

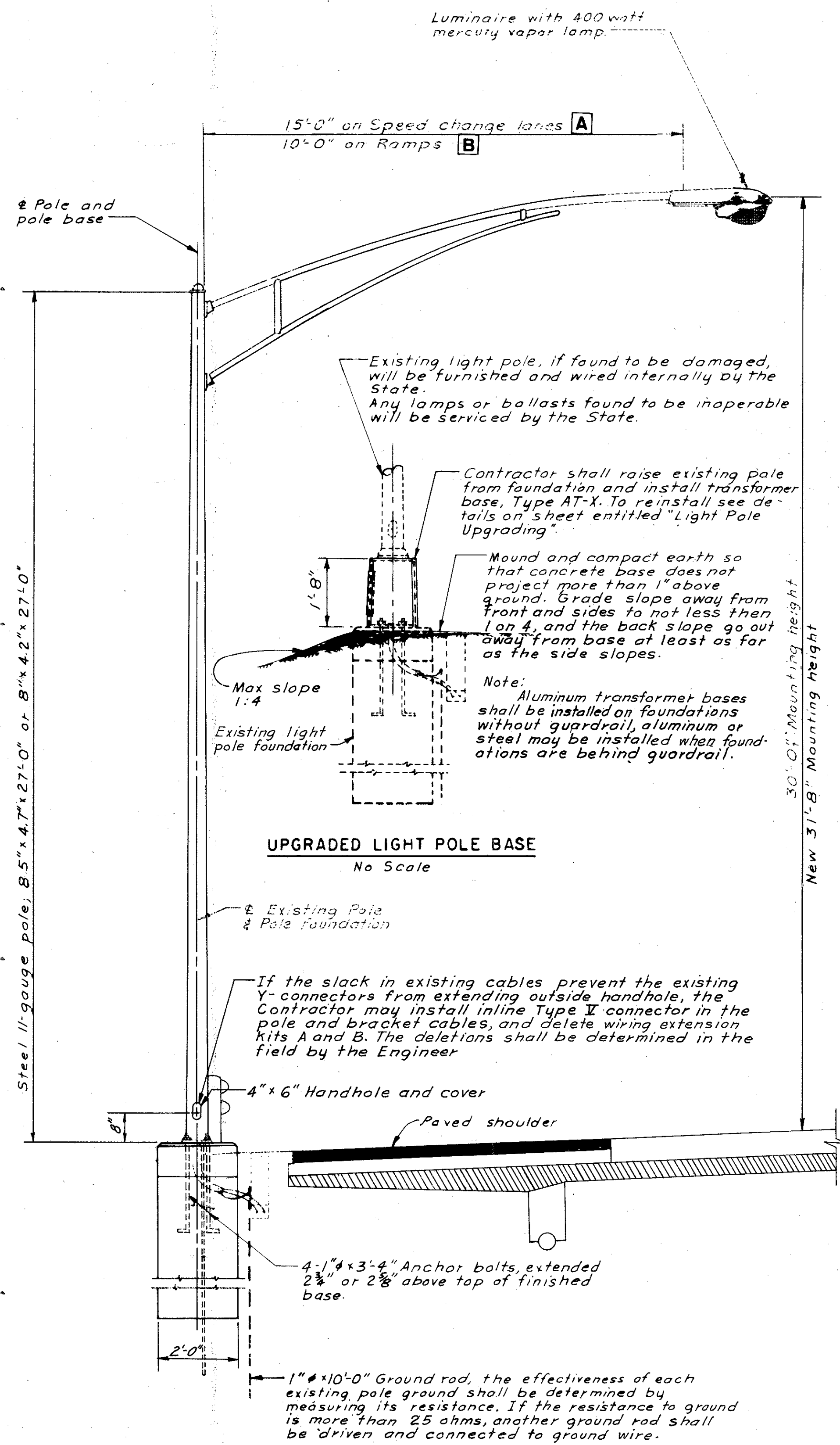
ROADWAY LIGHTING

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	1-90-1(88)46

101
111

LAKE COUNTY
LAK. 90-3.56

QUANTITIES
Made: GM 12-26-72
Ckd: LJD 12-26-72



UPGRADED LIGHT POLE BASE
No Scale

EXISTING GROUND-MOUNTED LIGHTING UNIT
No Scale

LIGHTING QUANTITIES ^①							
ITEM	UNIT	DESCRIPTION	REST AREA "11"	REST AREA "12"	REST AREA "13"	REST AREA "14"	TOTAL
625	Each	Repair of Existing Light Pole Foundation ^①	5	5	5	2	17
625	Each	Transformer Base, Type AT-X	16	16	19	6	57
625	Each	Wiring Extension Kit A	26	26	32	6	90
625	Each	Light Pole Foundation, 24"x6'-0"				6	6
625	Each	Connector Kit, Type II				6	6
625	Each	Connector Kit, Type III				6	6
625	Each	Connector Kit, Type V	5	5	5	2	17
625	Each	Ground Rod ^②	2	2	2	6	12
203	Each	Mounding of existing light pole foundation	10	10	12	6	38
625	Each	Light Pole Design No. AT15B34.2, Style II				4	4
625	Each	Light Pole Design No. AT10B34.2, Style II				2	2
625	Each	Luminaire, Type III, 400 Watt, 713.11				4	4
625	Each	Luminaire, Type II, 400 Watt, 713.11				5	5
625	Lin. Ft.	1/2" inch, Duct Cable, with three No. 4 AWG, 600 Volt cables	650	550	450	5720	7360
625	Lin. Ft.	Trench - 24" Deep	600	500	400	3950	5450
625	Each	Lamp, 400 Watt, 713.04, Mercury				9	9
625	Each	Pull Box, 18" ø, 713.09	2	2	2	4	10
625	Lump	Control Center No. 14				Lump	Lump
625	Lump	Control Center No. 13			Lump		Lump
625	Lump	Control Center No. 12		Lump			Lump
625	Lump	Control Center No. 11	Lump				Lump
625	Lin. Ft.	Conduit, 3-inch, 713.04, Type III, Jacked Under Pavement				130	130
625	Lin. Ft.	No. 4 AWG, 600V. Distribution Cable				450	450
625	Lin. Ft.	No. 10 AWG Pole and Bracket Cable				568	568

