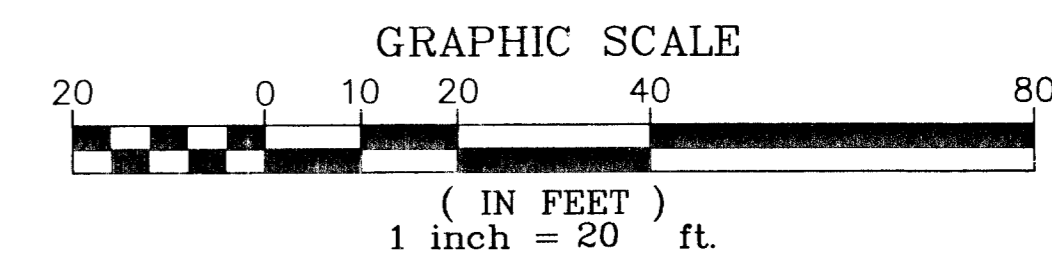


TRAFFIC SIGNAL NOTES:

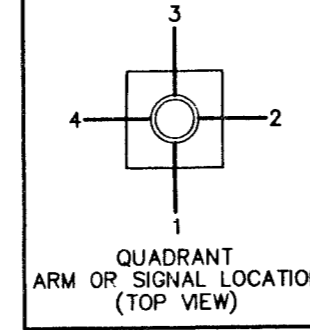
- ALL WORK PERFORMED ON ANY TRAFFIC SIGNAL COMPONENT MUST BE UNDER THE DIRECT ON-SITE SUPERVISION OF AN IMSA CERTIFIED TECHNICIAN. EFFECTIVE MARCH 30, 2000 THE LEVEL OF CERTIFICATION REQUIRED IS LEVEL I, AND THE LEVEL OF CERTIFICATION REQUIRED SHALL BE INCREASED TO LEVEL II EFFECTIVE MARCH 30, 2001.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING UTILITIES. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 72 HOURS PRIOR TO CONSTRUCTION.
CALL-BEFORE-YOU-OVERHEAD 1-702-593-6111
CALL-BEFORE-YOU-DIG 1-800-227-2600
- ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES I AND II, ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS. (REVISIONS THRU MAY 11 2000)
- SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE 200 AMP PADMOUNT.
- LINE SIDE OF METER TO BE WIRED WITH THREE #3/0 AWG THW. LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG THW (2 BLACK, 2 WHITE) AND ONE #8 AWG THW (GREEN).
- LUMINAIRES ON ALL SIGNAL POLES SHALL BE 400 WATT HIGH PRESSURE SODIUM CUTOFF (G.E. M400A) WITH MC-111 DISTRIBUTION. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL. FOR LUMINAIRES THERE SHALL BE 2(TWO)-#4 AWG THW CONDUCTOR FROM THE SERVICE TO THE CABINET. IN THE CABINET, THE #4 AWG THW CONDUCTORS SHALL BRANCH OFF INTO #10 AWG THW CONDUCTORS INDIVIDUALLY FUSED WITH 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINAIRE FIXTURES.
- THE INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE WIRED TO THE LUMINAIRES PHOTO CELL FOR CONTROL WITH #10 AWG THW COPPER STRANDED WIRE (TYPICAL). IN THE EVENT THERE IS NO LUMINAIRE ON THE TRAFFIC SIGNAL POLE, THE 1000 WATT P.E. CONTROL SHALL BE MOUNTED ON THE POLE CAP.
- CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE, AND WIRE SIZE. VERIFY ALL EXISTING CONDUIT RUNS.
- ALL PULLBOXES SHALL BE IN ACCORDANCE WITH UNIFORM STANDARD DRAWINGS NO. 404.110, NO. 404.120, AND NO. 404.130.
- TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG SOLID (TYPICAL) CABLE AND SHALL CONFORM TO IMSA SPEC. NO. 20-1.
- PEDESTRIAN PUSH BUTTONS SHALL BE AUDIBLE TACTILE TYPE IN ACCORDANCE WITH CITY OF LAS VEGAS SPECIAL PROVISIONS TO SECTION 623 OF THE CCA USS. ONLY POLARA NAVIGATOR AUDIBLE TACTILE PUSH BUTTONS WILL BE ACCEPTED. PUSH BUTTON SIGNS SHALL BE 9" X 12" WITH FULL MOUNTING BRACKETS. ALL PUSH BUTTONS TO BE MOUNTED 42" ABOVE SIDEWALK. THE MAXIMUM HORIZONTAL REACH DISTANCE IS TO BE 24". SIDEWALK RAMP WILL BE ACCORDING TO U.S.D. No. 235 (1-4) DATED 12-14-00.
