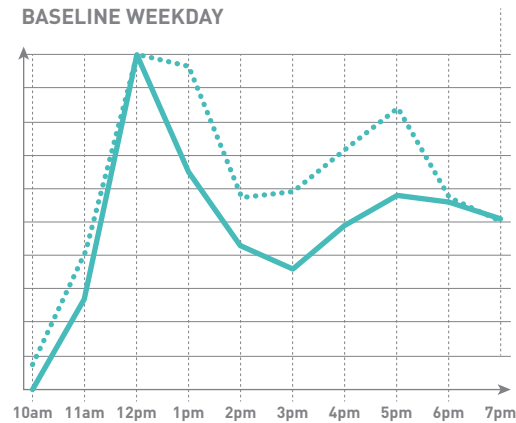
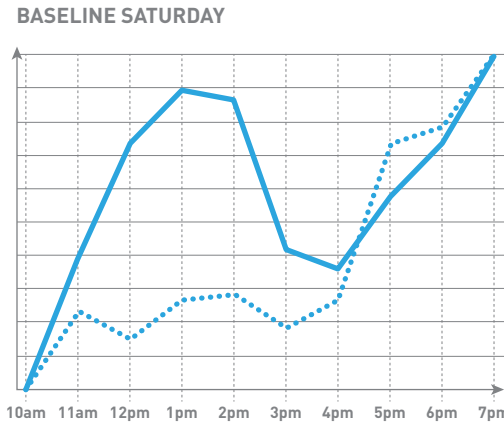
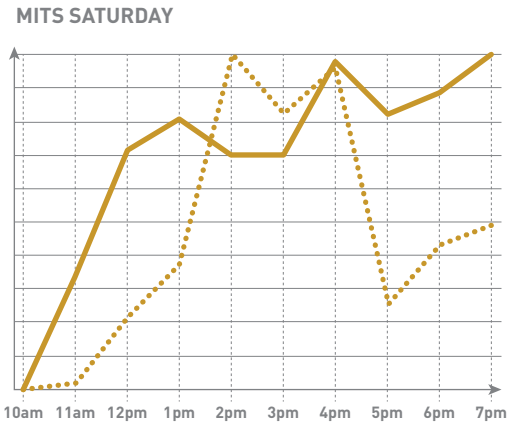
Locations: for stationary activities counts: 16th St block 300-1000. For pedestrian counts: 16th St block 300, 500, 800, 1000. Intermediate blocks (400, 600, 700, 900) have been calculated via averages.  
 Dates: Baseline Weekends: June 11, June 12, June 18, June 19, August 6, August 7, August 13, August 14. MITS Weekends: June 25, June 26, July 9, July 10, July 16, July 17, July 23, July 24.

# Ratio of People Staying to Pedestrians by the Hour

on **MITS Saturday evenings** the increase in people staying far outweigh the increase in pedestrian volumes  
 - this **counters the Baseline Saturday trend** of reduced evening stickiness

PEDESTRIAN COUNTS VERSUS STATIONARY ACTIVITY COUNTS FOR DAYS WITH DIFFERENT CONDITIONS - RELATIVE SCALE

— Stationary Activities  
 .... Pedestrian Counts



## summary

STICKINESS =  
 RATIO OF PEOPLE STAYING  
 TO PEOPLE WALKING

**MITS SATURDAY**  
 The stickiness increases significantly in the evening

**MITS SUNDAY**  
 The stickiness is stable throughout the day

**BASELINE SATURDAY**  
 The stickiness decrease significantly in the evening

**BASELINE SUNDAY**  
 The stickiness is lowest in the afternoon hours

**BASELINE WEEKDAY**  
 The stickiness is stable throughout the day

# Public Life Data Age and Gender



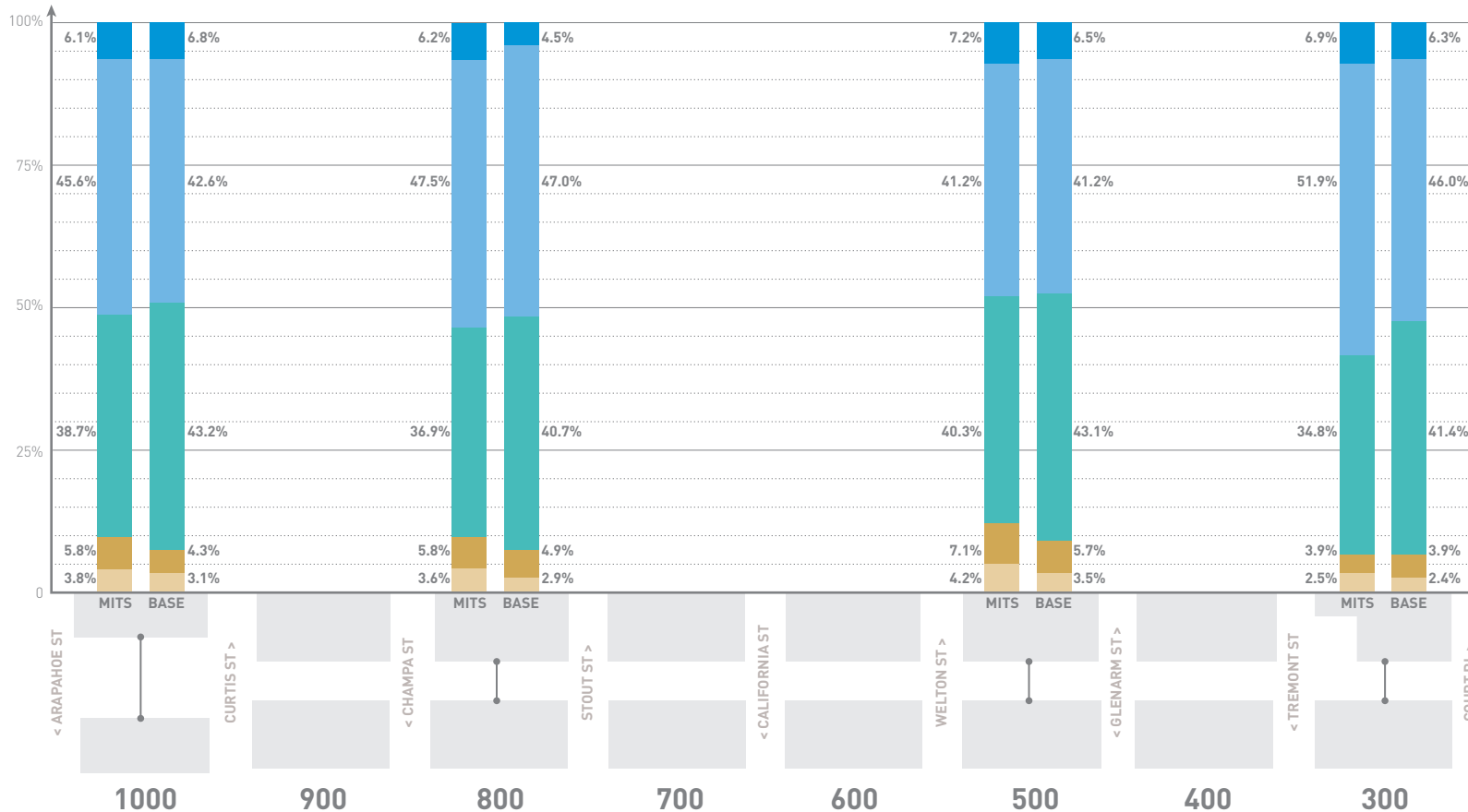
# Age Distribution by Location

the overall share of **0-14 year olds increased +20%** on MITS weekends, while the **Baseline Sunday count is up +33%** from last year

