



## Trip Plan Data, Who Me?

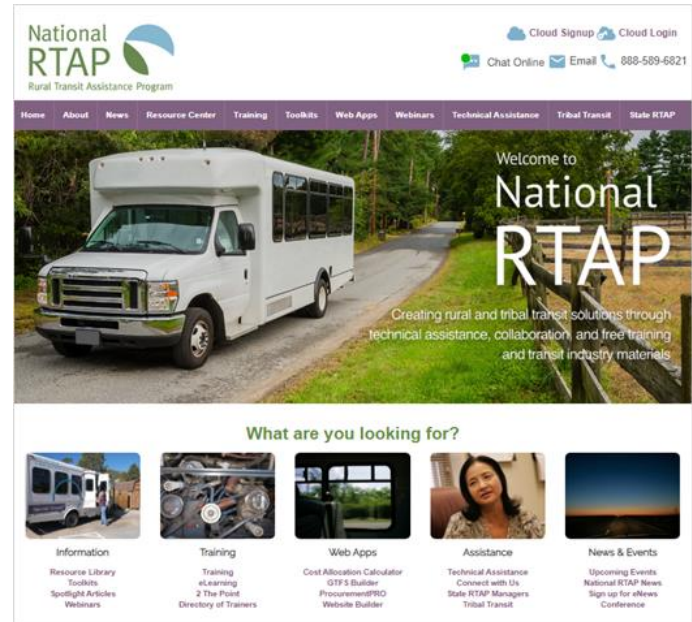
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Tuesday, April 5, 2023, 10:45-11:45 am



# National Rural Transit Assistance Program

- Technical assistance center funded by FTA through Section 5311 since 1987
- Free training materials and technical assistance products and services for rural and tribal transit providers and state RTAPs
- National RTAP offices are in MA and DC, with some remote staff
- Review Board – state DOT officials and rural and tribal transit agency staff Learn more at [nationalrtap.org](http://nationalrtap.org)



# TACL: The Transportation Technical Assistance Coordination Library



## Learn about TACL Resources

View Recording:

[nationalrtap.org/Webinars](http://nationalrtap.org/Webinars)

<http://transportation-tacl.org>

TACL provides access to transportation coordination resources from the [Federal Transit Administration \(FTA\)](#) and a diverse range of transportation technical assistance centers, including:

- [National Aging & Disability Transportation Center \(NADTC\)](#)
- [National Center for Applied Transit Technology \(N-CATT\)](#)
- [National Center for Mobility Management \(NCMM\)](#)
- [National Rural Transit Assistance Program \(National RTAP\)](#)
- [Shared-Use Mobility Center \(SUMC\)](#)
- [Transit Workforce Center \(TWC\)](#)

# AGENDA

- Introduction
- GTFS Builder
- Route Map for Your Website
- Questions

# General Transit Feed Specification (GTFS)

## National RTAP's GTFS Builder

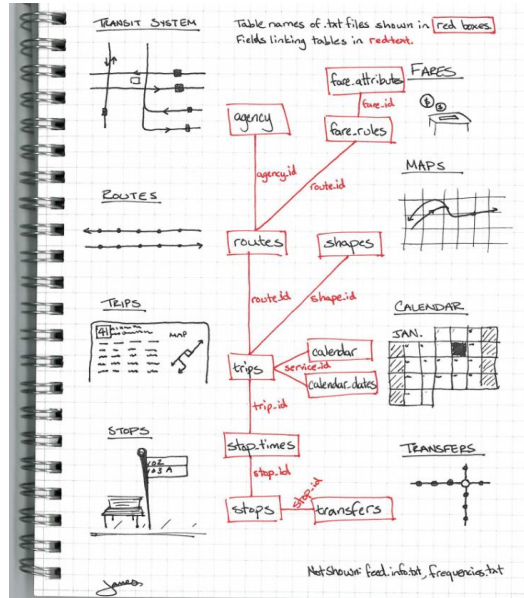
# Standardized Transit Data = GTFS

Agency

Routes

Trips/Timetables

Stops



Fares (optional)

Maps (optional)

Calendar

# Global and Free Marketing! A Global Billboard

Apple Maps

Start: Aberdeen, WA, United  
End: Makah Mini Mart & Fuel

Drive Walk **Transit** Custom...

