

## **Mobility & Parking Advisory Board**



Wednesday,  
November 1, 2023  
**11:00 a.m.**

2nd Floor Committee,  
Governmental Center  
400 Boardman Avenue  
Traverse City,  
Michigan 49684



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The City of Traverse City and Downtown Development Authority are committed to a dialog that is constructive, respectful and civil. We ask that all individuals interacting verbally or in writing with board members honor these values.

Downtown Development Authority:  
c/o Nicole VanNess, Transportation Mobility Director  
(231) 922-0241  
Web: [www.parking.downtowntc.com](http://www.parking.downtowntc.com)  
303 East State Street  
Traverse City, MI 49684

## Welcome to the Parking Advisory Board meeting

# Agenda

	Page
<b>1. CALL TO ORDER</b>	
<b>2. ROLL CALL</b>	
<b>3. CONSIDERATION OF MINUTES</b>	
A. Consideration of approving the minutes of the October 18, 2023 meeting (approval recommended)	5 - 13
<a href="#">Mobility &amp; Parking Advisory Board - 18 Oct 2023 - Minutes - Pdf</a>	
<b>4. OLD BUSINESS</b>	
<b>5. NEW BUSINESS</b>	
<b>6. TRANSPORTATION DEMAND MANAGEMENT</b>	
A. 3-year Plan Discussion	15 - 66
<a href="#">TDM 3-year Plan - Memo</a>	
<a href="#">3 Year Implementation Revised 07-2023 - PDF</a>	
<a href="#">TDM Plan Recommendations FINAL 12.12.22 - PDF</a>	
<a href="#">TDM Plan Appendices FINAL 12.12.22 - PDF</a>	
<b>7. TRAFFIC COMMITTEE UPDATE</b>	
<b>8. INTRODUCTION TO AGENDA</b>	
<b>9. RECEIVE AND FILE</b>	
<b>10. PUBLIC COMMENT</b>	
<b>11. ADJOURNMENT</b>	



# CITY COMMISSION

## GOALS & OBJECTIVES

### 2022-2023

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#### **HOUSING & HOMELESSNESS**

Increase opportunities for more diverse housing through public and private options.



#### **ACCESS & MOBILITY**

Invest in multi-modal mobility strategies and existing and future infrastructure so that individuals of all ages, abilities and income have a network of complete, barrier free, safe, year round access to our community's amenities and basic needs.



#### **CONNECTING PEOPLE WITH EACH OTHER AND NATURE**

Invest in facilities and amenities in order to create vibrant City spaces that connect all people to nature and to each other.



#### **ECONOMIC DEVELOPMENT**

The City will foster economic development by adopting a growth mentality and by conserving and maintaining natural resources. It will work with partners to invest in and maintain amenities that support a wide variety of industries, build the workforce, and attract well-paying jobs with the region's future in mind.



#### **WATER SYSTEMS**

Proactively and consistently maintain, conserve, and manage water and water systems to reduce harm to the systems themselves as well as public health and safety.



#### **CLIMATE CHANGE**

Address climate within all of our City priorities, goals, policies, and actions.





**Minutes of the  
Mobility & Parking Advisory Board for the Downtown Development Authority  
Regular Meeting  
Wednesday, October 18, 2023**

A regular meeting of the Traverse City Parking Subcommittee of the City of Traverse City was called to order at the 2nd Floor Committee Room, Governmental Center, 400 Boardman Avenue, Traverse City, Michigan, at 11 a.m.

The following Members were in attendance: Board Vice Chair Scott Hardy, Commissioner Doug Hickman, Board Member Pam Marsh, Board Member Katy Bertodatto, and William Clark

The following Members were absent: Committee Member Todd Knaus

Chairperson Hardy presided at the meeting.

(a) **CALL TO ORDER**

Hardy called the meeting to order at 11:00 AM.

(b) **ROLL CALL**

(c) **ELECTION OF OFFICERS**

(1) Nominations and appointments for the Chair and Vice-chair

Hardy identified that Bertodatto has expressed interest in being nominated for chair. Hardy nominated Marsh as vice-chair. No other nominations were made. That Bertodatto be appointed to serve as the Chair, and Marsh be appointed to serve as the Vice-chair.

Moved by Scott Hardy, Seconded by Doug Hickman

**Yes:** Scott Hardy, Doug Hickman, Pam Marsh, and William Clark

**Absent:** Todd Knaus and Katy Bertodatto

**CARRIED. 4-0-2 on a recorded vote**

(d) **REVIEW AND APPROVAL OF AGENDA**

Marsh assumed the role as vice-chair and led the meeting.

- (1) Recommendation to move Traffic Committee to the follow Consideration of Minutes.

Tim, resident of Cromwell, attended the meeting to speak on behalf the Cromwell item. Hardy recommended moving the Traffic Committee update to first on the agenda.

That the agenda be revised as presented.

Moved by Scott Hardy, Seconded by Doug Hickman

**Yes:** Scott Hardy, Doug Hickman, Pam Marsh, and William Clark

**Absent:** Todd Knaus and Katy Bertodatto

**CARRIED. 4-0-2 on a recorded vote**

(e) **CONSIDERATION OF MINUTES**

- (1) Consideration of approving the minutes of the September 6, 2023 meeting (approval recommended).

That the minutes of the September 6, 2023 meeting be approved.

Moved by Doug Hickman, Seconded by Scott Hardy

**Yes:** Scott Hardy, Doug Hickman, Pam Marsh, and William Clark

**Absent:** Todd Knaus

**CARRIED. 4-0-1 on a recorded vote**

(f) **TRAFFIC COMMITTEE UPDATE**

- (1) Residential Parking

VanNess notified the MPAB that surveys would be sent to Fifth Street residents to determine if time-restricted parking would be implemented and reminded the MPAB that residential permits does not include overnight access. The MPAB discussed/reviewed the Residential Parking Program.

VanNess notified the MPAB of spill over parking concerns on Cromwell drive with House of Dank and how similar concerns are experienced with Central and Boardman Neighborhoods. Resident Tim requested no parking or 30 minute parking on the block. MPAB suggested employees walked from MCHC parking lot near Parsons Rd. This item will go back to the Traffic Committee.

(g) **TRANSPORTATION DEMAND MANAGEMENT**

- (1) Circulator Update

Proposal was printed and provided to MPAB at the start of the meeting.

VanNess provided an overview of the memo provided from Kelly Dunham, BATA, and identified that her identification of a comprehensive community needs assessment aligns with the Transportation Demand Management summary that assessment is needed to determine long-term success. A recommendation will be sent to the Finance Committee that includes an expense to wrap busses that are on the Bayline to create visibility and the purchase of 2 trolleys to be gifted to BATA for use on the Bayline route.

MPAB discussed the need to address remote parking lots for park-n-ride downtown, branding the existing solution differently to attract riders, and marketing. The greatest concern being access to downtown during construction. A community comprehensive study would not occur prior to 2025.

Hickman left the meeting at 12:25 PM

[BATA - Circulator Proposal](#)

- (2) 3-year Plan Discussion

Meeting has run long and time is not available to begin this discussion. Item to be moved to the next meeting.

(h) **UPDATES**

- (1) PARCS Installation Update

Update provided in agenda packet.

- (2) Old Town Occupancy Update

Update provide in agenda packet.

- (3) Permit Discussion Update

Update provided in agenda packet.

(i) **RECEIVE AND FILE**

(j) **PUBLIC COMMENT**

(k) **ADJOURNMENT**

Marsh adjourned the meeting at 12:32 PM.

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Scott Hardy, Chairperson

Draft



**This is an example only of the possible BATA Downtown Circulator Proposal**

The Bay Area Transportation Authority (hereinafter referred to as "BATA"). 3233 Cass Road, Traverse City, Michigan, 49684 and Traverse City Downtown Development Authority (hereinafter referred to as "DDA"), 303 E. State St., Traverse City MI 49684, in consideration of mutual agreement for:

**I. Term**

The term of this agreement is for 12 months from the start of service and will be renewed annually.

**II. Service Provided**

BATA will provide transportation service (based on available staffing levels) that open to the public on a proposed circulator route (**see Exhibit 1, page 3**): Vehicles will circulate on a two (2) mile (20 minute) loop that is not part of the existing BATA route network. Ten-minute and five-minute headway operational costs are provided (**Exhibit 2, page 4**). Vehicle purchase and depreciation costs are not included in this agreement but estimated in **Exhibit 3, page 5**.

**III. Designated Representatives**

DDA agrees to designate a representative as its agent to work in cooperation with designated BATA representatives, overseeing the conduct of this service, modifications thereto and evaluation thereof. Nothing herein will be construed to limit the legal power of BATA.

**IV. Financial Management**

DDA agrees to pay BATA for all costs associated with providing transportation. Calculation of operational costs is included as **Exhibit #2** and vehicle costs are shown in **Exhibit #3 (page 5)**.

**Basic services annual cost (without vehicles): \$1,476,384**

**V. Equipment**

BATA will provide all the hardware necessary for the service to be rendered hereunder, will maintain said equipment, and will retain ownership of equipment purchased by BATA.

**VI. Personnel**

BATA will provide the personnel necessary to fulfill its obligation hereunder, and retains complete authority in hiring, regulation, and termination of said personnel.

**VII. Indemnification**

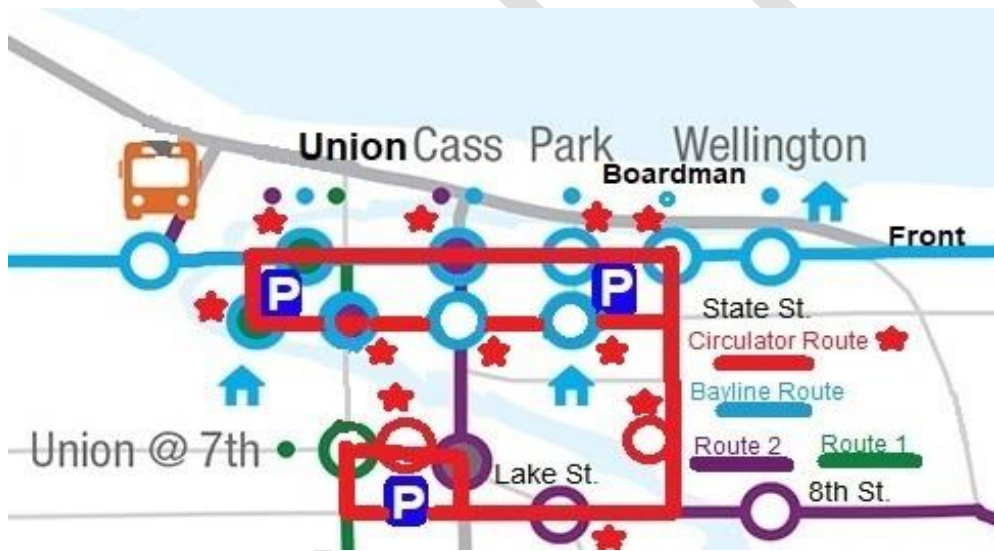
BATA will indemnify and hold DDA harmless from all claims, suits, actions and damages resulting from the operation of vehicles conducted by BATA under this agreement except to the extent that such damages are caused by DDA.



**Exhibit # 1: Downtown Circulator Proposed Route Map**

Vehicles will circulate on an approximately two (2) mile (20 minute) loop that is not part of the existing BATA route network:

- Government Center on Boardman (new BATA stop)
- 8<sup>th</sup> Street and Lake
- Old Town Parking Deck on Lake/7<sup>th</sup> (new BATA stop)
- 8<sup>th</sup> Street and Lake
- Government Center on Boardman
- North on Boardman (potentially relocate Front/Boardman stop west to access)
- West on Front (stop at Front/Park, Front/Cass, Front/Union)
- Pine Street south to State west (stop at State/Pine – Riverview Terrace)
- East on State (stop @ State/Union, State/Cass, State/Park)
- Boardman south to return to Government Center stop.



**Exhibit #2**

This table shows the operational costs for service for the term of the contract (a new route created outside of the existing BATA route network does not include purchase or depreciation of vehicles).

Bus frequency every 5 minutes  
 ~9am – 10pm Monday-Sunday  
 10-12 drivers required  
 8 vehicles required.

Bus	Start	End	Hours	Days, Monday-Sunday	Total Hours per week
A Bus	8:45 AM	9:45 PM	13	7	91
B Bus	8:50 AM	9:50 PM	13	7	91
C Bus	8:55 AM	9:55 PM	13	7	91
D Bus	9:00 AM	10:00 PM	13	7	91
<b>Cost per hour:</b>	\$78.00			<b>Total Hours Per Week:</b>	364
<b>Cost per year:</b>	\$1,476,384			<b>Total Hours Per Year:</b>	18,928

Bus frequency every 10 minutes  
 ~9am – 10pm Monday-Sunday  
 5-7 drivers required  
 5 vehicles required

Option 2:

Bus	Start	End	Hours	Days, Monday-Sunday	Total Hours per week
A Bus	8:30 AM	9:30 PM	13	7	91
B Bus	9:00 AM	10:00 PM	13	7	91
<b>Cost per hour:</b>	\$78.00			<b>Total Hours Per Week:</b>	182
<b>Cost per year:</b>	\$738,192			<b>Total Hours Per Year:</b>	9,464

**Exhibit #3**

The table below shows the costs for purchase of vehicles:

Number of Vehicles	Electric Van	Propane Bus	Trolley
1	\$114,000	\$187,000	\$190,000
2	\$228,000	\$374,000	\$380,000
3	\$342,000	\$561,000	\$570,000
4	\$456,000	\$748,000	\$760,000
5	\$570,000	\$935,000	\$950,000
6	\$684,000	\$1,122,000	\$1,140,000
7	\$798,000	\$1,309,000	\$1,330,000
8	\$912,000	\$1,496,000	\$1,520,000

DRAFT





## Memorandum

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To: Parking Advisory Board  
From: Nicole VanNess, Transportation Mobility Director  
Date: July 31, 2023  
Re: TDM: 3-Year Plan

The revised Transportation Demand Management Study was approved by the DDA Board at their December 2022 meeting. The recommendations in the 2017 report are still applicable and relevant, but the 2022 report expands on previously stated recommendations and includes more transit and mobility solutions. The revised report provides an updated implementation action plan for quick wins, short-term priorities and areas that need further study.

