

BART Agreement Number: 6M8178

Approval Date: 11/14/23

Work Plan No. B.01-02 TCCCP West Bay Substation DSDC Services

Scope:

The scope for the below services includes the continuation of work plan B.01-02 to continue support for design services during construction.

2.1 DESIGN SERVICES DURING CONSTRUCTION (DSDC)

During construction, the WSP team will assist with technical aspects of the construction contract management and administration, including:

1. Provide technical responses to Contractor Requests for Information (RFI)
2. Technical review of shop drawings, contractor working drawings, catalog cuts, etc. for compliance with the requirements of the contract documents
3. Participation in construction progress meetings and/or site visits as requested by the District's Resident Engineer
4. Technical review of Contractor-initiated Requests for Change
5. Preparation of drawings and/or technical specification revisions and/or quantity estimates for inclusion in Change Notices and Change Orders. Depending on level of redesign required, this may require additional scope from a Work Plan on the GES contract.
6. Any redesign efforts shall come from BART PM/Project Engineer/TPE DM. Depending on level of redesign required, this may require additional scope from a Work Plan on the GES contract.
7. Provide field support of the testing of the TPSS equipment per specification 34 21 80 including witnessing of tests and reviewing test reports. Tests will be done for the MCC and MMS TPSS. Please see a sample of the major traction power tests on the next page.

Test Name	Spec Section	Role
TPSS Equipment Grounding Verification	34 21 80.3.03	Test Witness/Review test report
AC MV Switchgear Mechanical Checks	34 21 80.3.03	Test Witness/Review test report
Current Transformers Testing	34 21 80.3.03	Test Witness/Review test report
Voltage Transformers Testing	34 21 80.3.03	Test Witness/Review test report
MV Circuit Breakers Mechanical Checks	34 21 80.3.03	Test Witness/Review test report
Rect. Transformer Mechanical Checks	34 21 80.3.03	Test Witness/Review test report
Rectifier Mechanical Checks	34 21 80.3.03	Test Witness/Review test report
DC Switchgear Mechanical Checks	34 21 80.3.03	Test Witness/Review test report
DC Circuit Breaker Mechanical Checks	34 21 80.3.03	Test Witness/Review test report
DC Control Power Visual Inspections	34 21 80.3.03	Test Witness/Review test report
TPSS Communication Visual Inspections	34 21 80.3.03	Test Witness/Review test report
TPSS Communication Tests	34 21 80.3.03	Test Witness/Review test report
TPSS Electrical Inspections	34 21 80.3.03	Test Witness/Review test report
MV Switchgear Dielectric Tests	34 21 80.3.03	Test Witness/Review test report
MV Circuit Breakers Contact Resistance and Dielectric Checks	34 21 80.3.03	Test Witness/Review test report
AC Circuit Breaker Test Box Test	34 21 80.3	Test Witness/Review test report
MV Switchgear Control and Metering Circuits	34 21 80.3	Test Witness/Review test report
ETTS Tests	34 21 80.3	Test Witness/Review test report
Phase Time and Instantaneous Overcurrent Elements	34 21 80.3	Test Witness/Review test report
Neutral Time and Instantaneous Overcurrent Elements	34 21 80.3	Test Witness/Review test report
Over and Under Voltage Protection Elements	34 21 80.3	Test Witness/Review test report
Rectifier Dielectric Tests	34 21 80.3	Test Witness/Review test report
DC Switchgear Dielectric Tests	34 21 80.3	Test Witness/Review test report
MV AC Switchgear, Rect. Transformer and Rectifier Energization	34 21 80.3	Test Witness/Review test report
DC Switchgear Energization	34 21 80.3	Test Witness/Review test report
Final Equipment Connections Checks	34 21 80.3	Test Witness/Review test report
Track Energization	34 21 80.3	Test Witness/Review test report

ASSUMPTIONS/EXCEPTIONS

1. Contractor's designs, shop drawings and other submittals shall be reviewed for general conformance to dimensions, materials, layout, etc. as indicated on the contract drawings or in the contract specifications. Reviews shall exclude commentary on construction means and methods.
2. Except as may otherwise be provided in the Contract Documents or when direct communications have been specifically authorized, WSP shall only communicate with the Contractor through the Resident Engineer.
3. In no event shall WSP make any directive or communication to the construction Contractor that will affect the means or methods, time, cost, or quality of construction.
4. Site visits will be made as required to resolve design related issues. Requests for site visits require 48 hours' notice to accommodate designer's schedules.

Prime: WSP

Subconsultants: None

Total Work Plan Value: \$ 610,230