Operations on the Sierra Central Railroad

OUR APPROACH TO ENJOYABLE OPERATING SESSIONS

SACRAMENTO MODEL RAILROAD HISTORICAL SOCIETY

Overview

Layout Overview

Goals & Challenges

Job Aids

Train Types

Jobs Tour

Layout Overview

Southern Pacific 4415 arrives at Davis

Layout Overview

Era/Locale
- Northern California circa 1960
  - Southern Pacific (Oakland-Sacramento via "Cal-P")
  - Western Pacific (Sacramento-Keddie via Feather River Canyon)

Design
- Multi-deck walkaround
  - Lower deck: Double track
  - Upper deck: Single track with passing sidings
- 600' mainline with loops for continuous running
- Max train length: 24 forty-foot cars plus engine(s) and caboose

Staging Yards
- Oakland Desert Yard (West)
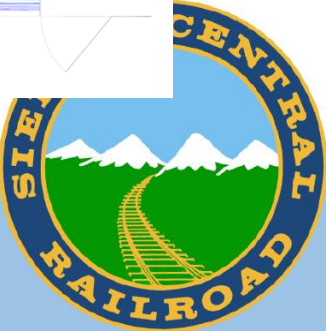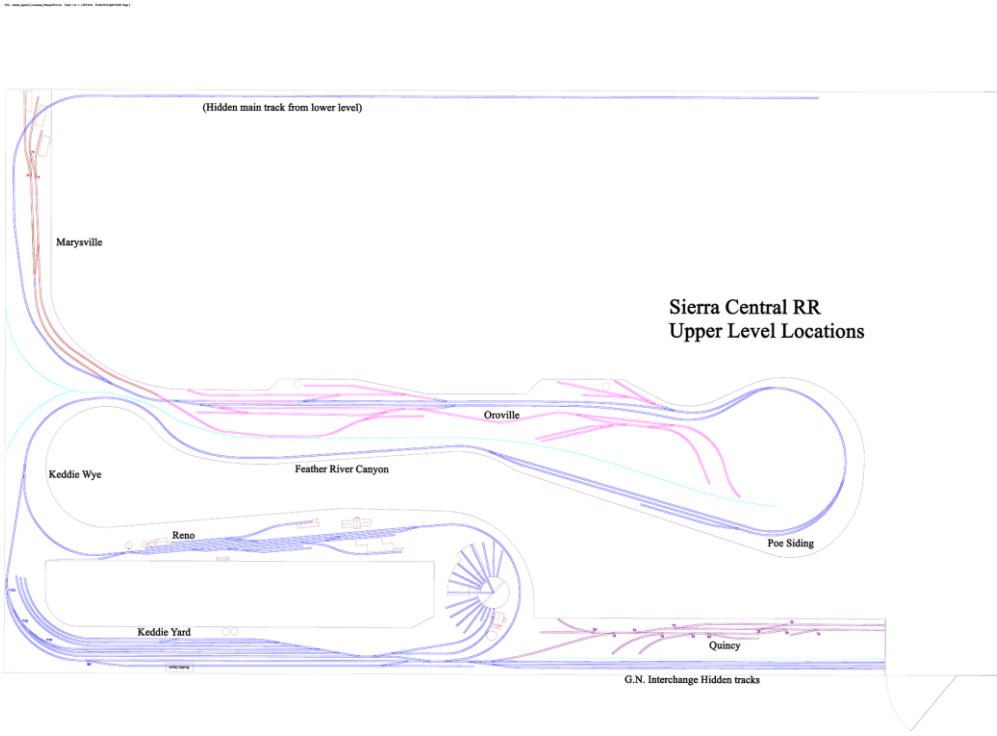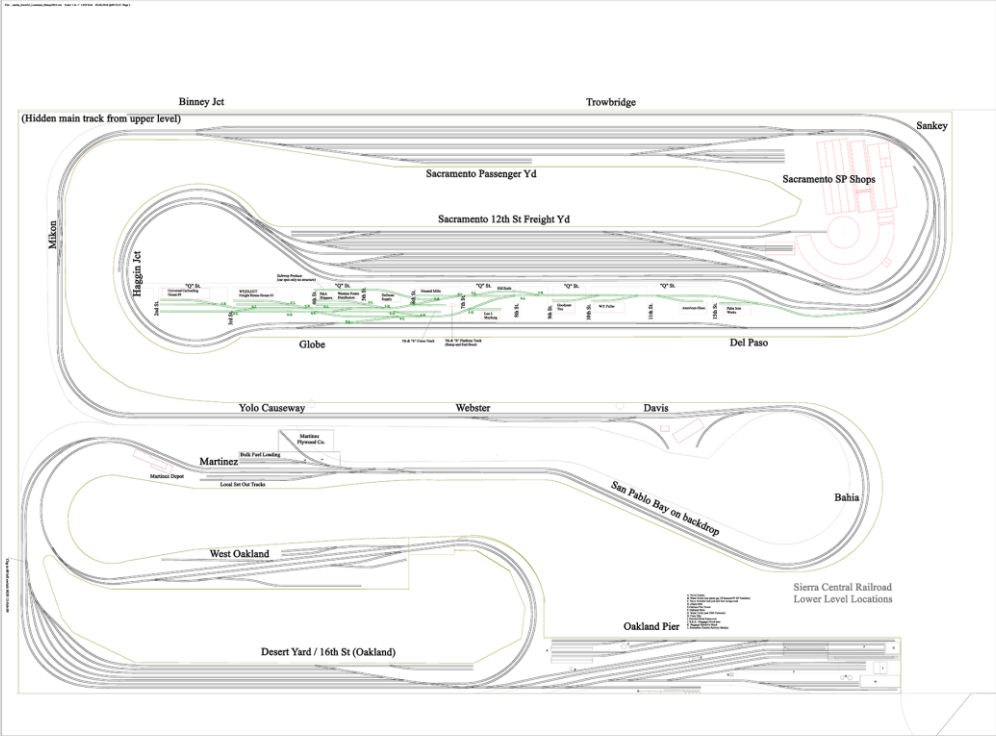- Keddie A/D Yard (East)