The role of the advisory board is to study and vet Transportation Demand Management objectives. We have accomplished this by establishing a 3-year work plan. The plan is prepared based on current conditions or needs in downtown or other areas of the city. Additionally, some of the solutions require working through the process and communication with other departments, boards and commissions before bringing a recommendation to the DDA Board for approval. With subsequent approval by the City Commission for objectives requiring Auto Parking Fund approval or ordinance amendments.

On February 6, 2020, the Advisory Board adopted the following guiding principles:

1. Use incentives, as well as, disincentives.
2. Respect local ordinances and plans.
3. Encourage public/private partnerships.
4. Serve as an advocate for safe multi-modal access.

The goal of the discussion will be to review solutions that can be implemented that would improve accessibility in order to publish a revised 3-year workplan. Areas of interested include:

- Create time limits for existing loading zones to allow for after-hours parking
- Flex loading zones in the morning with adjusted meter times into the evening
- Establishing and promoting validation programs with businesses
- Mobility investments

### **Transportation Demand Management Documentation**

2017 Final Report

[https://www.downtowntc.com/application/files/4215/1742/6782/Final\\_Report\\_FINAL.pdf](https://www.downtowntc.com/application/files/4215/1742/6782/Final_Report_FINAL.pdf)

2017 Report Appendices

[https://www.downtowntc.com/application/files/8815/1742/6646/TDM\\_Plan\\_Appendices\\_FINAL.pdf](https://www.downtowntc.com/application/files/8815/1742/6646/TDM_Plan_Appendices_FINAL.pdf)

2022 Revised – Final Report

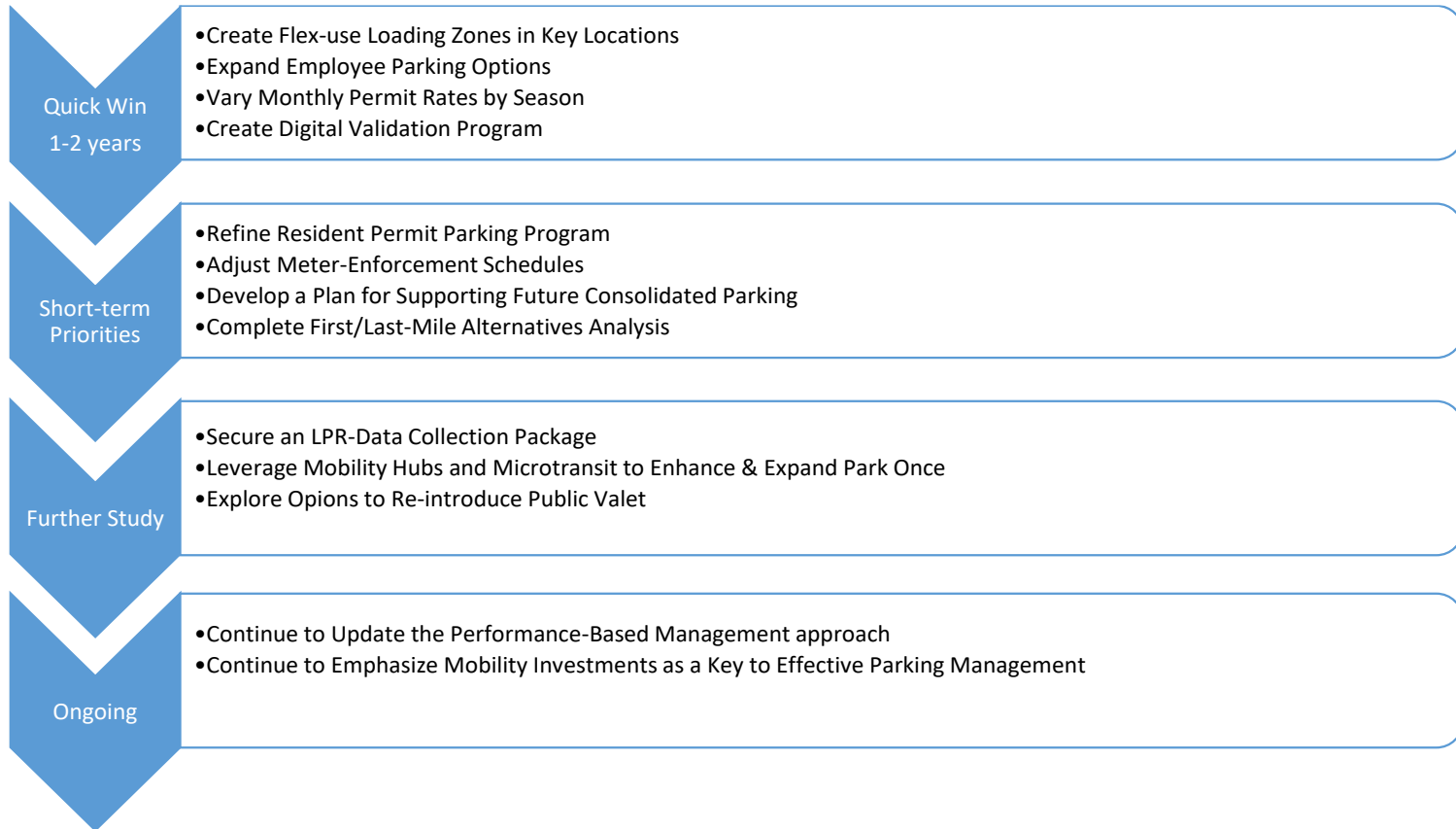
[https://parking.downtowntc.com/wp-content/uploads/sites/3/2023/01/TDM-Plan-Recommendations\\_FINAL-12.12.22.pdf](https://parking.downtowntc.com/wp-content/uploads/sites/3/2023/01/TDM-Plan-Recommendations_FINAL-12.12.22.pdf)

2022 Revised – Report Appendices

[https://parking.downtowntc.com/wp-content/uploads/sites/3/2023/01/TDM-Plan\\_Appendices-FINAL-12.12.22.pdf](https://parking.downtowntc.com/wp-content/uploads/sites/3/2023/01/TDM-Plan_Appendices-FINAL-12.12.22.pdf)



Transportation Demand Management 3 Year Implementation Plan  
Revised July 2023



## TDM Implementation

The overall goal of Transportation Demand Management (TDM) is to use multi-modal strategies to increase the efficiency and effectiveness of our available resources. Effective management tools can be used to shift demand from high demand areas to low demand areas in order to create availability and turnover. Mobility initiatives provide alternatives to parking by allowing other modes of transportation and better accessibility to destinations.

### **Guiding Principles adopted by the Advisory Board:**

1. Use incentives, as well as, disincentives.
2. Respect local ordinances and plans.
3. Encourage public/private partnerships.
4. Serve as an advocate for safe multi-modal access.

### **Goal: Promote better land use and increase development in the DDA District by reducing our need to build parking.**

- Improve space utilization with effective management for the 18-hour day rather than the traditional 8 AM- 5 PM workday.
- Redistribute demand using utilization reports and performance-based management with regular monitoring and adjusting.
- Expand multi-modal amenities: bike shelters, commuter benefit options, and bike/scooter share opportunities.
- Encourage park-once zoning by promoting shared parking.

### **Quick Win (1-2 Year) Objectives:**

#### ***Create Flex-Use Loading Zones in Key Locations***

There are many parking spaces marked as loading zones scattered throughout downtown. Some of the loading zones were added for specific business activities but have never been reviewed. We are inventorying the spaces and the restricted time limits. The enforcing loading zone time will be adjusted to relate to more appropriate loading zones times which will free up underutilized spaces.

#### ***Expand Employee Parking Options***

We started on this objective in October 2022 by reducing the cost of parking at the Old Town parking structure. Continuing to build on this option would eliminate purchasing permits annually and transition to monthly only permits which allows for more flexibility of seasonal rates.

#### ***Vary Monthly Permit Rates by Season***

Continue to build off of seasonal parking needs and leverage warmer, dryer and accessibility to discourage parking in the core area. We will modify rates to further redistribute demand from constrained areas during spring/summer/fall months. This approach will be the basis for increasing and decreasing rates on a regular basis each month. Our biggest challenge will be effectively communicating the changes.

#### ***Create Digital Validation Program***

Printed validations are available for businesses to validate at both parking structures. Determine if digital validations could be implemented for metered parking to expand validation options.

### **Short-terms (2-5 Year) Objectives:**

#### ***Refine Resident Permit Parking Program***

Expand to phase 2 of the residential parking permit program that may include offering reduced price permits to employees who are willing to walk from remote parking areas.

#### ***Adjust Meter-Enforcement Schedules***

Determine if the posted meter times should be increased, and if seasonality should be considered. Certain locations may have little to no demand and benefit from extending the meter start time later into the morning, while other locations may benefit by having the meter end time extended later into the evening to encourage turnover of constrained blocks for those accessing downtown after the typical workday.

#### ***Develop a Plan for Supporting Future Consolidated Parking***

Redevelop existing surface lots, either as mixed-use buildings with public parking or as parking-structures with street-level commercial uses, in line with the redevelopment vision for the downtown core. Facilitate joint-development partnerships to bring targeted land-uses to the downtown. Discourage on-site, private parking at new downtown development projects, by offering reliable access to shared, TCPS-managed parking structures.

#### ***Complete a First/Last-Mile Alternatives Analysis***

Destination Downtown is a commuter benefit for employees within the DDA District. This program allows employees to access downtown by utilizing the existing City Loop and Village Loop bus routes offered by the Bay Area Transportation Authority. By providing this service, we are using funds that would be used to build parking to reduce demand, offer a parking alternative, and increase employee satisfaction.

### **Recommendations for Further Study:**

#### ***Secure an LPR-Data Collection Package***

Collect and report on occupancy. Collect data for a year and use data to define a performance-based management approach to further redistribute demand.

#### ***Leverage Mobility Hubs and Micro-transit to Enhance & Expand Park Once***

#### ***Explore Options to Re-introduce Public Valet***

Explore piloting a public valet system that will allow visitors to access downtown without having to search for parking. The valet kiosks will be strategically located near highly constrained blocks. This will give parkers the option to have their car parked allowing for a more walkable experience.

### **Continued Efforts:**

#### ***Continue to Update the Performance-Based Management Approach***

Continue to expand on strategies that shift demand from high demand areas. This will free up the most desired spaces that are convenience and accessible.

#### ***Continue to Emphasize Mobility Investments as a Key to Effective Parking Management***

Investing in additional covered shelters or warming areas may appeal to those who would consider other transportation options.





## INTRODUCTION

This document presents a revised TDM Plan consisting of updated TDM recommendations for improved parking management and multimodal access in downtown Traverse City. The memo organizes these recommendations by proposed implementation timeline, as follows:

**Quick Win Opportunities** – Recommendations that can be implemented with minimal cost, logistical, or policy/political barriers, and thus should be considered for implementation within the next two years.

**Short Term Priorities** – Recommendations that are likely to require some time to align funding, logistics, or policy/political support sufficient for effective implementation, and thus should be considered for implementation within the next five years.

**Recommendations for Further Study** – Recommendations that will take more time to develop, including, for most, some additional study and analysis, to determine the right implementation approach and timeline.

For each recommendation, a description is provided along with a high-level **Implementation Action Plan**, outlining the basic sequence of recommended implementation steps. Many recommendations are also accompanied by **Examples in Action** – descriptions of how the strategy has been implemented in other

cities. For those with direct links to recommendations in the 2017 TDM Study, a **2017 Recommendation Spotlight** on the related recommendation/s is also provided to underscore consistency with the findings and outcomes of the original TDM study.



## QUICK WIN OPPORTUNITIES (1 – 2 YEARS)

### Create Flex-Use Loading Zones in Key Locations

Key blocks of Cass and Union Streets have been identified for conversion to flex zones, with loading zone schedules more closely aligned with patterns of loading activity, and remaining hours used to provide more short-term parking.



Flex Zone in Athens, OH – After 2pm, Loading and Parking Share the Zone.

### Examples in Action

#### Seattle

Most loading zones are reserved for commercial activity between 7 AM and 6 PM, with some exceptions, after which the space is available for personal vehicle parking. This can apply to both passenger and commercial vehicle loading zones. This regulation allows priority access for loading and unloading during peak business hours and creates more space for on-street parking in the evenings when demand is likely to be higher.

Passenger vehicles parked in after-hours load zones are subject to the time limits and/or paid parking rates posted in the vicinity. Parking is permitted in signed loading zones all day on Sundays and holidays.