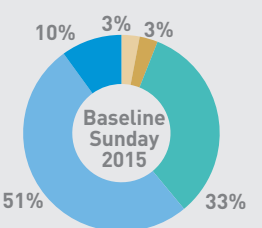
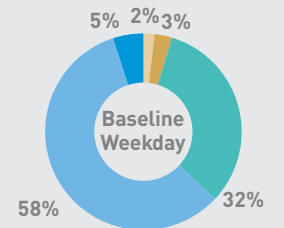
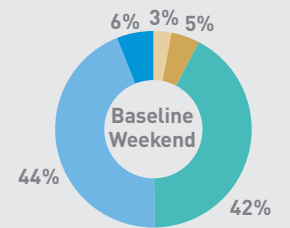
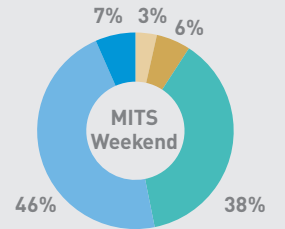
block 500 has the largest share of children *and* elderly for MITS Weekends

DISTRIBUTION OF AGE BY LOCATION - MITS WEEKENDS VERSUS BASELINE WEEKENDS

- 65+ years
- 31-64 years
- 15-30 years
- 7-14 years
- 0-6 years



## summary



Dates 2016: Baseline Weekends: Jun 11, Jun 12, Jun 18, Jun 19, Aug 6, Aug 7, Aug 13, Aug 14. MITS Weekends: Jun 25, Jun 26, Jul 9, Jul 10, Jul 16, Jul 17, Jul 23, Jul 24. Baseline Weekdays: June 23, July 14, July 21.

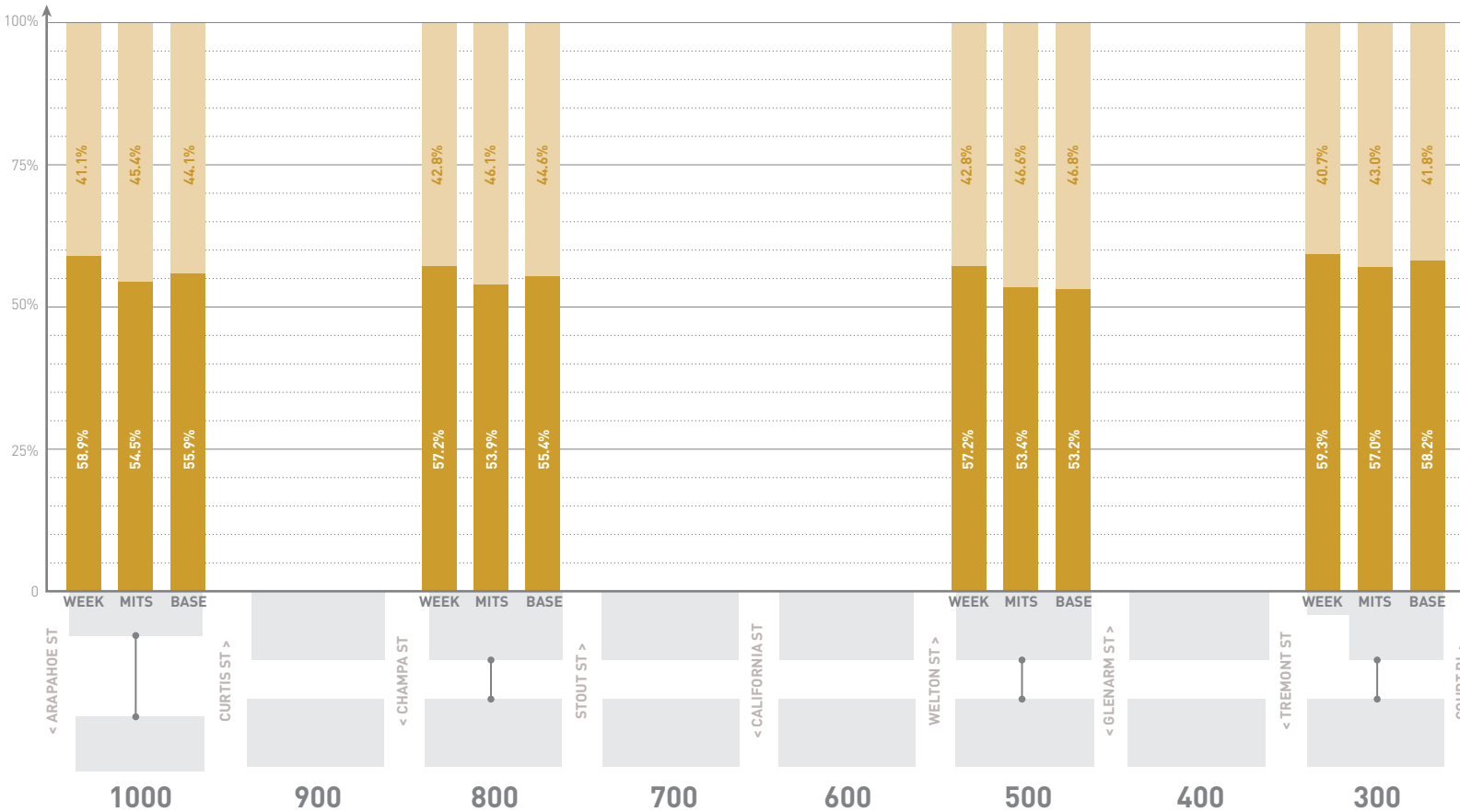
Dates 2015: Baseline Weekends: Jul 12, July 26, Aug 16.

# Gender Distribution by Location

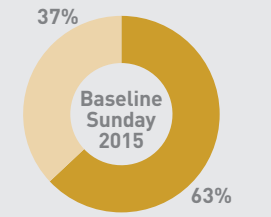
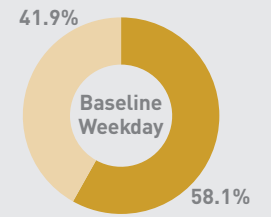
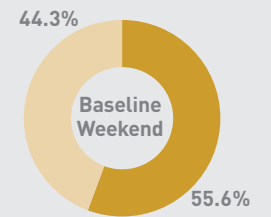
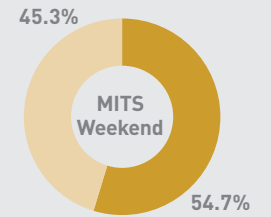
since 2015, the share of women to men on Baseline Sundays has increased from 37% to 45% - that is a **22% increase of women** in one year almost **2/3 pedestrians are male** on weekdays

DISTRIBUTION OF GENDER BY LOCATION - WEEKDAYS VERSUS MITS WEEKENDS VERSUS BASELINE WEEKENDS

● Women  
● Men



## summary



Dates 2016: Baseline Weekends: Jun 11, Jun 12, Jun 18, Jun 19, Aug 6, Aug 7, Aug 13, Aug 14. MITS Weekends: Jun 25, Jun 26, Jul 9, Jul 10, Jul 16, Jul 17, Jul 23, Jul 24. Baseline Weekdays: June 23, July 14, July 21.

Dates 2015: Baseline Weekends: Jul 12, July 26, Aug 16.

