

Bill of Material
(For information only)

ITEM	Unit	Unit
Controller	EA	1
Controller Cabinet	EA	1
Meter Box	EA	1
Power Disconnect w/Breaker	EA	1
Traffic Signal Pole and Mast Arm (16')	EA	2
Concrete Base for Signal Pole	EA	2
15" Pedestal w. Base	EA	2
Pedestrian Signal Lamps LED	EA	2
Traffic Signal Head (Type A) W/Brackets	EA	4
Pedestrian Signal Head (Type K) W/Brackets	EA	2
12" Combination	EA	2
Pedestrian Pushbutton w/Sign (One PC)	EA	16
Traffic Signal Lamp (LED)	EA	5
Ground Rod and Clamp	EA	2
Service Box	EA	2
2" RGC Conduit	LF	451
3" RGC Conduit	LF	48
Multi-Conductor Cable 3c #14 AWG	LF	521
Multi-Conductor Cable 2c #14 AWG	LF	97
Ground Wire (THHN #8 AWG)	LF	518
Power Supply Wire (THHN #8 AWG)	LF	118

- * The controller and cabinet shall include the following:
 - *Model 170E Controller unit complete with W41KS (5.3A or latest version) traffic program on 412B system - memory module and model 400 modem.
 - *One model 336 Cabinet (meeting City of Wichita spec. (complete with all accessories including:
 - *1-Model 210 ECL or MS Conflict Monitor.
 - *4-Transfer Relays
 - *2-Model 204 Flasher Units
 - *2-Model 242 Two Channel Isolaters
 - *2-Model 200 Switch Packs

The contractor shall be responsible for furnishing and install the controller, cabinet and software and for all equipment necessary for the complete and satisfactory operation of the traffic signal, whether or not said equipment is specifically mentioned.

The contractor shall finish and install all power supply cable and traffic signal cable for the complete operation of the traffic signal. No splices will be allowed outside pole bases, service boxes, or junction boxes.

Each separate mast arm mounted signal head shall have one continuous run of 5-conductor cable from the pole base to the signal head. A one-conductor #8 AWG (green) shall be installed to connect all grounding lugs in pole bases and controller base.

One seven-conductor cable shall be run from the controller to each pole supporting a mast arm-mounted vehicle indication. The following color code shall be used:

White	Common
Red	Red Ball
Green	Green Ball
Orange	Yellow Ball
White/Black	Don't Walk
Blue	Walk
Black	Pushbutton

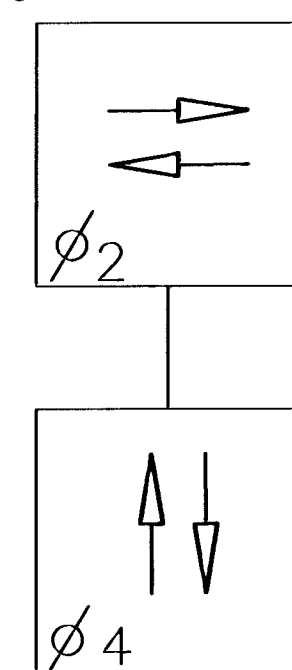
One five-conductor cable shall be run from each 3-section thru signal head to pole base.

One five-conductor cable shall be run from each 2-way side of pole pedestrian signal to the pole base. The following color code shall be used:

Red	Don't Walk
Green	Walk
White	Common
Orange	Spare
Black	Spare

One two conductor cable shall be run from pushbutton to pole base.