#### Los Angeles

Yellow painted curbs are reserved for both passenger and commercial vehicles during the day, from 7 AM – 6 PM Monday through Saturday in most cases. After hours, the space is available for personal vehicle parking, subject to posted duration-of-stay and fee regulations. Yellow curbs are available for personal vehicle parking all day on Sundays.

#### Spokane, Washington

Spokane reserves space at the curb between the hours of 8 AM and 6 PM, for commercial vehicle loading activity. Loading is limited to 30 minutes. Outside of posted hours, personal vehicle parking is permitted.

## 2017 Recommendation Spotlight

### Create short-term parking in off-hour loading zones.

On prime commercial streets, set loading-zone regulations to hours that balance the morning/afternoon peak in loading activity, with evening/weekend peaks in short-term parking demand.

- Adjust the schedule of loading-zone restrictions, as negotiated with nearby commercial uses who rely upon these spaces for delivery of goods and services, to expand curbside-parking capacities during evening and weekend periods, when demand for such high-convenience parking is at its peak, and when loading zones attract little to no activity

### Create early morning loading zones to encourage more activity at these times.

Generous early-morning loading zones on secondary streets, or on alternate sides on prime streets, can encourage more truck deliveries during these times of modest short-term parking demand.

- Set aside entire blocks for commercial loading/unloading between 6AM and 10AM, when short-term parking demand is modest.
- Pilot this on side streets, perhaps alternating sides of the street to moderate the impact on parking supplies, and expand to primary streets if results are positive.

- Concentrate enforcement efforts during the pilot to further incentivize use of these loading zones, and reduce the current rate of loading from within travel lanes.

## Implementation Action Plan

**Step 1** – Identify locations where this change should first be applied, and confirm that the change is appropriate by observing level and frequency of commercial loading activity during evenings and weekend afternoons – note that this activity would continue to be allowed alongside personal vehicle parking, so some activity should not preclude making the change.

**Step 2** – Change the regulations in these zones to allow personal vehicle parking after 6 PM.

**Step 3** – Observe activity when these spaces are reserved for loading, and when parking is allowed, and adjust the extent of these Flex Zones, as may be necessary, to balance activity with demand.

- If significant loading activity continues into the times when personal vehicle parking is allowed, consider reducing the length of the Flex Zone to provide more dedicated loading space at these times, or returning the full space to previous regulations.

## Expand Employee Parking Options



Make use of underutilized locations to offer low-cost options.

Using the Performance-Based Pricing approach defined in the 2017 recommendations, create new parking options for employees to find their right-fit balance between cost and convenience, leveraging reduced demand at the Old Town deck to create new permit types at a lower cost.

### 2017 Recommendation Spotlight

#### Performance-Based Pricing

Link parking rates to demand, measured as utilization/availability conditions during peak-demand periods, to underscore the standing policy that pricing is the most effective, and intuitive management tool for maintaining demand/supply equilibrium

across the downtown and across times of varying levels of demand.

- Review rates annually to determine if adjustments are warranted, raising or lowering rates to address any meaningful gaps between targeted and actual availability measures.
- Provide transparency by providing data, analysis, and findings used to make management/pricing adjustments

#### Implementation Action Plan

**Step 1** – Create an All Deck permit, priced at the current rate for both decks, and an Old Town Deck permit that is offered at a reduced rate.

- This should be promoted to help address the impact of the redevelopment of Lot P
- The Old Town Deck permit should be monthly only
- Offer current annual permit holders the option to apply the remaining value of their permit toward monthly Old Town permits

**Step 2** – When demand between the two decks achieves greater parity, create a Hardy Deck permit, priced relative to the balance of demand between the two garages.

- Both deck-specific permits should be monthly only

**Step 3** – Phase out annual permit purchases to provide greater flexibility to align rates with variable demand across the year.



## Vary Monthly Permit Rates by Season



As monthly permit purchase become the norm, and annual purchases are phased out, this recommendation from 2017 should become a central strategy for reducing cost barriers to downtown

employment, and employee recruitment and retention – leveraging the fact parking costs can be lowest during months when driving alternatives are the least appealing/viable, and that parking costs are highest for just a few months when high-visitor demand must be prioritized and when seasonal conditions make options like transit, biking, and walking from peripheral lots more acceptable to more commuters.

### 2017 Recommendation Spotlight

#### Vary parking rates by season.

To maintain more-consistent availability during high-demand seasons, without overpricing parking during lower-demand, off-season months, establish a calendar of rate adjustments that closely track seasonal demand patterns. Collecting occupancy/availability data will be essential to make any necessary adjustments to these rates and the schedule of adjustments over time.

#### Implementation Action Plan

**Step 1** – While commuter demand remains below pre-COVID norms, reduce parking rates for off-season months.

**Step 2** – Monitor utilization to ensure that availability remains within the targeted range, in all seasons.

**Step 3** – Adjust pricing as necessary, as commuter demand continues to recover.

## Create Digital Validation Program

Leverage investments in new meter and pay-by-phone technology to offer a modern, digital validation program that would allow downtown businesses to reimburse or pay for the parking costs of their customers.

### Examples in Action

#### Atlanta, GA

Ponce City Market, located in downtown Atlanta, is a multipurpose redevelopment with restaurants, retail, offices, residences, and a dedicated parking garage. Regular parking costs \$1 for 1-30 minutes, \$1 for each additional 30 minutes after the first 30 minutes, \$10 for 4-8 hours and \$15 for 8-24 hours. Utilizing ParkMobile parking systems, Ponce City Market management provides special codes that restaurants, merchants, offices, and residence managers can purchase to allow their special guests and patrons to park at a discounted rate.<sup>1</sup>

#### Oakland, CA

Montclair Village is a neighborhood shopping area in Oakland, California with retail shops, service providers, restaurants, and financial services. Parking for Montclair Village predominantly occurs in a city-owned garage, and the rate is \$2 per hour Monday through Saturday. Through the ParkMobile App, customers are able to validate their parking with a code provided by Montclair

Village vendors. The code provides \$2 off, the equivalent of 1 hour of free parking.

### Implementation Action Plan

**Step 1** – Coordinate with representatives from the current downtown meters and pay-by-phone service providers to define options for creating a seamless validation program that would work at meters or via mobile pay.

**Step 2** – Work with downtown business owners to discuss options and define preferred options for creating and marketing a program.

**Step 3** – Work with payment-service vendor to establish processes and procedures for activity tracking and repayment collections.

**Step 4** – Track revenue collected and coordinate with participating downtown businesses to assess the value-add benefits provided by this option.

**Step 5** – Make adjustments to address underperformance and expand upon successes – including by marketing benefits, focusing on businesses similar to early adopters who have found the program beneficial.

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<sup>1</sup> Discussion with ParkMobile on March 2, 2016.

## Continue to Update the Performance-Based Management approach.

TCPS uses pricing as a primary means of distributing parking demand more broadly and efficiently across the full downtown parking system, using lower rates to increase parking activity outside the high-demand core. Following is a series of recommendations to formalize this approach, to create more transparency, clarity, and understanding regarding how, why, and when parking rates, regulations, and restrictions are established and adjusted.

### Step 1 - Formally define Availability as the primary performance measure for parking management in downtown.

- For visitor parking, define Availability as the number of empty parking spaces available, at any given time, along individual block faces and within individual off-street parking facilities.
- For commuter/resident parking, define Availability as the number of long-term parking permits (daily or monthly) available for off-street parking facilities.

### Step 2 - Monitor Performance.

Track occupancy/availability conditions across the TCPS parking system, using data-tracking technologies, as may be available, as well as field surveys.

- This should include all off-street facilities, all metered on-street blocks, and residential blocks known to attract significant parking demand (which is likely to change, seasonally).
- Take measures monthly, or more frequently as may be viable.
- Track findings against defined performance targets

### Step 3 - Define performance targets.

Targeted availability conditions:

- On-street parking: 15% of spaces are available, or about 1-2 spaces on each block-face
- Off-street, hourly parking: 10% of spaces are available
- Off-street, long-term parking: 5% of spaces are available, with no wait list for monthly permits.

### Step 4 - Define thresholds for management change.

#### Thresholds for rate increases

- On-street parking: Availability averages less than 10%, over three months of measures during peak-demand periods
- Off-street, hourly parking: Availability averages less than 5%, over three months of measures during peak-demand periods
- Off-street, long-term parking: Wait lists are established, with applicant wait-times lasting more than three months.

#### Threshold for rate decreases

- For all types of parking: Peak-period availability averages less than 50%

## Continue to Emphasize Mobility Investments as a Key to Effective Parking Management

This is the key to providing effective “carrots” in reducing/managing parking demand – those strategies that make driving alternatives better, as opposed to the “sticks” of discouraging driving/parking.



**Step 1** – Build on the success of the Destination Downtown program

**Step 2** – Continue to partner with BATA to provide more/better bus shelters

**Step 3** – Look for new opportunities coming out of the Mobility Action Plan, particularly mobility improvements that realize and expand Park Once opportunities (mobility hubs, shared bikes/scooters, wayfinding, etc.) and those that improve peak-season driving alternatives more viable/attractive for more downtown employees (bike buddy programs, promotional rides/challenges, pedal-and-ride, etc.).



## SHORT-TERM PRIORITIES (2-5 YEARS)

### Refine Resident Permit Parking Program



Incorporate a parking-benefit element to the current program, to provide a process for offering daytime permits, and/or incorporate metering, to meet employee/business parking needs in several growth areas and emerging mixed-use districts along the downtown periphery.

### Examples in Action

#### Columbus, OH

Columbus' Short North benefit district was created to generate revenue for reinvestment in the neighborhood, reduce parking demand, and increase mobility options. Parking regulations are actively enforced 7:30AM – 3 AM Monday through Saturday. 100% of revenue from the program, less administration costs, are used for parking and mobility improvements within the parking area boundaries, including but not limited to:

- Management of existing parking infrastructure
- Improved mobility information like signage and marketing
- Parking related technology improvements, like pay-by-phone, pay-by-plate, and license plate reader (LPR) for enforcement.
- Promotion of alternative travel modes like walking, biking, and riding transit

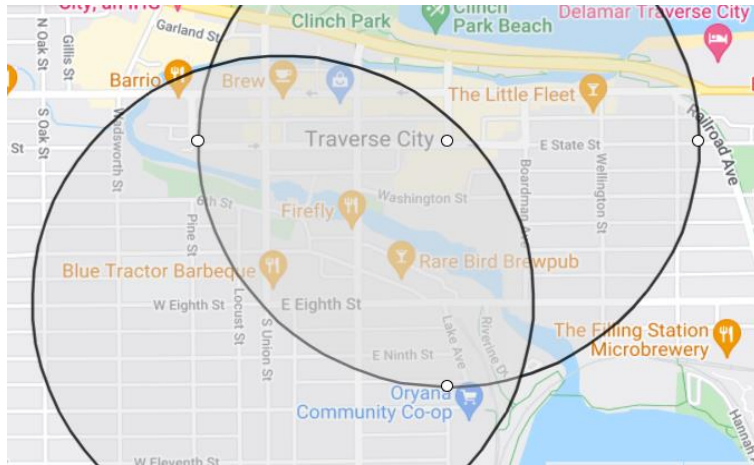
Permits are available to both employers and employees and residents. Employers are eligible for up to 10 employee permits, 4 of which are valid 24/7 and 6 of which are valid 6 AM – 8 PM. The first 4 permits are \$100 each, after which the cost of each additional permit increases by \$100. Residents are eligible for up to 1 permit per driver, up to 2 permits per address. There is a \$25 annual permit fee, and residents may also purchase a \$25 guest parking pass. Low-income individuals qualify for a reduced fee of \$10 per permit. Short term rentals qualify for the program under the residential provisions.

## Arlington, VA RPP Program

The RPP is a program established to make it easier for residents to park on public streets near their homes. RPP is an opt-in program, and each block of neighbors can choose whether to have permit parking or not. Residences with off-street parking are eligible for up to 2 permits; residences without off-street parking are eligible for up to 4 permits.

- Residents may purchase one of two passes:
    - Vehicle-specific permits: stickers placed on the driver's-side bumper of the vehicle. The vehicles must be registered with the Arlington County Commissioner of Revenue at the zoned address.
    - FlexPass (\$40): a dashboard placard that can be used in either a resident or guest's vehicle.
  - The FlexPass is specific to the household and displays the zone number and household address.
  - Other passes include:
    - Short-Term Visitor Pass (1st book, \$5; 2nd-5th book, \$10): a paper pass to be displayed on the dashboard valid for up to three consecutive days. Short-term visitor passes are sold in books of 20 and each household may obtain up to five books per year.
    - Landlord Pass (\$40): People who own real estate on street with RPP restrictions, but don't live there may apply for one Landlord Pass each year. The pass should be displayed dashboard and the owner to park at the zoned address for the purpose of conducting business concerning the property.
- Contractor Passes: a zone-specific temporary dashboard placard valid for three months
  - School Staff Permit (\$40): One annual permit may be issued to employees of elementary, middle, or high schools when 50% or more of the streets Permits will be issued on a first-come-first-served basis. When applying for the permit, employees must provide a signed employer confirmation form as proof of eligibility.
  - Group Home Staff Permit (\$40): One annual permit may be issued to employees of group homes within an RPP zone. When applying for the permit, employees must provide a signed employer confirmation form as proof of eligibility.
  - Good In All Zones (\$40): A permit issued to eligible health care workers and social workers who conduct multiple site visits to multiple homes in the County. The permits enable the workers to park on permit parking restricted blocks while serving residents on those blocks. When applying for the permit, employees must provide a signed employer confirmation form as proof of eligibility.