Classification Yards
- Sacramento 12th Street Yard
- Keddie Yard

Towns
- West Oakland
- Oakland Pier
- Oakland
- Martinez
- Davis
- Sacramento (Depot, R Street)
- Marysville
- Oroville
- Poe
- Keddie
- Quincy
- Reno

SIERRA CENTRAL RAILROAD

Layout Overview

Sierra Central Railroad
Lower Level Locations

Sierra Central RR
Upper Level Locations

Goals & Challenges

West Oakland Switcher operator waits for work to do

Goals & Challenges

Goals

- Fun
  - Realistic jobs of various lengths and difficulty levels
  - All operators begin working immediately on session start
  - Minimal staging/prep for each session
- Prototypical Accuracy
  - Purposeful, plausible car/train movements
  - Era-appropriate rolling stock, scenery, and practices
  - Dispatcher, radios, and CTC signals
- Efficiency
  - Minimize traffic-related train delays
  - Prevent yards and towns from getting clogged
  - Ensure all cars get to their destination (eventually) via minimal number of trains/jobs

Challenges

- Operators
  - Variable number of operators each session
  - Wide variations in skill and experience
  - Layout geography awareness
- Layout
  - Limited/unbalanced staging capacity
  - Engine/train turning
  - Main track train throughput
- Traffic Flow
  - System-wide car distribution
  - East/West engine/train balance
  - Limited town/spot car capacity

Job Aids

Yard switcher operator uses car cards and waybills to classify cars at Keddie Yard

Job Aids

|	
Call Board	Job Card
Road Train Lineup	Card Cards & Waybills
Yard Train Departures	Area Map
Signal Rules	Station Sign

Call Board and Road Train Lineup

Call Board

- Lists essential jobs
  - Dispatcher, Yardmasters, Yard Switchers, and Locals
- All jobs start at beginning of session; Some are partial-session, some are entire-session
- Not all jobs run every session

