



Creating a Seamless Information Experience for the Transportation End-User

25 October 2010

19th National Conference on Rural Public and Intercity
Bus Transportation

Aaron Antrim | Trillium Solutions, Inc.

What if...

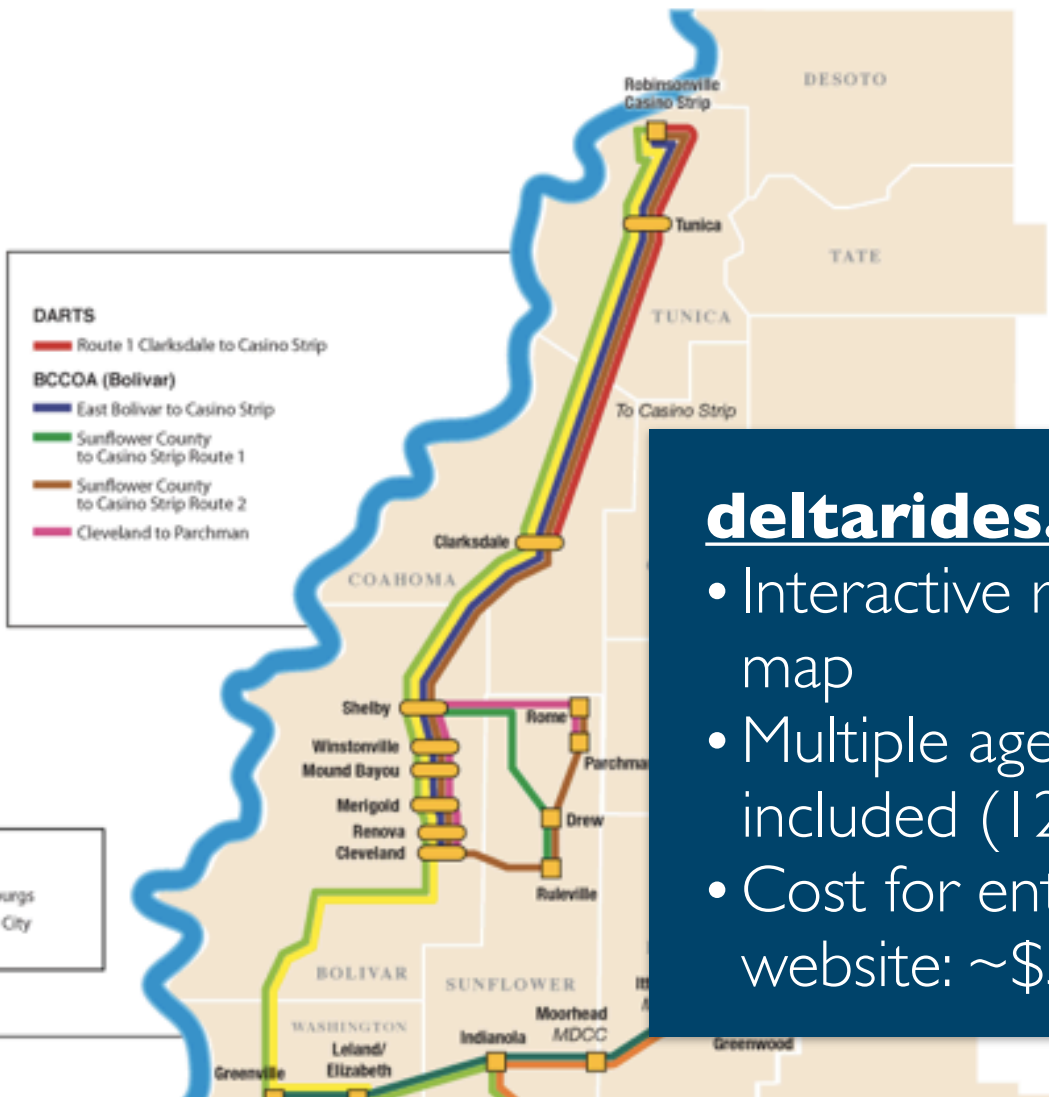
drivers needed to consult
different maps for
interstate highways, state
highways, county roads,
and city streets?

This is how most
transit information
is presented today.

Project: Deltarides.com
(Mississippi
Delta Region)



Click a route in the map or legend, or an agency name, for more detail.



deltarides.com

- Interactive regional map
- Multiple agencies included (12)
- Cost for entire website: ~\$5,000

- DARTS**
- █ Route 1 Clarksdale to Casino Strip
- BCCOA (Bolivar)**
- █ East Bolivar to Casino Strip
 - █ Sunflower County to Casino Strip Route 1
 - █ Sunflower County to Casino Strip Route 2
 - █ Cleveland to Parchman



BCCOA Schedule - East Bolivar County

Service Monday through Sunday

| | |
|--|-----------|
| CLEVELAND to SHELBY to CASINO STRIP | AM |
| Cleveland: BCCOA Office | 4:30 |
| Merigold: One Stop | 4:40 |
| Mound Bayou: Smitty's | 4:45 |
| Winstonville: Post Office | 4:55 |
| Shelby: Double Quick Meet | |
| BCCOA Shuttle to Casino Strip | 5:00 |
| Casino Strip | 6:30 |
| CASINO STRIP to SHELBY CLEVELAND | PM |
| Casino Strip | 4:00 |
| Shelby: Double Quick | |
| BCCOA Shuttle to Benoit | 5:30 |
| Winstonville: Post Office | 5:40 |
| Mound Bayou: Smitty's | 5:50 |
| Merigold: One Stop | 6:00 |
| Cleveland: BCCOA Office | 6:10 |

This trip calendar shows intercity public transit trips that are scheduled for the near future. If you would like to find out how to make a reservation for one of these trips, click on the e-mail link for that trip. Or call the transit provider shown for the trip.

Note that these trips are in addition to the regularly schedule bus routes shown under **Fixed Routes**.

[Logout](#)