## Implementation Action Plan



**Step 1** – Identify current and likely districts where RPP implementation is likely to become desirable, as follows:

- Define Zones for these new areas, based on anticipated expansion of commercial activity beyond the downtown periphery.
- When restrictions are applied within these zones, households should become eligible for permit parking, if they have vehicles registered to an address on an affected block

**Step 2** – Identify preferred policies and practices for offering access to non-residents at key times when there is significant non-residential demand, and moderate residential demand, for resident-street curb parking.

- This should focus on strategies that support a Parking Benefit approach that uses paid parking to manage non-resident demand while also generating revenue that can be dedicated to local investment in the neighborhood.
- This can include any combination of:
  - Business permits, offered to nearby businesses to accommodate employee or commercial-vehicle parking needs.
  - Hourly parking rates, using meters and/or pay-by-phone technology to facilitate public parking while exempting vehicles with resident permits from having to pay.

**Step 3** – Define benchmarks for determining whether a Parking Benefit component is warranted, this being determined at the discretion of the City, based on proximity to:

- Commercial uses with employee parking needs at times suitable for accommodating on RPP blocks.
- Parks and open space with significant visitor parking demand at times suitable for accommodating on RPP blocks.
- Other similar circumstances where a specific form of parking demand that advances community needs or development goals could be accommodated on RPP blocks without undue impact to resident parking needs.

**Step 4** – Create a dedicated budget line for revenues collected in each RPP district, to accrue all revenues above program costs, and to be spent on local benefits, to be determined in consultation with neighborhood representatives.

## Adjust Meter-Enforcement Schedules



On-street utilization patterns support the shifting of parking-meter enforcement schedules, as follows:

- Starting enforcement later in the mornings, as availability remains ample until at least 10am on most downtown blocks, even during the summer season.
- Requiring meter payments later into the evenings, as demand currently constrains availability along most core-downtown blocks after 6pm, when parking currently becomes free and time limits no longer enforced.

Such a shift will provide hundreds of spaces of free parking during early morning hours, incentivizing visits to coffee shops, bakeries, cleaners, and other businesses that typically have an early-morning, pre-work rush of customer visits. These spaces will also

become more convenient for business owners to use for early-morning loading/unloading activity at the start of the day.

By contrast, downtown-core spaces that transition to free parking early in the evening tend to become popular options for evening-shift employees – occupying downtown’s best parking spaces for several hours, when offering convenient visitor parking is most critical for supporting evening-oriented downtown businesses.

### Implementation Action Plan

- **Step 1** – Shift meter-enforcement schedules to start no earlier than 10am across downtown.
- **Step 2** – Within the downtown-core (where meters currently charge a premium rate reflective of higher demand) enforcement meter payments until 10pm during the summer season, and until 8pm during “shoulder” seasons.
- **Step 3** – Communicate these changes to incentivize drivers to both seek out the free parking options – particularly those created by this adjustment – and to look for increased availability during new hours of meter enforcement.
- **Step 4** – Monitor utilization periodically to document shifts in behavior – and adjust hours and locations of the new schedules to seek targeted levels of availability.

Another key step to consider is **capturing any increased revenue resulting from these adjustments** – which should be expected, since it would be shifting meter hours to overlap with high-demand times more closely – to fund targeted walkability improvements, such as additional/expanded snow clearance activity to keep downtown walkable in all seasons.



## Develop a Plan for Supporting Future of Consolidated Parking

It is generally anticipated that downtown’s growth potential will be best achieved through the gradual redevelopment of most to all downtown surface parking lots. The future envisioned would create better and more consistent walkability across an expanding “downtown” district. It will also mean that downtown parking will gradually become consolidated into three parking structures – the two current structures, plus the planned West Front Street parking structure.



## Implementation Action Plan

**Step 1** – Quantify the capacity of existing, public surface parking lots likely to be redeveloped, including timeline benchmarks for when redevelopment is likely to occur.

**Step 2** – Update projected net capacity increase of proposed West Front Street structure.

**Step 3** – Quantify gaps between the net capacity increase of the 3<sup>rd</sup> structure and the capacity lost, including the timeline benchmarks of Step 1 and Step 2.

**Step 4** – Outline capacity expansion strategies to develop in anticipation of these gaps, including phase implementation to align with timeline benchmarks.

## Complete a First/Last-Mile Alternatives Analysis

Study the viability and cost/benefit potential of a downtown circulator that connects all three public parking decks as part of an Alternatives Analysis of other means of providing first/last-mile connections between these parking locations and key downtown destinations, including:

- Expanding BATA service
- Specialized/Branded BATA service
- Micro-mobility – shared, public bikes and e-scooters

### Examples in Action

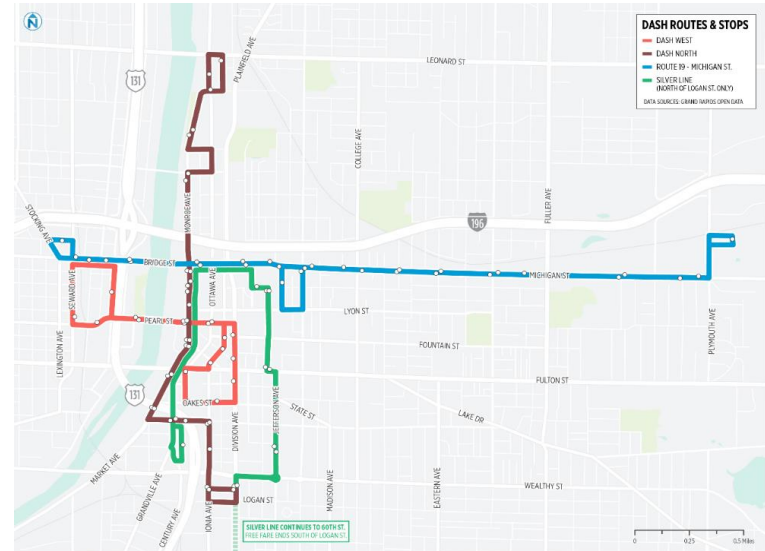
#### Hilton Head Breeze

The Breeze is a tourist focused trolley operated by Low County Transit Authority. The Breeze is branded as a distinct, circulator service covering just the six-square miles of Hilton Head Island. The fare-free service runs on 30-minute frequencies, serving fixed-route stops that focus on hotels, resorts, major shopping centers, beaches, and other key tourist destinations. The service is funded by the Tourism Bureau, with member hotels and resorts paying ridership-based dues.

#### Grand Rapids DASH

The City of Grand Rapids, through the Mobile GR Department, operates the Downtown Area Shuttle (DASH), a system of free buses that connects key Downtown locations and provides access to multiple off-street parking locations. DASH service was

expanded in 2018 to include later operating hours and weekend service. DASH is solely funded by the City of Grand Rapids.



Service Characteristics of DASH Shuttles

Frequency	Span of Service			
	Monday - Wednesday	Thursday - Friday	Saturday	Sunday
8 Minutes	6:30am - 10:30pm	6:30am - 1:00am	10:00am - 1:00am	10:00am - 8:00pm

## Implementation Action Plan

**Step 1** – Coordinate with the City’s ongoing **Mobility Action Plan** to ensure that development of micromobility/microtransit and mobility-hub concepts include a focus on extending the effective range of existing and future off-street public parking facilities.

**Step 2** – Continue to explore case studies of parking circulator services, and compile a list of key components linked to successful programs.

**Step 3** – Use this list to inform an Alternatives Analysis feasibility study that anticipates a future in which most public parking is consolidated into three City-controlled structures – the two existing and the planned structure. The analysis should focus on comparing the viability of replicating success from case studies explored during Step 2, and the potential value-add that a circulator might provide as a complement to existing/anticipated first/last-mile micromobility/microtransit options and mobility hubs recommended in the Bike and Mobility Plan.

- The study should focus on circulator options that include a BATA-operated circulator as well as a 3<sup>rd</sup>-party operated service
- It should also identify a financial model for a potential service, including likely funding partners.
- It must also identify essential components of a successful service – minimum frequency, supportive information technology such as vehicle tracker mobile apps, route simplicity and efficiency, and fareless rides – to ensure that

funding partners are aligned with these service plan parameters.

**Step 4** – If a circulator is supported by the Step 3 study work with BATA staff to determine whether such a circulator would be best provided as an extension of its services, or via contracting to a third-party operator – based on the technologies, operational models, and service providers available at the time.

## RECOMMENDATIONS FOR FURTHER STUDY

These recommendations will take more time to develop, including for most some additional study and analysis, to determine the right implementation approach and timeline.

### Secure an LPR-Data Collection Package

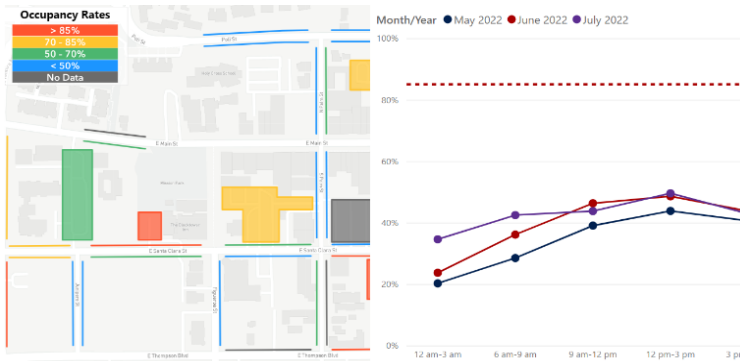


Image Source: <https://dixonresourcesunlimited.com/rapid-lpr-report/>

License Plate Readers (LPR) generate a data stream that can be used to document occupancy conditions along downtown streets. Most LPR vendors pair their hardware with analytical software that aggregates, analyzes, and synthesizes the data collected by the cameras. Data is presented in a dashboard that can be scaled anywhere from the blockface to a regional level. This can include software that translates plate-read data points into parking-

occupancy data points, which can be referenced to supply, to track utilization.

This data would greatly enhance a demand-based approach to pricing downtown parking options, providing a robust set of data from which patterns of high and low demand can be more clearly identified – including by time of day, day of week, and seasonal variations.

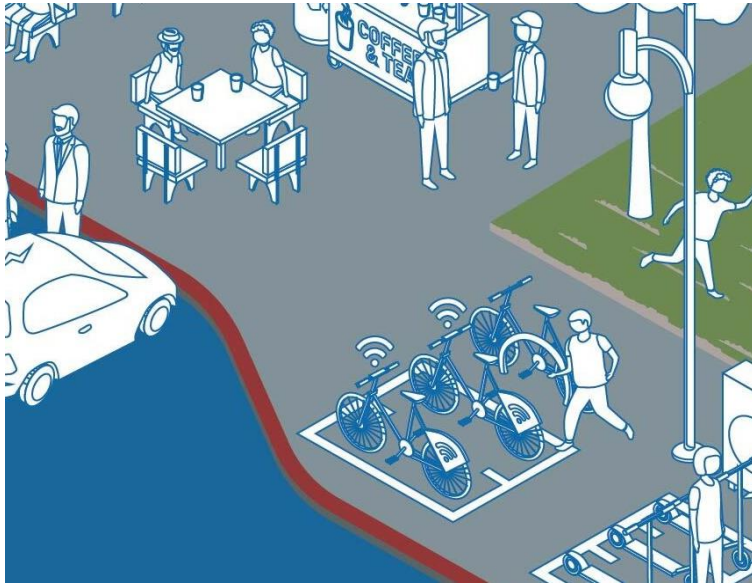
### Example in Action

#### Rapid LPR Tool

Dixon Resources Unlimited offers a software package, branded as the Rapid LPR Tool, which leverages the data being collected by LPR devices used for parking compliance monitoring. With the tool, data that is collected during routine monitoring activity is transformed into parking analytics that can include:

- Occupancy – Percentage of parking spaces occupied.
- Length of Stay – Duration and turnover results.
- Repeat Plates – Identification of re-parking on the same day or across days.
- Timestamped and Geocoded Collection Details – Overview where data is collected, when it was collected, and by which data collector and system data were obtained.

## Leverage Mobility Hubs and Microtransit to Enhance & Expand Park Once



Mobility hubs are multimodal transportation connection points designed to integrate independent mobility networks and services to make these resources more viable as primary and connected means of transportation. Mobility hubs commonly address “first-mile/last-mile” gaps, including by providing immediate access to shared and public mobility options at key parking facilities.

Hubs can include a variety of multimodal such as:

- Bus Stops: sheltered waiting area for circulators and buses
- Bike Parking: secure bike racks or public lockers
- Micro-Transit Stations: shared bikes and scooters, including e-assist options
- Ride-Share: dedicated pickup/dropoff zones for local taxi services, Uber, and Lyft rides
- Charging infrastructure for private and shared electric mobility devices

### Example in Action

#### Ann Arbor, MI



Bike racks, car-share, and bike-share are co-located with a below-grade parking structure, which is also adjacent to a downtown transit center and library branch.

