

APPROVED MATERIALS/EQUIPMENT LIST FOR TRAFFIC SIGNALS
(Any questions or clarification on materials/equipment call Mark DeBarris in the Traffic Signal Operations Division @ 303-651-8699)

SIGNAL POLES/MAST ARMS and FOUNDATIONS-----

(For use on State Highway intersections/streets only)

Signal Pole/Arm-----C-DOT Standard Specification, S-614-40/ S-614-40-A Galvanized finish.
NOTE : S-614-40 is to be used for any double mast arm (any length), and or single mast arm application greater then 55' in length.
S-614-40-A is to be used for all single mast arm 55' in length and under.

Foundation----- Specs and details are found on the drawings for the poles/arms.

(For use on City of Longmont intersections/streets)

Pole/Arm -----Valmont number LMT DB00934, Galvanized finish.

Foundation----- drawing # M07213SIG01.DWG .
The drawing details for the foundations on the Longmont Standard Specs can be attained from the City of Longmont Traffic Signal Operations Division.

STREET LIGHT LUMINARES/ARMS-----

Street light arms shall be ordered w/signal pole/mast arm using the appropriate made to fit arm for the style that is being purchased. It shall be a 15' arm, and the luminaire shall be purchased from the City of Longmont LPC warehouse. The mounting height for all street lights shall be at 30' to 35' on the pole depending on the height of pole ordered for each location, *(please note this is a different mounting height for street lights that Longmont calls out for and is not the mounting height that the State normally uses, therefore it will be necessary to ensure when placing any signal pole/arm order that this is known).*

PEDESTRIAN POLES w/small bases-----

Manufacture is Pelco Inc.

- | | |
|-------------------|---------------------------|
| Ped. Pole | # PB-5100-Length-PNC |
| Aluminum T - Base | # PB-5334-Blank-3S-GL-PNC |
| Anchor Bolts | # PB-5518-GLV |

Pole Cap # PB-5402-PNC
Foundation will be a concrete poured base as per our Specs.

CONTROLLER CABINETS and INTERNAL EQUIPMENT/COMPONENTS-----

Econolite (P) TS-2 **Stretch 16** position load bay cabinet built as per **Longmont Standard, Econolite** has the build details on file. Refer to design plans as to exact needed equipment for intersection as in ----- how many detector slots will be needed. Econolite controller shall be the Cobalt controller. Internal equipment is supplied along with cabinet from Econolite. Manufacture of cabinet must be -----

- ISO 9001-2008 registered
- Certified IPC class II
- Cabinet shells shall be UL listed and certified

VIDEO DETECTION SYSTEM-----

Flir Traffisense 2 w/Sunshield
Integrated thermal sensor and video detector
FOV: 32 degree horizontal 26 degree vertical
The System shall include all mounting hardware, cable, processing cards and any other necessary components to have a fully operational detection system.
In some cases an additional 4 channel I/O or PIM card may be necessary for additional detection.
This system also requires a phoenix contact brand power supply
TRIO-PS/1AC/24DC/10
Order # 2866323
www.interface.phoenixcontact.com

FLIR ITS-332 (S)
THERMAL SENSOR FIXED
IMAGING CAMERA, IP QVGA, 30
FPS, IP66, 32 DEGREE WIDE FOV,
NTSC

FLIR ITS-324 (S)
THERMAL SENSOR FIXED
IMAGING CAMERA, IP QVGA, 30
FPS, IP66, 24 DEGREE WIDE FOV,
NTSC

BNC 2 – Wire-36”
BNC - 3071 – 75- BNC Connector – Male
HESCO HE75CX w/Baseplate – Video Surge Suppressor 750 HM (EDCO style)
Universal Camera Mount – KAR-GOR Universal Camera Mount Part # MA/SOP-16 (503-315-9899), call signal shop if you would like a drawing e-mailed to you showing the mounting bracket.
Traficon – Bell Box
Kargor Pigtail – Pig tail, assembled
Traficon – VIP 3D.25 – VIP 3D.2s Single Slot
Fuse Block 4 Position
X4310657-00-1000-5 Conductor Wire 1000 ft. Spool

Traficon – Key Pad

The system shall include cameras, cable, processor cards and all mounting hardware for the complete installed video system.

