

SCOPE OF WORK

ATTACHMENT A -- SCOPE OF WORK SERVICES

Inspection of High Mast Light Poles

The CONSULTANT shall:

1. Attend the Scope of work meeting. At least one week prior to the meeting, contact the State Project Manager and Structural Asset Management to obtain information on any new High Mast Light Poles (HMLP) identified by them. During the scoping meeting, discuss adding all High Mast Light Poles at these locations, plus any others that may have been located or removed, to the list.
2. Obtain NJDOT Combined Inspection System (CombIS) IDs and become familiar with the CombIS implementation of the High Mast Light Poles database, preferably prior to the field visits.
3. Complete a field visit to all assigned High Mast Light Poles and perform necessary initial research. If required, and as defined at the scoping meeting, perform research to identify new High Mast Light Poles installations. If the structure is not in our inventory, submit a High Mast Light Pole Structure Number Request. Provide a list of any damaged, missing, or incorrect High Mast Light Pole Structure Number decals so that decals can be made.
4. Contact NJDOT Traffic Operations, NJDOT Maintenance Permits, and any other governing agencies or authorities prior to the CONSULTANT's performance of the work covered in this Agreement to secure and provide to the STATE letters and documents approving access.
5. Submit a field inspection and report submission schedule to the STATE within two (2) weeks from Notice to Proceed. The schedule will include the interchange and number, name, date of previous inspection, recommended frequency of inspection, date of proposed field inspection, and date of proposed report submission (with format reports indicated), for each High Mast Light Pole that is listed in the final list.
6. Obtain prior written approval from the STATE for employing required outside services within two (2) weeks from Notice to Proceed. The CONSULTANT must assemble all bids received from outside vendors, prepare a recommendation, and send to the State Project Manager for review.
7. Review any previous inspection reports and/or databases provided by the STATE, County, or any other governing agency. If necessary, review plans for the High Mast Light Pole provided by the STATE.
8. Perform an in-depth visual inspection or visual and Non-Destructive Testing (NDT) of

welded joints on each of the listed High Mast Light Poles to determine the condition of the pole, foundation, and ancillary features, utilizing the data and history furnished by the STATE. The inspections shall include, but not necessarily be limited to, the following:

- a. Lighting pole.
 - b. Telescopic slip joint.
 - c. Access door and hand hole, remove door and inspect inside.
 - d. Inspect hand hole area for fatigue cracks.
 - e. Base and anchor bolts, make sure they are tight.
 - f. Lighting halo -- Lower assembly for inspection.
 - g. Winching system including winch pulleys and supports.
 - h. Foundation.
 - i. Check for abrasion, section loss (using a D-meter), or loss of the weathering coating. Pay particular attention to the area just above the pole weld to the bottom flange.
 - j. Cracks -- especially in welds and other areas vulnerable to fatigue.
 - k. Plumbness of pole.
 - l. Check leveling nut is contacting base plate, and for any signs of distress around leveling nut.
9. For new High Mast Light Poles, take all measurements and collect all data that is required. Use the existing High Mast Light Poles as an example for all required new measurements/data. **Also, obtain plans when a Cycle 1 inspection is needed.**
 10. Inspection of the pole shafts shall be accomplished using the latest robotic video camera technology to inspect poles (or lift trucks if necessary).
 11. The Electrical Maintenance section of the appropriate NJDOT Regional Office will make the drill used to operate the winches for the lighting halo system available to the CONSULTANT.
 12. Inspector should follow all safety guidelines outlined by the Department and by OSHA.
 13. Measure, probe or otherwise make all efforts to determine the nature or cause of any abnormal movements or shifting detected or suspected, including **wind generated movements** of each High Mast Light Pole or its foundation (not including the use of special services) where feasible.
 14. Recommend and, upon approval by the STATE, arrange for and/or conduct work of a special nature, in addition to that stated above, such as coring sampling or non-destructive testing of welded joints. Dye penetrant, or other suitable testing method if the steel is weathering steel, shall be used on joints if cracks are suspected.
 15. **Based on standard Priority Repair procedures, provide immediate notification to the STATE, by phone if required, of any adverse conditions observed during the inspection that would jeopardize the structural integrity of any of the High Mast Light Poles. All priority repairs shall be reported electronically via CombIS with recommendation and**

repair scheme. In the priority repair letter, provide the Route, mile post, left or right offset from the edge of road, project name, group number, Town/City/Township, and County.

16. If any vandalism is observed during the inspection, Form AD-99 must be completed and included in the survey report at the end of the report. Graffiti that meets the definition of vandalism for filing an AD-99 consists of graffiti that is vulgar, racial, or anti-religion/anti-Semitic. Other types of graffiti are too common and do not require the filing of an AD-99.
17. **Enter data into CombIS during or immediately after the inspection (within 30 days). Verify/correct all existing data as necessary and add data for all new or unpopulated fields. Within 90 days, all data must be correct and complete in CombIS.**
18. Render a professional evaluation for each High Mast Light Pole in the form of a Report, **utilizing the CombIS system**, prepared in accordance with the provided format. The reports will be written on a cluster basis. Each of these Reports shall include, but not be limited to, the following for each High Mast Light Pole:
 - a. A brief description of each pole, including pole number, geometric data, location, date of construction, material data, and structural data.
 - b. Description of defects found during the field inspection.
 - c. **Updated and complete High Mast Light Pole Elements data.**
 - d. Photos of the elevations of the pole (two facing opposite directions), photo of the lighting Halo, photo of the access area opened, photo of the connection of the base (including pole flange), photos of any defects noted, **and photos of any work done.**
 - e. **The results of the Ultrasonic Anchor Bolt inspection.**
 - f. All final reports must be signed and sealed by a Professional Engineer (Certifying Engineer) registered in the State of New Jersey before submission to the Department. With the exception of the Team Leader who inspected the bridge, any qualifying engineer can certify the reports.
19. **Through the CombIS system, and via hard copy**, submit to the STATE the required format reports. Submit a **Final report through CombIS, and a** Final signed and sealed High Mast Light Pole Survey Report hard copy for each structure within eight (8) months from the Notice to Proceed unless otherwise specified in subsequent Consultant Contract Modifications. If corrections are required to any report, resubmit the report(s) within 30 days of receipt of comments. All Preliminary and final hard copy reports must be submitted bound in hardboard cover report folders.
20. **All working files must be uploaded in CombIS for each structure PRIOR to the report being submitted to the “Bridge Owner” in CombIS.** The video images and photos from the use of robotic cameras, if used, **should be uploaded in CombIS.** It must be in a format that is specified by the STATE at the time of the contract (as discussed with Supervisor of Structural Asset Management).