Road Train Lineup

- Lists road trains
  - Passengers, Haulers/Manifests, and Specials
- Trains run in sequence (not on a schedule) as operators become available
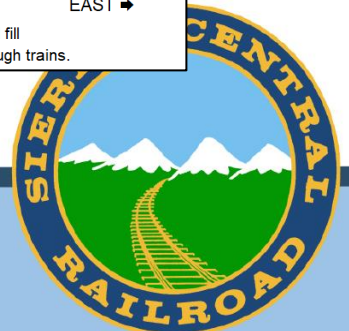- Not all trains run every session
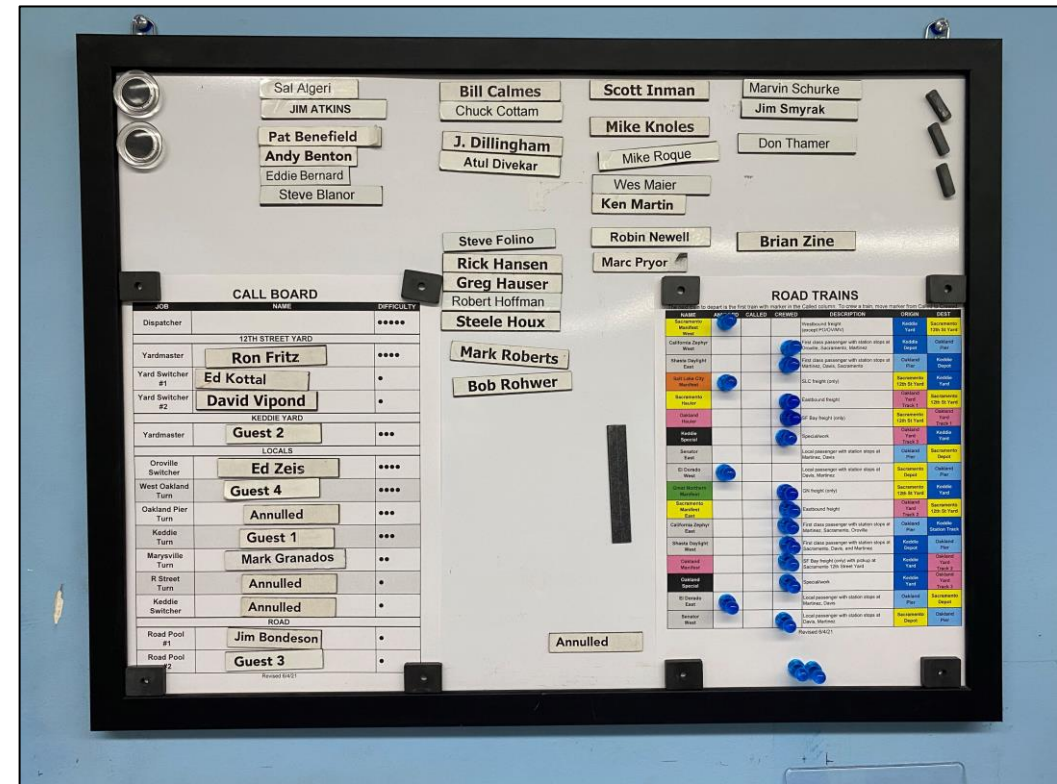
Yard Train Departures

- Lists all trains/blocks to be made up in order of how soon they depart

- Some trains may not depart until next session
  - Does not necessarily match road train lineup

Sacramento 12th Street Yard

#	Train	Max	Blocking			

#	Train	Max			
1	Keddie Turn	18	OROVILLE: OV(5)/MV(3)	KEDDIE: KD/RN/QY/PO	
2	West Oakland Turn	10	DAVIS: DV	WEST OAKLAND: MZ/WO	
3	Great Northern Manifest	18	Caboose	GREAT NORTHERN: GN	Engine
4	Salt Lake City Manifest	18	Caboose	SALT LAKE CITY: SLC	Engine
5	Oakland Hauler	24	Engine	OAKLAND: SF	Caboose

◄ WEST   EAST ►

() = max cars for destination, [ ] = optional fill
Trains with no engine/caboose are locals or through trains.

Signal Rules

○ Lists all signal aspects and indications

|	
	CLEAR Proceed.
	ADVANCE APPROACH Proceed prepared to stop at second signal.
	APPROACH DIVERGING Proceed prepared to pass next signal not exceeding prescribed speed through turnout.
	APPROACH Proceed prepared to stop at next signal.
	DIVERGING CLEAR Proceed on diverging route not exceeding prescribed speed through turnout.
	DIVERGING APPROACH Proceed on diverging route not exceeding prescribed speed through turnout and prepared to stop at next signal.
	RESTRICTING Proceed at restricted speed.
	STOP AND PROCEED Stop, then proceed at restricted speed.
	STOP Stop.