# Public Life Data Targeted Surveys

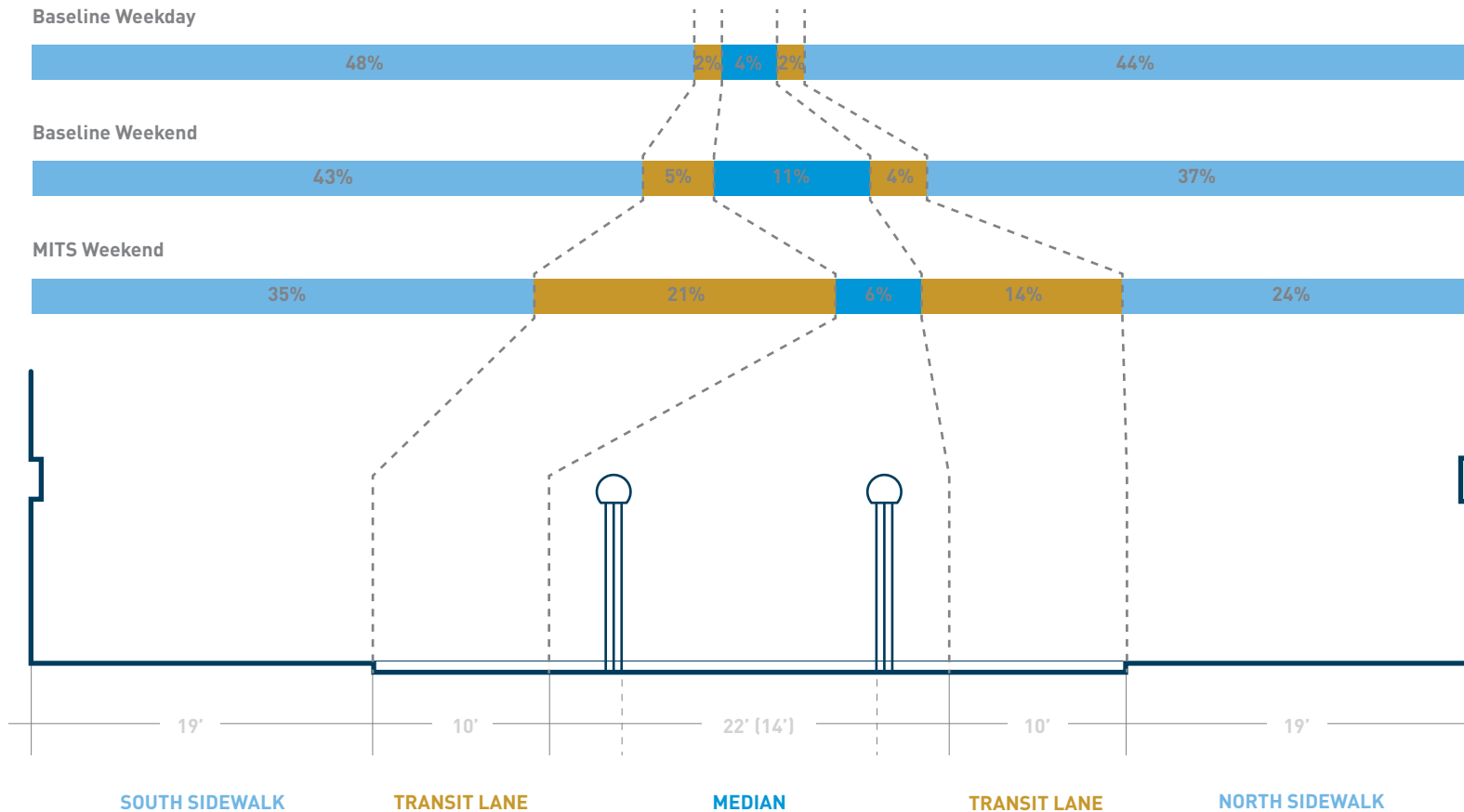
# Pedestrian Volume by Street Section - Relative Scale

more than **one in three pedestrians walk in the shuttle lanes** when these are open to pedestrians during MITS Weekends

pedestrians use the street width more evenly during MITS Weekends

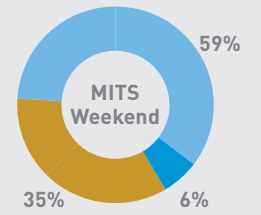
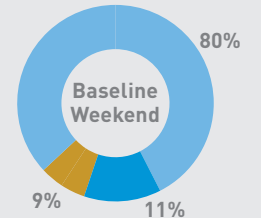
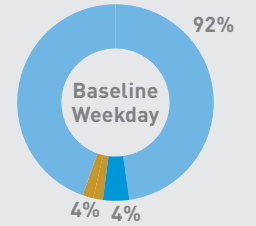
DISTRIBUTION OF PEDESTRIANS ACROSS THE SECTION OF THE STREET - BASELINE WEEKDAY VS BASELINE WEEKEND VS MITS WEEKEND - BLOCK 700-900

- Sidewalks
- Transit Lanes
- Median



## summary

### OVERALL DISTRIBUTION OF PEDESTRIANS



### COMMUNITY ENGAGEMENT COMMENT

Anonymous

**“I love the pedestrian experience [during MITS, red.]”**

DDP engagement booth  
July 09 '16

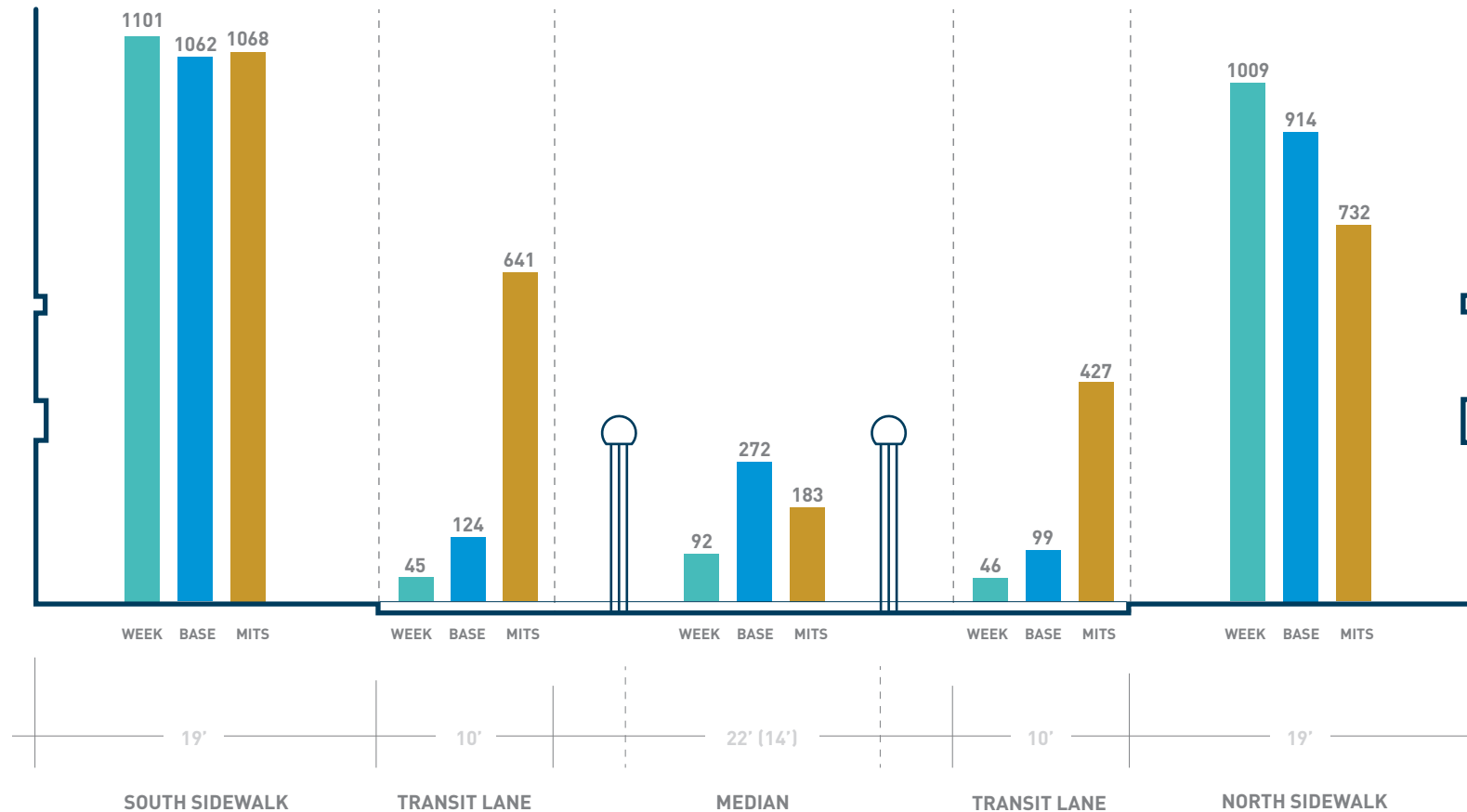
# Pedestrian Volume by Street Section - Actual Scale

the **pedestrians prefer the south widewalk** in warm summer weather

the fact that the additional MITS pedestrians use the transit lane as a walking path suggests that the **sidewalks are at capacity**

