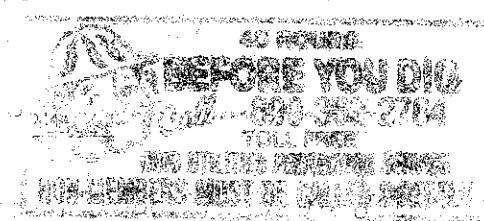


SHEET	ITEM	TOTAL	UNIT	DESCRIPTION
	-625	5	EACH	Ground Rod
	625	4	EACH	Pull Boxes, 12" Circular 713.09
	625	1	EACH	Pull Boxes, 24" Circular 713.09
	625	154	Lin.Ft.	Trench
	-625	13	Lin.Ft.	3" Conduit 713.04
	-625	405	Lin.Ft.	1 1/2" Conduit 713.04
	625	17	Lin.Ft.	Trench, Paved Areas, Pavement 6" or Greater
	843	1	EACH	CONTROLLER 3 PHASE, FULLY ACTUATED SOLID STATE DIGITAL WITH CABINET
	843	1.1	CU.YDS	Concrete For Cabinet Foundations
	625	30	Lin.Ft.	1" Conduit 713.04
	859	8	EACH	Vehicular Signal Heads, 3 Section, 12" lens, 1 Way
	859	3	EACH	VEHICULAR SIGNAL HEADS, 3 SECTION, 12" LENS 1 WAY OPTICALLY PROGRAMMED, AS PER PLAN
	859	1	EACH	VEHICULAR SIGNAL HEADS, 5 SECTION, 12" LENS 1 WAY OPTICALLY PROGRAMMED, AS PER PLAN
	859	240	Lin.Ft.	Messenger Wire, 7 Strand 3/8" dia. w/accessories
	859	115	Lin.Ft.	Messenger Wire, 7 Strand 1/4" dia. w/accessories
	859	12	EACH	Covering of Vehicular Signal Head
	859	4	EACH	Loop Detector Amplifier
	859	583	Lin.Ft.	Loop Detector Pavement Cutting
	859	604	Lin.Ft.	Loop Detector Wire
	859	1425	Lin.Ft.	Loop Detector Lead-in Cable

SHEET	ITEM	TOTAL	UNIT	DESCRIPTION
	859	294	Lin.Ft.	Signal Cable, 7 Conductor No. 14 AWG
	859	810	Lin.Ft.	Signal Cable, 5 Conductor No. 14 AWG
	859	40	Lin.Ft.	Power Cable, 2 Conductor No. 6 AWG
	859	150	Lin.Ft.	Service Cable, Duplex No. 6 AWG
	859	3	EACH	Cable Support Assembly
	859	3	EACH	28 feet STRAIN POLE, TYPE 8110 DESIGN 5 MODIFIED, AS PER PLAN
	857	1	EACH	OVERHEAD SIGN SUPPORT, TYPE 14.30 DESIGN 8, ARM 28 FEET, MODIFIED AS PER PLAN.
	859	10	CU.YDS	Concrete For Anchor Base Foundation
	859	1	EACH	Power Service
	859	1	EACH	Weatherhead
	843	2	EACH	Delay Relay

COMPUTED BY: J.L.B. 11/79
CHECKED BY: M.C. 11/78



859 Vehicular Signal Heads, 3 or 5 Section, 12" lens, 1 way optically programmed As Per Plan

The requirements of 859 will prevail with the exception that 75 watt shall be used instead of 150 watt lamps as specified.

Underground Utilities

Extreme caution should be exercised in areas with underground electrical conduit and/or lighting cable, sewers, drains, waterlines, or other underground utilities. The contractor is fully responsible for all damage inflicted on underground utilities.

The Cleveland Electric Illuminating Co.
P.O. Box 500
Cleveland, Ohio 44101

Ohio Bell Telephone Co.
Room 703
820 West Superior Ave.
Cleveland, Ohio 44113

East Ohio Gas Co.
c/o Mr. Richard Jender
1201 East 55th Street
Cleveland, Ohio 44103

GENERAL NOTES

843 Guarantees and Warranties
The Contractor shall warrant or guarantee satisfactory operation of electrical traffic control equipment for a period of 90 days following acceptance of the equipment by the State. The Contractor's responsibility shall be limited to necessary repairs, replacement of defective parts with parts equal to or better than those originally specified and remedying faulty installation in an approved manner; including all labor, material, and equipment costs related thereto.

The following items shall be provided with the specified guarantee:
1. Traffic signal controllers and associated control equipment.

In addition, the manufacturer's normal warranties for the above equipment and other manufacturer's equipment for which guarantees are normally provided shall be assigned and delivered to the state.

The Contractor shall install and handle items in accordance with the manufacturer's recommended procedures, provided such procedures are not in conflict with the plans and specifications.

Costs for provision and performance of guarantees and warranties herein described will be incidental to and included in the unit price(s) bid for the various traffic control items.

LAKE COUNTY
LAK-44-3.81

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

5
6

843 Controller, fully actuated, 3 phase, solid state digital with cabinet

The controller furnished and installed by the contractor shall conform to supplemental specification 843 and in addition comply to NEMA-TS-1-1976 standard. The conflict monitor shall be in accordance to part 6 of NEMA-TS-1. Controllers utilizing micro-processor techniques shall have available an off-the-shelf diagnostic tester for possible subsequent purchase by the State. The cabinet shall include a convenience outlet. The cabinet exterior shall be painted yellow-Federal Standard 595 Color #13655. Cabinet door locks shall be keyed to O.D.O.T master. A manual control switch with cord need not be provided. The cabinet size shall comply to the requirements of 843 assuming the controller frame size to be a minimum of 19" wide by 14" high by 14" deep.

