



Two-way train operations

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As they rode a shuttle back to their jobs from a car-repair shop last winter, a San Rafael resident explained to a SMART employee why she had voted against the passenger rail plan in 2006.

“Well, it doesn’t seem like it would do anyone any good since it can only go in one direction,” she said.

The woman, of course, was mistaken. SMART is a *two-way* “single-track” system, with a series of passing sidings and careful scheduling that allow 28 trains a day to move in both directions at half-hour intervals during the peak commute hours. SMART can get you where you’re going in the morning or in the afternoon, whether you’re a San Rafael student heading north to Petaluma or a Windsor winemaker heading south to Novato, or vice-versa.

Some opponents of the SMART passenger rail service, however, have a one-track mind. They never fail to insert the adjective “single-track” when describing the proposed project. The implication is that there is something deficient or lacking about the system that SMART is proposing. Some people – like the woman on that shuttle bus -- have even been confused into thinking that the train can only go in one direction in the morning and another in the evening.

Because they must handle large numbers of independently driven vehicles, automobile highways and streets generally require a minimum of two lanes, one for each direction of traffic. The misconception is that railroads are just like highways. This is not the case. Railroads are different.

Train movements can be coordinated efficiently on a single-track line equipped with passing sidings (strategically located sections of second track) and appropriate train controls (i.e., signal and communication systems). In fact, most mainline freight railroads and several passenger-oriented lines in North America are of this type.

So, trains can and will run in both directions throughout the day, because SMART isn’t an exclusively “single-track” railroad. In fact, about 17 percent of SMART’s 70-mile corridor will be double-tracked. Altogether, 15 sections of passing siding track (generally about ¼ mile to 1½ miles long) are peppered throughout the corridor between Cloverdale and Larkspur. As their name implies, these sidings allow trains going in opposite directions to pass one another.

The use of passing sidings is a very common and longstanding railroad practice. It allows for full movement of trains without the full expense of two tracks.

A number of other West Coast passenger rail systems have a single-track with passing sidings system. In San Diego County, for example, the new Sprinter rail service between Escondido and Oceanside runs half-hourly service all day, mostly on one track with sidings. Also in San Diego County, the mostly single-tracked Los Angeles-San Diego main line accommodates Amtrak's intercity Surfliners and local Coaster commuter trains, both operating at up to 90 mph, along with large volumes of BNSF freight trains. And between Seattle and Everett, Wash., the Sounder runs multiple trains a day in conjunction with freight and Amtrak intercity services, all on a single-track line with sidings. In the Bay Area, the Altamont Commuter Express (ACE) runs on an 80-mile single track line with sidings that also is a Union Pacific freight main line.

This type of operation is very safe. On the SMART line, a number of built-in safeguards will ensure that trains safely pass each other in the SMART right-of-way. SMART will have a centralized train control system and an interactive display board at central headquarters that will allow dispatchers to see the location of each train, as well as to see and control each signal and track switch. Computer monitoring will help to ensure that trains steer clear of one another. Moreover, there will be signals installed at frequent intervals along the railroad to allow train operators to move in and out of sidings when appropriate.

“Single track” doesn't mean “one-way.” SMART will take you north or south, morning or evening, and bring you back home, too.

For more information about SMART, go to www.sonomamarintrain.org or call SMART's information lines in Marin, 415-419-3510, or Sonoma, 707-583-2323.