

## Traffic Signal Technical & Design Requirements

1. Fiber
  - a. Develop complete plan
    - i. Fiber plan
    - ii. Network Diagram Plan
    - iii. System Architecture Plan
    - iv. Splice Table
  - b. Overall fiber testing and approval needs to follow TSMO fiber specification.
  - c. Overall Communication link between signal and TSMO Requires TSMO specified design, inspection and approval.
2. Signal Design
  - a. Follow Department supplied special provision
  - b. Follow Department signal standard sheets.
  - c. Follow Department Mast Arm special detail sheet
  - d. No span wire signal system
  - e. Follow Department signal design checklist as a guide.
  - f. Determine if FYA is warranted
3. Signal head shall be overhead and 1 per lane.
4. If Pedestrian features are used need to follow MUTCD
5. Pedestrian equipment shall be APS style buttons
6. All major signal cabinet components shall be of the same manufacturer
7. Mast arms shall be galvanized steel
8. Any obstructions to signals (bridges, sign structures) shall have sign line diagrams submitted with plotted design speed stopping sight distance.
9. Video detection only
  - a. Detection shall be of current preferred brand(s) at time of submission.
10. Signal Timings shall follow Department practices with 4 seconds yellow and 2 seconds all red as a minimum. Calculations shall be submitted.
11. Check for signal coordination for AM & PM Peak
12. Remote operation From TSMO to traffic controllers and video detection.
13. Major Manufacturer shall be Econolite (Centracs SPM) or Trafficware (ATMS.NOW) as these are currently operational or under construction traffic signal central communication software.