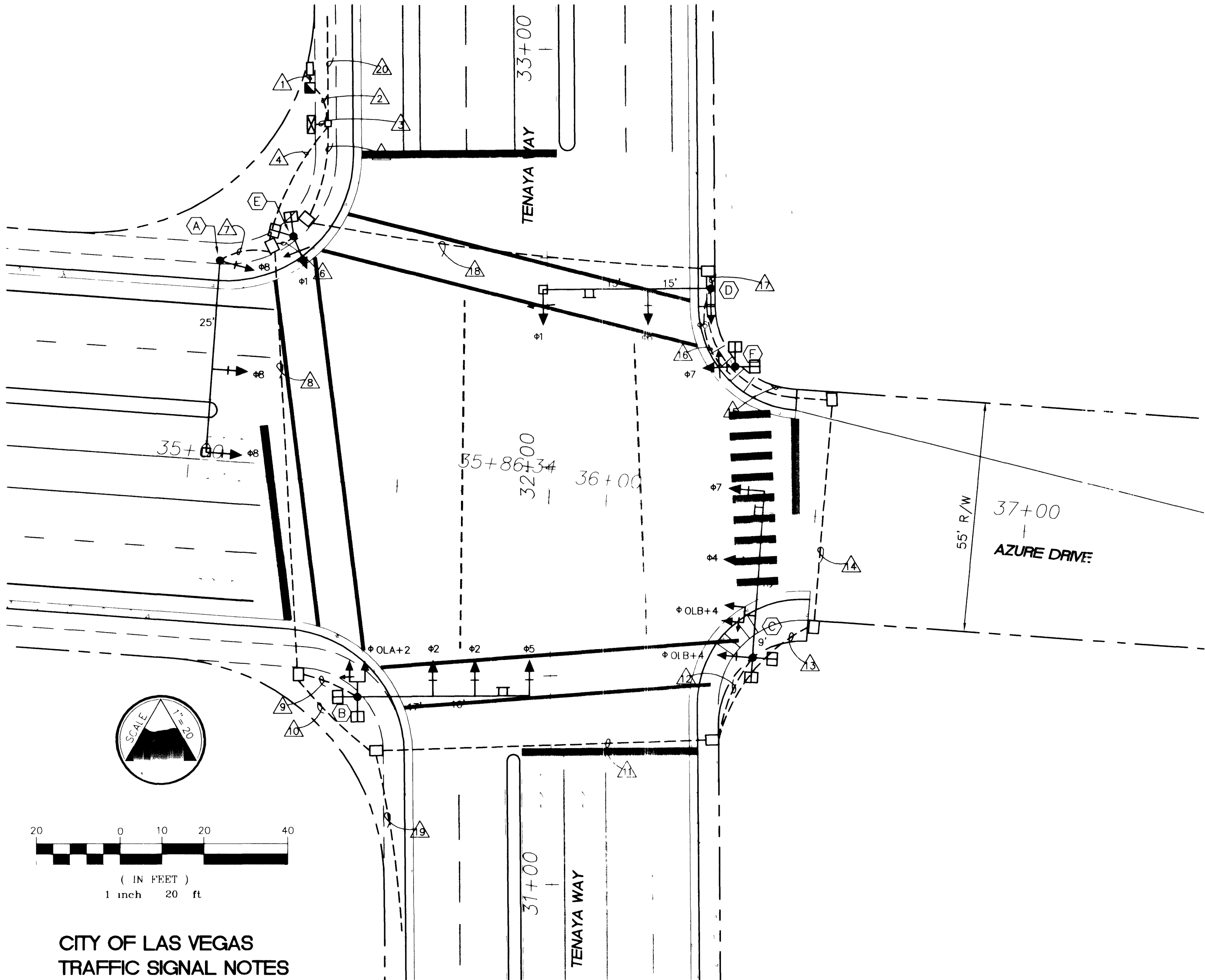
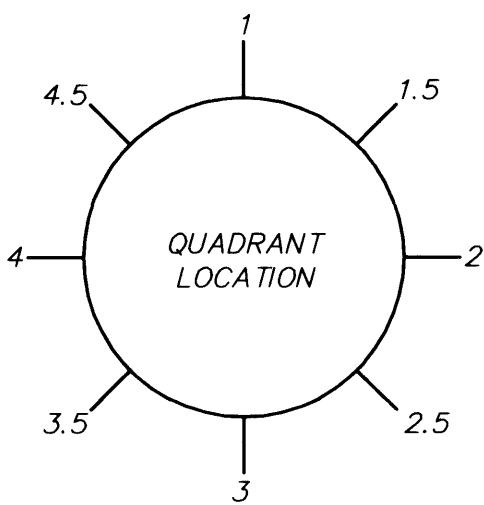
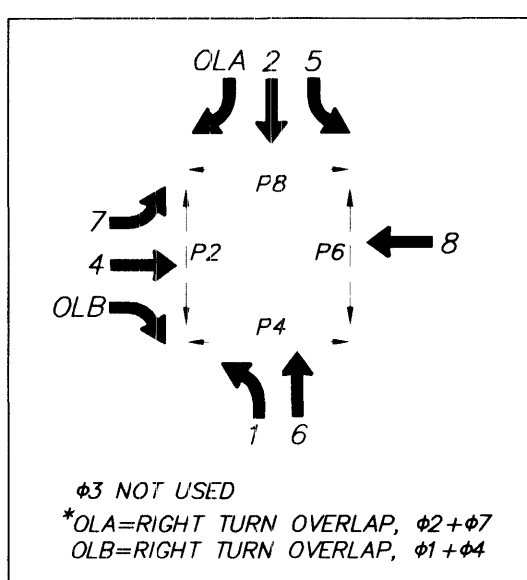