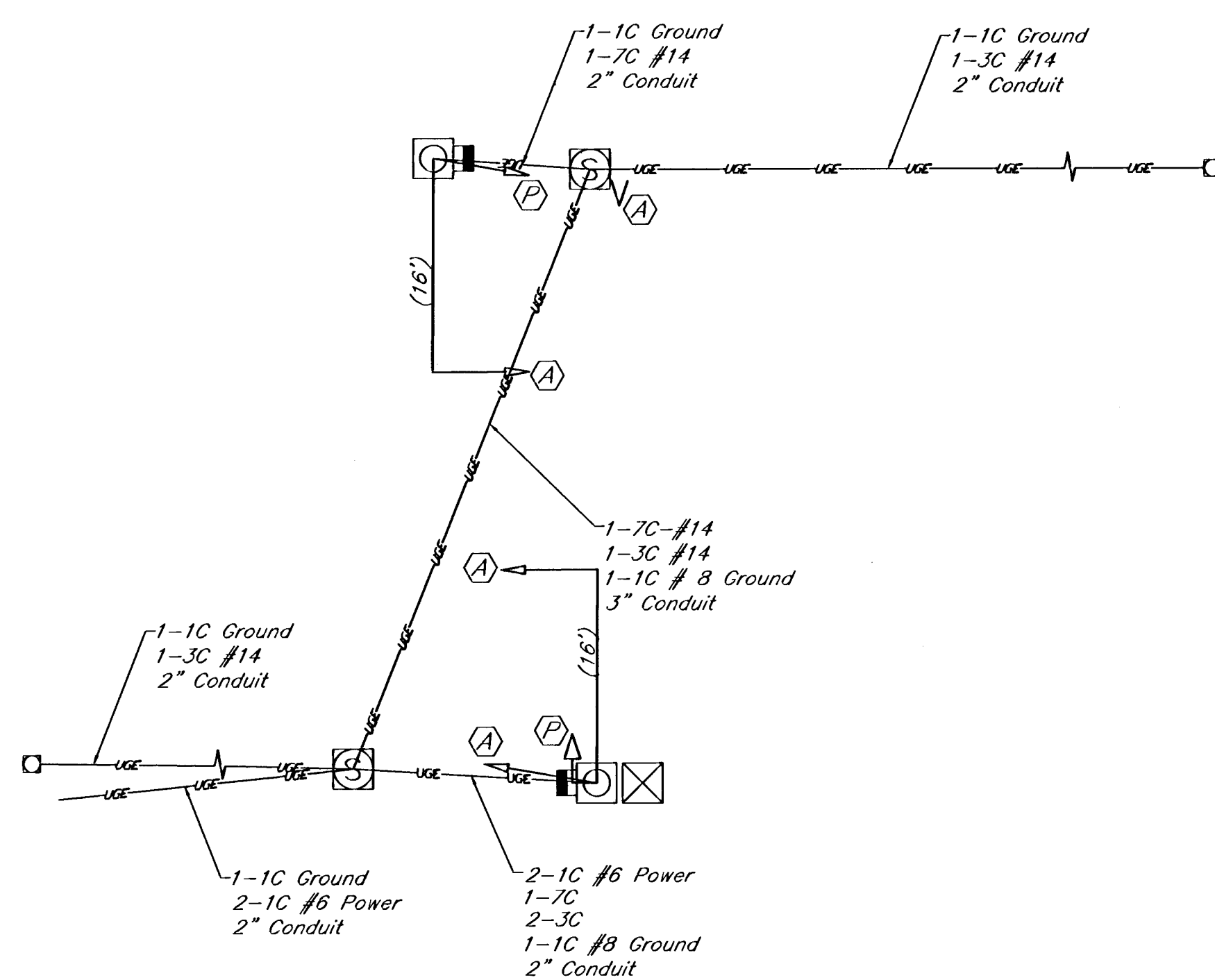
Signal Phasing



Pedestrian intervals occur after push button actuation.

Legend

- Metal Traffic Signal Pedestal & Pole
- Service Box
- Traffic Signal Indicator
- Mast Arm with Traffic Signal
- Pedestrian Push Button
- Conduit
- Pedestrian Signal Indicator
- Controller and Cabinet