Transit Trip Calendar

Search Calendar for: By: Origin

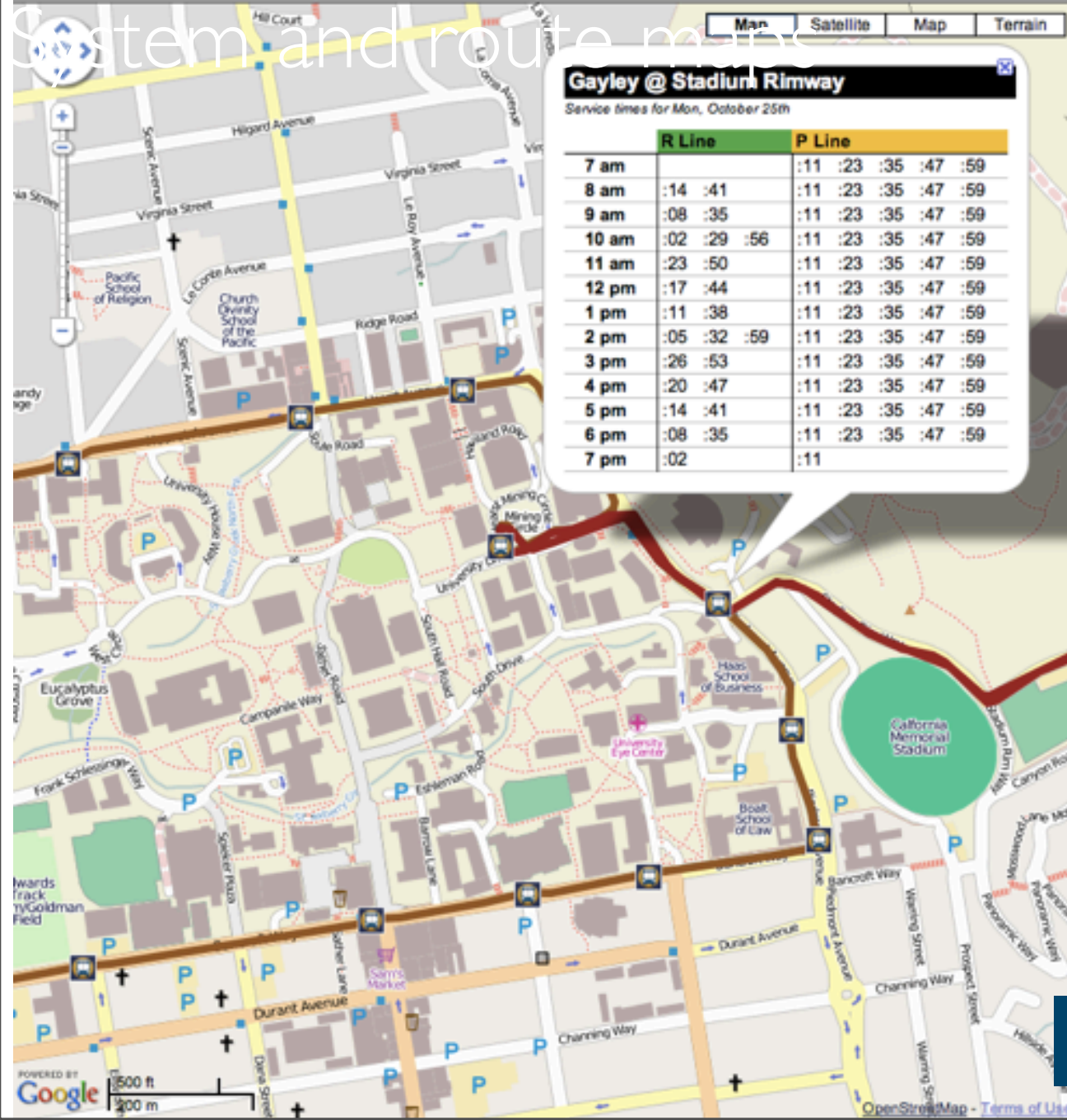
+ Add Event

| date | start time | origin | destination | transit provider | email |
|----------|------------|----------------|----------------|----------------------|--|
| 03-13-08 | 6:00 am | Shelby, MS | Jackson, MS | BCCOA Transportation | email edit |
| 03-13-08 | 7:00 am | Lambert, MS | Clarksdale, MS | BCCOA Transportation | email edit |
| 03-13-08 | 7:30 am | Shelby, MS | Greenwood, MS | BCCOA Transportation | email edit |
| 03-13-08 | 9:15 am | Rosedale, MS | Clarksdale, MS | | |
| 03-13-08 | 8:00 am | Hollandale, MS | Greenville, MS | | |
| 03-13-08 | 8:00 am | Hollandale, Ms | Leland, Ms | | |
| 03-13-08 | 9:15 am | Rosedale, MS | Greenville, MS | | |
| 03- | 9:50 | | | BCCOA | |

deltarides.com

- Trip calendar shows one-time or reoccurring scheduled trips

Project: UC Berkeley
Bear Transit
multi-modal
map, timetables,
and trip planner



Click a **checkbox** to show or hide a route. Click **route name** to zoom into that route.

Zoom in to see bus stops. Click a bus stop for stop times.

[show all Bear Transit routes](#) | [hide all](#)

