

INPUT FILE ASSIGNMENT FOR 332 CABINET

	SLOT 1	SLOT 2	SLOT 3	SLOT 4	SLOT 5	SLOT 6	SLOT 7	SLOT 8	SLOT 9	SLOT 10	SLOT 11	SLOT 12	SLOT 13	SLOT 14
Channel #1	1 EC	2 EC	2 EC	2 C	3 EC	4 EC	4 EC	4 C	1 EC	SPARE	MAN. CTRL. ADV.	2 PPB	6 PPB	FLSH
Field Term.	1 1-D,E	1 2-D,E	1 3-D,E	1 4-D,E	1 5-D,E	1 6-D,E	1 7-D,E	1 8-D,E	1 9-D,E	1 10-D,E	1 11-D,E	1 12-D,E	1 13-D,E	1 14-D,E
Channel #2	(1 EC)	2 EC	2 EXT	(2 C)	(3 EC)	4 EC	4 EXT	(4 C)	3 EC	SPARE	ADV. ENAB.	4 PPB	8 PPB	STOP TIME
Field Term.	1 1-J,K	1 2-J,K	1 3-J,K	1 4-J,K	1 5-J,K	1 6-J,K	1 7-J,K	1 8-J,K	1 9-J,K	1 10-J,K	1 11-J,K	1 12-J,K	1 13-J,K	1 14-J,K

SEPARATE BID ITEMS:

- 625 PULLBOX, 713.08, 24"
- 633 CONTROLLER WORK PAD
- 633 CONC. FOR CAB. FOUNDATION

FRONT VIEW OF TOP INPUT FILE I

	SLOT 1	SLOT 2	SLOT 3	SLOT 4	SLOT 5	SLOT 6	SLOT 7	SLOT 8	SLOT 9	SLOT 10	SLOT 11	SLOT 12	SLOT 13	SLOT 14
Channel #1	5 EC	6 EC	6 EC	6 C	7 EC	8 EC	8 EC	8 C	5 EC	SPARE	SPARE	EV-A	EV-B	RR-1
Field Term.	J 1-D,E	J 2-D,E	J 3-D,E	J 4-D,E	J 5-D,E	J 6-D,E	J 7-D,E	J 8-D,E	J 9-D,E	J 10-D,E	J 11-D,E	J 12-D,E	J 13-D,E	J 14-D,E
Channel #2	(5 EC)	6 EC	6 EXT	(6 C)	(7 EC)	8 EC	8 EXT	(8 C)	7 EC	SPARE	SPARE	EV-C	EV-D	RR-2
Field Term.	J 1-J,K	J 2-J,K	J 3-J,K	J 4-J,K	J 5-J,K	J 6-J,K	J 7-J,K	J 8-J,K	J 9-J,K	J 10-J,K	J 11-J,K	J 12-J,K	J 13-J,K	J 14-J,K

FRONT VIEW OF BOTTOM INPUT FILE J

INPUT FILE TERMINAL ASSIGNMENT

TERM. PIN FUNCTION

1	SP	SPARE
2	F	CHANNEL 1 OUTPUT
3	W	CHANNEL 2 OUTPUT
4	D	CHANNEL 1 INPUT
5	E	CHANNEL 1 INPUT
6	J	CHANNEL 2 INPUT
7	K	CHANNEL 2 INPUT
8	L	EQUIPMENT GROUND

() - JUMPERED TO UPPER CHANNEL
 C - INPUT ONLY DURING RED
 EC - EXTEND AND CALL (RED, YELLOW, GREEN)
 EXT - INPUT ONLY DURING GREEN

TERMINATION OF FIELD WIRING SHALL CONFORM TO THE ABOVE CHART. THE CONTRACTOR SHALL DUPLICATE THE INPUT ASSIGNMENT CHART AND INCLUDE IT IN THE CABINET DOCUMENTATION. THE CHART SHALL CLEARLY INDICATE WHICH INPUT FILE SLOTS AND CHANNEL TERMINALS ARE USED IN THE CABINET. A RED PEN SHALL BE USED TO CIRCLE SLOT NUMBERS AND CHANNEL TERMINALS THAT ARE USED.

ITEM 632. POWER SERVICE FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM CEI AT THE LOCATIONS INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120 VOLTS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS THE POWER COMPANY MAY REQUIRE FOR POWER SERVICE HOOKUP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO THE POWER COMPANY'S CIRCUITS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNALS ARE ACCEPTED BY THE MAINTAINING AGENCY.

THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE POWER SERVICE FROM THE UTILITY POLE POWER SOURCE, AS COORDINATED WITH THE ENGINEER AND CEI, TO THE CONTROLLER AT THE INTERSECTION OF U.S. 20 & HALE ROAD. THE FOLLOWING CONTINGENCY ITEMS HAVE BEEN INCLUDED FOR USE AS DIRECTED BY THE ENGINEER:

- ITEM 632-70000 - POWER SERVICE - 1 EACH
- ITEM 632-68300 - POWER CABLE, 3 CONDUCTOR, NO. 6 AWG - 150 LIN.FT.
- ITEM 632-30300 - MESSENGER WIRE, 7 STRAND, 7/16" W/ ACCESS. - 150 LIN.FT.

ITEM 633 CONTROLLER ITEM, MISC.: PREEMPTION, OPTICOM

THE PREEMPTION SHALL BE AN OPTICOM PREEMPTION EQUIPMENT, AS MANUFACTURED BY THE 3M COMPANY OF MINNEAPOLIS, MINNESOTA, AND SHALL INCORPORATE OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT AND ACCESSORIES AS REQUIRED.

THE PREEMPTION SHALL CONFORM TO ODOT SPECIFICATION 633 AND SHALL UTILIZE COMMUNICATIONS TO IDENTIFY THE PRESENCE OF AN EMERGENCY PRIORITY VEHICLE. IT SHALL CAUSE THE TRAFFIC SIGNAL CONTROLLER TO SELECT A PRE-PROGRAMMED PREEMPTION PLAN THAT WILL DISPLAY AND HOLD THE DESIRED SIGNAL PHASE FOR THE DIRECTION OF THE EMERGENCY VEHICLE.

THE COMMUNICATIONS MEDIUM SHALL EMPLOY LIGHT DETECTION TECHNIQUES TO DETERMINE AND LOG THE PRESENCE OF THE EMERGENCY VEHICLE. THE SYSTEM SHALL DETECT THE PRESENCE OF THE VEHICLE THROUGH AND EMITTING DEVICE LOCATED ON THE EMERGENCY VEHICLE.

THE SYSTEM SHALL ACTIVATE THE PREEMPTION SEQUENCE BY APPLYING A SIGNAL TO ONE OF THE CONTROLLER'S PREEMPT DISCRETE INPUTS. THE SYSTEM SHALL BE COMPLETELY COMPATIBLE WITH THE 170-TYPE CONTROLLER.

THE EQUIPMENT SHALL BE SHELF-MOUNTED AND EASILY REMOVABLE AND RECEIVING PRIORITY FOR EACH APPROACH TO THE INTERSECTION. IT SHALL BE POSSIBLE TO DETECT THE EMERGENCY VEHICLE UP TO 1,000 FEET FROM THE INTERSECTION.

EACH INTERSECTION SHOWN IN THE PLANS SHALL BE SUPPLIED WITH THE FOLLOWING COMPONENTS, EACH BID SEPARATELY:

1. PREEMPT DETECTORS
2. PREEMPTION DETECTOR CABLE
3. PREEMPT PHASE SELECTOR ASSEMBLY
4. CONFIRMATION LIGHT

THE TOWNSHIP SHALL BE SUPPLIED WITH THE EMITTERS, TRANSMITTERS, SWITCHES, WIRING AND ALL REQUIRED VEHICLE EQUIPMENT FOR THE FOLLOWING EMERGENCY FRONT LINE VEHICLES. THE COUNTY SHALL BE RESPONSIBLE FOR INSTALLING ALL VEHICLE EQUIPMENT.

1. AMBULANCE & EMT SERVICE 7 VEHICLES
2. FIRE 7 VEHICLES
3. POLICE 7 VEHICLES

THE TOWNSHIP SHALL BE SUPPLIED WITH SOFTWARE REQUIRED TO CALIBRATE, LOG, AND OPERATE THE SYSTEM. THE SOFTWARE SHALL BE CAPABLE OF OPERATING ON AN IBM OR IBM-COMPATIBLE PERSONAL COMPUTER WITH WIN 98 OR HIGHER OPERATING SYSTEM. TWO (2) OPERATING AND INSTRUCTION MANUALS SHALL BE SUPPLIED WITH THE SOFTWARE. REVISIONS AND UPDATES TO THE SOFTWARE SHALL BE AT NO COST TO EACH TOWNSHIP FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF INSTALLATION OF THE SYSTEM.