## Explore Options to Re-Introduce Public Valet

The primary challenge faced by the Public Valet program, as recommended by and implemented following the 2017 Study, was funding – with no sustainable source of sufficient subsidy identified to maintain the program. However, the funding gap might have been greatly reduced if the program had included user fees for the service. This is a common component of public valet programs, generating significant revenue, though often not enough to cover all program costs.

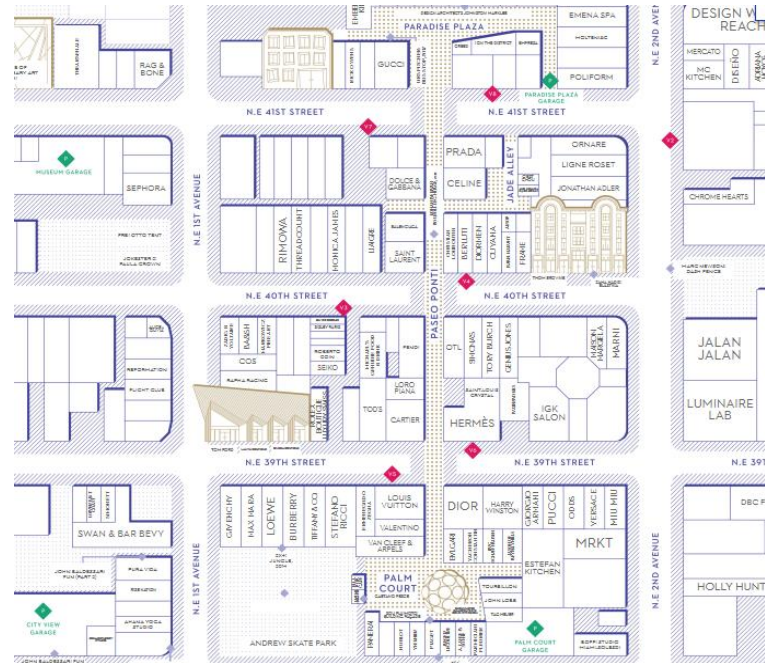
### Example in Action

#### Miami, FL

Located just under three miles north of downtown, the Miami Design District is a master-planned redevelopment of a historic commercial district, based on the new-urbanist model of mixed-use retail centers. In January 2019, its owners secured an agreement with the City of Miami’s Parking Authority, paying it \$10 per day to use 29 on-street spaces in seven distinct locations to operate a public valet program. The five-year deal is renewable at a rate of \$15 per space, per day. The 29 spaces are used to provide seven valet stations across the district, allowing drivers to choose the location of greatest convenience, for both dropoff and pickup – which need not be the same station.<sup>2</sup>

<sup>2</sup> John Charles Robbins, Miami Today, January 1, 2019

Parking Decks (green) and Valet Stations (red).



### Key Elements of Successful Implementation

- Public valet, broadly available and marketed as a Park Once option for all downtown
- Must be strategically located, close to key destinations, but also centrally located enough to function well as a Park Once solution
- User fees – this is a premium parking option, leveraging high-demand curbside spaces, and should be priced accordingly
- Will likely still require subsidy to cover costs -- this must be a sustainable source of subsidy
- Potential operators with capacity to provide attractive, effective service
- Digital validation component







This memo provides supplementary information, analysis, and research findings to expand upon key updated TDM Study recommendations. The memo is organized into the following sections.

## Appendices

	Page
Downtown Circulators.....	1
Monitoring for Performance-Based Management.....	14
Flex Use Loading zones.....	16
Mobility Hubs .....	17
Publicly Owned SHared Mobility .....	19
Pedestrian Safety Best practices.....	21
Revising Parking Requirements .....	22
Meeting Parking Requirements via Mobility Improvements.....	24

# DOWNTOWN CIRCULATORS

## Concept Overview

Transit circulators can be defined as specialized fixed transit routes, often served by trolley-style or otherwise-notable vehicle types, that facilitate movement throughout a downtown or business district, and often reduce parking demand (or shift it to peripheral locations) by facilitating “park once” access. Business groups and elected officials often support these services for their potential to support and signal downtown revitalization and economic development.

A recent TCRP report provides one of the most comprehensive studies of existing urban circulators, documenting the motivations for and outcomes of such services.<sup>1</sup> It surveyed 42 transit agencies and provided case studies of seven circulators in Baltimore, Hartford, Los Angeles, Louisville, Philadelphia, Washington D.C., and Austin. Key findings help define challenges and opportunities for establishing successful circulator services in other cities.

- **Funding and fares.** Due to the target audience (e.g. employees who do not typically rely on transit or tourists who are new to the area), free fares help attract a broader ridership. It eliminates the barrier of figuring out how to pay. Further, due to the absence of fare revenue, other stable funding

<sup>1</sup> TCRP Synthesis 87: Practices in the Development and Deployment of Downtown Circulators (201). Available online at <http://www.trb.org/Publications/Blurbs/165166.aspx>.

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

sources are necessary. Voluntary contributions have not succeeded in sustaining circulators in the past.

- **Branding.** A distinctive, strong brand will increase the visibility of the service, which likely targets a population that otherwise does not consider transit a viable alternative.
- **Service characteristics.** The findings emphasize frequency and simplicity over coverage. The simpler the route, the better. And, it is ok to reduce coverage (e.g. by limiting stops or deviations) to increase frequency.
- **Partnerships.** The most successful circulators have collaborative relationships with local elected officials, business representatives, and other community stakeholders, which provide important feedback on critical destinations for the route and mitigate duplicative services provided by private partners. Further, a collaborative relationship with the local transit agency supports success.
- **Access and target market.** Key to the success of circulators is the walkability of the area served—and the willingness of the local population to walk. In Dublin, wintertime may pose a barrier to people's desire or ability to access the service, however given the frequency of the service, it may provide an opportunity to foster economic development *despite* of the winter chill.

## Conventional Operating Models

### Grand Rapids, MI: DASH

Grand Rapids' Downtown Area Shuttle, known as DASH, is a free shuttle service that connects residents and visitors to the city's downtown core. The DASH routes originally started as parking shuttles, connecting peripheral parking lots with the downtown core. The service is marketed to drivers who park in these lots, and information is housed on the City's Mobile GR/Parking Services website. All DASH buses are branded with the DASH logo. Schedules and live buses are available online via the RapidConnect website or app. In 2016, Mobile GR/Parking Services began exploring options for providing a more traditional circulator route, serving visitors as a Park Once service that can both make remote parking options more viable, and reduce visitor tendencies to drive between downtown locations.

**Figure 1**

Operating Characteristics	
Service Design	Shuttle
Running Time (Round Trip)	DASH West: 28 minutes DASH North: 20 minutes
Number of Stops (Round Trip)	DASH West: 20 DASH North: 16
Fare (One-way)	Free
Service Span (weekdays)	6:30 AM – 10 PM
Service Span (weekends)	None
Frequency (weekdays)	15 minutes
Peak	15 minutes
Frequency (weekends)	N/A
Start-up Capital Costs	N/A
Annual Operating Costs	\$1M +
Annual Ridership	660,000
Operating Cost/Passenger	\$1.52

**2022 Status**

This service has been expanded in the last few years, as follows:

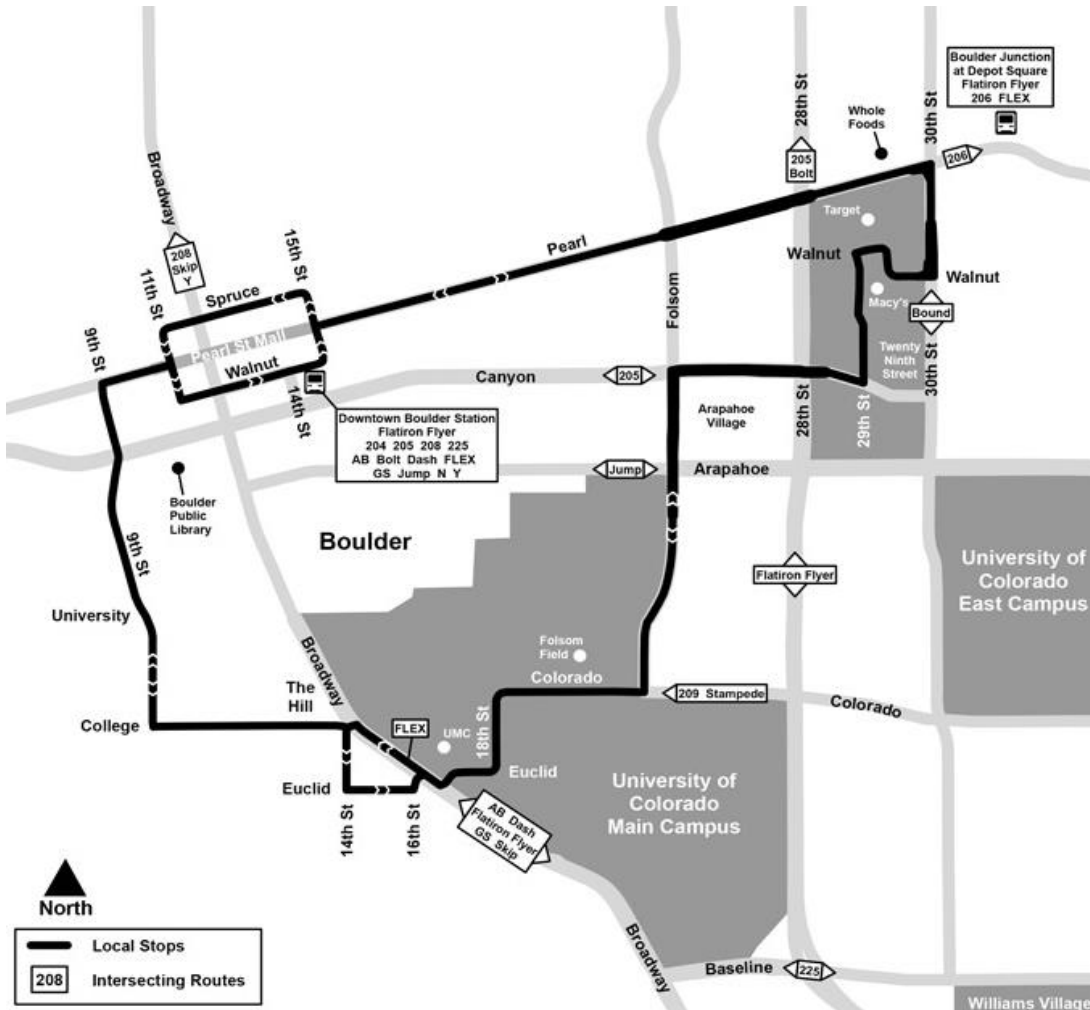
- Now operates on Saturdays, 10-10
- 6:30 - 10 weekdays, 10 to 10 weekends
- DASH North expanded to 31 stops

**Boulder, CO: The Hop**

The Hop has been operating as a free, high-frequency circulator since 1994. It was implemented to encourage the use of transit between several activity centers within central Boulder. The route helps to ease parking demand in key areas, makes it easier to get around these areas without a car. It is currently one of a set of nine branded local transit routes (also Skip, Jump, Bound, Dash, Stampede, Buff, Climb and Bolt)

The service operates as a loop with headways every 7 to 10 minutes. It runs Monday through Friday from 7 AM to 10 PM, Saturday from 9 AM to 10 PM and Sundays/holidays from 10 AM to 6 PM, and serves major bus stops including Downtown Boulder, 29<sup>th</sup> Street Retail District, University Hill, University of Colorado, and Boulder Junction.

Figure 2 The Hop Route



Ridership has been slowly decreasing since 2003, despite the high demand of travel between student housing and University of Colorado and increased investment in service. The Hop offers the highest frequency of any Regional Transit District bus, but is only the fourth-most productive route (where productivity is ridership relative to hours of service provided, or cost to operate). The City attributes this to the majority of the ridership only occurring between the short segment between the 29<sup>th</sup> Street Mall and CU. For many people, The Hop route only competes time-wise against walking, cycling, or driving on the straight segments, but not around the full loop.

Furthermore, the Hop is not being used, as had been expected, for last- or first-mile connections to intercity transit routes. Only 9% of Hop riders report transferring to or from another transit route in 2016. Additionally, there is a mismatch between the city's development trends and the shape of the loop since the route was created in 1994. Boulder workers and students live further away from the center of the city than they used to, so the loop does not serve as high a population as it could. The Hop additionally does not

**2022 TDM Study | Appendices**

City of Traverse City Downtown Development Authority

connect to the main downtown commercial area very well. The CU’s Late Night Black route, along with RTD’s Dash and Skip routes, more directly serves the route between CU and downtown.

**Figure 3 Operating, Performance, and Funding Characteristics of Hop in Boulder, CO**

Operating Characteristics	
Service Design	Circulator
Running Time (Round Trip)	35 minutes.
Number of Stops (Round Trip)	Inbound: 22 Outbound: 15
Fare (One-way)	Free
Service Span (weekdays)	7 AM – 10 PM
Service Span (weekends)	Saturday: 9 AM – 10 PM Sunday / holidays: 10 AM – 6 PM
Frequency (weekdays)	10 minutes
Peak	7 minutes
Frequency (weekends)	18 – 30 minutes
Start-up Capital Costs	N/A
Annual Operating Costs	\$2.5 million
Annual Ridership	800,000
Operating Cost/Passenger	\$6.88

**2022 Status**

This service has been expanded in the last few years now making 31 inbound stops and 25 outbound stops. It also has transitioned to a fare-based service, at a rate of \$3 per ride.