Leave 10/ 7/2020, 12:00 AM

**5 hr 16 min** Details >>  
Bus scheduled at 6:30 AM 10/07  
4 min > 20 > 16 >

**4 hr 26 min** Details >>  
Bus scheduled at 11:30 AM 10/07  
4 min > 50 > 16 >

! Reduced service on Jefferson Transit View

Hwy 112 & Mini Mart  
Forks  
Amanda Park Merc  
Wishkah & Broadway

Google Maps

Aberdeen, Washington  
Neah Bay, Washington

Leave now OPTIONS

Public transport services may be impacted due to COVID-19.

Send directions to your phone

6:30 AM—11:44 AM 5 h 14 min  
20 50 > Olympic Connection > 16  
6:30 AM from Aberdeen Station  
\$2.00 1 min  
DETAILS


SCHEDULE EXPLORER

Neah Bay  
Forks Transit Center  
Amanda Park Me  
Aberdeen

# Click a Bus Stop = Next Departures

← Transfer Center - Walmart on A... ×

<b>Yellow</b>	Transfer Center - Walmart on Airway ...	6:00 AM
<b>Green</b>	Transfer Center - Walmart on Airway ...	6:00 AM
<b>Blue</b>	Transfer Center - Walmart on Airway ...	6:00 AM
<b>Red</b>	Transfer Center - Walmart on Airway ...	6:00 AM
<b>Red</b>	Transfer Center - Walmart on Airway ...	7:00 AM
<b>Yellow</b>	Transfer Center - Walmart on Airway ...	7:00 AM
<b>Blue</b>	Transfer Center - Walmart on Airway ...	7:00 AM
<b>Green</b>	Transfer Center - Walmart on Airway ...	7:00 AM



Smith's Official Site  
Money Transfer - Smith's  
Transfer Center - Walmart on Airway Ave.  
Walmart Auto Care Centers  
Auto repair shop  
First Convenience Bank

<https://goo.gl/maps/shsB9YXyLHG5bGAv9>



# Online, Digitized Trip Planning Answers Many Rider ?s



The screenshot displays a digital trip planning interface. On the left, there are input fields for the origin 'Peridot, Arizona' and the destination 'Globe, Arizona'. Below these are three route options:







- Route 1:** 6:16 AM—7:52 AM, 1 hr 36 min. Mode: Walking > Bus (Globe). Details: 6:40 AM from Noline's, \$1.50, 26 min walking. Includes a 'Details' link.
- Route 2:** 9:38 AM—10:27 AM, 49 min. Mode: Walking > Bus (Safford to Globe).
- Route 3:** 11:06 AM—12:10 PM, 1 hr 4 min. Mode: Walking > Bus (Greyhound) > Walking.

On the right, a map shows the route from Peridot to Globe. The route is highlighted in blue and passes through Cutter and San Carlos. Callouts on the map indicate travel times: 49 min for the segment from Cutter to San Carlos, and 1 hr 36 min for the segment from San Carlos to Peridot. The map also shows nearby locations like Copper Hill and Pinal, and highways 188, 60, 70, 77, and 170.


Live link to <https://goo.gl/maps/aWP1VUYL3qxMZVTy8>

# Title VI/ ADA / Tourism: Spanish


 Salir a la(s)  [Opciones](#)



 05:41    vie, 31 mar  


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 [Enviar al teléfono instrucciones sobre cómo llegar](#)