FIBERGLASS CABINET BASE-----
Signal Cabinet Base

Nordic fiberglass Inc. base for NEMA cabinets sizes (P) and (M) -----

Product numbers are # GS - 44-26-MG 37x20 (P44)

GST – 30-18-18-GR 24x13 (M)

PULL BOX-----

New Basis West LLC Polymer concrete fiberglass reinforced box, pull box lids must have the words “Traffic Signal” Cast in place and for the X- large w/split lid it will require both. All pull boxes need to be at least 20K load rated.

Small ----- 11” x 18” x 18” FCA 111812-00030

Medium----- 13” x 24” x 18” FCA 132412-00030

Large ----- 17” x 30” x 18” FCA 173012-00030

X-Large pull box w/split lid only 24”x36”x18”

TRAFFIC SIGNAL HEADS-----

McCain Polycarbonate (3) section “12-12-12” yellow w/black tunnel visors

Part # 3YP12EMPTYBT

McCain Polycarbonate (3) section “8-8-8” yellow w/black tunnel visors

Part # 3YP8EMPTYBT

McCain Polycarbonate (4) section “12-12-12-12” yellow w/black tunnel visors

Part # (4YP12EMPTYBT)

Current vendor is Traffic Signal Controls @ 303-772-2787, these part numbers are specifically from TSC. For any questions please call -- The City’s Traffic Signal Operations Division, Mark DeBarris at (303-651-8699) for information.

PEDESTRIAN HEADS-----

McCain die cast aluminum 16” x 18” clamshell style, yellow (it takes both part numbers to make a complete item)

Part # (M32214 and M27168)

PEDESTRIAN FACE COUNTDOWN ETL LED's-----

GE Lumination Hand/Man Countdown insert LED module, Model # PS7-CFF1-VLA

SIGNAL FACE LED's-----

All LED's shall be ETL certified

Dialight -- 12"	RED Ball LED	Part # 433-1210-003XL15
Dialight -- 12"	YELLOW Ball LED	Part # 433-3230-901XL15
Dialight -- 12"	GREEN Ball LED	Part # 433-2220-001XL15
Dialight -- 12"	RED Arrow LED	Part # 432-1314-001XOD15
Dialight -- 12"	YELLOW Arrow LED	Part # 431-3334-901XOD15
Dialight -- 12"	GREEN Arrow LED	Part # 432-2324-001XOD15
Dialight -- 8"	RED Ball LED	Part # 433-1110-003XL15
Dialight -- 8"	YELLOW Ball LED	Part # 433-3130-901XL15
Dialight -- 8"	GREEN Ball LED	Part # 433-2120-001XL15

PEDESTRIAN PUSHBUTTONS-----

ADA low profile Bulldog style made by Polara Engineering Part # (BDL3 Bulldog 3 and BDPM 3-X) takes Both part numbers to complete the item.

PEDESTRIAN PUSHBUTTON SIGNS-----

For any application calling for the countdown style Peds then the pushbutton signs shall be R10-3e, industrial stick on type, size 8 1/2" X 5", and Diamond grade. Brand type is Traffic Signal Controls.

AUDIBLE PEDESTRIAN SIGNALS-----

If audible are called for on a project then the ADA audible pedestrian signal (APS) with the vibra-tactile arrow with a LED and sound shall be used.

The signs will be built into and on each APS, and special details will be given by Mark DeBarris in the Traffic Signal Operations Division (303-651-8699).

This will be specified in the plans or directed by the Traffic Signal Operations Division.

Approved manufacture is Polara -----

(All 3 part #'s listed below are necessary for one unit APS)

- Part # iNS2: "iNS" iNavigator 2-Wire universal Push Button Station to operate as a 3 wire. (5 x 7) Informational Walk Sign, Voice messaging with direction of travel and street crossings. Color Yellow and No brail
- Part # iPHCU3S: PED HEAD CONTROL UNIT FOR iNAVIGATOR 3-WIRE
- Part # IN3- Cable interconnect cable for push buttons, Additional cable may be required when Ped poles are installed. Cable available at Anixter # C2831/ C2831A.41.10 18-3C or Polara

MOUNTING BRACKET HARDWARE

Sky Brackets for overhead signals, signs regulatory and Street name, info etc.