CITY OF LAS VEGAS
TRAFFIC SIGNAL NOTES

- 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 6, 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 GREEN 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. N400A) 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 SPICES 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 U.S.S. PUSH BUTTON SIGNS SHALL BE 9" X 12" WITH FULL MOUNTING BRACKETS. ALL PUSH BUTTONS TO BE MOUNTED 36" 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.
- MAST ARM R10-12 SIGNS TO BE ADJACENT (NO GAP) TO THE M-5 SIGNAL HEAD.
- 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 059 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 POT HOLE 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. 404.404 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 623.1.02.09 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 U.S.S.
- ALL VIDEO DETECTION WILL BE BY VIDEO IMAGE DETECTION. EITHER ITIRIS VANTAGE PLUS OR AUTO SCOPE 2004 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.
- IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY CONSTRUCTION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE CITY.
- INTERCONNECT CABLE SHALL BE 25 PAIR OF #22 AWG SHIELD SPECIFICATION REA PE 39.
- THE CONTRACTOR SHALL INSTALL CROSSWALKS, STOP BARS AND SIGNS AS IDENTIFIED ON THE PLANS.

STANDARD PHASE ORIENTATION



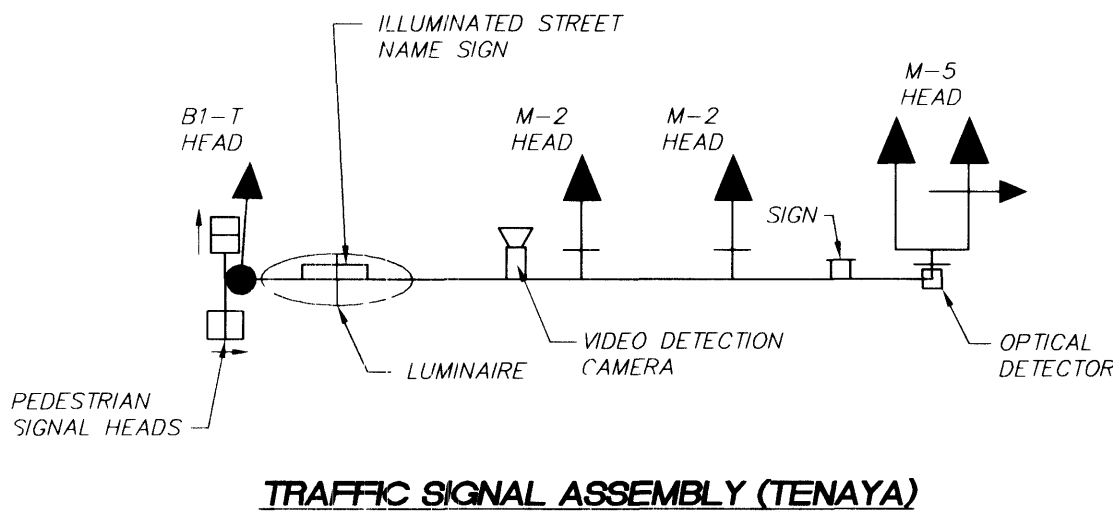
POLE AND EQUIPMENT SCHEDULE									
POLE NO.	TYPE	FOUND-LENGTH	SIGNALS (VEH)	LUMINAIRE	SIGNALS (PED)	PUSH-BUTTON	REMARKS		
			QUAD/LOC	TYPE	QUAD	LENGTH	QUAD	TYPE	QUAD
(A)	XX-A	45'	L	MA/25' EOMA	B1-T M-2	3	15'	(SEE POLE E)	
POLE STATION: 35+04.07 56.00' LT.									
(B)	XX-A	40'	L	MA/17' MA/22' EOMA	B-11T M-2 M-2	2	15'	3.5	W-3T
POLE STATION: 31+45.24 46.46' LT.									
(C)	XX-A	40'	L	MA/9' MA/22' MA/40'	B-11T M-5 M-2	1	15'	2.5	W-3T
POLE STATION: 31+53.97 48.23' RT.									
(D)	XX-A	40'	L	MA/15' EOMA	B-1T M-2	4	15'	(SEE POLE F)	
ALL ARROW LENSES, R3-BL (SPL) POLE STATION: 32+42.40 39.00' RT.									
(E)	1-A	C		A-2T			4.5	W3-T	2
ALL ARROW LENSES, R3-BL (SPL) POLE STATION: 32+55.62 60.44' LT.									
(F)	1-A	C		A-2T			1.5	W3-T	4
ALL ARROW LENSES, R3-BL (SPL) POLE STATION: 32+23.75 44.65' RT.									