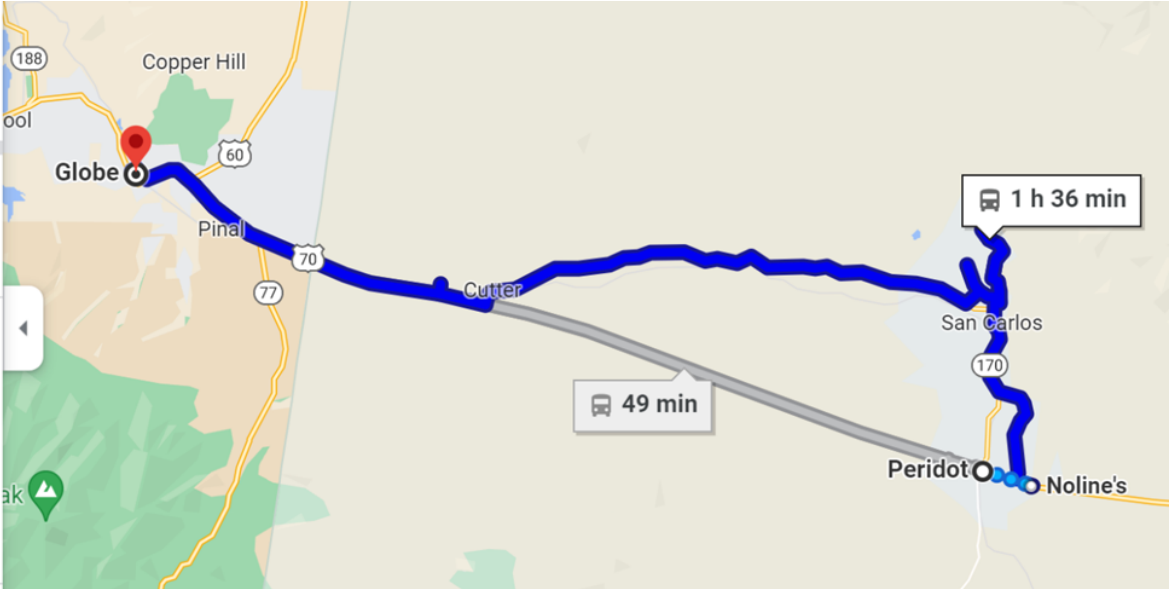
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 **06:16—07:52** **1 h 36 min**

 >  **Globe**

06:40 desde Noline's  
USD 1.50  26 min

[Detalles](#)



# Title VI: Vietnamese (& most languages)

+ Khởi hành lúc ▾ [Tùy chọn](#)

🕒 05:41 ⏪ ⏩ 📅 Th 6, 31 thg 3 ⏪ ⏩

📱 [Gửi đường đi đến điện thoại của bạn](#)

🚗 06:16—07:52 **1 giờ 36 p**

🚶 > 🚗 **Globe**

06:40 từ Noline's  
1,50 US\$ 🚶 26 p

[Chi tiết](#)



# Options & Minimum Requirements for GTFS

# Developing GTFS Data

- Procure, hire & manage outside contractor >>
- Partner with regional transportation agency
- Join a state sponsored initiative, if available
- Use National RTAP's GTFS Builder

*National RTAP, nor the Federal Transit Administration does not endorse any of these potential vendors. They are for informational purposes only*

- [AddTransit](#)
- [Arcadis/IBI Group](#)
- [GMV Syncromatics](#)
- [Giro](#)
- [Integrated Transport Planning Ltd](#)
- [Mecatran](#)
- [Mobilibus](#)
- [Moovit](#)
- [Optibus/Trillium Solutions](#)
- [Passio Technologies](#)
- [Radiola](#)
- [Transnovation Inc](#)
- [TransLoc](#)
- [Trapeze Group](#)
- [TripSpark](#)

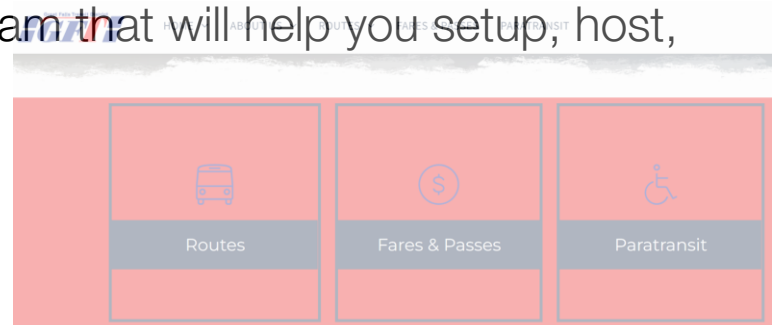
<https://www.nationalrtap.org/Technology-Tools/GTFS-Builder/Support>

# Minimum to Publish a Trip Planner

- **Fixed Route:** At least one fixed route available to public
- **Website:** With fixed route timetables/schedules displayed
- **Host:** Link for up-to-date GTFS (NRTAP free hosting)

# What is Website Builder?

- A cloud-based CMS (content management system)
- Website Builder creates a free website with easy-to-use editor that features a “drag and drop” interface
- National RTAP includes technical support team that will help you setup, host, and manage your website for FREE.



