

BART Agreement Number: 6M8119

Approval Date: 05/04/18

Work Plan No. B.14 – Systemwide Track Switch Speed and MUX Assessment

Scope:

1. Obtain and compile as-built documentation relating to speed command generation including Control Limit Line Diagram (CLLD) Drawings.
2. Perform site surveys for each location that will be modified. These locations may potentially include all mainline locations with No. 10 turnouts. Site surveys shall include; Equipment type, condition and configuration, Actual maximum speed commands transmitted on track switches set to diverging routes
3. Review with BART the implementation alternatives for each site based on site surveys.
4. Prepare track profile input data files and run BART's Profile Generator Program to determine speed profiles in the normal and reverse directions for reduced civil speed limits from 27 mph to 18 mph through No. 10 turnouts in the specified interlocking locations.
5. Mark up existing CLLD's to reflect new speed profiles.
6. Meet with BART Train Control Engineering (TCE) staff to review revised speed profiles.
7. Develop build specifications for each location that requires equipment modification.
8. Develop engineering estimates for site work including testing and commissioning.
9. Perform detailed application design including MUX equipment configuration changes and software modifications
10. Prepare final build design drawings as necessary including seal with California PE stamp.
11. Prepare test plan and special procedures for the equipment modifications including hardware and software as necessary.
12. Provide test oversight and witnessing of the required testing, including 400 Series speed code verification tests. If verification of the actual maximum speed by a live train is necessary, this can only be done during BART non-revenue.
13. Provide technical assistance in identifying and resolving equipment related issues.
14. Provide engineering support of BART's ongoing MUX and NSMUX related work.

Prime: AECOM/TSE

Subconsultants: None

Total Work Plan Value: \$100,000