Job Card

◦ Provides step-by-step instructions (and tips) for the most efficient way to get the job done

◦ Assumes operator has never performed the job before

◢ Keddie Turn
Origin: Keddie Yard

1. With engine on east end, pick up Poe, Oroville (5), and Marysville (3) cars and a caboose.
   Max train length: 10 cars, (#) = max for destination
2. Contact Dispatcher for permission to proceed to Oroville Siding via Reno and Poe Siding.
3. On signal indication, proceed to Poe Siding.
4. Work all customers at Poe.
   Max train length: 24 cars
5. On signal indication, proceed to Oroville Siding.
6. Set out Oroville and Marysville cars on Oroville Setout.
7. Pick up westbound cars on Oroville Setout: Sacramento, R Street, Davis, Martinez, West Oakland, SF Bay, Oakland Pier
   Max train length: 24 cars
8. Contact Dispatcher for permission to proceed to Sacramento 12th St. Yard.

(Turn over)

Car Card/Waybill

◦ Card represents car, waybill represents its next destination

◦ Waybills may have two- or four-destination cycles

◦ Empty cars (no waybill) go to Sacramento 12th Street Yard for reassignment by Yardmaster
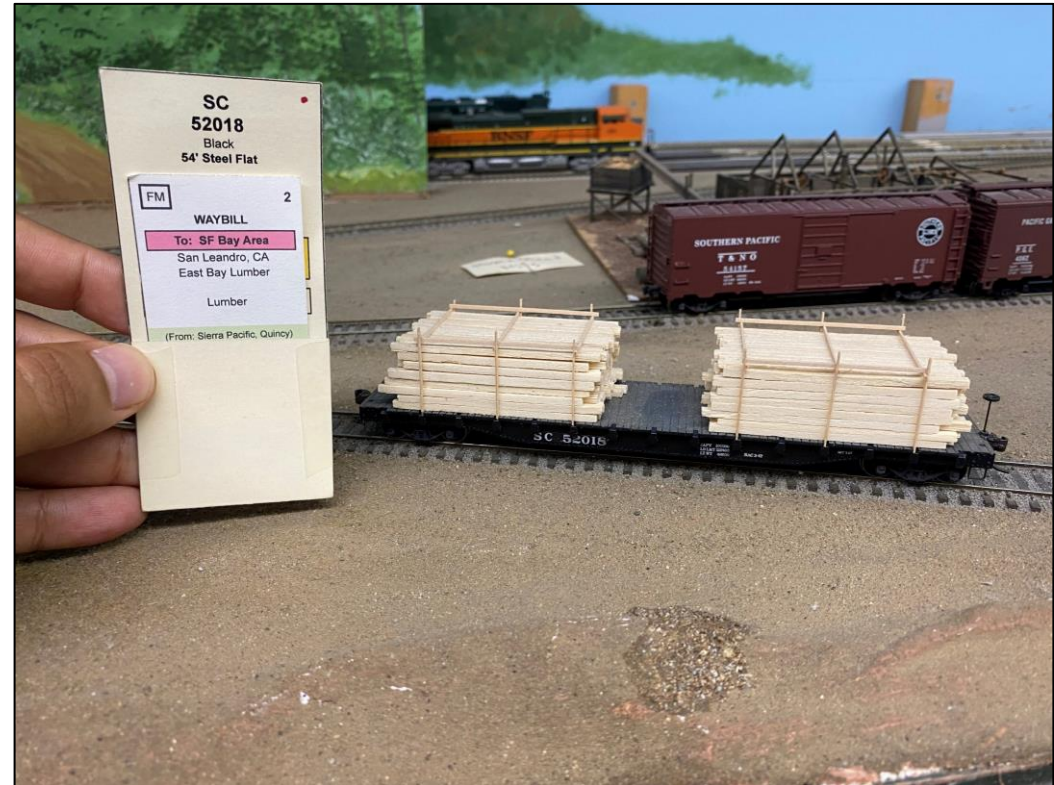
Car Card/Waybill