AVERAGE NUMBER PEDESTRIANS PER HOUR (BETWEEN 10AM-8PM) - BLOCK 700-900

- Baseline Weekday
- Baseline Weekend
- MITS Weekend

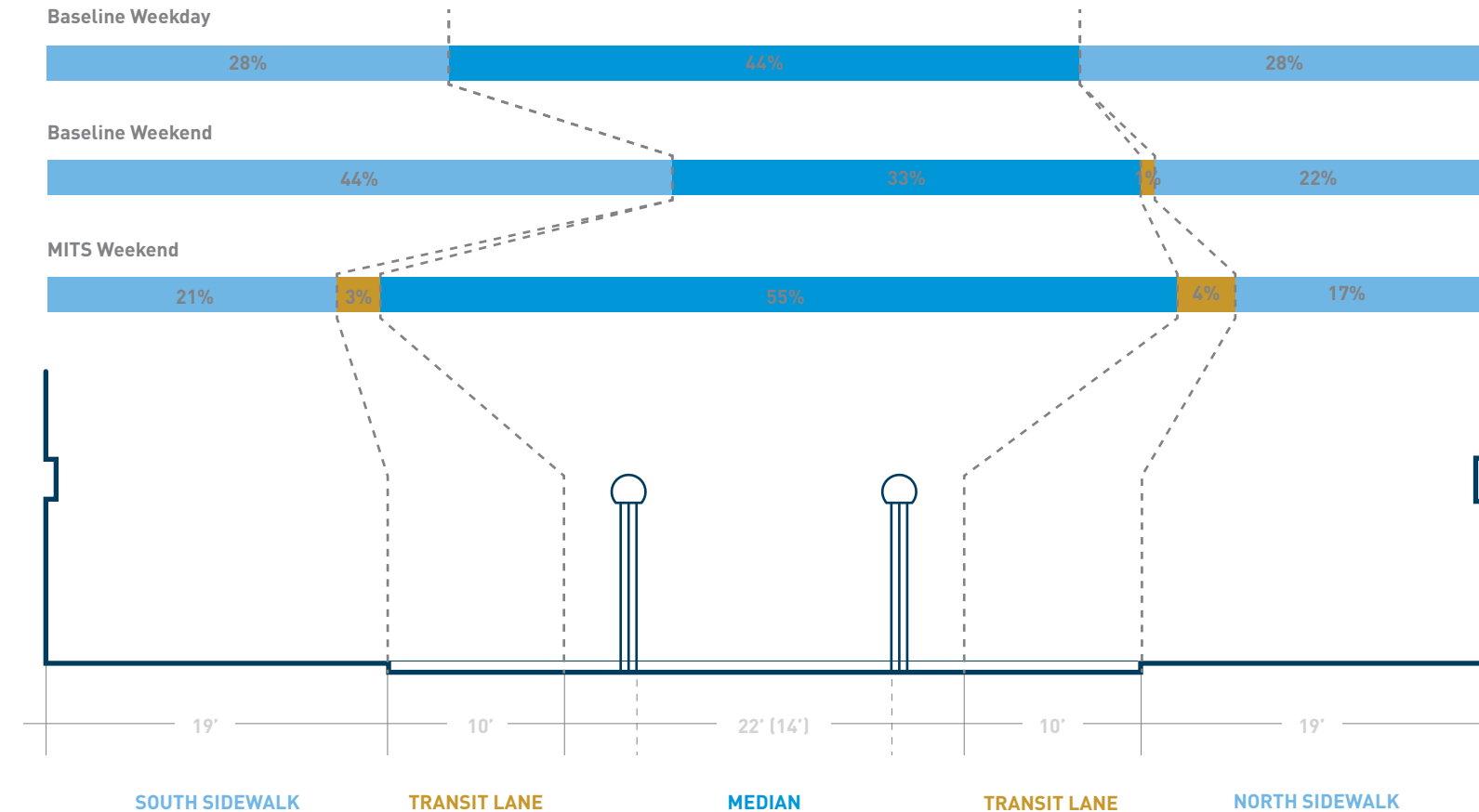


# Stationary Activity by Street Section - Relative Scale

the **transit lanes are at all times used as thoroughfares** - for shuttles on weekdays/baseline weekends and for pedestrians during MITS  
 a larger portion of the stationary activities take place in the median on MITS weekends

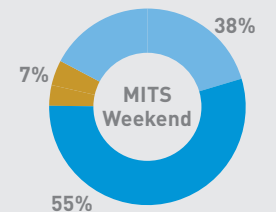
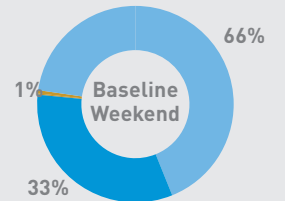
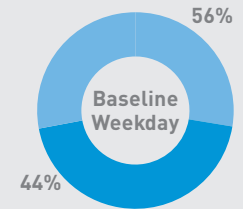
DISTRIBUTION OF STATIONARY ACTIVITY ACROSS THE STREET SECTION - BASELINE WEEKDAY VS BASELINE WEEKEND VS MITS WEEKEND - BLOCK 700-900

- Sidewalks
- Transit Lanes
- Median



## summary

OVERALL DISTRIBUTION OF STATIONARY ACTIVITIES



## COMMUNITY ENGAGEMENT COMMENT

Anonymous  
**“I love the oasis in the middle of the Mall”**

DDP engagement booth  
 July 09 '16

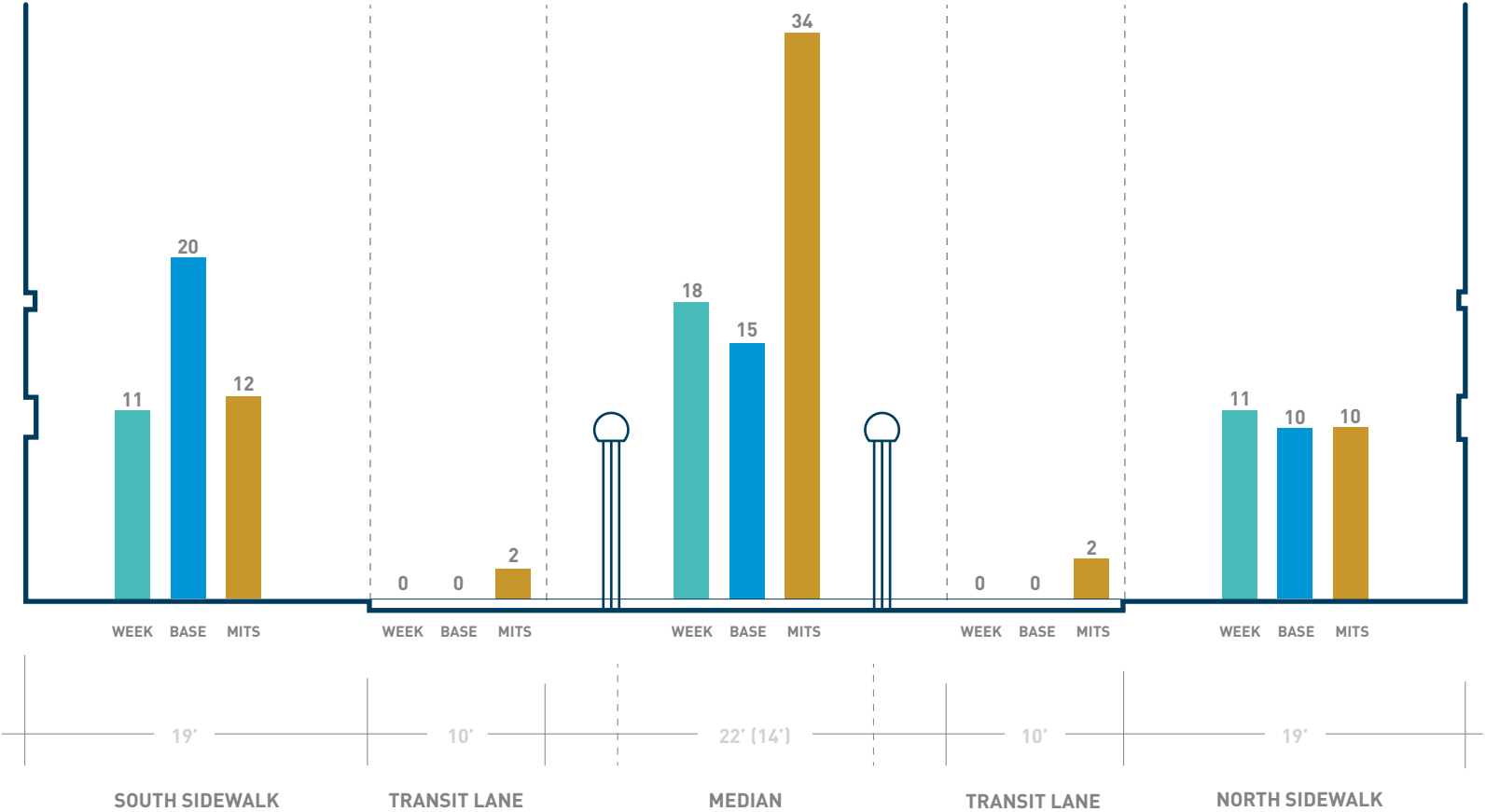
# Stationary Activity by Street Section - Actual Scale