Daytime Shuttles: Monday - Friday

- C Line
- H Line
- P Line
- R Line
- RFS Line

Night Safety Shuttles: Every day

- South Side Shuttle
- North Side Shuttle

Bike parking Car parking lots

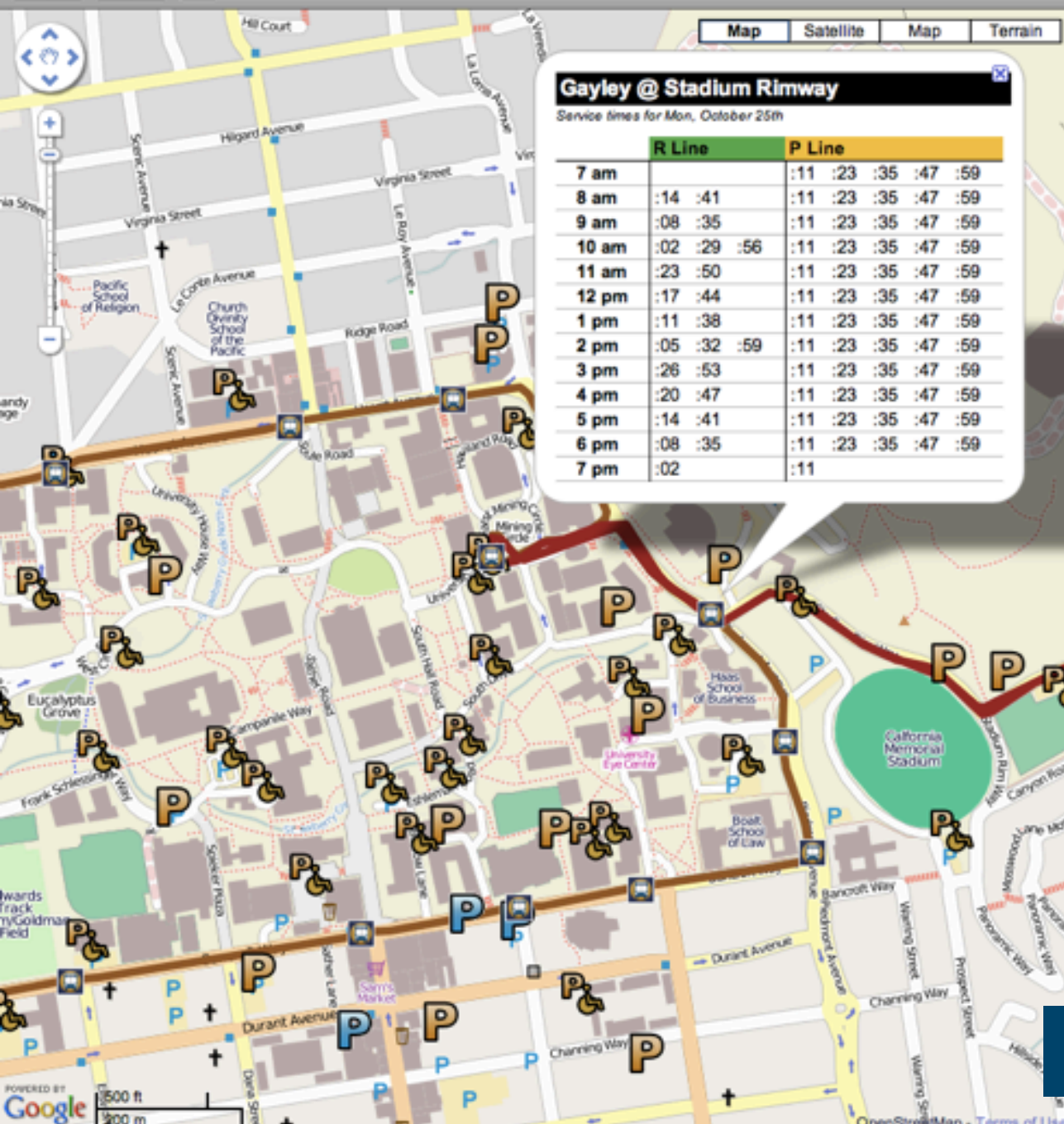
Bike rack

Secure bike rack

General lot

Accessible parking

Off-campus lot



Gayley @ Stadium Rimway
Service times for Mon, October 25th

| | R Line | P Line |
|-------|---------------------|---------------------|
| 7 am | :11 :23 :35 :47 :59 | :11 :23 :35 :47 :59 |
| 8 am | :14 :41 | :11 :23 :35 :47 :59 |
| 9 am | :08 :35 | :11 :23 :35 :47 :59 |
| 10 am | :02 :29 :56 | :11 :23 :35 :47 :59 |
| 11 am | :23 :50 | :11 :23 :35 :47 :59 |
| 12 pm | :17 :44 | :11 :23 :35 :47 :59 |
| 1 pm | :11 :38 | :11 :23 :35 :47 :59 |
| 2 pm | :05 :32 :59 | :11 :23 :35 :47 :59 |
| 3 pm | :26 :53 | :11 :23 :35 :47 :59 |
| 4 pm | :20 :47 | :11 :23 :35 :47 :59 |
| 5 pm | :14 :41 | :11 :23 :35 :47 :59 |
| 6 pm | :08 :35 | :11 :23 :35 :47 :59 |
| 7 pm | :02 | :11 |

Berkeley
UNIVERSITY OF CALIFORNIA
P&T PARKING AND TRANSPORTATION

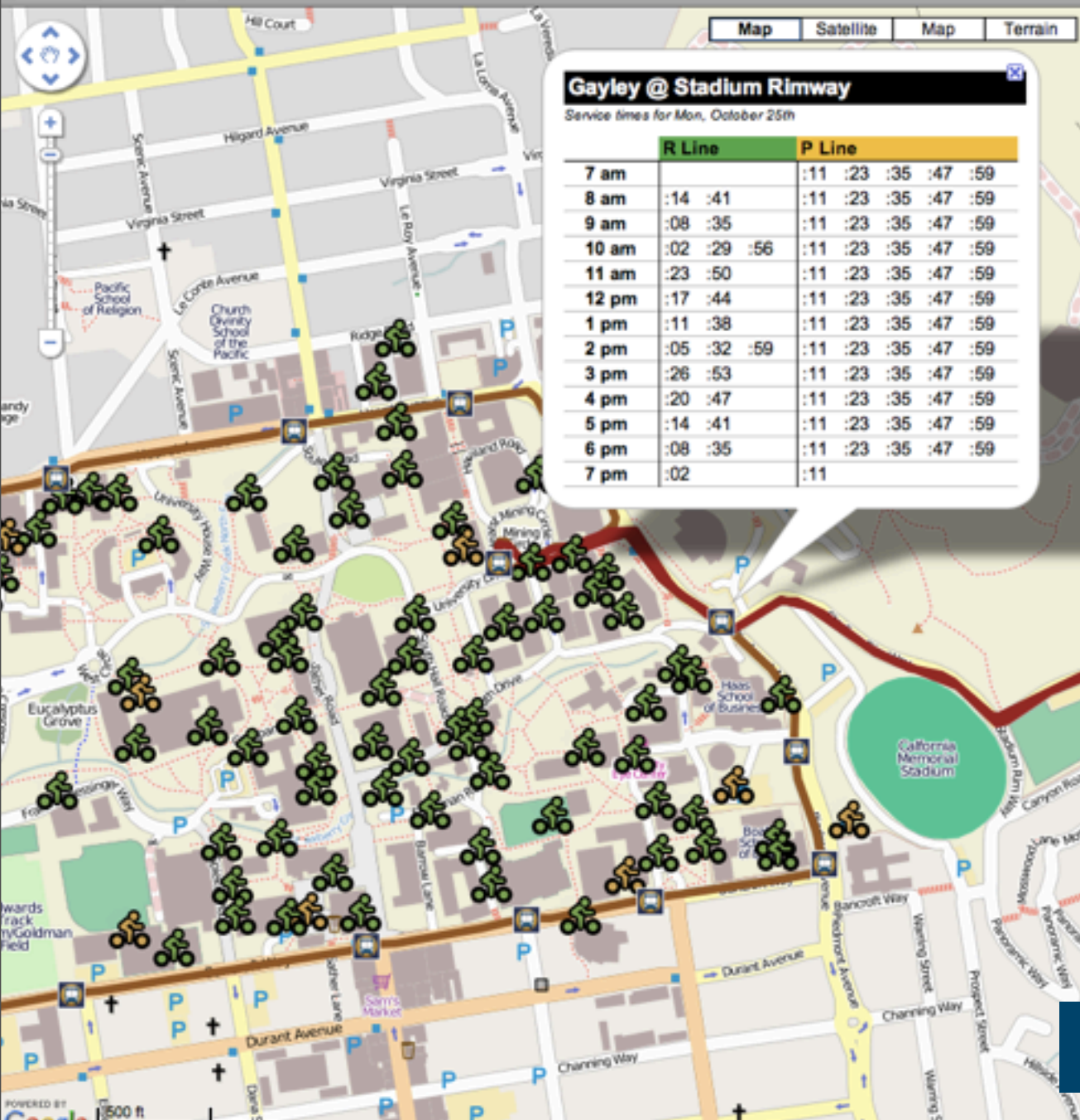
Click a **checkbox** to show or hide a route. Click **route name** to zoom into that route.

Zoom in to see **bus stops**. Click a bus stop for **stop times**.