- THE ROUTING AND TERMINATION OF CONDUITS AND THE PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES SHALL BE APPROVED BY THE ENGINEER.
- INSTALL TYPE VII CABINET. THIS IS COMMONLY REFERRED TO AS AN "R" CABINET. THE CABINET SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS SPECIFICATIONS AND SPECIAL PROVISIONS, CLARK COUNTY AREA, NEVADA. INSTALL CABINET NEAR THE R.O.W. LINE OR AS SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL SUPPLY A 2070N CONTROLLER TO THE CITY OF LAS VEGAS TRAFFIC SIGNAL REPAIR SHOP. FOURTEEN DAYS PRIOR TO SIGNAL TURN-ON, FOR TESTING PURPOSES, THE CONTRACTOR SHALL DELIVER THE CONTROLLER TO, AND PICKUP THE CONTROLLER AT 2801 E. CHARLESTON BOULEVARD. CONTRACTOR SHALL NOTIFY THE TRAFFIC SIGNAL REPAIR SHOP (229-6075) SEVEN DAYS PRIOR TO PICKUP. ALL 2070N CONTROLLERS MUST BE COMPATIBLE WITH AND FUNCTION PROPERLY WITH OS9 1996 OPERATION SYSTEM; THE LATEST REVISION OF THE "NEXT PHASE INTERSECTION MANAGEMENT SOFTWARE" (GARDNER TRANSPORTATION SYSTEM) AND THE ICONS (GARDNER TRANSPORTATION SYSTEM) GENERAL SOFTWARE.
- CONTRACTOR SHALL POTHOLE SIGNAL POLE LOCATIONS PRIOR TO ORDERING OF POLES.
- ALL MAST ARMS TO BE HOT-DIP GALVANIZED BY THE MANUFACTURER. THE MAST ARM IS TO BE FABRICATED WITH END TENON ONLY. THE END TENON SHALL BE FACTORY INSTALLED AND THE REMAINING TENONS SHALL BE FABRICATED IN THE FIELD AT THE LOCATION SHOWN ON THE PLANS OR AS DIRECTED BY THE TRAFFIC ENGINEER AND/OR HIS AUTHORIZED REPRESENTATIVE. FOR TENON FABRICATION DETAILS SEE CLARK COUNTY AREA U.S.D. NO. 404.406 SHEET 2. ALL WELDING SHALL CONFORM TO AWS D 2.0, "SPECIFICATION FOR WELDED HIGHWAYS AND RAILWAY BRIDGES," AND TO ANY ADDITIONAL REQUIREMENTS OF SECTION 623 T.02.09 OF THE SPECIFICATIONS. ALL EXPOSED WELDS, SHALL BE PAINTED AS PROVIDED FOR REPAIRING DAMAGED GALVANIZED SURFACES.
- ALL VEHICLE AND PEDESTRIAN SIGNAL INDICATIONS SHALL HAVE LIGHT EMITTING DIODE (LED) TYPE INDICATIONS, IN CONFORMANCE TO CITY OF LAS VEGAS SPECIAL PROVISIONS TO SECTION 623 OF THE CCA USS. ALL PEDESTRIAN SIGNAL HEADS SHALL BE THE COUNTDOWN TYPE AS MANUFACTURED BY PRECISION SOLAR OR APPROVED EQUAL.
- ALL VEHICLE DETECTION WILL BE BY VIDEO IMAGE DETECTION. EITHER ITERIS VANTAGE PLUS OR AUTOSCOPE 2020 OR AUTOSCOPE 2020-V8 VIDEO DETECTION SYSTEM MUST BE INSTALLED. EACH VIDEO CAMERA WILL HAVE POWER (3/16 COND. PVC JACKETED) AND 8281 COAXIAL CABLE DIRECTLY FROM THE CABINET. CAMERAS WILL BE MOUNTED PER THE MANUFACTURER'S RECOMMENDATIONS AND PER CLV TRAFFIC ENGINEER APPROVAL. "BNC" CONNECTORS ARE THE ONLY ACCEPTABLE TERMINATION OF CABLES.