**Duluth, MN: Port Town Trolley**

The Port Town Trolley provides service between destinations of Canal Park, Bayfront, the HART District and downtown Duluth during the summer months, from June 1<sup>st</sup> to Labor Day. It operates seven days a week, every 20 minutes from 11:30 AM to 7:00 PM, and every 30 minutes from 7 PM to 11 PM. On Sundays and Labor Day, it only operates until 10:30 PM. The trolley is a bi-directional loop with just under 30 stops.

Figure 4 Port Town Trolley Route



The Port Town Trolley was put into place as an option to expedite movement between downtown Duluth and the Canal area with aims to reduce congestion. It is primarily targeted towards tourists as a way to avoid driving in the downtown area during the summer season. In Duluth Transit's 2008-2009 Vision Update, the route was recommended as a way to expand on the already-existing trolley to include the hospital area and more of Downtown Duluth. The route has been crucial in that it relieves traffic and parking shortages near the waterfront during the heavy-tourist months.

The main users of the Port Town Trolley are summer tourists looking for rides along the waterfront, downtown, and through the Canal Park area. Because of this, DTA has learned that on-time performance is a critical aspect to making sure tourists who are not familiar with the transit system are able to ride easily. Duluth ridership has been decreasing since 2013, as shown in Figure 5.

Figure 5 Annual Duluth Ridership 2010-2016

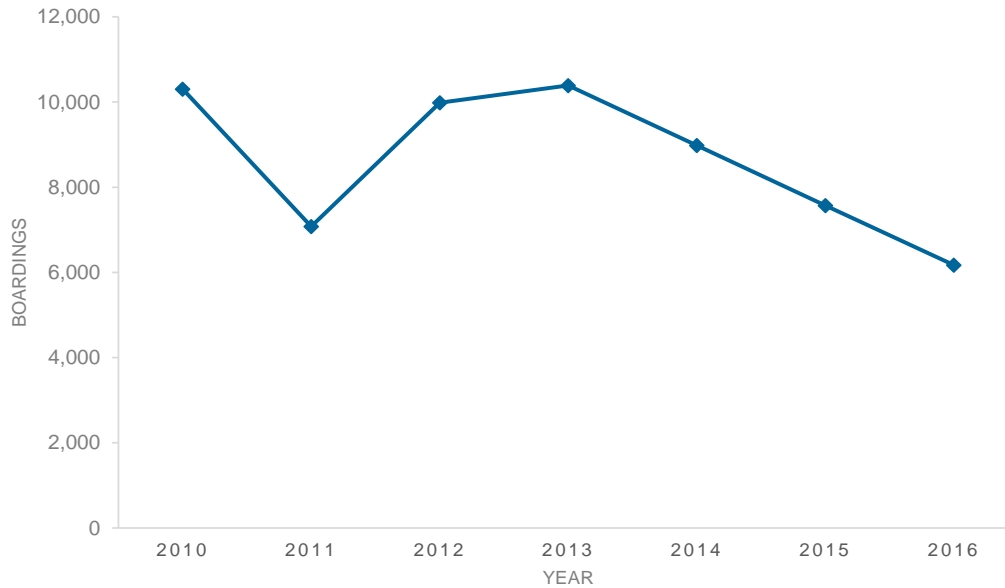


Figure 6 Operating, Performance, and Funding Characteristics of Hop in Boulder, CO

Operating Characteristics	
Service Design	Shuttle/Circulator
Running Time (Round Trip)	40 minutes
Number of Stops (Round Trip)	25-28
Fare (One-way)	Free
Service Span (weekdays)	11:30 AM – 11 PM
Service Span (weekends)	Saturday: 11:30 AM – 11 PM Sunday: 11:30 AM – 10:30 PM
Frequency	30 Minutes
Start-up Capital Costs	\$600,000
Annual Operating Costs	\$160,000
Annual Ridership	6,172
Operating Cost/Passenger	\$25.29

**2022 Status**

The \$0.50 fee for the trolley was eliminated for a time but then brought back, along with a \$4 day-pass option.

## On-Demand Circulators

### Pickup | Austin, Texas

In June 2017, Via launched a new service—branded Pickup—in partnership with Capital Metro in Austin. The agency wished to rethink its existing public dial-a-ride service in a mixed-use area of the city. By removing the current two-hour advance booking requirement, Capital Metro hoped Via’s platform could help increase ridership and rider satisfaction. Through Via’s customized rider app, customers can request a ride from and to anywhere within a predetermined five square-mile zone. Capital Metro provides the vehicles—Pickup-branded cutaways—and drivers, while Via provides the technology platform, including the rider and driver apps, an operations control center, and training for Capital Metro staff.

Figure 7 Pickup by Capital Metro (Austin, TX)



Source: Capital Metro

### 2022 Service Metrics

- \$1.25/ride, daily/weekly/monthly passes also work
- 11 service areas in Austin and suburbs, 5 with Saturday service
- Weekday services hours: 7-7
- Saturday service hours: 10-6
- Service aims for pickup within 15 minutes



## The RideScout Route | Austin, Texas<sup>2</sup>

In June 2015, RideScout, a mobile trip planning app company, launched the “RideScout Route”—a free Downtown Austin circulator six-week pilot funded by RideScout. RideScout (now a part of Moovel) wanted to test the viability of a several different downtown circulator routes. It tested a fixed-route service with designated stops and fixed-route service with customer hailing; it tested open-air Electric Cab vehicles for four weeks and 20-passenger Ford Sprinter vans with R&R Limousine & Bus for the last two weeks. RideScout experimented with peak and off-peak operating models. The first week only 30 riders used on the electric shuttles; by the third week, as word spread, 350 riders took advantage of the service.

RideScout ended the six-week pilot with good information and data to provide public sector leaders. They found that ridership was higher on the electric vehicles than the Ford Sprinters, likely due to the fact that riders noticed the adapted golf cart vehicles more than the typical passenger vans, which blend in with the urban environment. Without fares, they also found that customers were confused about proper tipping behavior, and eventually added messaging to the vehicle specifying a tip was not expected.

The Austin Chamber of Commerce, together with Rocky Mountain Institute, used the findings to release an RFP to private vendors looking to serve downtown and the nearby Market District. Chariot was selected and operated the service using a similar fixed-route to the original RideScout Route.<sup>3</sup>

Figure 8 RideScout Route (Austin, TX)



Source: KXAN

### 2022 Service Metrics

- No longer operational

<sup>2</sup> <http://kxan.com/2015/06/25/ridescout-route-brings-back-downtown-transit-options/>,  
<http://www.statesman.com/news/local/switching-partners-ridescout-teams-with-limo/gqaxQ1bs1tYxyHclXydn/>,  
<https://www.austinchronicle.com/news/2015-07-17/public-notice-dog-week-of-summer/>

<sup>3</sup> Interview with RideScout’s former Executive Director of Mobility Solutions, Meg Merritt

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

- Downtown Austin Alliance initiated a Downtown Circulator Study, completed in 2021.
- The report showed that a circulator is viable in downtown Austin and proposed 2 alignments, one entirely downtown (A, 8 stops), and one connecting to the south side of Lady Bird Lake (B, 9 stops).
- Annual operating costs for route A is estimated at \$2.08 million, and route B at \$3.2 million.
- Startup costs are \$120,000 and \$135,000 for each respective route.
- The study recommended no fare for the service and 5-10 minute headways

### **The Downtowner | Manhattan Beach, CA<sup>4</sup>**

The City of Manhattan Beach launched a free electric vehicle shuttle service pilot program in January 2017. In order to ride, users must download the “Downtowner” app and select the Manhattan Beach service area. Passengers can be picked up or dropped off anywhere within the designated three-square-mile service area. The Downtowner operates six vehicles daily between 11 a.m. and 11 p.m. Each vehicle seats up to six passengers and is equipped with iPads playing informational videos about the city, announcements, and local advertisements. The Downtowner is free to customers and sponsored by local businesses and the Chamber of Commerce. Advertisements are displayed inside and outside of the shuttles. Drivers also receive tips.

The service is intended for locals and visitors in downtown Manhattan Beach. Proximity to the beach and other tourist attractions generate more activity than current parking supplies can handle. The Downtowner is a response to growing parking and traffic congestion concerns in the downtown area.

During the first five months of the pilot program, more than 28,000 riders used the service and the self-reported wait time was 12 minutes. In July 2017, the service was officially extended for an additional 12 months. City staff will begin researching grant funding that could help offset city costs.

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<sup>4</sup> <http://www.dailybreeze.com/general-news/20170719/free-downtowner-shuttle-service-extended-in-manhattan-beach>

Figure 9 The Downtowner (Manhattan Beach, CA)



Six-seat Downtowner vehicle (Source: Daniella Segura, TBR News)

### 2022 Service Metrics

- No longer operating
- Pilot ended after 10 months

### FRED | San Diego, CA<sup>5</sup>

Free Ride Everywhere Downtown (FRED) is an electric-powered shuttle that serves a 2.5-mile service area around downtown San Diego. The effort is led by Civic San Diego and the Downtown San Diego Partnership.<sup>6</sup> Users can request a ride by downloading The Free Ride smartphone application and inputting their current location and desired destination. Alternatively, users can flag down a shuttle along the route without the smartphone application. FRED shuttles operate seven days per week:

- 7 a.m. to 9 p.m., Monday through Thursday
- 7 a.m. to midnight, Friday
- 8 a.m. to midnight, Saturday

<sup>5</sup> <https://www.sandiego.gov/mayor/news/releases/mayor-announces-launch-of-downtown-circulator-program>,  
<http://sandiegodowntownnews.com/gaslamp-quarter-premieres-new-parking-options/>,  
<http://www.sandiegouniontribune.com/business/sdut-downtown-shuttle-free-2016aug08-htlmstory.html>,  
<http://www.businessinsider.com/hampsons-free-ride-shuttle-service-2017-7>

<sup>6</sup> Civic San Diego is a nonprofit corporation created by the City of San Diego to replace the redevelopment agency. The Downtown San Diego Partnership is a nonprofit organization serving as the leading advocate for the revitalization and economic health of Downtown San Diego.

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

- 9 a.m. to 9 p.m., Sunday

During the initial launch, FRED operated 15 five-passenger vehicles, with the expectation that the fleet would grow to 20 vehicles within the first year. Drivers receive benefits and \$14.66 an hour, not including tips. The average wait time for a ride is about seven minutes.

FRED serves downtown San Diego residents, locals, and tourists. It aims to fill the transportation gap for short, free rides that traditional public transit and ride-hailing companies cannot fill. In Downtown San Diego, the service allows people to travel to and within the parking-constrained commercial district without a car.

Initial funding comes from \$500,000 in downtown parking meter revenues. Revenue is also generated from private sponsorships in the form of advertisements, both inside and on the outside of the vehicle. Eventually, the city hopes to support the service solely through ad revenue. Up to \$2 million over five years has been earmarked with more funds available, if needed.

Within the first six weeks of the program, over 20,000 people signed up for the app. Each week yielded an average of approximately 4,000 rides.

Figure 10 Free Ride Everywhere Downtown (FRED), San Diego, CA



Sources: The Coast News; OOPM Creative

### 2022 Service Metrics

- Program funded through at least April 2023
- \$1.2 million annual operating cost

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

- M-Th 7-9, F 7-10, Sat 8-10, Su 9-9
- downtown service area
- rides can be ordered through an app or flagging down a vehicle on the street
- 20 vehicle fleet, each vehicle fits 6 passengers
- 2019 ridership was 275,000, 136,000 in 2020, 182,000 in 2021.

## Public-Private Partnerships

### DC Circulator| Washington, DC



The DC Circulator is a fixed route, frequent all-day system that operates 6 standing routes and 1 seasonal route. Originally established in 2005, the Circulator has always operated as a public-private partnership, initially between the Washington Areas Metropolitan Transit Authority (WMATA) and First Transit from 2005 to 2018, when RATP Dev took over as the private operator, and the District of Columbia Department of Transportation (DDOT)

took over the public oversight role.

The Circulator operates with 10-minute headways and a fixed fare of \$1 per ride, although there have been several very popular fare-free pilots, and popular support remains high to reinstate fare-free rides. The system has a fleet of 81 clean diesel, hybrid, and fully electric 40-foot buses. Passenger capacity on the buses ranges from 71 to 80.

DDOT and RATP Dev have a strong working relationship, holding regular weekly meeting to discuss system operations, and frequent coordination to address customer complaints.

### Top reasons why downtown circulators/shuttles fail

- **It's faster to walk.** In a small city, the "remote" parking garage is only 3 or 4 blocks from the heart of downtown. Even if the wait for the circulator is only 5-10 minutes, most people can walk to their destination in that time.
- **It's too expensive to do it "right."** In order to attract riders, the circulator must be "ultra-frequent," such as every 5 minutes. This requires multiple buses and drivers.
- **It's even more expensive than that.** In order to attract riders you need a separate circulator for each garage. Otherwise, you take riders on a tour of multiple parking garages that is much slower than walking. So you need the multiple buses and drivers on multiple routes.

- **It runs empty.** The “ultra-frequent” service needed to attract riders will carry only a few riders on each trip, only in the heavier direction (like toward downtown in the morning,) and only during the busiest hours. In the lighter direction, and in the lighter hours, it could run almost completely empty.
- **It looks empty.** It looks like more of a failure than it actually is.