THE CONTRACTOR SHALL THOROUGHLY CHECK OUT THE INSTALLED SYSTEM. AS A MINIMUM, THE CONTRACTOR SHALL VERIFY THAT ALL CONNECTIONS ARE PROPERLY MADE TO THE CONTROLLER CABINETS. THE CONTRACTOR SHALL CHECK THAT THE RANGE SETTING IS PROPER FOR EACH INTERSECTION. THE CONTRACTOR SHALL DETERMINE THAT ALL PHASE SELECTORS ARE SELECTING THE AND UPDATES TO THE SOFTWARE SHALL BE AT NO COST TO EACH TOWNSHIP FOR A PROPER PHASE AND TIMING ACCURATELY. THE CONTRACTOR SHALL VERIFY THAT ALL VEHICLE EMITTERS ARE BEING PROPERLY DETECTED.

THE CONTRACTOR SHALL PROVIDE TRAINING FOR UP TO FIFTEEN (15) PERSONS IN THE OPERATION OF THE SYSTEM. IT SHALL BE PROVIDED WITH 48 HOURS OF THE INSTALLATION OF THE SYSTEM. IT SHALL CONSIST OF HANDS-ON INSTRUCTIONS FOR A MINIMUM OF SIXTEEN (16) HOURS.

ALL TRAINING SHALL BE HELD IN THE TOWNSHIP OR COUNTY SUPPLIED LOCATION. TRAINING SHALL BE CONDUCTED BY SOMEONE WHO HAS PERFORMED THIS WITHIN THE LAST YEAR, AND DOES IT ON A REGULAR BASIS. THE COST OF TRAINING, INCLUDING COURSE MATERIAL, TRAVEL SUBSISTENCE AND RELATED COSTS, SHALL BE ENTIRELY BORN BY THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE PREEMPTION EQUIPMENT.

PAYMENT FOR ITEM 633 CONTROLLER ITEM MISC.: PREEMPTION OPTICOM WILL BE MADE AT THE CONTRACT LUMP SUM PRICE FOR PREEMPTION IN PLACE AND FULLY OPERATIONAL AS SHOWN IN THE PLANS EXCEPT FOR THOSE ITEMS BID SEPARATELY.

633 CONTROLLER ITEM, MISC.: PREEMPTION DETECTORS, OPTICOM MODEL 711

COMPANY AND SHALL INCORPORATE OR BE FURNISHED WITH ALL THE DESIGN FEATURES, BY THE 3M COMPANY OF MINNEAPOLIS, MINNESOTA, AND SHALL INCORPORATE OR BE AUXILIARY EQUIPMENT, ACCESSORIES AND CABINET FEATURES AS REQUIRED.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

633 CONTROLLER ITEM, MISC.: PREEMPTION PHASE SELECTOR, OPTICOM MODEL 754

THE PREEMPT PHASE SELECTOR SHALL BE A MODEL(S) OPTICOM 754 AS MANUFACTURED BY 3M COMPANY AND SHALL INCORPORATE, OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT, ACCESSORIES AND CABINET FEATURES AS REQUIRED.

THE ITEM SHALL BE MEASURED AS ONE ITEM PER INTERSECTION EVEN THOUGH MULTIPLE SELECTORS MAY BE NEEDED TO FULFILL THE REQUIREMENTS OF THE PLANS FOR THE PROPER OPERATION OF THE INTERSECTION.

632 SIGNAL CABLE, MISC.: PREEMPT DETECTOR CABLE, OPTICOM MODEL 138

THE PREEMPT DETECTOR CABLE SHALL BE A MODEL OPTICOM 138 AS MANUFACTURED BY 3M COMPANY AND SHALL INCORPORATE, OR BE FURNISHED WITH ALL THE DESIGN FEATURES, AUXILIARY EQUIPMENT, ACCESSORIES AND CABINET FEATURES AS REQUIRED.

PAYMENT WILL BE MADE AT THE CONTRACTOR UNIT PRICE FOR EACH, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

633 CONTROLLER ITEM, MISC.: PREEMPT CONFIRMATION LIGHT

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPT CONFIRMATION LIGHT INCLUDING MOUNTING HARDWARE AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE PREEMPT CONFIRMATION LIGHT COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS.