859 Weatherhead

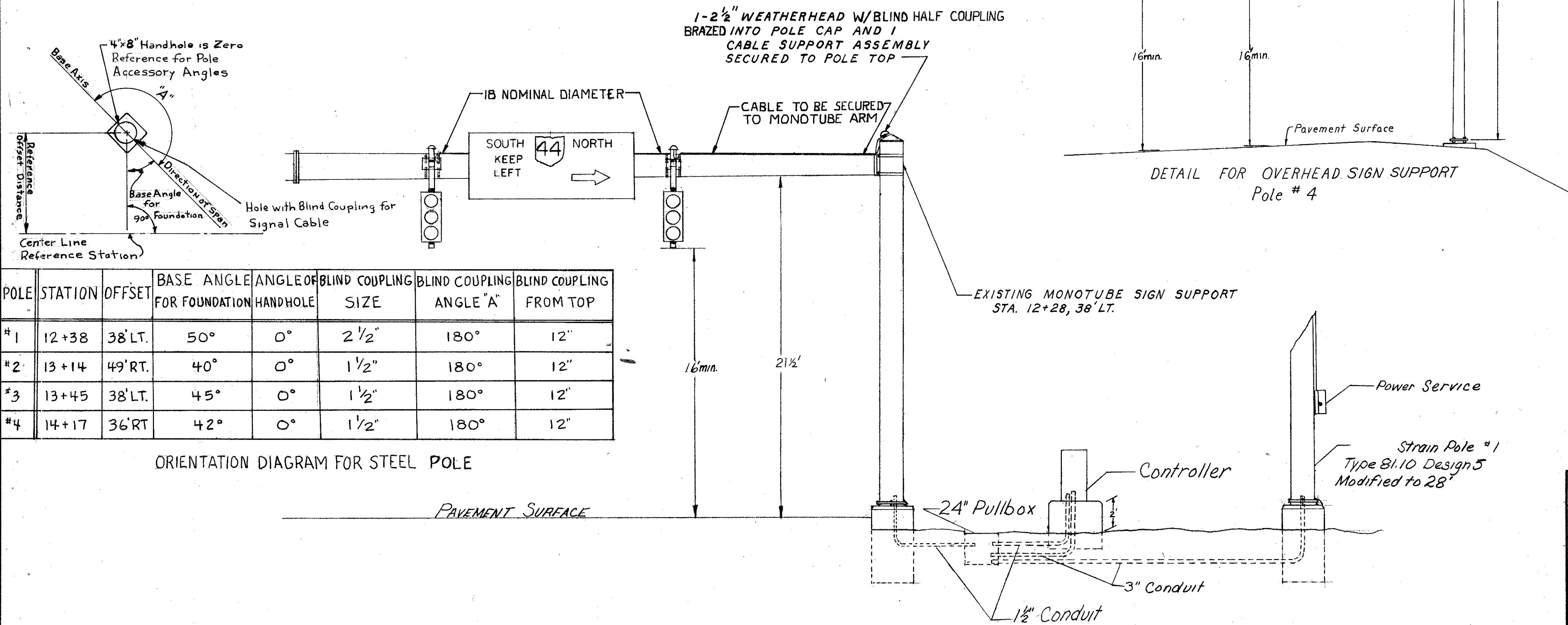
This item shall include the furnishing and installation as shown, of weatherhead w/ blind half coupling on existing monotube sign support at Sta. 12+28, 38' LT.

Payment for this item shall be full compensation for labor, material, equipment, tools and incidentals necessary to perform the work.

625 Trench, Paved Areas, Pavement 6" or Greater

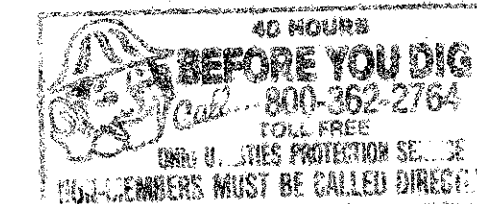
In addition to the provisions of 625.12, trenching in paved areas shall be as detailed on Sheet 4. Premarked sawcut lines shall follow existing joints or grooves where possible and shall be approved by the engineer before sawing. Restoration shall be in accordance with 603.09 with backfilling, surface restoration to previous condition and disposal of surplus material. Trenching will be measured in accordance with 625.24. Payment will be at the contract unit price per linear foot and shall be full compensation for labor, equipment, tools, material and incidentals necessary to perform the work including backfilling and surface restoration.

MICROFILMED
OCT 26 1981



POLE	STATION	OFFSET	BASE ANGLE FOR FOUNDATION	ANGLE OF HANDHOLE	BLIND COUPLING SIZE	BLIND COUPLING ANGLE "A"	BLIND COUPLING FROM TOP
#1	12+38	38' LT.	50°	0°	2 1/2"	180°	12"
#2	13+14	49' RT.	40°	0°	1 1/2"	180°	12"
#3	13+45	38' LT.	45°	0°	1 1/2"	180°	12"
#4	14+17	36' RT.	42°	0°	1 1/2"	180°	12"

ORIENTATION DIAGRAM FOR STEEL POLE



FLASHER OPERATIONS

Yellow to SR 84
Red to Ramp C And Chestnut
Signal shall flash intermittently not less than 50 nor more than 60 times per minute.
Signal No. _____
Original installation installed _____
This installation installed _____
File Number _____

DATE	REVISIONS

ELECTRICAL INSTALLATION

District 12 County Cuyahoga 1" = _____

Engr. Order No. _____

DESIGNED	DRAWN	REVISED	CHECKED	REVIEWED
	R.J.M.			

Job No. _____