TRAFFIC SIGNAL NOTES CON'T:

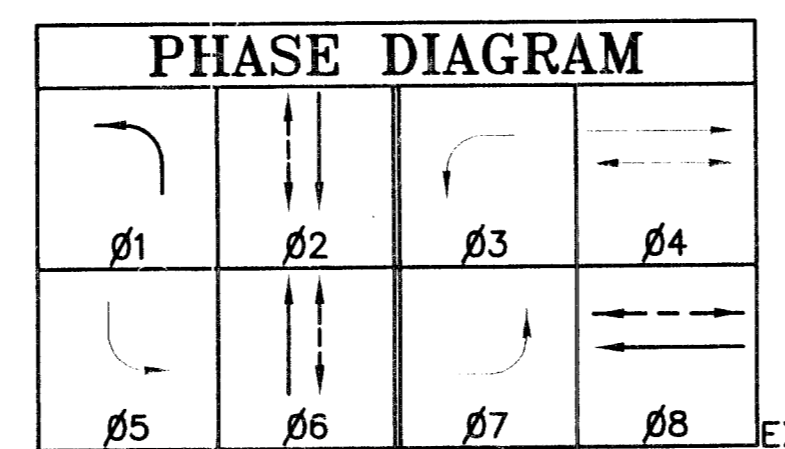
- IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT WARNING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTORS EXPENSE TO THE SATISFACTION OF THE CITY.
- ONLY 3M OPTICOM DETECTORS WILL BE ACCEPTED USING A MODEL 754 PHASE SELECTOR INSTALLED IN A MODEL 760 CARD RACK. OPTICAL SENSORS SHALL BE MODEL 722.
- THE CONTRACTOR SHALL INSTALL CROSSWALKS, STOP BARS AND SIGNS AS IDENTIFIED ON THE PLANS.
- THE VIDEO DETECTION ZONE SHALL BE A MINIMUM OF 300 FEET FROM THE STOP BAR.



POLE SCHEDULE										REMARKS
POLE	LOCATION STATION	TYPE	SIGNAL ARM QUAD. LENGTH	LUMINAIRE ARM QUAD. LENGTH	SIGNAL VEHICLES TYPE	QUAD.	TYPE	QUAD.	PED. PUSH BUTTONS QUAD. ARROW	
A	63+47.60 62.06' LT	(EXIST) XX-30 TWIN ARM	-	4/2 (EXIST)	(1) B-1T	4	W-3T	4	1 RIGHT 2 LEFT	#1 TO BE ALL ARROW INDICATIONS
B	63+27.68 88.44' RT	(EXIST) XX-B-30 TWIN ARM	4	70' 1/4 (EXIST)	(3) M-2 (1) B-1T	MAST ARM 2	W-3T	2	4 RIGHT 1 LEFT	#1 TO BE ALL ARROW INDICATIONS.
C	62+37.29 87.39' RT	(EXIST) XX-30 TWIN ARM	-	4/3 (EXIST)	-	-	W-OT	2	4 LEFT	
D	62+92.56 66.25' LT	(EXIST) XX-A-30 TWIN ARM	2	50' 3/2 (EXIST)	(2) M-2 (1) B-1T	MAST ARM 4	W-OT	4	2 RIGHT	
E	63+37.78 4.20' RT	(EXIST) XX-A-20 TWIN ARM	1	55' -	(2) M-2 (1) B-1T	MAST ARM 3	-	-	-	