### **Keys to increasing the potential success of a downtown circulator**

- **Serve more than downtown.** It should serve more than just parking and downtown. It should connect attractions just a bit too far to walk from downtown. Like, in Traverse City, consider Old Town, the Warehouse District and, perhaps further). Note: this is still costly, but it’s less likely to run empty.
- **Serve more than DDA garages.** Encourage use by people who use other parking throughout the service area; #8 and #9 combined create a “park once” option for people with multiple reasons to be in the service area.
- **Integrate with BATA routes.** It may be possible to reconfigure BATA’s routes so multiple routes connect each garage to downtown. Then, the circulator can be used to beef up the frequency of BATA routes, and riders can take the first vehicle that arrives (BATA or circulator). The combined service is likely less costly than using the circulator alone.

## **MONITORING FOR PERFORMANCE-BASED MANAGEMENT**

### **Concept Overview**

Performance-based curb management is reliant upon effective performance monitoring – a regular series of data collections to track availability and utilization conditions, to in turn inform pricing and. Benefits of this approach include:

- More convenient and reliable parking experience for visitors, which can help improve public perception of a district
- Demonstrates “good government” stewardship of public assets, promoting efficiency, and improved user satisfaction with better information, parking availability, and ease of payment
- Improves access by other modes: Better parking availability reduces parking search times and traffic enhancing transit speed and reliability, and safety for people walking and cycling
- Decreases greenhouse gas emissions: Less circling means fewer emissions
- Improves neighborhood commercial vitality and access: People can more reliably access commercial, retail areas

Performance-based parking does require significant and regular data collection so that rate-setting and performance metrics are accurate and reflective of current on-the-ground conditions. These metrics may include, but are not limited to:

- Hourly occupancy by block

- Average duration of stay by block and posted time limit
- Rates of non-compliance
- Levels of meter and mobile-payment transactions
- Citation rates

At a minimum, this data should be collected annually.

## Examples

### Seattle, WA: Performance-Based Parking Pricing Program

Seattle has used a performance-based model to price on street parking since 2010. The program goals in Seattle are to:

- Help customers reliably find parking within walking distance of their destinations
- Reduce emissions and lessen traffic congestion from drivers circling in search of parking
- Increase access to businesses by ensuring turnover of parked cars

Seattle currently adjusts on-street parking rates three times per year across its 19 paid parking areas, impacting over 1,100 paid spaces. Seattle also prices parking dynamically by time of day. Morning rates are in effect from 8 AM to 11 AM, afternoon from 11 AM to 5PM (extended to 6 PM in areas without evening rates), and evening from 5 PM to 8 or 10 PM, depending on the area. Dynamic pricing throughout the day allows the city to manage parking supply at a finer grain and takes into account the land use patterns and needs of local businesses within a given parking district.

Per city code on street parking rates must be between \$0.50 and \$5.00 per hour. Rate changes are guided by the following policy

- If occupancy is over 85%, increase rate by \$0.50/hour, if over 100%, increase rate by \$1.00/hour
- If occupancy is between 70% and 85%, rates do not change
- If occupancy is below 70%, decrease rate by \$0.50/hour

Seattle publishes an annual parking report, which summarizes pricing and occupancy data from the previous year as well as any significant policy or programmatic changes.

See: [SDOT Annual Parking Reports](#)

### Portland, OR: Performance-Based Parking Management

Portland established a performance pricing program in 2016 with the goals of increasing parking availability and managing on-street parking more efficiently.

Currently, hourly rates in Portland vary from \$1 to \$2, depending on the location. The Council approved rate range is between \$1 and \$5.

Current policy for rate adjustment, set in 2018, dictates the following:

- Meter rates should be **reduced**
  - If the observed peak occupancy for a district is less than 65%
- Meter rates should be **increased**

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

- If the observed average peak occupancy for the district exceeds 85%, AND Average occupancy reaches or exceeds 85% during 3 or more hours during the day, AND
- Average occupancy reaches or exceeds 70% during 5 or more hours during the day, AND
- Annual on-street meter and SmartPark pay station transactions have not decreased since the last meter rate increase

## FLEX USE LOADING ZONES

The following provides a more expansive overview of this concept, which is identified as a Quick Win recommendation in the update to the TDM Plan.

### Concept Overview

Flex zones, or variable regulations, create dynamic curb space that is responsive to need by allowing different uses access to the same space at different times of day. For example, on prime commercial streets, early-morning loading zones might be balanced with regulations that shift the same curb zone to short-term parking at midday, and potentially to passenger pickup/drop-off space during evenings. Flexible loading zones could also allow for multiple users to occupy the space throughout the day, such as a shared passenger and commercial loading zone.

Flex zones can also vary seasonally as the weather dictates behavior and travel patterns. For example, in the summer space can be reserved for a circulator stop of passenger pick up and drop off near restaurants, shops, and other attractions space where demand is highest. In the cooler, quieter months, this space could transition to parking or commercial loading. Flexible infrastructure can reduce competition for the right-of-way and allow multiple modes to take advantage of the same space at alternating times. Thoughtful design of infrastructure and space can ensure that all impacted/accommodated modes see benefits, while, in many cases, dedicated infrastructure for one mode may be preferred.

### Design & Infrastructure Considerations

Flex zones, as with other loading and unloading curbside spaces, require enough space to be efficient. Specific considerations include the following:

- Commercial loading zones should be designed with the following space parameters:
  - 8' wide preferred, 7' minimum, located within parking lane.
  - At corners, 20' long minimum for one parallel parking space. 50' long preferred, if no parking between crosswalk and first parking stall.
  - If midblock, 22' long minimum.
  - 40' long minimum for spaces expected to accommodate a delivery truck or two passenger vehicles
- Loading zones should be placed so that they don't obstruct visibility of crosswalks, either at intersections or midblock locations.
- Trees should not be planted in furnishing zones adjacent to loading zones.



## MOBILITY HUBS

### Concept Overview

Mobility hubs combine points of access to distinct components of the local/regional multimodal network, often including services and programs that operate independently of each other – the placement of a City-provided bike rack and a shared bike or scooter corral installed adjacent to a BATA bus stop, for example – to facilitate seamless transfers between these services and programs that, when effectively combined, reduce travel dependence on personal autos. The mobility hub concept originated as branded public spaces designed and programmed to integrate travel modes with information to guide trip planning and mode-selection. The first mobility hubs were largely focused on addressing “first-mile/last-mile” gaps, particularly related to connections to and from mass transit services. Providing immediate access to taxis, car-share services, and bike parking/networks gave those alighting buses and trains reliable options for completing their trips. Likewise, these options provided a range of options for getting to stops and stations without driving oneself and having to secure parking.

#### Information Kiosk at Branded Mobility Hub in Bremen, Germany



Image Source: [www.carsharing.de](http://www.carsharing.de)

The concept has proven broadly useful, however, to call attention to points of intersection between two or more non-driving travel modes and to make it as easy as possible to access these modes, including transferring from one to another. As emerging mobility options increasingly diversify travel options in more places, and as technology makes it increasingly easier to find immediate information on and access to these options, informal mobility hubs are emerging across many of our communities. A bus rider who hails a Lyft ride upon receiving notice of a bus delay is one example of an informal mobility hub in action. Nonetheless, opportunities to create distinctive public spaces by co-locating points of access to these modes and

enhancing these spaces with information and marketing, can create important opportunities to reduce driving trips and parking demand in places like downtown Traverse City.

### Whether Simple or Complex, Mobility Hubs Optimize Access to Key Mobility Options

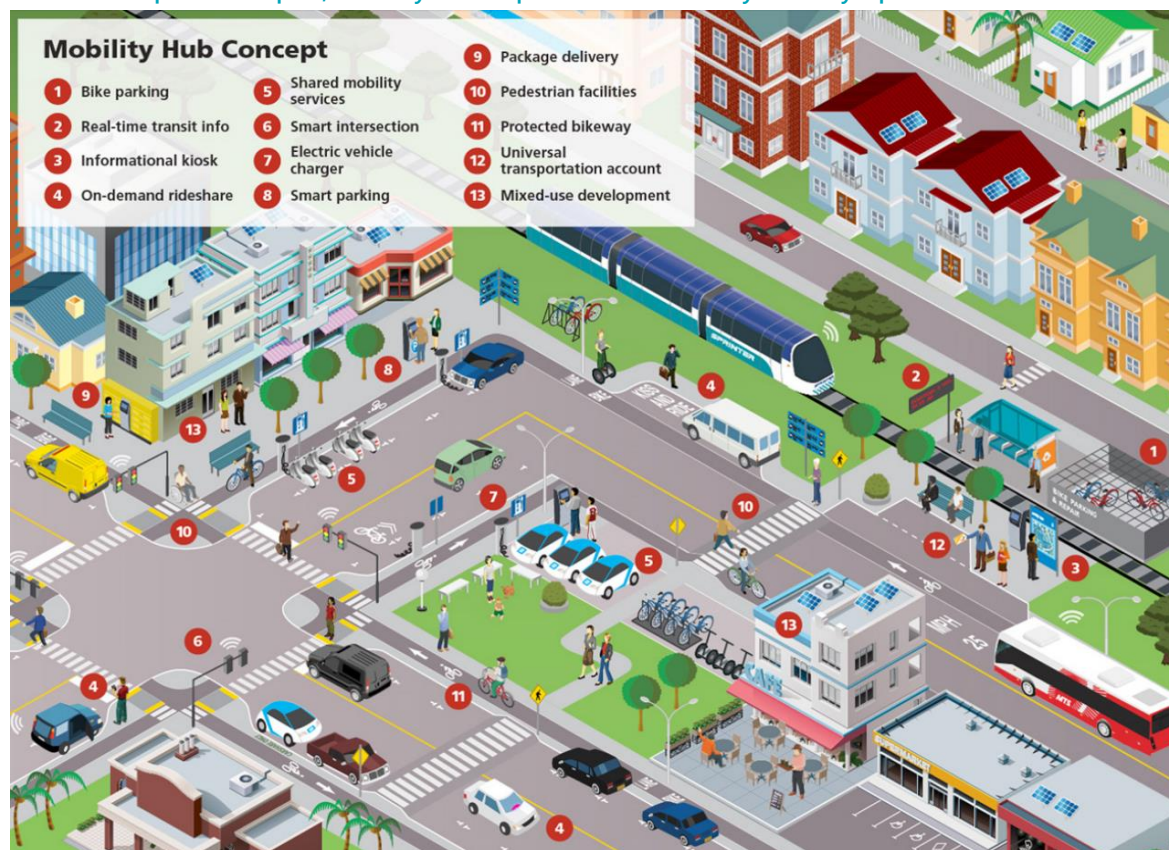


Image Source: SANDAG

Mobility hubs can include a variety of multimodal infrastructure components customized for their location within the transportation network, and they can range from simple to complex in their range of features. Beyond mobility connections, mobility hubs can provide a sense of place and community connection, which may include access to food and drinks, as well as proximity to public facilities and/or amenities. For the purposes of this document, the term “mobility hub” refers to any intentional co-location of two or more publicly accessible travel modes within a public space or facility.

## Design & Infrastructure Considerations

Designing mobility hubs depends heavily on the surrounding context and the mode of transportation that is placed at the hub. Regardless, mobility hub services and devices should not impede mobility of other modes,

such as walking. Specific design and infrastructure considerations for the elements that may be located at mobility hubs include:

- Bikeshare and scootershare stations should be located:
  - 1.5' from back of curb if not adjacent to parking; 3' from back of curb when adjacent to parking.
  - 3' from building or building frontage while maintaining a 5' minimum pedestrian access route.
  - 10' from a building doorway.
  - 3' from all street furniture or fixed objects including trees and vegetation, light poles, benches and other bike racks as well as accessible (ADA) parking spaces.
  - 5' from a marked crosswalks and driveways.
  - 10' from a fire hydrant, fire call box, police call box or other emergency facility.
  - 3' from the front and 15' from behind a designated bus stop sign post.
- Hubs may be located on-street in the clear space where motor vehicle parking is prohibited or in place of parking.
- Avoid placing hubs within streets that have high traffic volumes/speeds.
- Vertical barriers, such as flex posts, precast curbs, or planters should be used to restrict motor vehicle encroachment on on-street docks and corrals.
- Mobility hub elements should be oriented so they can be accessed from the sidewalk or a protected on-street area.

## PUBLICLY OWNED SHARED MOBILITY

### Concept Overview

Shared mobility is a shared transportation service where bicycles or e-scooters are available for public use through short-term rental. Bike and scooter share provide a low-cost transportation option that is ideal for short trips. It also offers a low barrier to entry for individuals to incorporate active transportation into their routine. Shared mobility is proven to help lower VMT, reduce carbon emissions, and improve public health. Shared mobility can operate independently or in tandem with other mobility services like public transit to create a seamless public transportation network.

### Examples

#### Metro Bike | Austin, TX

MetroBike was established in December of 2013. The system is owned by the City of Austin and operated by the local 501(c)(3) non-profit Bike Share of Austin. Funding partners include Whole Foods, SXSW, Downtown Austin Alliance, the Austin Chronicle, Austin Parks Foundation, Austin Community College, and others. In 2020, the MetroBike was also integrated with CapMetro, the local transit operator. The MetroBike system includes 75 stations and a fleet of 700 bikes, 500 traditional and 200 electric bikes. It is a docked system, and all trips must begin and end at a docking station.

