



# NEW CONSTRUCTION TRAFFIC SIGNAL INSPECTION REPORT TS2 CABINET

**Intersection:** \_\_\_\_\_  
**Date / Time:** \_\_\_\_\_  
**Technician:** \_\_\_\_\_

***Legend: 1 = no problem found 2 = problem found 3= not applicable***

## A Cabinet Equipment.

1. \_\_\_\_ Visually inspect the cabinet for damage and cleanliness.
2. \_\_\_\_ Visually inspect lightning surge protection for damage.
3. \_\_\_\_ Check and record the safety ground rod for conductivity (ground must be dry when testing ground, reading should be less than 25 ohms). \_\_\_\_\_ Ohms.
4. \_\_\_\_ Check that cabinet drawings are legible and in good condition. (5 copies and cd)
5. \_\_\_\_ Check layout of cabinet and UPS are in agreement with signal drawings
6. \_\_\_\_ Check Cabinet dimensions 54" high x 44" wide x 24" deep
7. \_\_\_\_ Empty conduits must be capped or blocked with duct seal

## B Cabinet Service.

1. \_\_\_\_ Check all breaker connections.
2. \_\_\_\_ Check all ground connections.
3. \_\_\_\_ Check and record service voltage. \_\_\_\_\_
4. \_\_\_\_ Check and record service amperage. \_\_\_\_\_

## C Cabinet General Operation

1. \_\_\_\_ Check thermostat and fan operation ( 1 set 90 and 95)
2. \_\_\_\_ Check for GFCI convenience receptacle.
3. \_\_\_\_ Check relays.
4. \_\_\_\_ Check cabinet light.
5. \_\_\_\_ Check for proper load switch seating.
6. \_\_\_\_ Check all terminal screws and connections for tightness and discoloration.
7. \_\_\_\_ A 1" conduit shall be installed from the controller cabinet to nearest junction box for future u
8. \_\_\_\_ Check pole foundations for arrows indicating conduit runs

D Cabinet Switch Operation.

1. \_\_\_ Check for Police Switches.
2. \_\_\_ Check for Cabinet switches.
3. \_\_\_ Check stop time toggle for proper position

Comments: \_\_\_\_\_

E Cabinet Mechanics.

1. \_\_\_ Inspect lock mechanism and hinges.
2. \_\_\_ Check anchor bolts.
3. \_\_\_ Check cabinet documentation. ( operating manuals for equipment)
4. \_\_\_ Check cabinet weatherproofing.
5. \_\_\_ Check for cabinet filter.
6. \_\_\_ Check to make sure door(s) on cabinet opens completely without obstruction

F M.M.U.

1. \_\_\_ New Controller SN# \_\_\_\_\_.
2. \_\_\_ Check for correct time and date.
3. \_\_\_ Insure all calls are placed on each phase and serviced.

G Conflict Monitor.

1. \_\_\_ New Conflict Monitor SN# \_\_\_\_\_
2. \_\_\_ Insure Load Switch and traffic signal indications are the same.
3. \_\_\_ Check for correct time and date.

H Vehicle Detection.

1. \_\_\_ Check amplifiers for proper settings and operation.

I Pedestrian Detection.

1. \_\_\_ Inspect pedestrian push buttons.
2. \_\_\_ Operate each push button and check for proper operation.
3. \_\_\_ Inspect pedestrian's signs and markings.
4. \_\_\_ Check height of pedestrian pushbuttons (42") ADA requirement
5. \_\_\_ Check for proper height of pedestrian signals per MUTCD
6. \_\_\_ Modules for pedestrian signals must be Dial light brand 430-6479-001X
7. \_\_\_ Check ped. button for open weep hole and mounting base sealed with silicone.

J Mast Arm Intersections.

1. \_\_\_\_ Check all exposed signal cable for jacket and insulation damage.
2. \_\_\_\_ Check all nuts and bolts on signal pole, mast arm and signal heads for proper tightness.
3. \_\_\_\_ Check hand hole covers for proper installation.
4. \_\_\_\_ Measure and record height of lowest point of signal to roadbed beneath. \_\_\_\_\_ FT/IN
5. \_\_\_\_ Check pole foundations for arrows indicating conduit runs
6. \_\_\_\_ Check signal pole for proper ground \_\_\_\_\_ ohms

K Signal Indications.