more than **half the stationary activities** took place **in the median** during MITS weekends

the **transit lanes are never used** for stationary activities

AVERAGE NUMBER OF PEOPLE STAYING AT ANY POINT IN TIME (BETWEEN 10AM-8PM) - BLOCK 700-900

- Baseline Weekday
- Baseline Weekend
- MITS Weekend



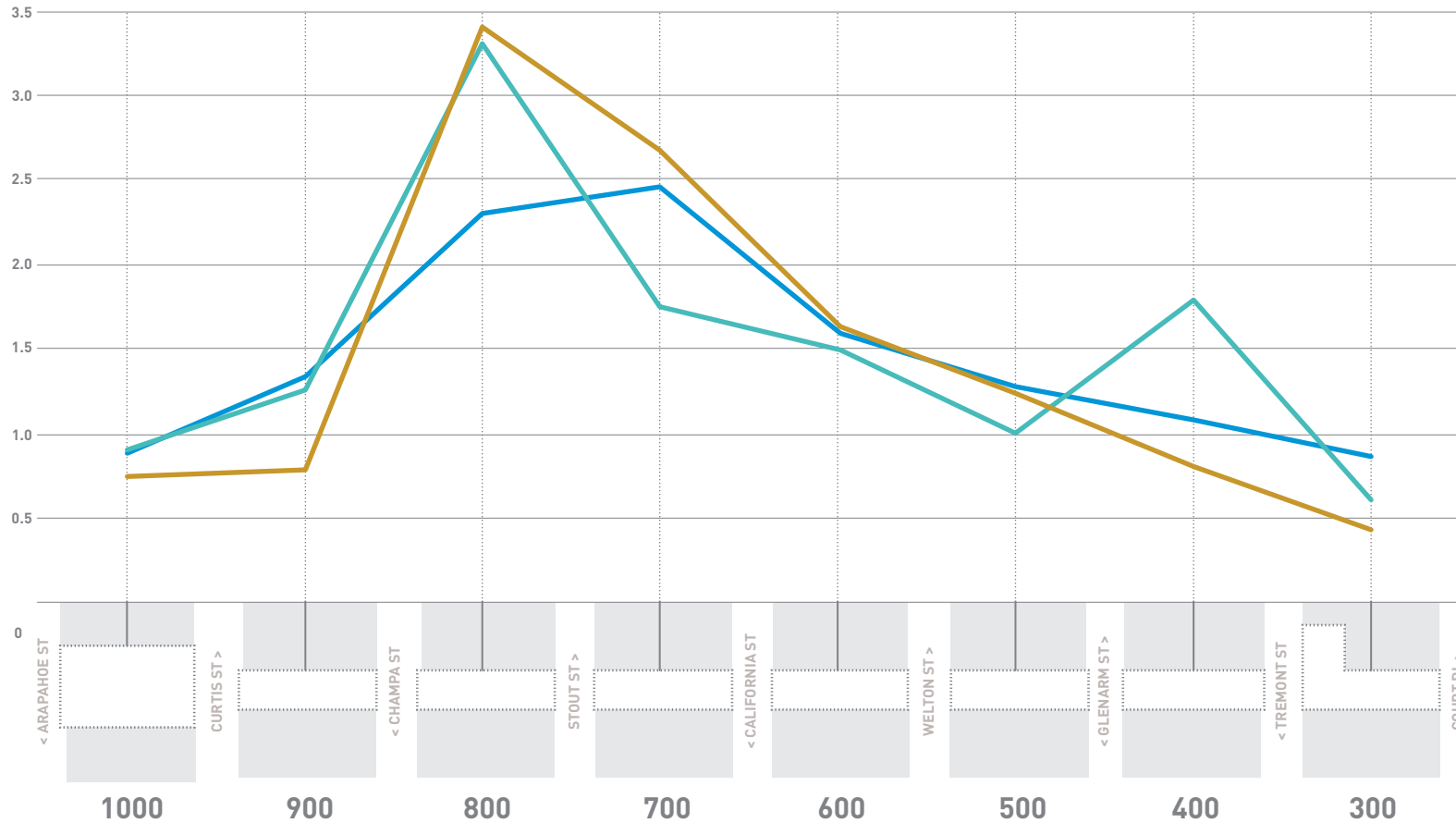
# Soliciting Activity by Location

block 700+800 has **over 60% more solicitors** than the average block, while block 300+400 has **under 30% less solicitors** than the average block

there are **fewer solicitors per people staying** during MITS Weekends

SOLICITING ACTIVITY BY TYPE OF DAY - AVERAGE AMOUNT OF PEOPLE SOLICITING PER BLOCK

- MITS Weekend
- Baseline Weekend
- Baseline Weekday



## summary

DIFFERENCE BY %

**-1%**  
solicitors on  
MITS Weekends  
compared to  
Baseline Weekends

BASELINE WEEKEND

**1/30**  
people staying  
are soliciting

MITS WEEKEND

**1/48**  
people staying  
are soliciting

COMMUNITY ENGAGEMENT  
FEEDBACK

Anonymous  
“I love  
the diversity”  
DDP engagement booth  
July 24 '16

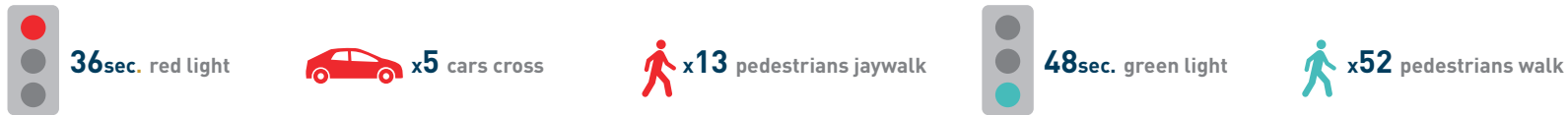
Anonymous  
“I wish there  
was a homeless  
day shelter”  
DDP engagement booth  
July 24 '16



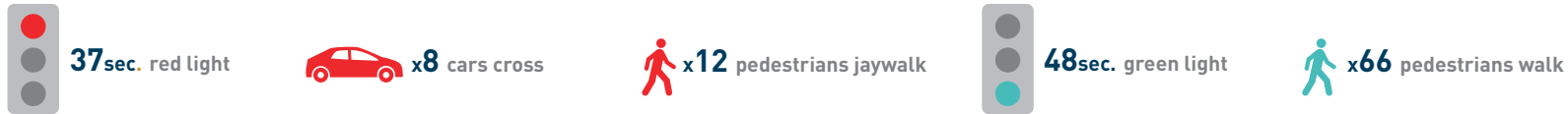
# Jaywalking at Intersections

both the surveyed cross streets have **more people jaywalking than cars crossing** per red light period