*LOC=DISTANCE FROM FACE OF MAST ARM MOUNTING PLATE
EOMA=END OF MAST ARM

CONDUIT AND CABLE SCHEDULE

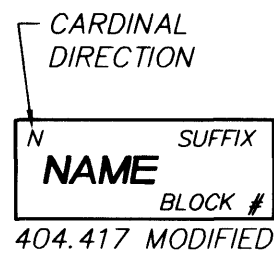
CONTINUOUS PULL	FROM	TO	CONDUIT RUN #																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
3 #3/0 AWG THW ELECTRICAL SERVICE	POWER SOURCE	ELECT. SVC. PEDESTAL	X																	
4 #4 AWG THW 2WHT/2 BLK 1 #8 AWG THW GREEN (GND)	ELEC. SVC. PEDESTAL	CONTROLLER CABINET	X	X																
25 COND #14, 2 #10, 1 #8 8281 COAX VIDEO EMERG. VEH. PREEMPT CABLE 3 #16 COND. PVC JACKETED	CONTROLLER CABINET	(A)		X	X			X												
25 COND #14, 2 #10, 1 #8 8281 COAX VIDEO 3 #16 COND. PVC JACKETED	CONTROLLER CABINET	(B)		X	X			X	X											
25 COND #14, 2 #10, 1 #8 8281 COAX VIDEO 3 #16 COND. PVC JACKETED	CONTROLLER CABINET	(C)		X	X			X		X	X	X								
25 COND #14, 2 #10, 1 #8 8281 COAX VIDEO EMERG. VEH. PREEMPT CABLE 3 #16 COND. PVC JACKETED	CONTROLLER CABINET	(D)		X	X												X	X		
15 COND. #14	(A)	(E)						X	X											
15 COND. #14	(D)	(F)															X	X		
INTERCONNECT (SEE NOTE 16)	CONTROLLER CABINET	TENAYA/SKY POINTE	X	X				X		X										X
INTERCONNECT (SEE NOTE 16)	CONTROLLER CABINET	TENAYA/CENTENNIAL	X																	X
NUMBER & SIZE OF CONDUITS FOR SIGNAL CIRCUITS (NOTE: CONTROLLER CABINET TO NO. 7 PULL BOX=2", 3@3")			3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
2" CONDUIT FOR STREET LIGHTING CIRCUITS (NOTE: STREET LIGHT CONDUIT MAY BYPASS UPS CABINET)			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

*CONDUIT RUNS WHICH TERMINATE AT A SIGNAL POLE, BUT WHICH PASS THRU A TRAFFIC SIGNAL PULL BOX IMMEDIATELY ADJACENT TO THAT SIGNAL POLE, ARE NOT SEPARATED INTO TWO DISTINCT CONDUIT RUN NUMBERS



TRAFFIC SIGNAL ASSEMBLY (TENAYA)

INTERNALLY ILLUMINATED STREET SIGN SCHEDULE				
POLE	STREET NAME	FRONT BACK	SUFFIX CARDINAL	SIGN WIDTH BLOCK #
(A)	TENAYA	WAY	N	8' 6200
(B)	AZURE	DR.	W	8' 7200
(C)	TENAYA	WAY	N	8' 6100
(D)	AZURE	DR.	W	8' 7100