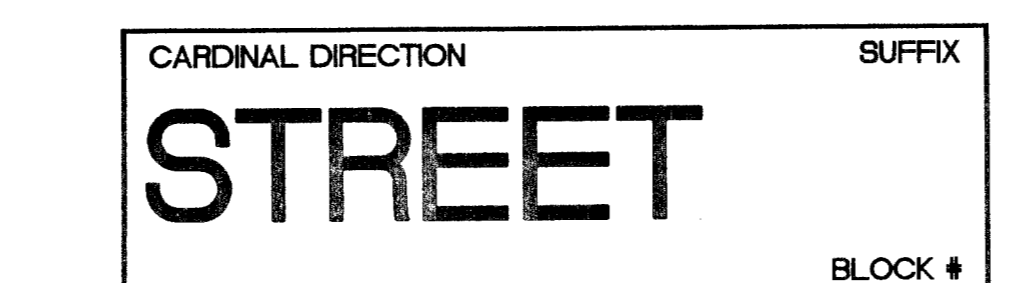
CONDUIT AND WIRE SCHEDULE																
WIRE & CABLE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14
(3) #4/0	SERVICE POINT	SERVICE PED														
(4) #4, (1) #8 GROUND	SERVICE PED	CONTROLLER														
15 CONDUCTOR	CONTROLLER	POLE A														
25 CONDUCTOR	CONTROLLER	POLE B														
15 CONDUCTOR	CONTROLLER	POLE C														
25 CONDUCTOR	CONTROLLER	POLE D														
25 CONDUCTOR	CONTROLLER	POLE E														
(2) #10 THW, #8 GROUND	CONTROLLER	LUMINAIRE A														
(2) #10 THW, #8 GROUND	CONTROLLER	LUMINAIRE B														
(2) #10 THW, #8 GROUND	CONTROLLER	LUMINAIRE C														
(2) #10 THW, #8 GROUND	CONTROLLER	LUMINAIRE D														
(3) #16 8281 COAX. CABLE (VIDEO)	CONTROLLER	VIDEO CAMERA B														
(3) #16 8281 COAX. CABLE (VIDEO)	CONTROLLER	VIDEO CAMERA D														
(3) #16 8281 COAX. CABLE (VIDEO)	CONTROLLER	VIDEO CAMERA E														
M138 OPTICOM CABLE	CONTROLLER	OPTICOM POLE B														
M138 OPTICOM CABLE	CONTROLLER	OPTICOM POLE E														
CONDUIT ONLY	CONTROLLER	EB RAMP (SOUTH)														



FLASHING OPERATION SHALL BE ALL RED SERVICE PEDESTAL OPTICOM PREEMPTION FOR PHASES 2, 6, AND 8.

STREET NAME & BLOCK NUMBER SIGN SCHEDULE				
POLE	INTERNALLY ILLUMINATED STREET NAME SIGN	BLOCK NUMBER	STREET SUFFIX	CARDINAL DIRECTION
B	CC215 RAMP	N/A	N/A	N
D	CC215 RAMP	N/A	N/A	W
E	DURANGO	6600	DR	N

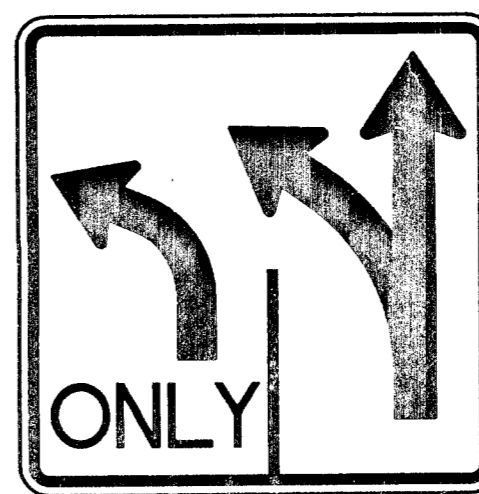
CONTRACTOR TO OBTAIN APPROVAL OF COPY OF STREET NAME SIGNS FROM THE CLV CURRENT PLANNING (229-6301) PRIOR TO MANUFACTURING



