Trimble Business Center Checklist

|  |  |  |  |
| --- | --- | --- | --- |
| Offer Number: |  | Survey Project: |  |
| Computer File Number: |  | DMS Number: |  |
| Field Book Number: |  |

| Surveyor | N/A | Preparation of Survey Products | Supervisor |
| --- | --- | --- | --- |
|  |  | **1** | **Project Setup** |  |
| [ ]  | [ ]  | 1.1 | Create a new project with required template | [ ]  |
|  |  | 1.2 | Project Settings |  |
| [ ]  | [ ]  | 1.2.1 | General Information | [ ]  |
| [ ]  | [ ]  | 1.2.1.1 | Company Information | [ ]  |
| [ ]  | [ ]  | 1.2.1.2 | User Information | [ ]  |
|  |  | 1.2.2 | Baseline Processing |  |
| [ ]  | [ ]  | 1.2.2.1 | Ephemeris Type | [ ]  |
| [ ]  | [ ]  | 1.2.2.2 | Processing interval | [ ]  |
| [ ]  | [ ]  | 1.2.2.3 | Satellites and elevation mask | [ ]  |
|  |  | 1.2.3 | Computations |  |
| [ ]  | [ ]  | 1.2.3.1 | Point tolerances | [ ]  |
| [ ]  | [ ]  | 1.2.3.2 | GNSS Vector tolerances | [ ]  |
|  |  | 1.2.4 | Network Adjustment |  |
| [ ]  | [ ]  | 1.2.4.1 | Covariance settings | [ ]  |
|  |  | 1.2.5 | Default Standard errors |  |
| [ ]  | [ ]  | 1.2.5.1 | GNSS Source for standard errors | [ ]  |
| [ ]  | [ ]  | 1.2.5.2 | GNSS default precision errors | [ ]  |
| [ ]  | [ ]  | 1.2.5.3 | Precision Confidence Level | [ ]  |
|  |  | 1.2.6 | View |  |
| [ ]  | [ ]  | 1.2.6.1 | Vector spreadsheet settings | [ ]  |
|  |  | **2** | **Create Network Diagram** |  |
| [ ]  | [ ]  | 2.1 | Create Network diagram | [ ]  |
|  |  | **3** | **Import Data** |  |
|  |  | 3.1 | Import Data |  |
| [ ]  | [ ]  | 3.1.1 | Import GNSS data files | [ ]  |
| [ ]  | [ ]  | 3.1.2 | View 'Antenna' tab to ensure all data is correctly read in | [ ]  |
| [ ]  | [ ]  | 3.1.3 | Download and import ephemeris data | [ ]  |
|  |  | **4** | **Baseline Processing** |  |
|  |  | 4.1 | Seed Coordinate for one known mark |  |
| [ ]  | [ ]  | 4.1.1 | Current Reg 13 certificate – if applicable | [ ]  |
| [ ]  | [ ]  | 4.1.2 | Current Form 6 ANJ values – if applicable | [ ]  |
| [ ]  | [ ]  | 4.1.3 | Add seed coordinates | [ ]  |
|  |  | 4.2 | Disable dependent baselines |  |
| [ ]  | [ ]  | 4.2.1 | Identify and disable dependent baselines | [ ]  |
|  |  | 4.3 | Assess session overlap |  |
| [ ]  | [ ]  | 4.3.1 | Assess session overlap in time-based view | [ ]  |
|  |  | 4.4 | Process baselines |  |
| [ ]  | [ ]  | 4.4.1 | Baseline processing report | [ ]  |
| [ ]  | [ ]  | 4.4.2 | Fix all excessive errors and mistakes | [ ]  |
| [ ]  | [ ]  | 4.4.3 | GNSS loop closure report | [ ]  |
|  |  | **5** | **Minimally Constrained Adjustment** |  |
|  |  | 5.1 | Enter all known coordinate values |  |
| [ ]  | [ ]  | 5.1.1 | Add known coordinate values | [ ]  |
| [ ]  | [ ]  | 5.1.2 | Input known CORS coordinates | [ ]  |
| [ ]  | [ ]  | 5.1.3 | Assign to survey mark and set quality | [ ]  |
| [ ]  | [ ]  | 5.1.4 | Input known PM coordinates | [ ]  |
|  |  | 5.2 | Perform the adjustment |  |
| [ ]  | [ ]  | 5.2.1 | Adjust the network | [ ]  |
| [ ]  | [ ]  | 5.2.2 | Ensure Chi square test passes or apply scalar if value is below 2.0 | [ ]  |
|  |  | 5.2.3 | Find and fix issues |  |
| [ ]  | [ ]  | 5.2.3.1 | Identify and fix any unacceptable flags | [ ]  |
|  |  | 5.2.4 | View network adjustment report |  |
| [ ]  | [ ]  | 5.2.4.1 | Check local outlier test – standardised residual outliers | [ ]  |
| [ ]  | [ ]  | 5.2.4.2 | Check local outlier test – 3D Precision (PPM) outliers | [ ]  |
|  |  | 5.2.5 | Point derivation report on identified outliers |  |
| [ ]  | [ ]  | 5.2.5.1 | Disable any baselines that have outliers | [ ]  |