# National RTAP's GTFS Builder Technology Requirements & Technical Support

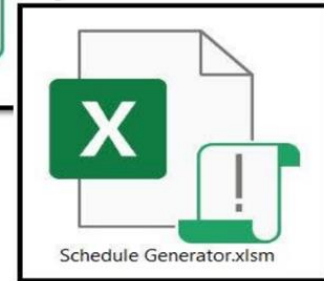


# What do you need to start GTFS Builder?



Google Earth Pro  
Desktop Version

Google My Maps



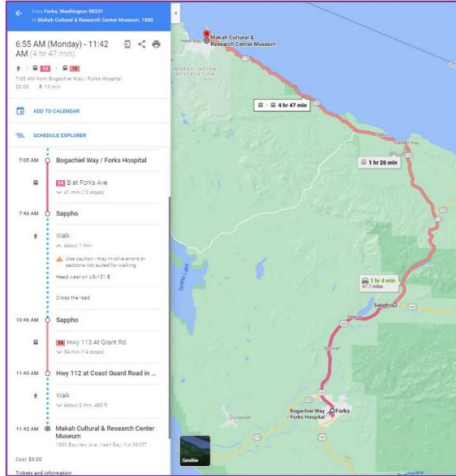
# GTFS Builder Guidebook

Step-by-step Guidebook, Checklist


How-To Videos

No-costs & Technical support


Continuous pick-up and drop-off (GTFS-Flex 1.0)



The screenshot displays the GTFS Builder interface. On the left, a 'SCHEDULE EXPLORER' shows a route starting at 7:00 AM at 'Bogachiel Way / Forks Hospital', passing through 'Forks' and 'Seappho' at 7:40 AM, 'Hey 113 at Grant Rd' at 11:40 AM, and ending at 'Makah Cultural & Research Center Museum' at 11:42 AM. The route is visualized on a map on the right, showing a path along the coast with various stops and distances between them (e.g., 4 for 47 min, 1 for 26 min, 1 for 8 min). The top of the screen shows the date and time: '6:55 AM (Monday) - 11:42 AM'.

 **GTFS  
BUILDER**

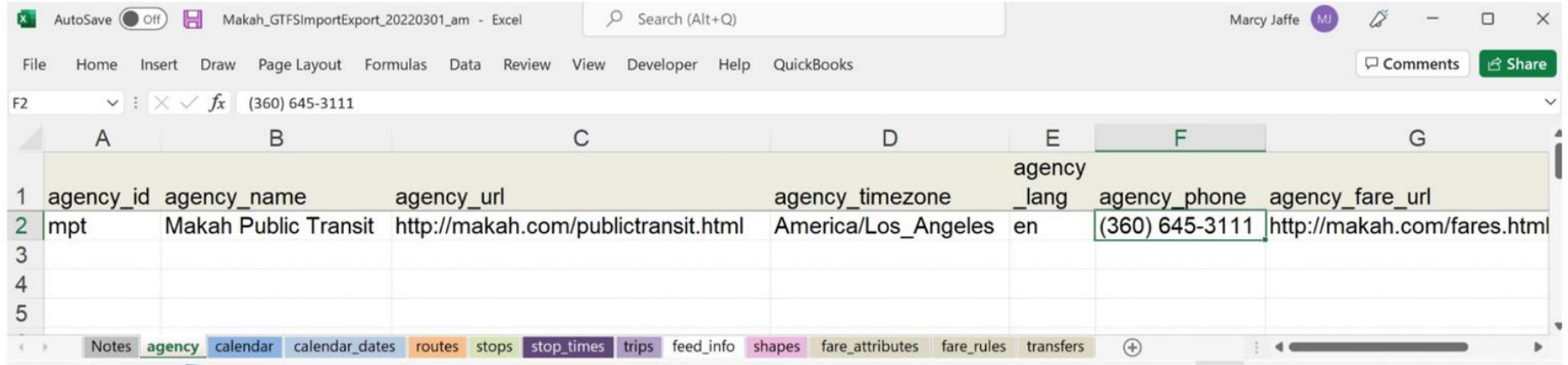
**GTFS BUILDER GUIDEBOOK**  
May 2021

 **National  
RTAP**  
Rural Transit Assistance Program

A Program of the Federal Transit Administration, Administered by the Neponset Valley TMA