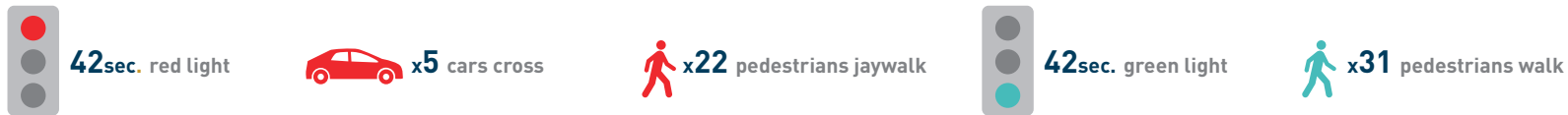
## GLENARM ST - AMOUNT OF PEOPLE JAYWALKING PER RED LIGHT - WEEKDAYS



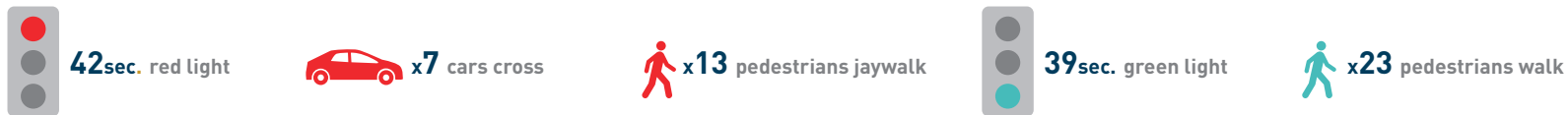
## GLENARM ST - AMOUNT OF PEOPLE JAYWALKING PER RED LIGHT - WEEKENDS



## CURTIS ST - AMOUNT OF PEOPLE JAYWALKING PER RED LIGHT - WEEKDAYS



## CURTIS ST - AMOUNT OF PEOPLE JAYWALKING PER RED LIGHT - WEEKENDS



## summary

### GLENARM ST WEEKDAYS

**1 in 5**  
pedestrians jaywalk

### GLENARM ST WEEKENDS

**1 in 7**  
pedestrians jaywalk

### CURTIS ST WEEKDAYS

**1 in 2**  
pedestrians jaywalk

### CURTIS ST WEEKENDS

**1 in 3**  
pedestrians jaywalk

Dates / Curtis St: July 7 - 3 counts at 4pm, 5pm and 6pm. August 11 - 3 counts at 11am, 12pm, 1pm. August 14 - 3 counts at 10am, 11am, 12pm.

Dates / Glenarm St: July 7 - 3 counts at 11am, 12pm and 1pm. July 14 - 3 counts at 11am, 12pm and 1pm. August 6 - 3 counts at 11am, 12pm, 1pm. August 11. 3 counts at 11am, 12pm and 1pm. August 14 - 3 counts at 10am, 11am, 12pm.

# Community Engagement

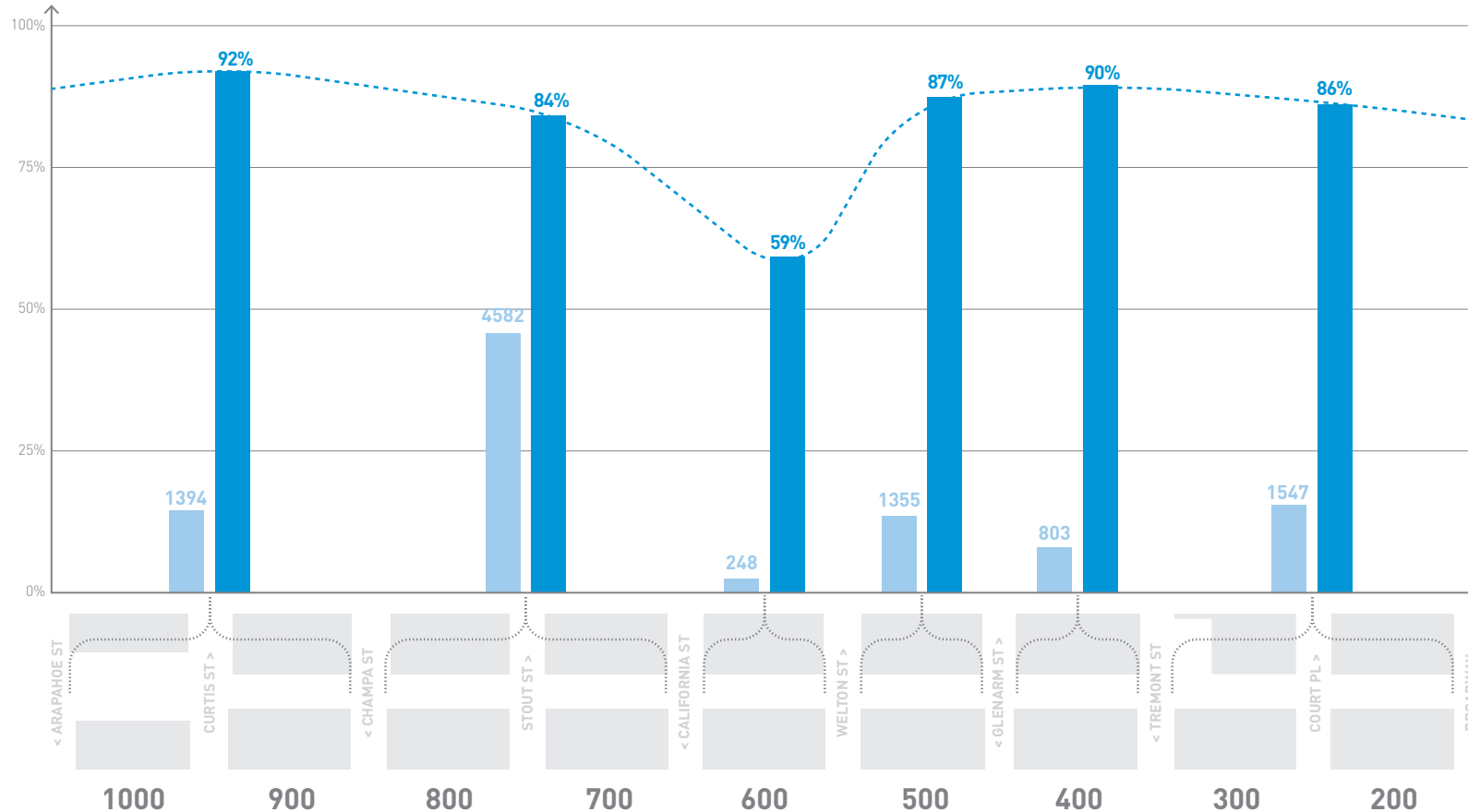
# Social Media Sentiment

the middle blocks (Welton St to Champa St) create a gap in people's positive sentiments

weekdays are less popular than weekends by almost 10 percentage points

SOCIAL MEDIA SENTIMENT - BETWEEN 16TH, 15TH AND 17TH STREET FROM BROADWAY TO ARAPAHOE - AVERAGE JUN 17 - AUG 17 - 2016

- Positive sentiment on social media (as defined by Geofeedia's online algorithms)
- Average social media users posting per day (twitter, facebook, instagram, youtube, flickr)



## summary

AVERAGE % POSITIVE SENTIMENT

MITS Weekends  
**89.88%**

Prototyping Festival (30/31 July)  
**90,30%**

Baseline Weekends  
**88.68%**

Baseline Weekdays  
**81.80%**

## SOCIAL MEDIA COMMENTS



Christy M Hensley  
**“so many fun installations around Denver right now!”**  
 #meetinthestreet  
 #16thstreetmall  
 #livingindenver  
 July 30 '16

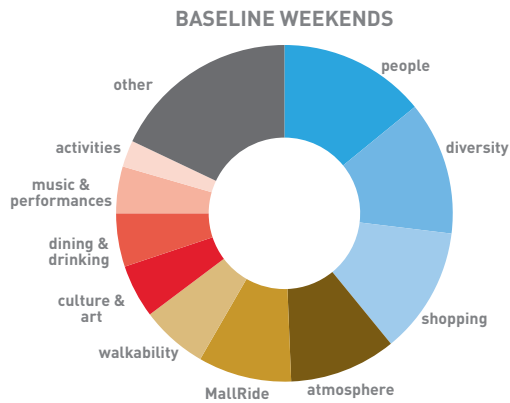
Caroline Bridges  
**“great times, awesome jams on the 16th St. Mall”**  
 #MeetintheStreet  
 #DaVitaWay @DaVita  
 July 17 '16

