

CALCULATIONS

CALC. BY: A.L.C. DATE: 7/80	LAK-20-2.18 EUCLID AVE., RUSH RD. AND E. 305th STREET	OHIO FHWA REGION 5 FEDERAL PROJECT	3 8
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CONCRETE FOR ANCHOR BASE FOUNDATIONS

STRAIN POLE (DESIGN N^o 4) (FROM TC 21.20)
 $[(\pi (1.5)^2 \times 10) \div 27 \times 4] + [(3 \times 3 - \pi (1.5)^2) 0.5]$
 TOTAL 8.52 CU.YDS.

POWER CABLE, 2 CONDUCTOR N^o 8 AWG

SOUTHWEST TURNOUT - ESTIMATED, HOWEVER THE LENGTH OF THE
 CABLE NECESSARY IS DEPENDENT UPON THE RELOCATION
 OF EXISTING C.E.I. POLES TOTAL \approx 100 L.F.

ALTERNATE BID ITEMS

LOOP DETECTOR AMPLIFIER (DETECTOR SYSTEM)

RUSH ROAD	3 EACH
EAST 305 TH. STREET	3 EACH
EUCLID AVENUE	4 EACH
TOTAL	10 EACH

CABLE SUPPORT ASSEMBLY

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION
 TOTAL 2 EACH

VEHICULAR SIGNAL HEAD, 3 SECTION 12 INCH LENS, 1 WAY

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION
 TOTAL 4 EACH

VEHICULAR SIGNAL HEAD, 5 SECTION, 12 INCH LENS, 1 WAY (KENTRON)

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION
 TOTAL 4 EACH

MESSENGER WIRE, 7 STRANDS, 3/8 INCH DIAMETER, WITH ACCESSORIES

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION
 $[(57+13+13) + (57+20) + (57+10) + (57)] 1.05$ TOTAL 298 L.F.

VEHICULAR SIGNAL HEAD, 5 SECTION 12 INCH LENS, 1 WAY

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION
 TOTAL 4 EACH

VEHICULAR SIGNAL HEAD, 3 SECTION, 12 INCH LENS, 1 WAY (KENTRON)

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION
 TOTAL 4 EACH

SIGNAL CABLE, 2 CONDUCTOR N^o 14 AWG

NORTHWEST & SOUTHWEST TURNOUT	
$5+20+5 + [(13+57+13) 1.05] + 5+27+10+7+5$	171 L.F.
NORTHEAST TURNOUT	
$5+20+5 + [(20+57+57+13) 1.05] + 5+27+7+5$	228 L.F.
SOUTHWEST TURNOUT	
$5+20+5 + (10 \times 1.05) + 5$	46 L.F.
TOTAL	445 L.F.

COVERING OF VEHICULAR SIGNAL HEAD

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION
 TOTAL 8 EACH

ITEM 843 - CONTROLLER, FULL ACTUATED, 6-PHASE, SOLID STATE DIGITAL, PHASE MODULAR MICROPROCESSOR, WITH CABINET, AS PER PLAN (MULTISONIC)

SOUTHWEST TURNOUT TOTAL 1 EACH

REMOVAL OF TRAFFIC SIGNAL INSTALLATION, AS PER PLAN

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION
 TOTAL 1 EACH

SIGNAL CABLE, 5 CONDUCTOR N^o 14 AWG

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION	
SIGNAL HEAD B \rightarrow A ; $(5+12+5) 1.05$	23 L.F.
SIGNAL HEAD H \rightarrow G ; $(5+9+5) 1.05$	20 L.F.
TOTAL	43 L.F.

SIGNAL CABLE, 7 CONDUCTOR N^o 14 AWG

EUCLID, RUSH & E. 305 TH. STREET INTERSECTION	
SIGNAL HEAD A \rightarrow CONTROLLER ; $(5+30+57+13) 1.05 + 5+27+7+5$	154 L.F.
SIGNAL HEAD G \rightarrow CONTROLLER ; $(5+32+16) 1.05 + 5+27+7+5$	100 L.F.
SIGNAL HEAD E \rightarrow F \rightarrow CONTROLLER ; $(5+10+10+44+57+13) 1.05 + 5+27+7+5$	158 L.F.
SIGNAL HEAD C \rightarrow D \rightarrow CONTROLLER ; $(5+10+10+18+13) 1.05 + 5+27+7+5$	103 L.F.
TOTAL	515 L.F.

EUCLID, RUSH & E. 305th STREET