|  |  | 5.2.6 | Reconfigure network (if required) |  |
| [ ]  | [ ]  | 5.2.6.1 | Reconfigure network by enabling different baselines (if required) | [ ]  |
| [ ]  | [ ]  | 5.2.6.2 | Amend network diagram (if required) | [ ]  |
|  |  | 5.2.7 | Apply a weighting strategy |  |
| [ ]  | [ ]  | 5.2.7.1 | Apply scalar if required | [ ]  |
|  |  | 5.2.8 | Review the network adjustment report |  |
| [ ]  | [ ]  | 5.2.8.1 | Review Control coordinate comparisons | [ ]  |
| [ ]  | [ ]  | 5.2.8.2 | Check Control point constraint | [ ]  |
| [ ]  | [ ]  | 5.2.8.3 | Check error ellipse components meet nominated SU values | [ ]  |
|  |  | 5.2.9 | Save the network adjustment report |  |
| [ ]  | [ ]  | 5.2.9.1 | Save as Web archive format | [ ]  |
| [ ]  | [ ]  | 5.2.9.2 | Convert and print to pdf | [ ]  |
|  |  | 5.2.10 | Export minimally constrained adjustment results |  |
| [ ]  | [ ]  | 5.2.10.1 | Ensure *Fixed in adjustment* and *Adjusted* is selected | [ ]  |
| [ ]  | [ ]  | 5.2.10.2 | Ensure \_*TMR Export Minimal constrained adj* is selected | [ ]  |
|  |  | **6** | **Constrained Adjustment** |  |
|  |  | 6.1 | Run the constrained adjustment |  |
| [ ]  | [ ]  | 6.1.1 | Clear the adjustment results if scalar weight was applied in minimal adj | [ ]  |
| [ ]  | [ ]  | 6.1.2 | Weight datum marks | [ ]  |
|  |  | 6.1.3 | Constrain horizontal component |  |
| [ ]  | [ ]  | 6.1.3.1 | Adjust the network | [ ]  |
| [ ]  | [ ]  | 6.1.3.2 | Ensure Chi square test passes or apply scalar if value is below 2.0 | [ ]  |
| [ ]  | [ ]  | 6.1.3.3 | Check if fixed marks Control coordinate comparisons are acceptable | [ ]  |
|  |  | 6.1.4 | Constrain vertical component |  |
| [ ]  | [ ]  | 6.1.4.1 | Select fixed vertical marks | [ ]  |
| [ ]  | [ ]  | 6.1.4.2 | Adjust the network | [ ]  |
| [ ]  | [ ]  | 6.1.4.3 | Ensure Chi square test passes or apply scalar if value is below 2.0 | [ ]  |
|  |  | 6.1.5 | Review the network adjustment report |  |
| [ ]  | [ ]  | 6.1.5.1 | Review the Control coordinate comparisons | [ ]  |
| [ ]  | [ ]  | 6.1.5.2 | Check the Control coordinate constraints | [ ]  |
| [ ]  | [ ]  | 6.1.5.3 | Check the adjusted grid coordinate error values | [ ]  |
| [ ]  | [ ]  | 6.1.5.4 | Check that error ellipse values are acceptable | [ ]  |
|  |  | 6.1.6 | Save the network adjustment report |  |
| [ ]  | [ ]  | 6.1.6.1 | Save as Web archive format | [ ]  |
| [ ]  | [ ]  | 6.1.6.2 | Convert and print to pdf | [ ]  |
|  |  | 6.1.7 | Export constrained adjustment results |  |
| [ ]  | [ ]  | 6.1.7.1 | Ensure *Fixed in adjustment* and *Adjusted* is selected | [ ]  |
| [ ]  | [ ]  | 6.1.7.2 | Ensure \_*TMR Export Constrained adj* is selected | [ ]  |
|  |  | **7** | **Additional export and reports** |  |
|  |  | 7.1 | ASCII output |  |
| [ ]  | [ ]  | 7.1.1 | Create .csv file for Control stations | [ ]  |
| [ ]  | [ ]  | 7.1.2 | Create Point list report | [ ]  |
|  |  | **8** | **Output of network for DoR** |  |
|  |  | 8.1 | Export in RINEX format |  |
| [ ]  | [ ]  | 8.1.1 | Ensure observation files have correct heights and station identifiers | [ ]  |
|  |  | 8.2 | Export in TDEF format |  |
| [ ]  | [ ]  | 8.2.1 | Ensure *Trimble Data Exchange Format (TDEF) exporter* is selected | [ ]  |
|  |  | 8.3 | Submit to DoR |  |
| [ ]  | [ ]  | 8.3.1 | Zip all relevant files | [ ]  |
|  |  | **9** | **Project Archival** |  |
|  |  | 9.1 | Archive project |  |
| [ ]  | [ ]  | 9.1.1 | Archive project files | [ ]  |
|  |  | **Checked:** |  | **(Surveyor)** | **Date: \_\_ / \_\_ / \_\_** |  |
|  |  | **Checked:** |  | **(Supervisor)** | **Date: \_\_ / \_\_ / \_\_** |  |