Lengths of tubes will vary as to what size the sign is and also the length. Some lengths will require additional channels for stability also channel lengths vary as to the size of sign being installed. All signal heads/Signs to be mounted with Sky type Brackets clamps

Part # SB-59-SCK Sky Bracket Clamps

Part # SB-59-SBK- ? TK- ? Question marks are for Tube length and Channel Lengths needed

Pelco Mounting Hardware used for SOP's /Opticom

Part # AB-0155-42 this is a mini Astro Brac. for use with a opticom head/sensor mounting

Part # SP-5419-P29 a set of side of pole Ells for each SOP signal head used 1Way

All Hardware for cameras (if this method is necessary and not using the universal mount) Will be the Stellar series AS-3004 clamp and AB-2003 tube for camera Mt.

CABLE AND WIRING-----

Refer to the City of Longmont Traffic Signal Specifications/Standards for the details of all wiring that shall be used.

EMERGENCY PRE-EMPT SYSTEM-----

Global Technologies Opticom Equipment-----

Sensors -- 722 and or 721 heads

Phase selector cards -- 4 channel (only) W/755 adaptor card

(3-M opticom cable 138, shall be used for the wiring of the sensors.)

RADAR DRIVER FEEDBACK SIGNS AND VARIABLE SPEED SIGNS-----

Radar DFS and Variable Speed Signs shall be the Speed Check Brand. If either of these signs are called for on a project then you shall call ---- Mark DeBarris in the Traffic Signal Operations Division (303-651-8699) to get details.

Variable Speed Sign -- Speed Check 15" VSC-1520, 30" X 30", AC +, Diamond Grade White w/ black lettering, shall include the (2) wire driver harness.

Radar Feed Back (Your Speed) Sign – Speed Check 15" VSC-1520, 30" X 30", AC +, slow down option included, Diamond Grade White or Safety Green w/ black lettering, shall include the (2) wire driver harness.

SCHOOL FLASHER SYSTEM-----

School flasher system shall be built to the City of Longmont Standard Specification.

TIME CLOCK SWITCH =====

Applied Information (AI) Programmable time clock switch
Model # FCU 500-070 W/GSM/GPSS/PCS dual mode antenna.

CABINET ===== (Supplied by Traffic Signal Controls)

TDC – 132A – cabinet w/dual flash Epocs
SFCAB – sweep elbow A pole mount upper/lower aluminum.

Please call --- The City's Traffic Signal Operations Division, Mark DeBarris at (303-651-8699) to acquire the details of the Specification and Wiring diagram

BACK PLATES

Back Plate details --

Shall be the aluminum louvered in Black w/ 1-1/2" yellow reflective boarder tape.

- (3) Section 12-12-12 back plate (shall be a one piece unit) # BP – 3S L
- (4) Section 12-12-12-12 back plate (shall be a one piece unit) # BP – 4S L
- (5) Section side by side 12" back plate # BP –5S23 L

Current vendor is Traffic Signal Controls @ 303-772-2787. For any questions please call -- The City's Traffic Signal Operations Division, Mark DeBarris at (303-651-8699) for information.

BOLLARD

DBE Mfg. & Supply, LLC
(970) 392-9800 - Phone

Bollard detail – 4" X 7' SCH40 steel Bollard filled w/concrete with yellow plastic cover to sleeve 4' – 5' over top portion of bollard, (no primer or paint) Note: 4" SCH40 pipe has an outside diameter of 4.5" and with plastic outside cover the diameter is approx. 4.95". When ordering bollards from approved vendor refer to City of Longmont Standard they should have on file.

LOOP VALVE BOX

Round Loop Valve pull box shall be a valve stem type pull box made of *cast-iron or steel*. The pull box shall have the capability of accepting riser rings for future roadway overlays. The lid shall have the word "traffic" printed on it. Lid shall be 5 ¼" diameter. Approved vendor is EJ USA- Denver (303-286-8014). Equal or comparable loop valve box/lid is allowed. There may be different lengths of valves called for on different projects; this will be determined by project/plans.

UNINTERRUPTED POWER SUPPLY (battery back up system)

Zinc 5

Shall be the Ultra Power Stealth 3000 Inverter (170 style)
UP Stealth 1000 watt Nema Shelf Mount Battery (3440)

For Data collection at intersections (If called for)

DA-Data Aggregator DA-400

RRFB crossing Flashers

Shall be the Tapco 120v RRFB system. In some cases the Solar system may be utilized but must have prior approval with COL senior signal Tech.

Current Vendor is AM signal Part # are specifically from AM signal. For any questions please contact Mark DeBarris 303-651-8699 for information.