[show all Bear Transit routes](#) | [hide all](#)

- Daytime Shuttles: Monday - Friday**
- C Line
 - H Line
 - P Line
 - R Line
 - RFS Line
- Night Safety Shuttles: Every day**
- South Side Shuttle
 - North Side Shuttle

- Bike parking Car parking lots
- Bike rack
 - Secure bike rack
 - General lot
 - Accessible parking
 - Off-campus lot



Gayley @ Stadium Rimway

Service times for Mon, October 25th

| | R Line | P Line |
|-------|---------------------|---------------------|
| 7 am | :11 :23 :35 :47 :59 | :11 :23 :35 :47 :59 |
| 8 am | :14 :41 | :11 :23 :35 :47 :59 |
| 9 am | :08 :35 | :11 :23 :35 :47 :59 |
| 10 am | :02 :29 :56 | :11 :23 :35 :47 :59 |
| 11 am | :23 :50 | :11 :23 :35 :47 :59 |
| 12 pm | :17 :44 | :11 :23 :35 :47 :59 |
| 1 pm | :11 :38 | :11 :23 :35 :47 :59 |
| 2 pm | :05 :32 :59 | :11 :23 :35 :47 :59 |
| 3 pm | :26 :53 | :11 :23 :35 :47 :59 |
| 4 pm | :20 :47 | :11 :23 :35 :47 :59 |
| 5 pm | :14 :41 | :11 :23 :35 :47 :59 |
| 6 pm | :08 :35 | :11 :23 :35 :47 :59 |
| 7 pm | :02 | :11 |

Berkeley
UNIVERSITY OF CALIFORNIA

P&T PARKING AND TRANSPORTATION

Click a **checkbox** to show or hide a route. Click **route name** to zoom into that route.

Zoom in to see bus stops. Click a bus stop for stop times.

[show all Bear Transit routes](#) | [hide all](#)

Daytime Shuttles: Monday - Friday

- C Line
- H Line
- P Line
- R Line
- RFS Line

Night Safety Shuttles: Every day

- South Side Shuttle
- North Side Shuttle

Bike parking **Car parking lots**

Bike rack

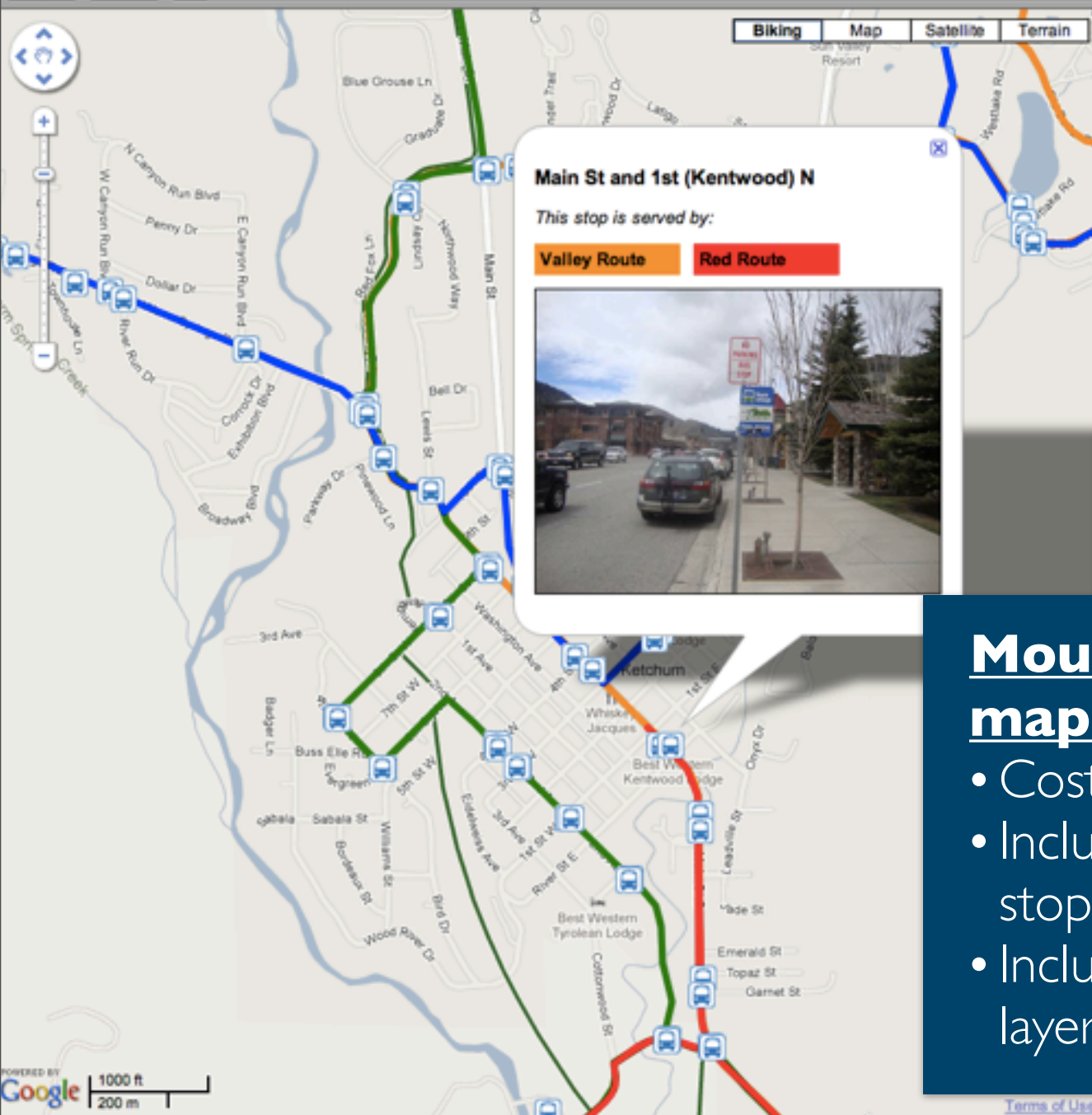
Secure bike rack

General lot

Accessible parking

Off-campus lot

Project: Mountain Rides
map (Ketchum,
Idaho)



Back to Mountain Rides home

Mountain RIDES

Click a **checkbox** to show or hide a route. Click **route name** to zoom into that route.

Zoom in to see bus stops. Click a bus stop for stop times.

[show all routes](#) | [hide all](#)

- Valley Route (timetable)
- Green Route (timetable)
- Red Route (timetable)
- Blue Route (timetable)

Mountain Rides map (Ketchum, ID)