1. \_\_\_\_ Check alignment of signal heads
2. \_\_\_\_ Make sure signal head has drip loop.
3. \_\_\_\_ Check condition and mounting of back plates.
4. \_\_\_\_ All signal wire must be 14 AWG
5. \_\_\_\_ A continuous wire shall be run from cabinet to signal head (No Splices)

L Signal Heads.

1. \_\_\_\_ Check signal door gasket.
2. \_\_\_\_ Check mounting of LEDs.
3. \_\_\_\_ Check signal door hinges and wing nut attachments.
4. \_\_\_\_ Check signal head hardware for damage.
5. \_\_\_\_ Check all electrical connections.
6. \_\_\_\_ Check head visibility, alignment and that it is level and plumb
7. \_\_\_\_ Check to make sure signal placement and alignment agree with signal drawings
10. \_\_\_\_ LEDs must meet 2007 Signal Modules (8 inch (200mm) and 12 inch (300mm) shall be fully compliant to the ITE VTCSH LED Circular Supplement specifications dated and adopted June 27,2005 or the latest adopted version as listed on the ITE website at time of bid.

M Traffic Control Signs and Markings.

1. \_\_\_\_ Check signals, signs, and markings for agreement.
2. \_\_\_\_ Check signals for agreement with signal drawings

N Interconnect.

1. \_\_\_\_ Check for proper installation of wireless system/fiber optic system
2. \_\_\_\_ Verify proper communication system has been installed according to signal drawings

O Video Detection.

1. \_\_\_\_ Check for proper zone alignment (zone should be located in the lower 2/3 of the screen) and assignment (phase and channel).
2. \_\_\_\_ Check zones to insure proper vehicle detection and controller receiving calls.
3. \_\_\_\_ Check video wiring/coax connections for all cameras.
4. \_\_\_\_ Using #10 welding shield to simulate night operation. Check for proper operation.
5. \_\_\_\_ Verify video does not show horizon within view.
6. \_\_\_\_ Verify quality threshold is set to 4 with quality timeout set to 2 minutes.
7. \_\_\_\_ Check for proper alignment of all cameras.
8. \_\_\_\_ Check camera brackets and hardware for tightness and proper mounting.
9. \_\_\_\_ Check BNC connectors for proper crimp and that they have a solid connection
10. \_\_\_\_ Wire connections must be crimp style bullet connections (No wire nuts)
11. \_\_\_\_ Check for proper version 3.34 in video cards

P Opticom.

1. \_\_\_\_ Check channels for proper phasing using portable emitter.
2. \_\_\_\_ Test for communication with all detectors (push selector till F is displayed and push toggle switch to high). Verify all detectors in use should flash.
3. \_\_\_\_ Check detectors for proper alignment (all detectors).
4. \_\_\_\_ Check detector brackets and hardware for tightness and proper mounting.
5. \_\_\_\_ Check wiring for proper connection within detector.
6. \_\_\_\_ Verify weep holes have been opened.
7. \_\_\_\_ Opticom must be 3M(Global Technologies) 721 detectors must be on each mast arm pole

Q Power pedestal

1. \_\_\_\_ Check mounting (loose hardware, connections)
2. \_\_\_\_ Check for proper breaker size for UPS (20 amp square D QO)
3. \_\_\_\_ Check for proper breaker size for traffic cabinet (40 amp square D)
4. \_\_\_\_ Check for proper disconnect (Nema 3R 100 amp square D QO with external switch handle)
5. \_\_\_\_ Make sure power pedestal ground is cad welded.

R Junction Boxes.

8. \_\_\_\_ Inspect junction boxes and covers.
9. \_\_\_\_ Check junction boxes for water. Verify weep hole is opened in concrete boxes.
10. \_\_\_\_ Check wire connections within junction box for proper weatherproof splice.
11. \_\_\_\_ Check insulation for cracks and missing sections of insulation.
12. \_\_\_\_ Check and record grounding rod reading. \_\_\_\_\_ Ohms.
13. \_\_\_\_ Insure boxes are flush and level with ground. (Trip hazard)
14. \_\_\_\_ Insure that signal cables are not in contact with the junction box cover to avoid damage to the cable.
15. \_\_\_\_ Verify lid has lifting hook or ring.