<https://www.nationalrtap.org/Technology-Tools/GTFS-Builder/Support>

# Two Excel Files - 1. Import Export



The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G
1	agency_id	agency_name	agency_url	agency_timezone	_lang	agency_phone	agency_fare_url
2	mpt	Makah Public Transit	http://makah.com/publictransit.html	America/Los_Angeles	en	(360) 645-3111	http://makah.com/fares.html
3							
4							
5							

The spreadsheet interface includes a ribbon with tabs: Notes, agency, calendar, calendar\_dates, routes, stops, stop\_times, trips, feed\_info, shapes, fare\_attributes, fare\_rules, and transfers. The 'agency' tab is highlighted in blue and has an arrow pointing to it from the text below.

Agency Tab (1 of 12 tabs)

- 8 required
- 4 optional

# Two Excel Files - 2. Schedule Generator

## MAKAH PUBLIC TRANSIT

PLEASE NOTE: ALL TIMES ARE DEPARTURE TIMES

EFFECTIVE: June 2021

ALSO NOTE: THAT ALL TIMES ARE APPROXIMATE

### Sample Timetable

N/A = Not a scheduled stop

\* = MTC EMPLOYEE PARK & RIDE

400 HSNG.	DIAHT HILL	SCHOOL	STORE	200 LINE	SAIL RIVER	Head Start	HSNG. DEPT.	EAST NURS.	STORE	SCHOOL	SR. CTR.	CLINIC	DIAHT HILL	400 HSNG.	TRIBAL CENTER
7:00a	7:08a	7:13a	7:15a	7:23a	7:27a	7:31a	7:32a	7:33a	*7:35a	7:40a	7:45a	N/A	7:50a	N/A	7:55a
8:00a	8:08a	8:13a	8:15a	8:23a	8:27a	8:31a	8:32a	8:33a	8:35a	8:40a	8:45a	8:47a	8:50a	N/A	8:55a
9:00a	9:08a	9:13a	9:15a	9:23a	9:27a	9:31a	9:32a	9:33a	9:35a	9:40a	9:45a	9:47a	9:50a	N/A	9:55a

AutoSave Off | Makah\_Schedules\_V3\_20220301\_am - Excel | Search (Alt+F)

File Home Insert Draw Page Layout Formulas Data Review View Developer Help QuickBooks

A33

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Trip_group	route_id	service_id	direction_id	trip_head	stop_id	stop_name	pick_up	drop_off	continuous_pickup	continuous_drop_off	time_d_start	wait_time	wheelchair_accessible	bikes_allowed	T01	T02	T03		
1																			
2	Bus Route:R1a																		
3	MPT	mtwtf	0	Sail River	100	Tribal Center						1	1				mpt_a:T01	mpt_a:T01	mpt_a:T01
4	MPT	mtwtf	0	Sail River	101	400 Housing						1	1						
5	MPT	mtwtf	0		102	Diaht Hill								1			07:00:00	08:00:00	09:00:00
6	MPT	mtwtf	0		103	School								1			07:08:00	08:08:00	09:08:00
7	MPT	mtwtf	0		104	Tech Center								1			07:13:00	08:13:00	09:13:00
8	MPT	mtwtf	0		105	Mini Mart													
9	MPT	mtwtf	0		106	Marina													
10	MPT	mtwtf	0		107	Store - Washburns Parking Lot													
11	MPT	mtwtf	0		108	Store - Washburns Parking Lot						1	1				07:15:00	08:15:00	09:15:00
12	MPT	mtwtf	0		109	Hemlock at Bay													
13	MPT	mtwtf	0		125	Museum Road													
14	MPT	mtwtf	0		110	200 Line Rd at Holden Creek Rd													
15	MPT	mtwtf	0		130	200 Line Rd at Holden Creek Rd													
16	MPT	mtwtf	0		110	200 Line Twin Spruce						1	1				07:23:00	08:23:00	09:23:00
					130	Sail River Housing						1	1				07:27:00	08:27:00	09:27:00
					135	Wellness Center						1	1				07:28:00	08:28:00	09:28:00

# What Skills and Time Are Required?

**Beginner Microsoft Excel skills**

**Familiarity or willingness to learn, Google's MyMaps**

**Familiarity or willingness to learn, Google Earth**

**Estimate: four hours per route**

***If you try - we'll help you succeed [support@nationalrtap.org](mailto:support@nationalrtap.org)***



Photo by Andrea Piacquadio:  
<https://www.pexels.com/photo/happy-ethnic-woman-sitting-at-table-with-laptop-3769021/>