- Cost: \$3,600
- Includes images of stops
- Includes bike route layer

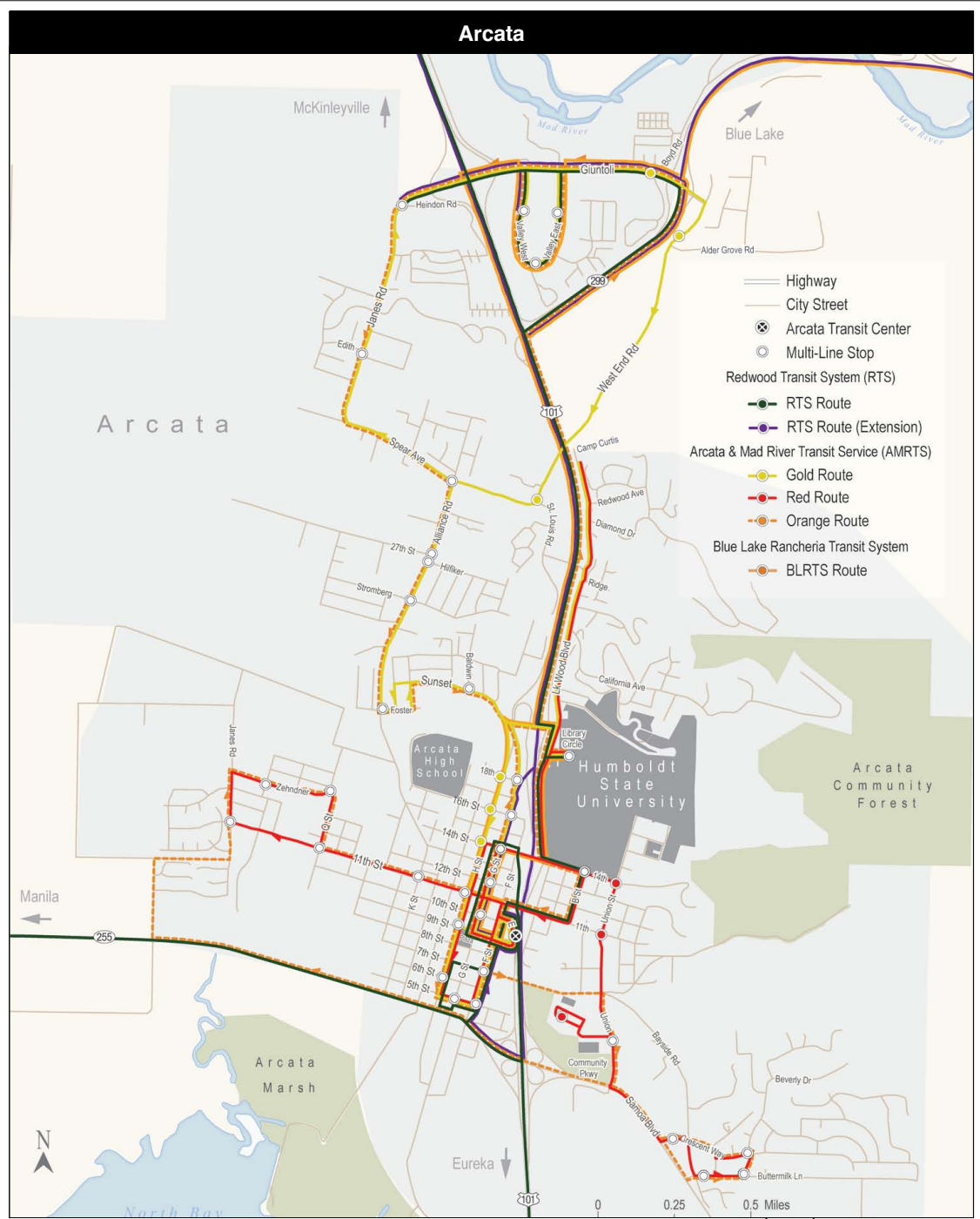
Project: Humboldt
County
Transportation
Services Guide

Humboldt County Transportation Services Guide

for public transit and human services transportation

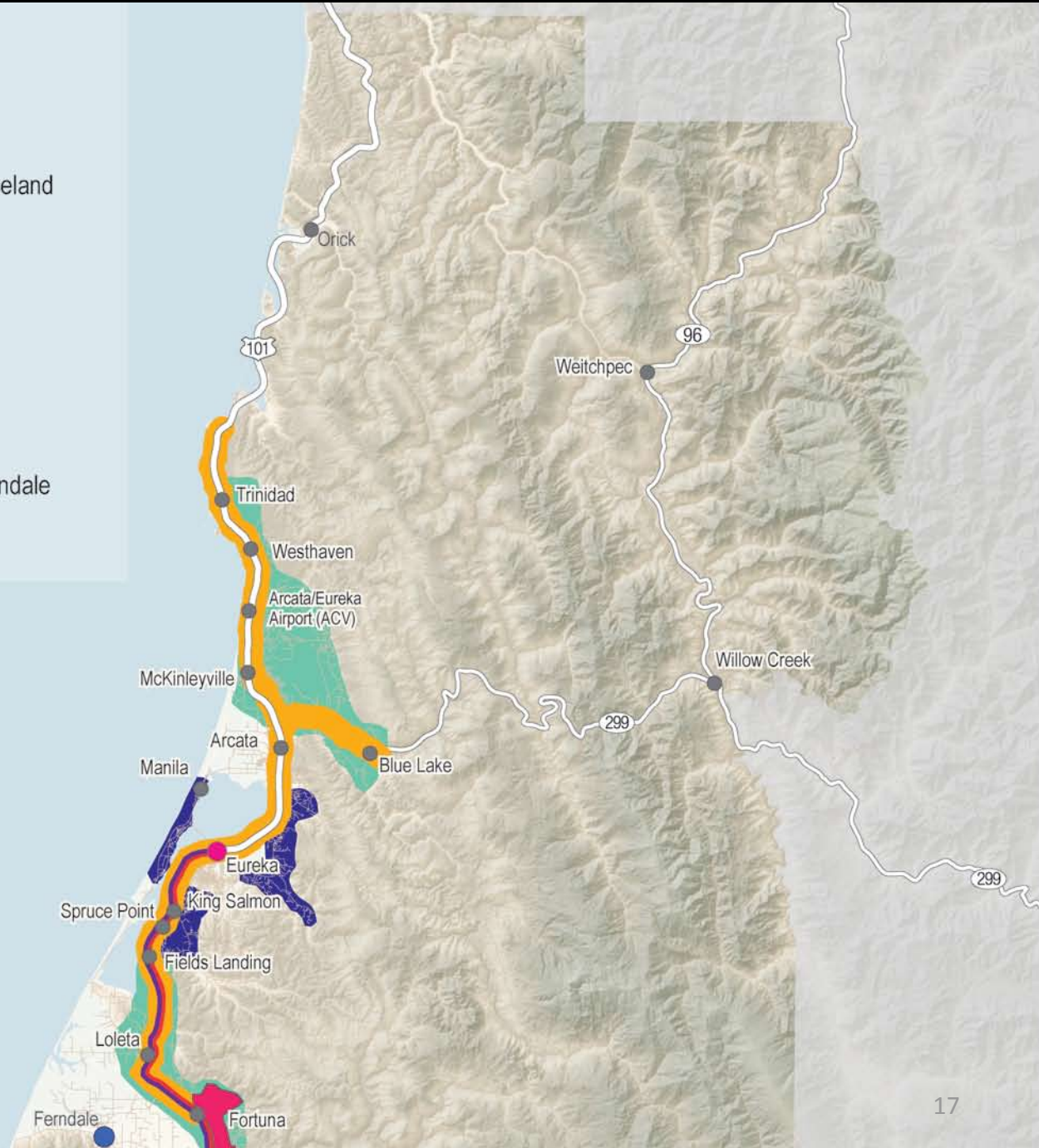


Published January 2010



Humboldt County: Human Service Transportation

- Highway
- Bridgeville Community Center Van
- Southern Trinity Health Service
- Community Cornerstone, Inc: Redway to Briceland
- Fortuna Senior Bus: Fortuna City Limits
- HCAR: Care-A-Van
- HCAR: DAR
- Humboldt Medi-Trans
- Cities
- Eureka Dial-A-Ride: See Inset Map Below
- Bridging the Gap Transportation Service: Ferndale