LIGHTING NOTES FOR SAFETY UPGRADING

SPECIFICATIONS

These notes are supplemental to Items 625 and 713 of the State of Ohio Department of Transportation Construction and Materials Specifications.

GENERAL - 625.03

The Contractor shall have no more than a total of three roadway lights out on any one night during the construction period. No more than two adjacent lights may be out at a time.

The Contractor shall furnish and install all items of electrical equipment necessary for the satisfactory operation of the roadway lighting safety upgrading, whether specifically mentioned or not.

The Engineer shall check and ascertain that no light pole located behind rigid guard rail is upgraded, in accordance with these details, unless the face of rail in its planned location will be less than twenty-four (24) inches from the nearest face of the undisturbed pole in its existing location.

Even though light pole upgrading is directed, the Engineer shall further verify the actual need for each bid item, at each pole location, and payment shall only be made for installations as directed and as determined by final measurement.

REQUIREMENTS

This work shall consist of the following items:

- Repairing, where necessary and directed, an existing concrete light pole foundation and, where required, furnishing and installing a steel bearing plate, including four steel nuts with washers, as shown on the plans and in accordance with applicable sections of 519.06.
- Furnishing and installing the following:
 - A type AT-X light pole transformer base conforming to 713.01, the plans, and the plan data tabulated for ordering the AT-X base. This item shall include four steel nuts with washers to connect the AT-X base to the existing anchor bolts and four steel bolts, of the size shown on the plans, with steel nuts and galvanized clips or washers with nuts to connect the existing pole to the AT-X base.
 - Light pole wiring extension Kits A and B with all component items as shown on the plans. In lieu of furnishing and placing cable extension Kits A and B, as detailed, the Contractor may, at his option, furnish and install all new No. 10 AWG pole and bracket cable in each light pole to be upgraded. Payment for one Kit A and one Kit B will be allowed for each pole so rewired.

(c) One each, 713.15 Type II and Type III cable connector kits, where some are not included in the existing pole wiring system.

(d) One each ground rod where directed by the Engineer as a maintenance replacement or required to secure an acceptable ground test as hereinafter specified.

3. Electrical testing as follows:

- A ground test as described in 625.22 except that the ground wire connecting each existing and/or newly installed ground rod to a light pole shall be included in the ground test.
- A performance test requiring the Contractor to energize and manually operate, for a minimum period of twenty-four hours, each circuit of the roadway lighting system affected by this work. The Contractor shall make a visual check to determine that only those lights required to be energized by the circuit are operating. The Contractor shall record each fault and the method of correction performed. After correction of a fault, a restart of the interrupted test shall be required.
- In addition to the requirements of Paragraph 4(c) of 713.01, cast aluminum transformer bases as specified shall not, while mounting a full-sized pole, produce a change in impacting weight momentum greater than 400 pound-seconds when tested in the laboratory with a ballistic pendulum or equivalent, or greater than 1100 pound-seconds when tested in the field under full-scale vehicular impact. Certification of this test requirement shall be furnished to the laboratory in accordance with the requirements of 713.00.

PAYMENT

The unit price bid for each light pole foundation repaired and for each transformer base, wiring extension kit, connector kit, and ground rod furnished and installed shall include payment for all testing, equipment, labor, materials and component parts necessary to complete the work as specified.

Notes:

① Estimated to be used as directed by the Engineer.

The estimated quantities were prepared solely for the Contractor's convenience as a means of setting forth major items and is not guaranteed to be a complete or accurate list of all items necessary to complete the work.

Other items required for a complete installation, as shown or described shall be included in the price bid on above items.

② 100% State Participation.

③ Quantities are carried forward to sheet 7B.

The payment for locating trouble in the existing circuits of the rest areas shall be included in the bid price of each item required to restore the circuits to first class condition.

Mounding of existing light pole foundations
Approximately 6 cu yds. of embankment and 40 sq. yds. of seeding and mulching shall be necessary for each mounding location. Locations will be set by the Engineer.
The subgrade shall be prepared by scalping to remove vegetation before placing and compacting the embankment. The top of the light pole foundation shall not project more than 1 inch above the finished grade.
The contractor's responsibility for protection of slopes and paved berm shall be the same as for Sec. 203.04(f) of the Specifications.
Payment for each item 203 Mounding of existing light pole foundation shall include all scalping, embankment, seeding and mulching, labor and equipment required to perform this item of work.