A CONFIRMATION LIGHT SHALL BE SUPPLIED FOR EACH INTERSECTION TO INDICATE THAT THE EMERGENCY VEHICLE HAS ACHIEVED CONTROL OF THE TRAFFIC SIGNAL.

THE CONFIRMATION LIGHT SHALL BE A VAPOR TIGHT ALUMINUM LIGHTING FIXTURE. IT SHALL BE SUPPLIED WITH A WHITE-COLORED GLOBE, 150 WATT INCANDESCENT LAMP AND MOUNTING HARDWARE TO ATTACH TO THE SPAN WIRE. THE CONFIRMATION LIGHT SHALL BE POWERED BY A LOAD SWITCH IN THE TRAFFIC SIGNAL CONTROLLER.

PAYMENT FOR ITEM 633 CONTROLLER ITEM, MISC.: PREEMPT CONFIRMATION LIGHT, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH LIGHT IN PLACE, COMPLETELY INSTALLED IN THE LOCATION SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

630 SIGNING, MISC.: GROUND MOUNTED SUPPORT, WOOD POST 6X6, AS PER PLAN

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING TWO (2) 6X6 PRESSURE-TREATED WOOD POSTS. EACH POST SHALL BE 16' LONG AND SHALL BE EMBEDDED 4' IN THE GROUND. THE FIRST POST SHALL BE USED TO SUPPORT THE SCHOOL FLASHER ON HALE ROAD IN ITS TEMPORARY LOCATION. THE SECOND POST SHALL BE USED TO SUPPORT THE SCHOOL FLASHER IN ITS FINAL LOCATION ON HALE ROAD. THIS ITEM SHALL ALSO INCLUDE THE INSTALLATION OF MOUNTING HARDWARE AND ALL OTHER ACCESSORIES (EITHER EXISTING OR SUPPLIED PER CONTINGENCY) THAT ARE NECESSARY TO MAKE THE SCHOOL FLASHER COMPLETELY FUNCTIONAL AND OPERATIONAL AT BOTH LOCATIONS, AS SHOWN IN THE PLANS. REMOVAL AND DISPOSAL OF THE POST AND OTHER HARDWARE FROM THE TEMPORARY LOCATION SHALL BE INCLUDED IN THE PRICE.

PAYMENT WILL BE MADE AT THE CONTRACTOR UNIT PRICE PER LINEAR FOOT, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

630 SIGNING, MISC.: POWER SERVICE FOR TRAFFIC SIGNS, AS PER PLAN

THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE POWER SERVICE FROM THE UTILITY POLE POWER SOURCE, AS COORDINATED WITH THE ENGINEER AND CEI, TO THE SCHOOL FLASHER IN BOTH ITS TEMPORARY AND FINAL LOCATIONS. THE FOLLOWING LUMP SUM CONTINGENCY ITEM HAS BEEN INCLUDED FOR USE AS DIRECTED BY THE ENGINEER:

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING POWER CABLE, CONDUIT, POST MOUNTED SIGN BRACKETS AND OTHER ACCESSORIES NECESSARY TO MAKE THE SCHOOL FLASHER COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS.

PAYMENT WILL BE MADE AT THE CONTRACTOR UNIT PRICE FOR LUMP SUM.

LOOP DETECTOR INSTALLATION

THE SIGNAL CONTRACTOR SHALL CONTACT THE ENGINEER BEFORE INSTALLATION OF VEHICLE DETECTION LOOPS FOR ASSISTANCE IN LOCATION MARKING.

632 - STRAIN POLE FOUNDATION, AS PER PLAN

IF UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED THAT PRECLUDE THE USE OF THE STANDARD FOUNDATION DESIGN, THE REQUIREMENT OF ITEM "632 - SIGNALIZATION MISC.: FOUNDATION TEST HOLES" SHALL APPLY.

HAND DIGGING OF FOUNDATIONS MAY BE REQUIRED AT SOME LOCATIONS DUE TO THE PROXIMITY OF UNDERGROUND UTILITIES. THE COST OF HAND DIGGING SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE BID FOR "ITEM 632 - STRAIN POLE FOUNDATION, AS PER PLAN."

DATE: 09-26-02 - H: 1998\98404\DWG\404TCGN2.DWG (PLOT 3)

CALCULATED
TJF
CHECKED
JMH

TRAFFIC CONTROL GENERAL NOTES

LAK - 20 - 18.72

318
441