Humboldt Bay Area transportation services

| Service | Service area | Service hours | Eligibility | Accessibility | Cost | Contact |
|--|--|---|---|--|--|---|
| Bridging the Gap Transportation Service (Ferndale Senior Resource Agency) | Service area: Humboldt Bay Area for shopping trips and medical appointments. | | Residents of Ferndale only. 62 years and older or must have a disability. | No information. | In-ferndale trips are cost-free. Siding fee for inter-city travel: Ferndale to Fortuna: \$4 (round trip) Ferndale to Eureka: \$8 round trip (provided trips are no more than 2 hours - | 707-786-4141 |
| CARE-A-VAN (operated by Humboldt Community Access and Resource Center) | CARE-A-VAN:south of Fields Landing to Scotia as well as the communities of Blue Lake, Trinidad, & | Mon-Sat 7am to 7 pm | Requires dial-a-ride certification from Humboldt Transit Authority | ADA accessible. | No cost | 707-443-7077 ats@hcar.us www.hcar.us |
| Dial-a-ride (operated by Eureka City Ambulance) | From from Herrick Ave, Eureka to Clam Beach, McKinleyville | Mon-Fri, 6am-7pm. Saturday, 7:30a-5:30p. | Requires dial-a-ride certification from Humboldt Transit Authority | ADA accessible. | \$2.80 per trip within a service zone. Additional fare per service zone. | 707-442-4555 |
| Dial-a-ride (operated by Humboldt Community Access and Resource Center) | Communities south of Eureka to Fields Landing; Samoa/Manila; Old Arcata Rd; Indianola; & Freshwater | Mon-Sat 7am to 7 pm | Requires dial-a-ride certification from Humboldt Transit Authority | ADA accessible. | DAR the tickets are sold through the transit centers, senior centers, and city hall. As of now the price per ticket is \$2.80. | 707-443-7077 ats@hcar.us www.hcar.us |
| Door-to-door airporter | Transportation to and from Arcata/Eureka Airport only. Primary service area is Fortuna to Trinidad. Service to and from other areas may be arranged in | All flights serviced with advanced reservations | | No wheelchair lifts, do not provide child safety seats | Cost of transportation is based on area, number of passengers, luggage, pets etc. Example: 2 passengers from Eureka: \$28.00 Payments accepted: Visa, Mastercard, Amercian Express, Discover Cash, and Local Checks | 888-338-5497 airporter@suddenlink.net doortodoorairporter.com |

Project: Google Transit
for Oregon
intercity
services



Plan a trip using public transportation

Use Google Maps to

- Get step-by-step transit directions
 - [in your web browser](#)
 - [on your mobile phone](#)
- Find transit stops in your area
- View station information and schedules

Join the [transit partner program](#)

Get transit directions

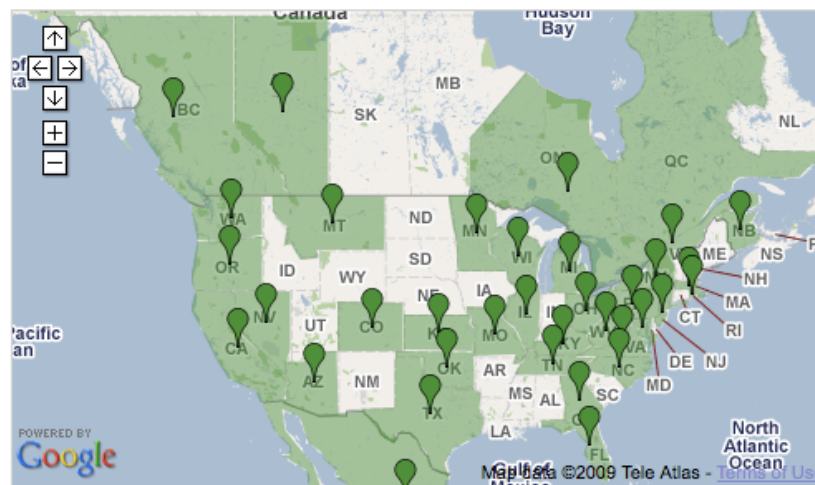
 Start address

 Destination address

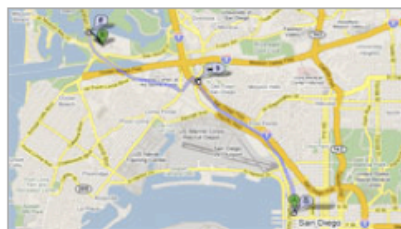
Leave

See what cities are covered (more than 256) [View text only version](#)

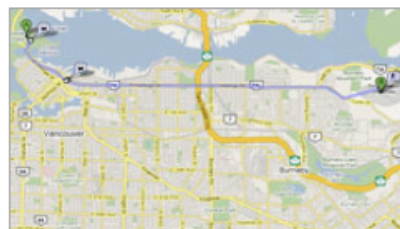
Recent highlights: [Moscow](#) [Montréal](#) [New York](#) [Houston, TX](#)



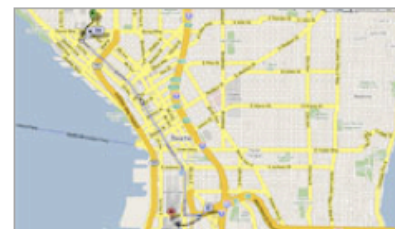
Featured searches



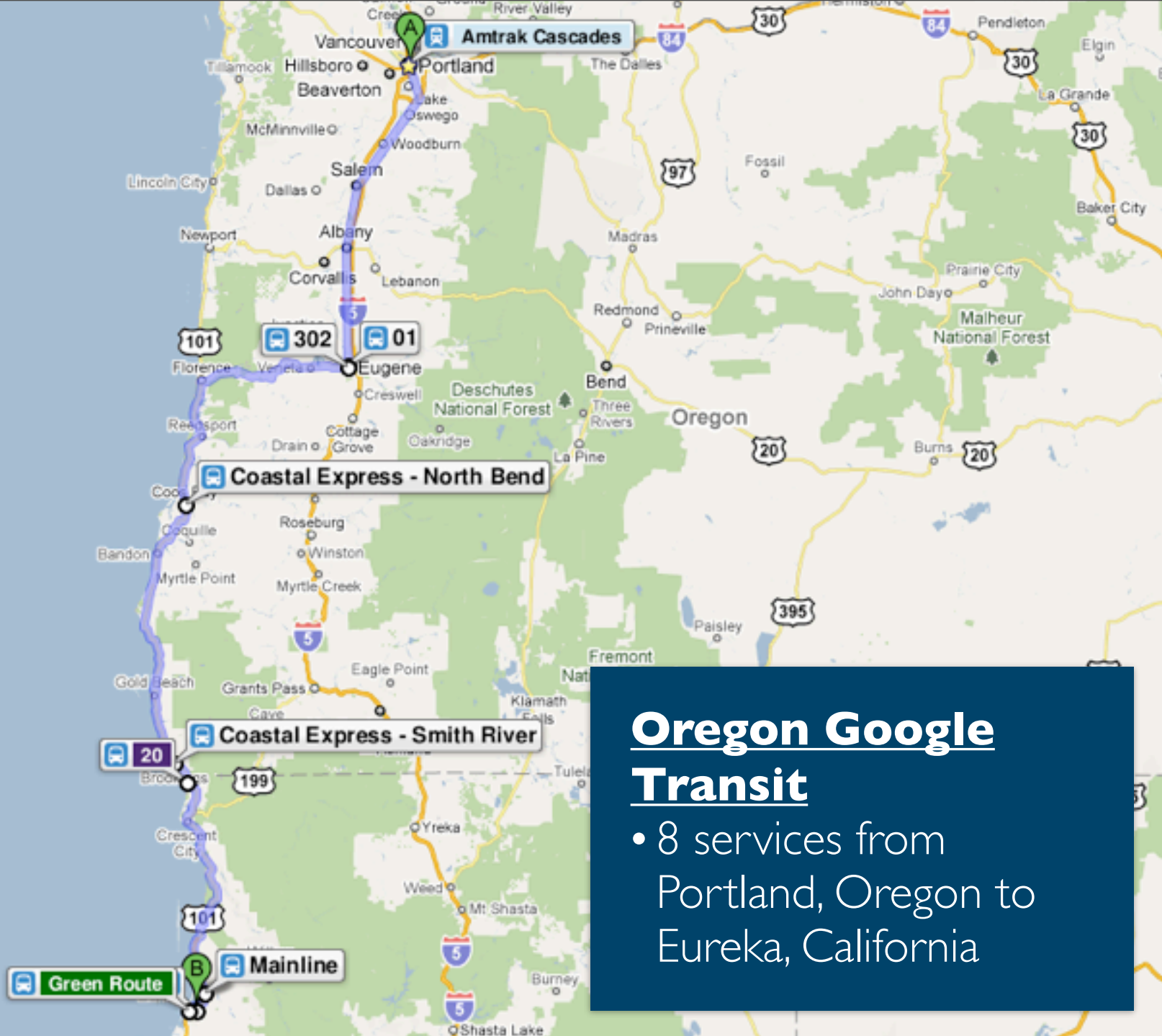
[San Diego Amtrak Station to SeaWorld](#)