# Why GTFS?

**Your GTFS is expected  
in Reporting Year 2023  
for all fixed and deviated fixed route agencies  
With your National Transit Database (NTD)**

**FEDERAL REGISTER**

The Daily Journal of the United States Government

# Schedule/Timetables From GTFS Builder To Your Website

# GTFS Builder - Generates Timetable

Tribal Center	400 Housing	Diaht Hill	School	Store - Washburns Parking Lot	200 Line Twin Spruce
	7:00	7:08	7:13	7:15	7:23
7:55	8:00	8:08	8:13	8:15	8:23
8:55	9:00	9:08	9:13	9:15	9:23

Generate Schedule  
Timetable (optional)

Wellness Center	Head Start	Housing Authority	East Nursery at Shelter	Store - Washburns Parking Lot	School
7:28	7:30	7:31	7:33	7:35	7:40
8:28	8:30	8:31	8:33	8:35	8:40
9:28	9:30	9:31	9:33	9:35	9:40



# Format Timetable (pivot)

Tribal Center		7:55	8:55
400 Housing	7:00	8:00	9:00
Diaht Hill	7:08	8:08	9:08
School	7:13	8:13	9:13
Store - Washburns Parking Lot	7:15	8:15	9:15
200 Line Twin Spruce	7:23	8:23	9:23
Sail River Housing	7:27	8:27	9:27
Wellness Center	7:28	8:28	9:28

# Getting Your Data onto your Website...

The screenshot shows a website builder interface for a ferry company. The top navigation bar includes links for Home, About Us, Schedules and Fares, How to Dial-A-Ride, Policies & Guidelines, FAQ, and Contact Us. A red alert banner reads: "Add an alert here: For example: Due to Weather, Services Are Closed Today". Below this is a "ROUTE SCHEDULE : 123" section for "123 The Strait Shot EASTBOUND" between Port Angeles & Sequim and Bainbridge Island Ferry Terminal. The schedule is divided into three sections: Weekday Service, Saturday Service, and Sunday/Holiday Service, each with a table of departure times.

Gateway Transit Ctr.	Sequim Transit Ctr.	US 101 @ Jamestown	Discovery Bay	N. Viking P&R Poulsbo	SR 305@ Suquamish Way	Bainbridge Ferry Terminal
7:25 AM	7:57 AM	8:07 AM	8:22 AM	8:52 AM	9:05 AM	9:25 AM
12:30 PM	1:02 PM	1:12 PM	1:27 PM	1:57 PM	2:07 PM	2:30 PM
6:00 PM	6:32 PM	6:42 PM	6:57 PM	7:27 PM	7:37 PM	7:57 PM

Gateway Transit Ctr.	Sequim Transit Ctr.	US 101 @ Jamestown	Discovery Bay	N. Viking P&R Poulsbo	SR 305@ Suquamish Way	Bainbridge Ferry Terminal
7:25 AM	8:00 AM	8:10 AM	8:25 AM	8:55 AM	9:05 AM	9:25 AM
12:30 PM	1:02 PM	1:12 PM	1:27 PM	1:57 PM	2:07 PM	2:30 PM
4:15 PM	4:47 PM	4:57 PM	5:12 PM	5:42 PM	5:52 PM	6:15 PM

Gateway Transit Ctr.	Sequim Transit Ctr.	US 101 @ Jamestown	Discovery Bay	N. Viking P&R Poulsbo	SR 305@ Suquamish Way	Bainbridge Ferry Terminal
8:05 AM	8:37 AM	8:47 AM	9:02 AM	9:32 AM	9:42 AM	10:05 AM
3:15 PM	3:47 PM	3:57 PM	4:12 PM	4:42 PM	4:52 PM	5:15 PM

## Auto Sync



## Manual



# Will You Proceed with GTFS Builder?

# Published Trip Planner Displays Route Map

# Interactive Map: GTFS Builder - Published Route

- Route shapes displays the bus route on the roads
- Route shape can be any color (match website)
- Updates with new route display
- Limitations
  - Requires publishing GTFS feed with optional route “shapes”
  - Loop routes may not display as desired