◦ Card represents car, waybill represents its next destination

◦ Waybills may have two- or four-destination cycles

◦ Empty cars (no waybill) go to Sacramento 12th Street Yard for reassignment by Yardmaster
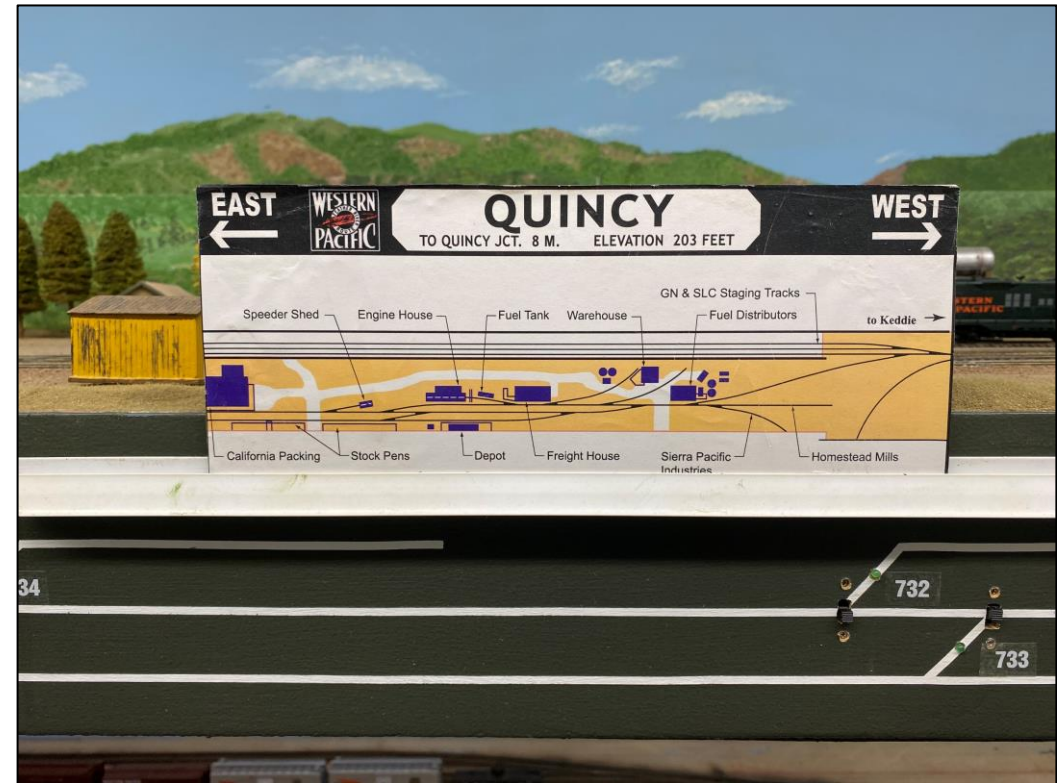
Area Map

- Identifies all customers, tracks, and spots in a town/area
- Every track has a unique name

Station Sign

◦ Identifies station (town/area)

◦ Indicates cardinal directions (east/west)

Train Types

San Joaquin Daylight crosses over in front of Oakland Hauler at Martinez

Train Types

Yard Switcher
- ◦ Sorts incoming cars and builds new trains

Local
- ◦ Delivers cars between customers and yard/interchange

Hauler/Manifest
- ◦ Transports blocks of cars between yards

Passenger
- ◦ Provides local and long-distance passenger service

Special
- ◦ Handles company moves like work trains, officer specials, and equipment repositioning