[Stanley Park, BC to Simon Fraser University](#)



[Space Needle to Safeco Field](#)



Oregon Google Transit

- 8 services from Portland, Oregon to Eureka, California

Why Google Transit?

Inter-agency trip planning

A 2700 Pleasant Ave
Eureka, CA 95503

Showing Trip 1 Travel time: about 12 hours 54 mins

Walking to Excelsior & Campton
About 5 mins
[Show details](#)

Bus - Red Route - Direction: (Loop)
Service run by Eureka Transit Service - (707) 443-0826

6:32am Depart Excelsior & Campton
: 27 mins
6:59am Arrive H & 3rd

Bus - Mainline - 5 - Direction: Northbound: Trinidad
47 mins to make transfer
Service run by Redwood Transit System - (707) 443-0826

7:46am Depart 5th & H Streets, Eureka
: 23 mins
8:09am Arrive Arcata Transit Center

Bus - 299 - Willow Creek-Arcata - Direction: Eastbound: Willow Creek
16 mins to make transfer

8:25am Depart Arcata Transit Center
: 1 hour 0 mins
9:25am Arrive Willow Creek

Bus - Down River Route - Direction: Weaverville
20 mins to make transfer
Service run by Trinity Transit - 530-623-LIFT (5438)

9:45am Depart Willow Creek @ Hwy 299 & 96
: 1 hour 26 mins
11:11am Arrive Weaverville Library
[Route Information - trinitytransportation.org](http://trinitytransportation.org)

Bus - Weaverville-Redding - Direction: Redding
1 hour 54 mins to make transfer

1:05pm Depart Weaverville Library
: 1 hour 11 mins
2:16pm Arrive RABA Downtown Transit Center

walking directions

Eureka Transit Service

Redwood Transit System

Redding Area Bus Authority

transfer duration

Trinity Transit

route timetable link

agency website and fare schedule links

B Burney, CA

Bus - Burney Express - Direction: Burney
3 hours 29 mins to make transfer
Service run by Redding Area Bus Authority - 530-241-2877

5:45pm Depart Downtown Transit Center
: 1 hour 25 mins
7:10pm Arrive Rite-Aid, Burney
[Route Information - rabaride.com](http://rabaride.com)

Walking to Burney, CA
About 11 mins
[Show details](#)

Local agency information:
Contains more information on fares, schedules, and service advisories

[Eureka Transit Service](#)
[Redding Area Bus Authority](#)
[Redwood Transit System](#)
[Trinity Transit](#)

Oregon Google Transit Challenges

| Challenge | Solution approach |
|--|--|
| Agency staff capacity for implementation | Trillium (consultant) manages all data entry |
| Google Transit display limitations | Problems are reported in Google Transit support groups |
| Maintaining up-to-date data | Software emails agencies when data is expiring |



Login
Forgot Password

Login

Your browser must allow cookies in order to log in.

Email Address:

Password:

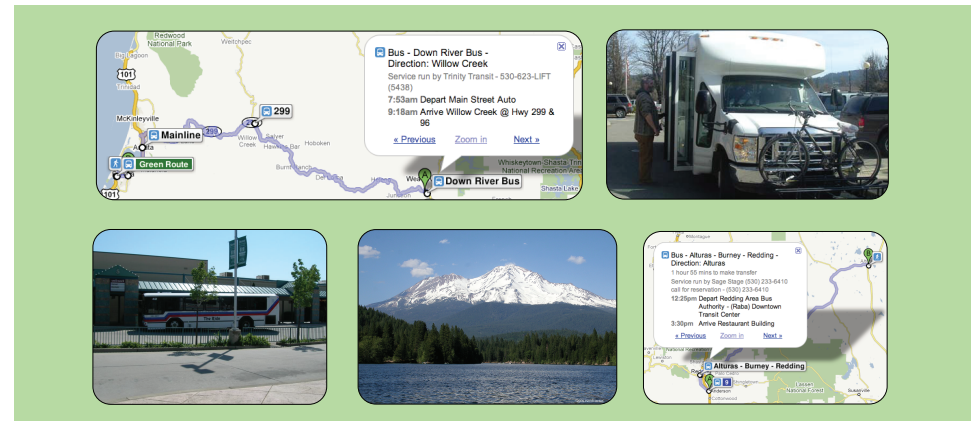
Questions/need help? Email Aaron Antrim, aaron@trilliumtransit.com.

Resource: Northern
California
Google Transit
Feasibility
Study

Northern California Google Transit Feasibility Study

FINAL

Pilot project and full implementation roadmap for
Inyo, Lassen, Modoc, Mono, Plumas, Shasta,
Siskiyou, Tehama, and Trinity counties



Study highlights
Google Transit
issues for rural
and intercity
service

Shasta County Regional Transportation Planning Agency

October 2009



Trillium
TRANSIT INTERNET SOLUTIONS

in association with

Nelson|Nygaard
consulting associates

The **Google Transit Feed Specification**, as a lightweight data standard for transit geographic and schedule data, has quickly become an **increasingly ubiquitous** format.

And you don't have to be Google to use it.

Open data makes transit
information more
ubiquitous.

Open data enables
innovation.

Directory of third-party transit applications and agencies that provide open data.