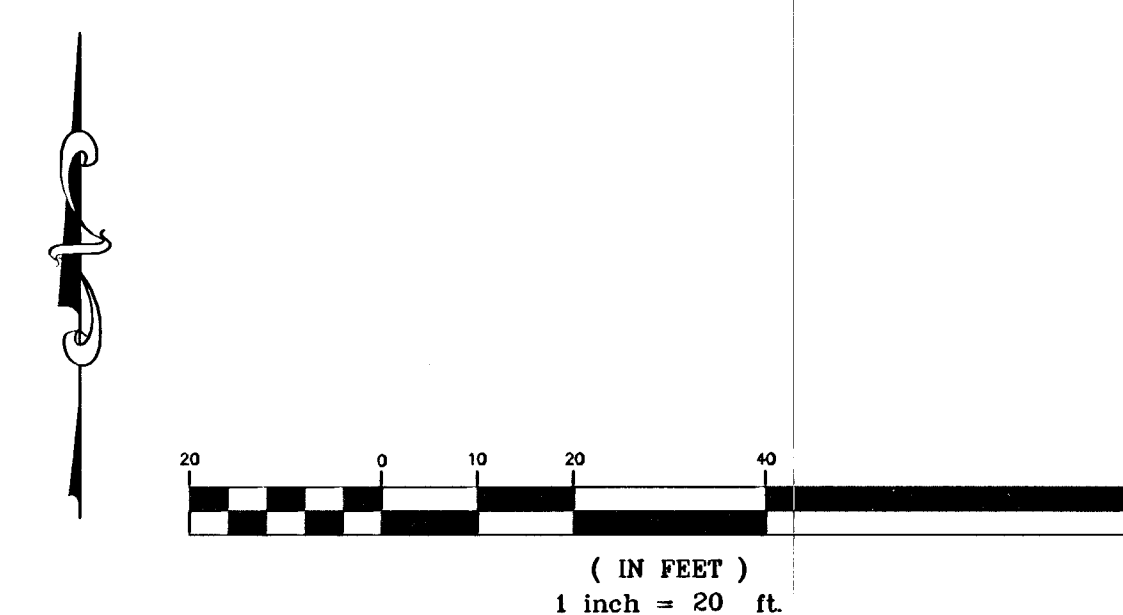
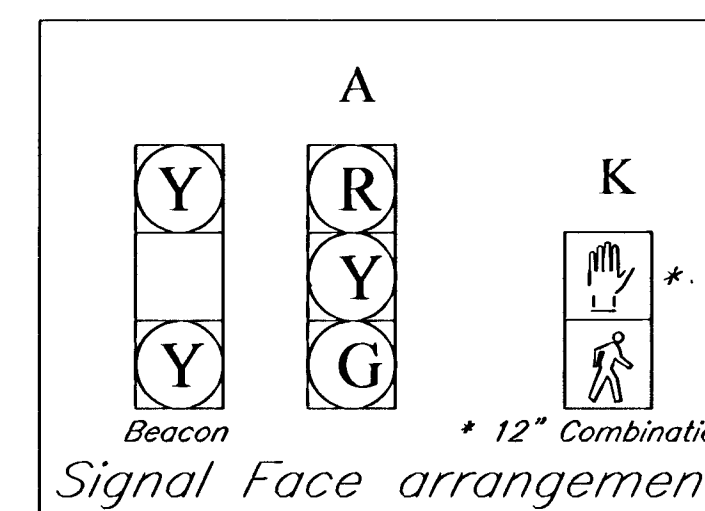


Wiring Diagram

(SIG) - Signal Cable
(PED) - Pedestrian Cable

TIMING SUGGESTED (sec.)

PHASE	MINIMUM INITIAL	PEDESTRIAN WALK	FDW	CLEARANCE YELLOW	ALL RED
2	8	-	-	3.5	1.5
4	8	8	20	-	1.0



NOTES:

- Contractor to install and maintain Temporary Crosswalk Signal during Construction
- Contractor shall remove and deliver to CMF, 1801 S. McLean for City of Wichita existing signals, signal poles, controller, cabinet, and manhole covers. Contractor shall notify Traffic Engineering Department two weeks prior to start of construction. Delivery of salvageable items is non-participating.
- Traffic to be carried through construction. See Construction Traffic Control Plan.
- Contractor shall contact all utility companies which may be affected by this construction prior to beginning of construction.
- Service Box, Junction Box and conduit runs are typical only and should be adjusted during installation to clear obstructions and facilitate wiring.
- Conduit shall be bored under existing Pavement
- Service Boxes shall not be installed in sidewalk ramps.
- Signal Poles and Equipment are to be Black.
- The traffic signal system shall be complete and the Contractor shall furnish and install all equipment necessary for the satisfactory operation of electrical apparatus and for the complete operation of traffic signal system whether specifically mentioned or not.

Harry Street, Meridian to K-42
Pedestrian Crossing Signal
Wichita, KS

PROJECT NUMBER
472-84001 OCA#: 706900

KEM NO. 04050	FILE Signal	DATE 10/22/04	SHEET 30
DESIGN PB	DRAWN PB	REVISED 11/21/05	OF 58

kemiller
engineering

516 S. Market, Wichita, KS 67202 316/264-0242