# Community Engagement by Themes - "I Love..."

regardless of the type of day, people on the Mall come to see and engage with other **people** and for the **diversity** the street offers

MITS Weekends created an **atmosphere** that people loved

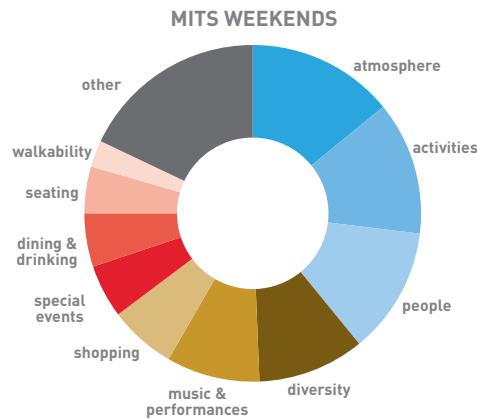
DISTRIBUTION OF MAIN THEMES - TOP TEN THEMES MENTIONED



I LOVE THE...

- 1. People - 14%
- 2. Diversity - 13%
- 3. Shopping - 12%
- 4. Atmosphere - 10%
- 5. FreeMallRide - 9%
- 6. Walkability - 6%
- 7. Culture & Art - 5%
- 8. Dining & Drinking - 5%
- 9. Music & Performances - 4%
- 10. Activities - 3%
- Other - (18%)

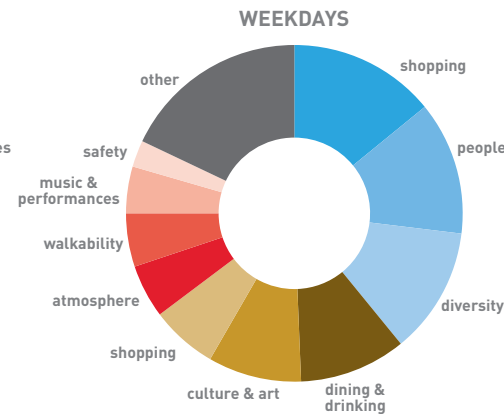
Total of 120 comments mentioning 156 topics - synthesized into 22 different themes



I LOVE THE...

- 1. Atmosphere 11%
- 2. Activities 10%
- 3. People 9%
- 4. Diversity 8%
- 5. Music & Performances 8%
- 6. Shopping 7%
- 7. Special Events 6%
- 8. Dining & Drinking 6%
- 9. Seating 5%
- 10. Walkability 5%
- Other (25%)

Total of 367 comments mentioning 574 topics - synthesized into 30 different themes



I LOVE THE...

- 1. Shopping 17%
- 2. People 16%
- 3. Diversity 13%
- 4. Dining & Drinking 10%
- 5. Culture & Art 7%
- 6. Atmosphere 7%
- 7. Walkability 6%
- 8. Music & Performances 4%
- 9. Safety 4%
- 10. FreeMallRide 3%
- Other (14%)

Total of 94 comments mentioning 136 topics - synthesized into 21 different themes

## summary

EXAMPLES OF COMMENTS AND SYNTHESIS PROCESS

“I love the variety of shopping without traffic”  
July 24 '16

>  
SYNTHESIS:  
Shopping + Walkability

“I love the atmosphere and watching everyone”  
June 18 '16

>  
SYNTHESIS:  
Atmosphere + People

“I love how frequent the busses come and go both ways”  
August 18 '16

>  
SYNTHESIS:  
FreeMallRide

# Community Engagement by Themes - “I Wish...”

when MITS was on, the majority of people commented that they wished for more of these types of inclusive and free **events and activities**  
 people wish for better and more **retail offers**

## TOP TEN THEMES MENTIONED ON BASELINE WEEKENDS

### I WISH ...

- 1 ... the **retail offers** were better (more, higher quality and more local) - 17%
  - 2 ... the **homeless** and the **panhandlers** were taken better care of - 15%
  - 3 ... there were more (free and diverse) **activities** - 9%
  - 4 ... the street felt **safer**, especially at nighttime - 8%
  - 5 ... the **dining offers** were better (different types and more local) - 5%
  - 6 ... there were more **local life**, activities for and by locals - 5%
  - 7 ... the **maintenance** was better (higher level of cleanliness and neatness) - 5%
  - 8 ... there was more **seating** where people could rest and hang out - 4%
  - 9 ... the **walkability** was better (wider sidewalks, less threatening traffic) - 4%
  - 10 ... the **amenities** were better (public toilets, drinking fountains, etc.) - 4%
- Other - (24%)

Total of 120 comments mentioning 114 topics, synthesized into 25 different themes

## TOP TEN THEMES MENTIONED ON WEEKDAYS

### I WISH ...

- 1 ... the **homeless** and the **panhandlers** were taken better care of - 21%
  - 2 ... the street felt **safer**, especially at nighttime - 12%
  - 3 ... the **maintenance** was better (higher level of cleanliness and neatness) - 10%
  - 4 ... the **retail offers** were better (more, higher quality and more local) - 8%
  - 5 ... the **dining offers** were better (different types and more local) - 4%
  - 6 ... the **atmosphere** was friendlier and more welcoming - 4%
  - 7 ... the **FreeMallRide** would ride more frequently and consistently - 4%
  - 8 ... there was more **live music and performances** for visitors to enjoy - 4%
  - 9 ... that **children and families** were more invited - 3%
  - 10 ... the street was a **no smoking zone** to reduce the bad smells - 3%
- Other - (28%)

Total of 94 comments mentioning 163 topics, synthesized into 33 different themes

## TOP TEN THEMES MENTIONED ON MITS WEEKENDS

### I WISH ...

- 1 ... we could have **more MITS** (all Summer and in a larger area) - 17%
  - 2 ... the **homeless** and the **panhandlers** were taken better care of - 11%
  - 3 ... that **children and families** were more invited - 5%
  - 4 ... the **retail offers** were better (more, higher quality and more local) - 5%
  - 5 ... there were more **water features** (drinking fountains and play areas) - 5%
  - 6 ... the **dining offers** were better (different types and more local) - 5%
  - 7 ... the **maintenance** was better (higher level of cleanliness and neatness) - 4%
  - 8 ... the street felt **safer**, especially at nighttime - 4%
  - 9 ... there was more **live music and performances** for visitors to enjoy - 4%
  - 10 ... the **walkability** was as good as for MITS all the time - 4%
- Other - (37%)

Total of 367 comments mentioning 422 topics, synthesized into 42 different themes

## TOP FIVE THEMES MENTIONED OVERALL

<b>HOMELESSNESS</b> The presence of the homeless, panhandlers and the travelling youth
<b>RETAIL OFFERS</b> The lack of quality and small amount of retail offers
<b>SAFETY</b> Perceived safety, police presence and unsafe feeling at nighttime
<b>MAINTENANCE</b> The lack of maintenance, unpleasant smells and aesthetic appearance
<b>ACTIVITY OFFERS</b> The daily need for more varied activities that are free and for all ages

## summary

EXAMPLES OF COMMENTS AND SYNTHESIS PROCESS

“I there were more small businesses”

June 25 '16



SYNTHESIS:

Retail Offers + Local Life

“I wish there were more resources for the homeless”

July 09 '16



SYNTHESIS:

Homelessness + Amenities

“I wish there were more places to relax with misters”

July 16 '16



SYNTHESIS:

Invitations + Water Features

# Discussion of Key Survey Findings

# Discussion of Key Survey Findings

*The Public Space/Public Life Surveys done in 2014, 2015 and 2016 have revealed important information that CPD/DDP can use to assess factors that impact visitor's experience on the Mall as well as in Downtown Denver in General. Key results from the 2016 CPD/DDP survey and their implications include the following:*

## **THE INVITATIONS TO STAY ON THE MALL DO NOT MEET THE NEEDS OF THE VISITORS.**

Despite an increase in pedestrian numbers from last year (1419 peds/hour on Sundays 2015 to 1795 peds/hour on Sundays 2016), the amount of people staying on the Mall has remained the same (an average of 49 ppl. on each block at any point in time, Sundays 10am-4pm). In support of this finding, public space studies revealed that only one in ten public furnishing items are public seating options, and some blocks did not even have seating offered (block 800 and block 300). During MITS, when the invitations for staying significantly increased across all blocks, the amount of people lingering also increased (68 ppl. staying on each block at any point in time, MITS Sundays 10am-4pm), indicating a great potential for creating more permanent staying opportunities.