City-Go-Round™

Apps that help you get around

FrontSeat SOFTWARE FOR CIVIC LIFE

Apps | Agencies | About

Follow us Friend us

Find apps near me: Search

15 apps near Arcata, CA. [Add a new app](#)

Perfect! 3 of 3 nearby transit agencies provide open data to app developers. [Hide details](#)

Agencies with open data:

- [Arcata & Mad River Transit System](#)
- [Eureka Transit Service](#)
- [Redwood Transit System](#)

Public transit apps near Arcata, CA:



Walk Score
By Front Seat
★★★★★ (14 ratings)
Editors' Choice

Walk Score calculates the walkability of an address based on the distance from your house to nearby amenities. *Platforms: iPhone App, Website (Desktop/Laptop)*



Google Maps
By Google
★★★★★ (9 ratings)

Google Maps offers transit directions and transit maps for many cities around the world. *Platforms: Blackberry App, Palm WebOS App, iPhone App, Website (Desktop/Laptop), Other, Website (Mobile-Optimized), Android App*



MyStops
By Andrew Vilcsak
★★★★★ (1 ratings)

MyStops is the quickest and easiest way to check your most frequently-used bus and transit schedules on iPhone and iPod Touch. *Platforms: iPhone App*



TransiCast
By Joa
☆☆☆☆☆ (0 ratings) **A**

App

A transit service browser for Android *Platforms: Android*



TripCheck Transportation Options
By Oregon Department of Transportation
☆☆☆☆☆ (0 ratings)

Oregon Transit Information *Platforms: Website (Desktop/Laptop)*



UniBus
By Zhenwang Yao
★★★★☆ (4 ratings)

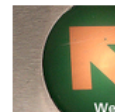
iPhone App

Unified mobile app for transit schedule *Platforms:*



iNap for iPhone
By Moop.Me
★★★★☆ (3 ratings)

Using the GPS in your iPhone it will determine where you are, and wake you when you are close to your destination! *Platforms: iPhone App*



URBANWARE Mass Transit
By Urban Mapping
★★★★☆ (6 ratings)

Mass Transit Proximity API--lng/lat in, transit info, range & bearing out! *Platforms: Other*

SUPPORT OPEN DATA

Add your name to the following message:
"Transit apps help me get around. Make public transit data public using a standard format and license."

After signing you will receive occasional updates about transportation issues from Front Seat.

Name:

Email:

City:

State:

Country:

[I Support Open Data](#)

Bus Transportation
Need Transportation? Find Local Bus Services On YELLOWPAGES.COM. [yellowpages.com](#)

Crane Business Stationery
Professional Business Stationery & Accessories from Crane - Since 1801 [Crane.com/Business](#)

No-Brainer Benefits
White Paper focuses on savings achieved with commuter benefits. [www.commutercheck.com](#)



Ads by Google

Feedback

Multi-modal trip planning application
uses GTFS

Show all relevant options – including
public transit, private employer
shuttles, carpool, vanpool, biking,
walking – through a single map

Show interagency transfers



Multi-Modal Planning

Patagonia - Ventura

Patagonia Commuter Resources | Trip Planner

http://patagonia.mycommuteoptions.com/trip_planner#app=4874&c05c-selected

patagonia Commuter Resources

Home Trip Planner Carpool Calendar

Trip Planner

Search

From: 527 Miramonte Dr, Sant

To: Patagonia (Ventura)

Date: Tomorrow, March 17th

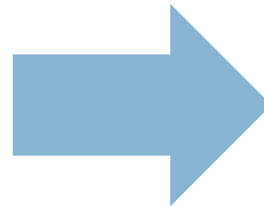
Departure Time: 7:25 AM - 8:05 PM

Search Distance: up to 1 mile

Carpool (7) Transit (3)

7 potential options. Click below for details.

- Rider or Driver 1:50p - 3:55p
- Rider or Driver 1:50p - 3:55p
- Rider or Driver 8:35a - 10:3...
- Rider or Driver 7:30p - 11:3...



Carpool (7) Transit (3)

3 potential options. Click below for details.

| | | |
|--|--------------|-------|
| | 9:20a -9:57a | (37m) |
| | 2:00p -2:41p | (41m) |
| | 4:30p -5:08p | (38m) |

Details

Amtrak Surfliner Southbound
Operated by Antrak Pacific Surfliner
9:20a Depart Santa Barbara
9:57a Arrive Ventura

Show all relevant options; 7 carpool, 3 transit

Inter-service Transfers

Genentech – South San Francisco

The screenshot shows the gRide Ride Planner website. The search criteria are: From: 33 Geary St, San Francisco, CA; To: Lower Campus; Date: Tomorrow, March 17th; Departure Time: 6:10 AM - 7:45 PM; Search Distance: up to 1 mile. The map shows a route from San Francisco to South San Francisco. A blue arrow points from the search results area to the right.

The close-up shows the transit options and details. The options are:

| Transit (3) | Options | Duration |
|---|---------------|----------|
| 3 potential options. Click below for details. | | |
| | 6:12a - 6:59a | (47m) |
| | 6:13a - 7:05a | (52m) |
| | 6:12a - 7:09a | (57m) |

The details for the BART option are:

BART
Operated by Bay Area Rapid Transit
6:20a Depart Powell St. BART
6:29a Arrive Glen Park BART

The details for the GenBus option are:

Glen Park BART GenBus
Operated by Genentech GenBus
6:30a Depart Glen Park BART

Transfer from BART to private employer shuttle

transitandtrails.org

Connects hiking trail and campground data with transit (with links to Google Transit).

Welcome | [Register](#) | [Login](#)

Transit & Trails

Find Plan Share

Find

Find trips, trailheads and campgrounds near you!

Just enter your address below, click Find and use the list below and the map to choose your next adventure. You can also double-click on the map to center your search on any spot.

[Click here for a video introduction!](#)

Start

Within miles of :

37.77493, -122.419415

Featured Trips Trailheads Camp Grounds

| Name | Distance |
|--|----------|
| 1. Embarcadero to Ocean Beach | 1.99 |
| 2. Transit to the Ridge Trail | 6.73 |
| 3. Sausalito to Stinson Beach | 6.73 |
| 4. Headlands Loop - CarFree Challenge Hike | 6.73 |
| 5. Sausalito to Muir Woods | 6.73 |
| 6. Sweeney Ridge Skyline | 10.39 |
| 7. Richmond to Lake Anza | 13.42 |
| 8. Richmond to Orinda | 13.42 |
| 9. Bolinas Ridge - Pantoll to Olema | 13.44 |
| 10. Pacifica to Montara | 13.95 |

Map Trips Trailheads Campgrounds

Map Satellite OSM Terrain Earth

5 mi 10 km

POWERED BY Google

BAY AREA OPEN SPACE COUNCIL

[About Team Partners](#) [News Resources](#) [Terms Tech](#)

Follow Us on [Twitter](#) [Facebook](#)



Questions?

Aaron Antrim
Trillium Solutions, Inc.

Phone: (707) 633-4464

aaron@trilliumtransit.com

Twitter: [@aaronantrim](https://twitter.com/aaronantrim)

Blog: www.trilliumtransit.com/blog