Jobs Tour

Shasta Daylight arrives at Davis
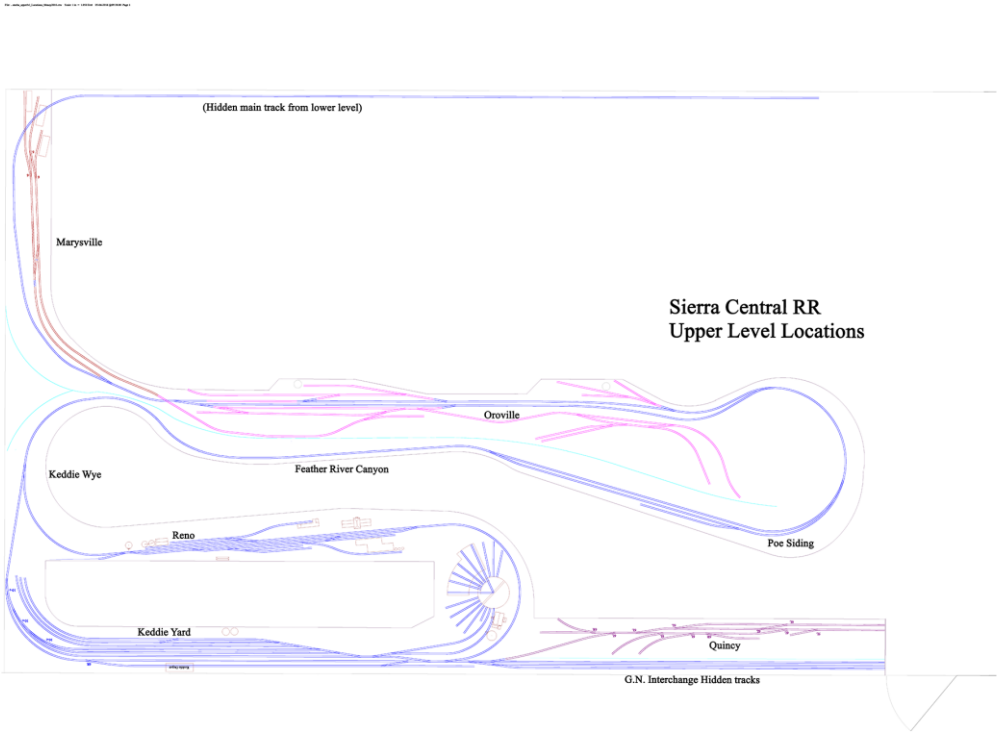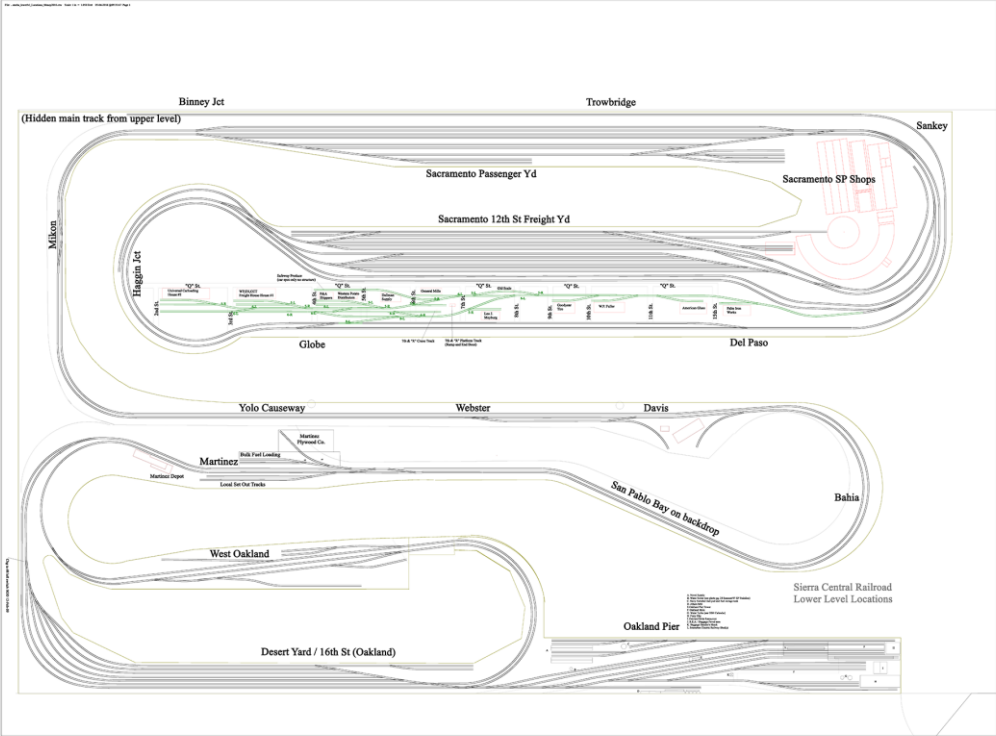
Call Board

DISPATCHER & YARD JOBS

1. Dispatcher
2. 12th Street Yardmaster
3. 12th Street Yard Switcher
4. Keddie Yardmaster

LOCALS

1. Keddie Switcher
2. Oroville Switcher
3. Marysville Turn
4. R Street Turn
5. Oakland Pier Turn
6. Keddie Turn
7. West Oakland Turn

Layout Overview

Sierra Central Railroad Lower Level Locations

Sierra Central RR Upper Level Locations

Road Trains

WESTBOUND

1. California Zephyr West
2. Shasta Daylight West
3. Oakland Hauler
4. Sacramento Manifest West
5. Senator West
6. El Dorado West
7. Keddie Special
8. Oakland Manifest

EASTBOUND

1. California Zephyr East
2. Shasta Daylight East
3. Sacramento Hauler
4. Sacramento Manifest East
5. Senator East
6. El Dorado East
7. Oakland Special
8. Great Northern Manifest
9. Salt Lake City Manifest

Layout Overview