## **THE MALL DOES NOT CATER FOR MORE VULNERABLE USERS LIKE CHILDREN, WOMEN AND ELDERLY.**

Although the share of children is up from 2015 to 2016 (from 6% on Baseline Sundays 2015 to 8% on Baseline Sundays 2016 – equal to 59 extra children peds/hour), the public engagement feedback revealed a dissatisfaction with the Mall's invitations for families. This dissatisfaction was actually mostly pronounced during MITS, perhaps due to heightened expectations of what the street should be. MITS also attracted more children than other weekends (70 extra children peds/hour), which may explain why people's attention to the lack of a child-friendly environment was heightened. Children tend to be accompanied by women or elderly, but on weekdays two out of three pedestrians are male (58.1%).

This data shows a real need for more permanent invitations for children, women and elderly, like children's activities, shopping/markets and resting areas with free seating and shade.

## **THE ACTIVITY OFFERS ON THE MALL LACK VARIETY TO ATTRACT PEDESTRIANS.**

The activity offers on the Mall are generally limited to bars/restaurants and discount retail shops or tourist shops. On weekends, more than a third of the share of activities surveyed were people sitting at cafes (37%), but MITS showed a strong potential for introducing other kinds of activities, like lounge seating for adults (seating on movable furniture went up by 194% for MITS) and children's activities (there were 5 times more children playing on the Mall during MITS). The overall increase in people staying during MITS was greater than the increase in people walking, meaning that more pedestrians than usual were encouraged to stay (on weekends 1 out of 46 pedestrians stay, but during MITS 1 out of 33 pedestrians stayed). The public engagement feedback resonates with these findings, as 17% of the comments received on weekends requested better retail offers and 9% requested more diverse activities in general. During MITS, people's most frequent ask (17%) was more MITS-like activities.

## **THE ACTIVITY OFFERS ON THE MALL ONLY ACTIVATE THE STREET AT CERTAIN TIMES OF THE DAY AND WEEK.**

Pedestrian data revealed a drop in volumes in the middle of the day on both weekdays and weekends, when people typically engage in optional, leisurely activities. Analysis of social media sentiments also showed that weekdays were much less popular than weekends by almost ten percentage points. The busiest hours during the week were during lunch time, while the busiest hours on weekends were at dinner time. This can be explained by the current activity offers that, to a large degree, are limited to restaurants and bars. The typical trends were countered by the data from MITS, where the largest spikes in pedestrian volumes happened between 2pm and 5pm, when the most-part of the

MITS special activities took place. At 4pm on MITS weekends, an average of twice as many people stayed on each block compared to other weekends. This implies that free and non-food/drink related activities, like lounge seating, children's play and performances, have a large impact on activating the street across all the day's hours.

## **THE THE MALL'S EDGES DO NOT CONSISTENTLY SUPPORT A VIBRANT AND HEALTHY STREET LIFE.**

Public space studies revealed a significant difference in the quality of the street edges across the eight studied blocks, with the middle blocks (600, 700, 800) displaying the lowest façade qualities. When cross-referencing this data with the public life studies, there appears to be a relation between panhandling/negative loitering (like homeless camps) and low-activity edges (more than 60% more soliciting activity was surveyed on block 700 and 800 than on any other block). The opposite also appears to be true; blocks with high-activity edges also have the largest volumes of positive staying activities (children playing, café seating, etc.) These findings suggest that where the facades are transparent, frequently varied, and open, the likelihood of a vibrant and diverse street life is also higher.

## **THE TRANSVERSE MALL STREETS ARE IMPORTANT CONNECTORS, BUT THEY LACK IN QUALITY.**

Only a fifth of the length of the surveyed cross streets have active/pleasant street edges, which impacts the pedestrian experience travelling to and from the Mall. The transverse streets' streetscapes also break up the Mall, despite the strong pedestrian movement along the Mall's axis. A survey of jaywalkers revealed that on some cross streets, one in two pedestrians walking along the Mall jaywalked to cross the transverse streets (surveyed at Curtis St, weekdays). Along both surveyed transverse streets, the vehicular traffic was very low with many more pedestrians using the intersections than cars (surveyed at Curtis St and Glenarm St, weekdays and weekends).

# Discussion of Key Survey Findings

## THE MALL IS TOO NARROW FOR PEDESTRIANS, PEOPLE STAYING, CYCLISTS AND THE SHUTTLE TRAFFIC.

During the pedestrian peak hours, on weekdays at lunchtime and on weekends at dinner time, the sidewalks are overcrowded, which impacts both the pedestrian safety and experience. The crowding is especially apparent on blocks that have outside café seating. During MITS, the shuttle lanes were used by more than a third of the pedestrians, while the pedestrian volumes on the sidewalks were consistent between typical weekends and MITS weekends. This finding indicates that the capacity of the sidewalks is reached, with or without a special event on. Cyclists are not allowed to ride on the Mall during weekdays, but there is still a cyclist on the Mall every couple of minutes on weekday evenings. Saturday evenings have almost one cyclist per 30 seconds riding on the Mall, which is significant enough that the cyclist should have dedicated facilities. However, during MITS when the Mall was packed with pedestrians, the cyclist counts were considerably lower than on typical weekends (by 21%). This suggests that the current street configuration can reach a level of saturation where there is a lack of space for both modes of traffic. With heavy shuttle traffic, the situation becomes even more critical.

## THE MEDIAN IS A DYSFUNCTIONAL SPACE FOR BOTH STAYING AND MOVING ACTIVITIES.

The median is generally used very little for movement, perhaps due to the vast amounts of objects (like bins, seating and vendor booths) that occupy the space, and because of the space's position between two shuttle routes that limits its accessibility. MITS had even fewer people walking in the median than normal weekends, but the space was also further cluttered for the event. On the other hand, more people were likely to cross the street from one sidewalk to the other during MITS when the shuttle lanes were open to pedestrians (12% increase in mid-block crossings). On weekdays and in weekends there is a fairly equal distribution of people staying in the median as well as on the sidewalks, but when the shuttle is running the width of the space (14 feet) is only

suitable for passive stationary activities like standing and sitting. MITS saw a much greater use of the median (from avg. 15 people to avg. 34 people staying in the median), but these numbers might be affected by the fact that most of the programming was located in this space.

## next steps

### 1.

**a)** The methods (measure-test-refine approach) to attract larger volumes of pedestrians and more diverse visitors to the Mall on a daily basis are working.

**b)** MITS has revealed that the appetite for public life hasn't been met, and that with more invitations we can also increase the amount of people who stay.

**> the next step is to create more permanent invitations for staying, so the daily pedestrians also stay longer and visit more often.**

### 2.

**a)** The Mall varies greatly on a block by block basis within many different parameters ranging from public space facilities, conditions and destinations to public life activities, users and types.

**b)** MITS has shown that we can leverage the potential of the differences between the blocks to create very different activities that attract different users.

**> the next step is to leverage the potential of different block conditions to create a series of equally great and different experiences that are also evident on a daily basis.**

### 3.

**a)** The public life on the Mall is challenged by the current layout of the public space and by the quality of the edges around it.

**b)** MITS has revealed that with alternative layouts and more active frontages, the use of the street also alters dramatically and for the better.

**> the next step is to alter the public space layout permanently or semi-permanently/on a flexible basis to better meet people's spatial needs.**





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