# Interactive Route Map

Google Maps



Terrain, traffic & more  
Layers have moved



Your places



Your contributions



Location sharing



Your timeline

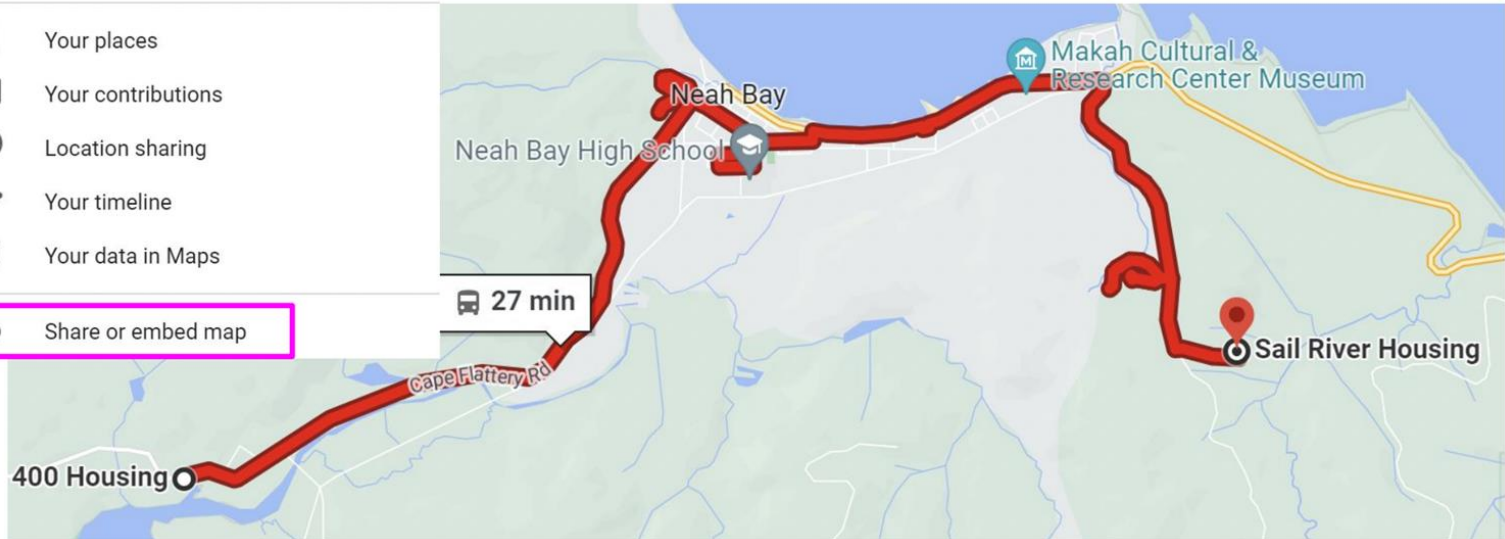


Your data in Maps

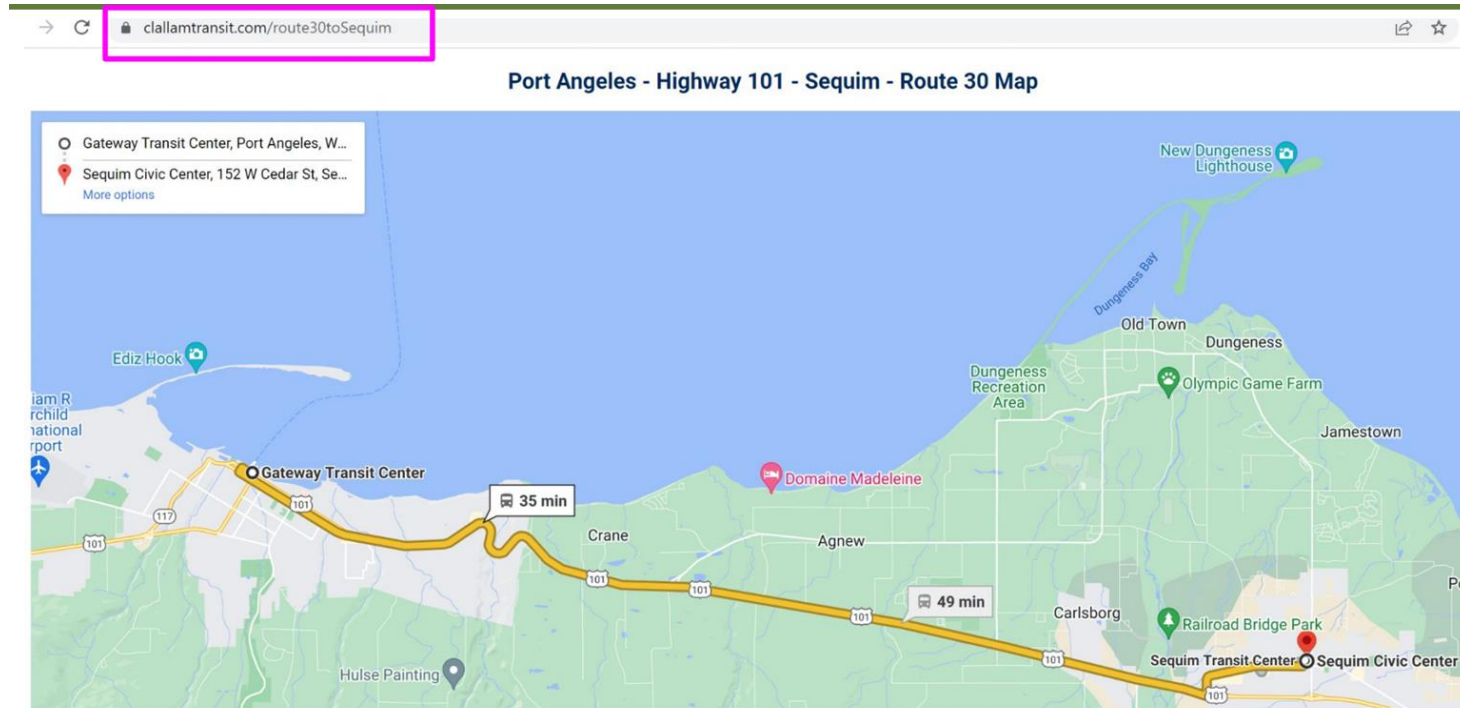


Share or embed map

## Google Maps **Transit** Directions (maps.google.com)



# Interactive Route Map



# Next steps

- Download GTFS Builder & Guidebook from  
<https://www.nationalrtap.org/Technology-Tools/GTFS-Builder/Support>
- Website Builder  
<https://www.nationalrtap.org/Technology-Tools/Website-Builder>





5<sup>th</sup> National RTAP Conference  
**Navigating the Tides of Change  
with Rural & Tribal Transit**

**December 3-6, 2023**

**Marriott Myrtle Beach Resort & Spa**  
*Night out at Brookgreen Gardens*

[Nationalrtap.org/News/Conference/2023-Myrtle-Beach](https://Nationalrtap.org/News/Conference/2023-Myrtle-Beach)

**Call for presentations** and **hotel booking link** are live!

Conference schedule and registration coming soon

Join us for training, networking & peer information sharing



# Upcoming and Recent National RTAP Events

## UPCOMING:

### **GTFS Builder Weekly Office Hours**

Thurs. 1-1:30 PM ET

### **Succession Planning 101**

May 9, 2023, 2:00-3:00 PM ET

## RECENT:

**Risky Business Webinars:** Insurance for Nonprofits and Small Transit Agencies

### **Six-Part Marketing Workshop Series**

**Resource Share: Learn about TAACL** Technical Assistance Coordination Library

**Microtransit vs. Micromobility**

# Questions?

# Support & Training

## **Marcy Jaffe**

GTFS Builder Support

marcy@mjcaction.com

360-643-1002

- Website - [www.NationalRTAP.org](http://www.NationalRTAP.org)
- Email - [support@NationalRTAP.org](mailto:support@NationalRTAP.org)
- Phone - 888-589-6821
- Live Chat - Access via website

National RTAP

5 Wheeling Avenue, Unit B

Woburn, MA 01801

**National  
RTAP**  
Rural Transit Assistance Program



U.S. Department of Transportation  
Federal Transit Administration

# Thank You!



## National Rural Transit Assistance Program

888-589-6821 | [nationalrtap.org](http://nationalrtap.org) | [info@nationalrtap.org](mailto:info@nationalrtap.org)

Find us on Facebook, Twitter, YouTube, LinkedIn & Instagram



U.S. Department of Transportation  
Federal Transit Administration