Pricing options for MetroBike are as follows:

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

- Pay as you ride: \$1.09 to unlock + \$.023 per minute
- Day pass: \$12.99 for unlimited trips up to 60 minutes within a 24-hour period
- Weekend pass: \$19.49 unlimited trips up to 60 minutes within a 72-hour period
- Monthly pass: \$11 + \$15 one-time activation fee for unlimited trips up to 60 minutes
- Annual pass: \$86.60 for unlimited trips up to 60 minutes

There is an additional fee of \$4/30 mins for any trip over 60 minutes.

### **CDPHP Cycle | Albany, NY**

CDPHP *Cycle!* is a bikeshare program offered through the Capital District Transportation Authority (CDTA) in partnership with CDPHP, a local health insurance company based in Albany. The system has over 400 bikes at more than 80 station in Albany, Watervliet, Schenectady, Troy, Cohoes, Saratoga Springs, and the Lake George/Glens Falls area. CDPHP Cycles is a peak season service only, operating annually from April to November. The system does have docks, but bikes do not have to be left at specified parking locations.

Pricing options include:

- \$5 hourly plan, prorated by minute
- \$15 monthly plan, which includes 60 minutes of ride time per day
- \$55 seasonal plan, which includes 60 minutes of ride time per day
- Half price plans for students
- Discounted plans are available for CDPHP members

### **Spokies | Oklahoma City, OK**

The City of Oklahoma City launched its Spokies docked bike share program in May 2012. The Spokies program was initially funded with an Energy Efficiency and Conservation Block grant administered by the City of Oklahoma City's Office of Sustainability. This grant was designed to promote energy efficiency, including alternative methods of transportation.

Spokies has been part of EMBARK, the region transit authority in Central Oklahoma, since August 2014. In June 2019, Spokies launched Spokies DASH with the assistance of a Congestion Mitigation and Air Quality (CMAQ) grant supported by ACOG, Downtown OKC, Colony Partners, and Uptown 23rd.

The Spokies fleet includes 60 pedal-only bikes and 53 E-bikes, added in 2022 and funded by a federal TAP grant. User fee options include:

- Annual Pass: \$120/year, includes 40 minutes of ride time/day. Ride time exceeding 40 minutes per day are charged usage fees of \$0.12 per minute for E-bikes and \$0.06 per minute for pedal-only bikes.
- Monthly Pass: \$20/month, includes 40 minutes of ride time per day. Ride time exceeding 40 minutes per day are charged usage fees of \$0.12 per minute for E-bikes and \$0.06 per minute for pedal-only bikes.

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

- Day Pass: \$12, includes 4 hours of ride time to be used in a 24-hour period. Ride time exceeding 4 hours (240 minutes) are charged usage fees of \$0.15 per minute for E-bikes and \$0.12 per minute for pedal-only bikes.
- Walk-up - Unlock a bike for \$1. Riders pay \$0.15/minute for E-bike and \$0.12/minute for pedal-only bikes.

# PEDESTRIAN SAFETY BEST PRACTICES

## Concept Overview

The recommendation to Adjust Meter Schedules, to focus more on evening peaks and provide more free parking during early mornings should be a revenue-positive change that could create a meaningful increase in the DDA's parking fund income. It is suggested that an optional implementation step would be to capture that new revenue to fund winter sidewalk clearance/maintenance activities, to ensure that downtown remains walkable during all seasons. This could include:

- Clear obstructions from sidewalks, curb ramps, and crosswalks
- ADA requires at least 36 inches of clear passageway
- Use of salt or gravel to reduce slip hazards
- City ordinance on snow clearance time frame, BID hires contractor to maintain

## Examples

### Expanded Sidewalk Snow Clearance | Marquette, MI

The Marquette DDA significantly expanded its downtown parking meters following a 2012 Downtown Parking Study that found a large share of downtown's on-street parking was occupied by downtown merchants and employees, as well as a general willingness among downtown visitors to pay for parking if it was convenient and consistently available. To help build support for this change, the MDDA agreed to use the increase in meter revenue to pay for sidewalk snow clearance during winter months, helping to maintain downtown's walkability during winter months. A 2020 update to the 2012 parking study found that there was significant support for both the snow clearance and the meters that helped fund it among downtown's retail business owners.

### Snow Center Website | Cambridge, MA

The city of Cambridge maintains a web page<sup>7</sup> that serves as an information repository for all things snow-related, including updates on parking bans, transit service and delays, city snow removal policies, and other resources. The website also allows residents to report snow-related hazards on streets, sidewalks, bike lanes, and bus stops.

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<sup>7</sup> <https://www.cambridgema.gov/snow>

## Sidewalk Snow Support Pilot | Grand Rapids, MI

The City of Grand Rapids operates a limited scope sidewalk clearing pilot program, modeled after similar programs in East Grand Rapids and cities in Wyoming. The program began in 2020 will continue through at least April 2023. The program area covers 164 of the city's 922 miles of sidewalks. 80% of pilot sidewalks are on major roads, and 20% are on neighborhood streets. The purpose of the program is to make it easier for residents to clear their sidewalks after heavy snow events, and focuses on neighborhoods with high community need, where there are high concentrations of seniors, people with low-incomes, high levels of pedestrian traffic, and large populations of school children, among other factors. Snow support is provided after a storm resulting in at least 3 inches of accumulated snow.

# REVISING PARKING REQUIREMENTS

## Eliminating Parking Requirements

Parking requirements dictate the minimum number of parking spaces that a developer must build in conjunction with a new project. Parking requirements generally correlate to land use and building square footage, and are outlined in a city's zoning code. There is movement across the US to reduce or eliminate minimum parking requirements, either in defined areas like a downtown district, or citywide. This wave of policy change is heralded by numerous benefits, most notably to support economic development, downtown revitalization, and small business growth, and to address the rapidly increasing cost of housing.<sup>8</sup>

### Key Benefits

Benefits of reduced or eliminated parking requirements include

- Lower costs for new commercial and residential development, promoting new business growth and making housing more affordable. Surface parking generally costs between 5,000 and 10,000 per space to build, and these costs are most often passed along to the consumer in the form of higher commercial or residential rent.
- Improved environmental sustainability, with less impervious cover creating stormwater runoff and management concerns.
- Promote the use of alternative transportation modes like transit, walking, and biking, which reduces congestion and improves public health.

### Case Studies

#### Fayetteville, AR

In 2015, Fayetteville became one of the first cities United States to eliminate minimum parking requirements for commercial building citywide, giving businesses and developers the freedom to determine how much parking their customers truly needed. The change helped spur the redevelopment of several historic sites across the city into restaurants and mixed-use buildings that otherwise would not have been feasible due to

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<sup>8</sup> For more on this trend and its impacts: [Nov 2022 Next City Article](#)

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

the high cost of parking construction. It has also increased foot traffic in commercial areas, as visitors are more able to easily walk between businesses.

### South Bend, IN

In early 2021, the South Bend City Council voted to eliminate minimum parking requirements citywide, expanding on previous policy that removed parking requirements in its downtown only. South Bend had already eliminated parking requirements for its downtown, but Motivations behind the policy change were to eliminate burdens on small businesses and attract new investment to the area. Previously, small businesses had to apply for a zoning variance to build fewer parking spaces, which cost both the businesses and the city government time and money to develop, submit, review, and approve applications.

### Setting Maximum-Parking Limits

Parking maximums define the maximum amount of on-site parking that would be approved for each land use in a development proposal. Maximums seek to ensure that parking is not oversupplied and incentivize developers to plan for alternative transportation modes. Parking maximums can also increase development density, improving area walkability and multimodal functionality in support of the TOD concept.

The original concept of a parking maximum focused on defining a hard cap on a development's on-site parking supply, with no/minimal exceptions. Today, many cities choose to establish a more flexible form of maximum, in which one or more options are available to provide more parking. The most common exceptions made available through such an approach are:

- The provision of shared, or public, parking
  - Example: Transit Oriented Development (TOD) Districts (Charlotte, NC)
- The provision of mobility improvements or TDM commitments
  - Example: Aspen, CO
- The payment of a fee toward a public mobility or TDM investment fund
  - Example: Columbia Pike form-based code (Arlington County, VA)

### Key Benefits

Parking maximums can yield the following benefits:

- Facilitating and encouraging higher development densities
- Preventing oversupply of parking
- Reducing traffic congestion by reducing induced parking demand
- Reducing housing costs by reducing the potential impact of excess parking supplies on rent prices
- Reducing housing costs by increasing potential housing density
- Emphasizing the expectation of reduced parking needs in the affected TOD area

### Benefits Specific to Flexible Maximums

The following benefits are specifically associated with flexible parking maximums:

- Making lower maximums more viable, allowing codes to clearly indicate the preferred amount of parking for land uses in key growth areas

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

- Providing strategic flexibility to developers, minimizing the risk of shifting development activity away from these areas
- Generating public benefit when developers choose to provide more parking, commensurate with how much more parking they provide

### Case Study: Flexible Maximums in TOD Districts (Charlotte, NC)

Charlotte's new Transit Oriented Development Districts code – adopted in 2019 and covering the majority of the city's South End neighborhood – includes an incentive to provide public parking, by **limiting the amount of on-site parking that can be provided** for most land uses (Maximum Vehicle Parking Spaces) **but allowing developers to include more parking if a significant share of the parking will be available for public use**, as described below:

- Visitor parking in multifamily residential development can exceed the maximum by 10 spaces, or 10% of the number of dwelling units on-site, whichever is greater.
- Supplies can exceed the maximum by up to 50% if any one of the following conditions are met:
  - 10% of the total number of spaces are provided for public use 24 hours a day and seven days a week.
  - 20% of the total number of spaces are provided for public use as shared spaces available from 8:00 a.m. to 6:00 p.m., Monday through Friday.
  - 20% of the total number of spaces are provided for public use as shared spaces available from 6:00 p.m. to 8:00 a.m., seven days a week

This policy encourages new projects to include parking that can help meet the longstanding and expanding public parking supply deficit in South End, particularly in a market where many developers are likely to seek approval for supplies that exceed the “maximums” now allowed in these districts. Because the City offers this flexibility, rather than emphasizing a hard cap on parking that can be provided, it was able to adopt “maximums” that are significantly lower than what can typically be adopted for a hard-cap maximum. The lower maximum combined with flexibility that is tied to a desired public good (in Charlotte's case public/shared parking) both signals to developers what the City considers to be an appropriate (rather than maximum) amount of parking is for each use, and defines the concessions it wants from developers if a higher supply is to be approved -- public parking, to encourage more efficient, resilient parking facilities.

## MEETING PARKING REQUIREMENTS VIA MOBILITY IMPROVEMENTS

The growth of active transportation shared mobility over the past several years (including biking, scooter share, car sharing programs, and ride-hailing apps) provides opportunities for people to have access to fast and convenient modes of transportation without needing to own and store a personal vehicle. Incentivizing and promoting the use of active and shared mobility leads to less demand for on-site parking and provides opportunities to reallocate the parking footprint to other uses. The prevalence of ride-hailing services in



certain communities, for example, may increase demand for exclusive loading and unloading zones at a site rather than a parking space.

## **Bicycle Examples**

### **Folsom, CA**

The City of Folsom, a city of about 75,000, allows for the reduction in vehicle parking requirements if development provide additional secure bicycle parking over and above the minimum bike parking requirements.

- One vehicle space may be reduced for every three additional bicycle spaces provided up to a maximum of 2% of required parking. The provision of end of trip shower/locker facilities for developments at least 100 employees reduces required spaces by 2% or 5 spaces, whichever is greater.
- There is also reduction opportunities through the provision of preferred parking spaces to employees participating in carpool or vanpool. The reduction for this measure is one required space per every carpool/vanpool space up to a maximum of 2%

### **Dallas, TX**

Dallas boasts comprehensive bicycle-based parking reductions for off-street vehicle parking. Specific reductions are based on bicycle parking class. Dallas allows up to a 10% reduction of required off-street parking.

- A reduction of one vehicle parking space is permitted for every six Class I bicycle parking spaces (e.g., racks for short-term use). Required bicycle parking does count towards parking reduction. A minimum of 20 off-street parking spaces must be required to receive parking reductions
- A reduction of one space for every four Class II bicycle parking spaces (e.g., secure lockers for long-term use)
- Reductions May not exceed 5% of total required off-street parking spaces.
- An additional 5% reduction of total off-street parking requirements may be granted by providing showers, lockers, and changing facilities for bicycle riders. This provision does not apply to retail or personal service land uses.

## **Shared Mobility Examples**

### **Chandler, AZ**

Chandler encourages the installation of passenger loading zones to meet demand for passenger drop-off and pick-up areas generated by ridesharing vehicles

- Municipal code allows a 10% reduction of parking requirements per each passenger loading zone up to a maximum of 40%
- 1 loading zone space may be counted per 50,000 sq. ft. for commercial uses

## 2022 TDM Study | Appendices

City of Traverse City Downtown Development Authority

### **Austin, TX**

Austin has several off-parking reduction incentives for developers to install active and shared mobility infrastructure, such as:

- Reduction of up to 10% if shower facilities are provided
- Reduction of 20 spaces for each car-sharing space provided on site.

These and other incentives can be combined to reduce parking requirements up to 40%.