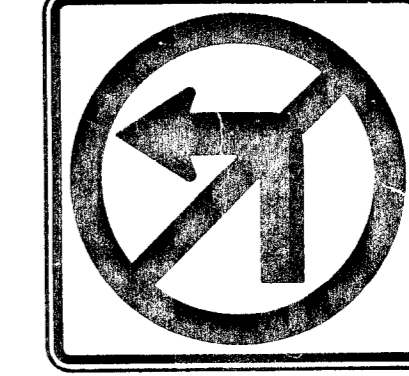
STREET NAME SIGN DETAIL



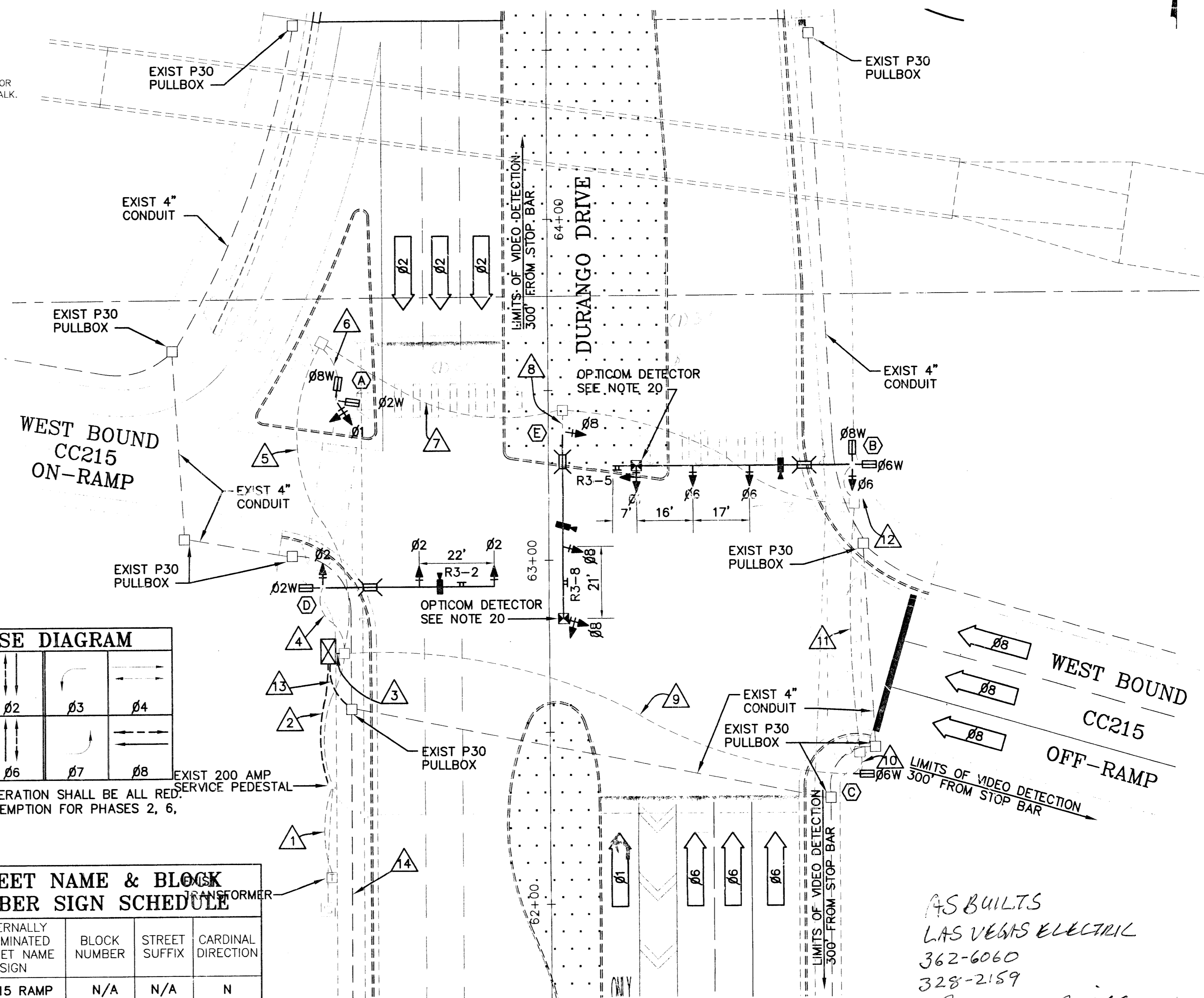
R3-5 DETAIL (30" x 30")



R3-8 DETAIL (30" x 30")



R3-2 DETAIL (24" x 24")



AS BUILTS
LAS VEGAS ELECTRIC
362-6060
328-2159
Ronald J. Reddick

DEPARTMENT OF PUBLIC WORKS
CITY OF LAS VEGAS

CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS
227 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148 PHONE (702) 873-7550 FAX (702) 362-2597

REVISION BY DATE

UPLINK @ 715 KALVIN TCS

TRAFFIC SIGNAL PLAN
DURANGO/WEST BOUND CC215

PROJECT

CC215 TO US 95

SEAL
PROFESSIONAL ENGINEER
ROBERT HOSEA
EXP 06/30/03
CIVIL
No. 10192

NO. 5871
RCH
BY LMW BM
DATE 10/02 02
SCALE HORIZ. 1"=20'
VERT. NA

DRAWING SHEET
T14

107V3600

FS "PLT", MS "E",
L: C:\AD\WORK\5871\5871-SIG-FULL.DWG