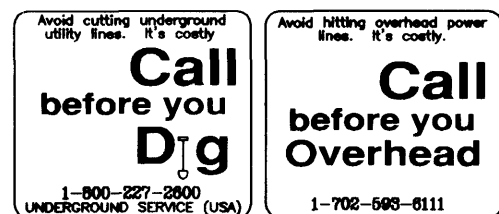


NOTE: CONTRACTOR TO OBTAIN APPROVAL OF STREET NAME SIGN FROM CURRENT PLANNING 229-6301, PRIOR TO ORDERING SIGNS

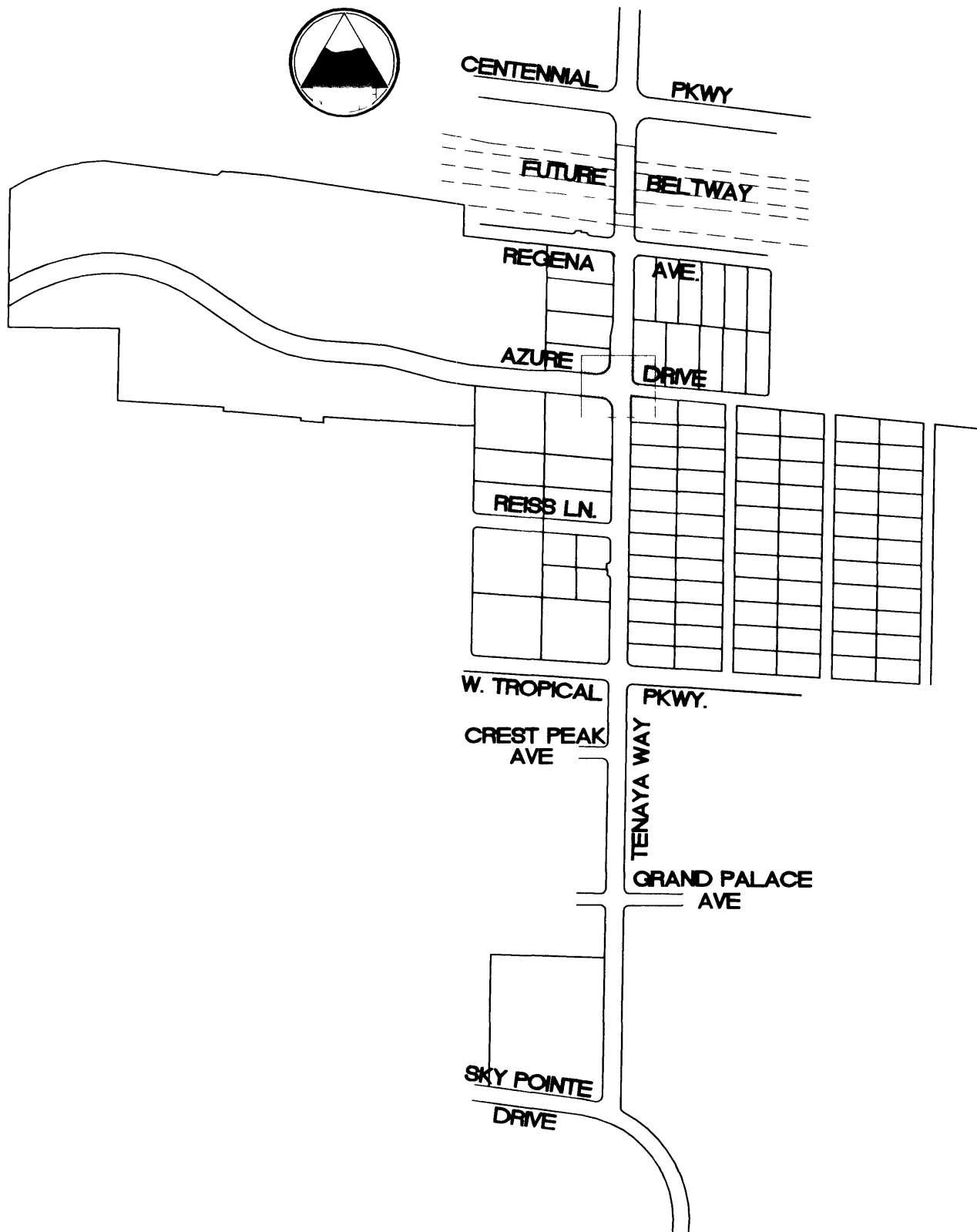


R3-BL (SPL) 30'x36'

DISCLAIMER NOTE



UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.



KEY MAP

DEPARTMENT OF PUBLIC WORKS
ENGINEERING DESIGN SECTION
CITY ENGINEER: CHARLES KAJKOWSKI, JR., P.E.
PROJECT MANAGER: THERESA M. HANRAHAN, P.E.
1001 CHARBON ROAD, SUITE A-3
LAS VEGAS, NV 89145
PHONE (702) 228-8183
FAX (702) 228-8194

PRIMAS AND ASSOCIATES
CONSULTING ENGINEERS
1001 CHARBON ROAD, SUITE A-3
LAS VEGAS, NV 89145
PHONE (702) 228-8183
FAX (702) 228-8194

TRAFFIC SIGNAL PLAN
TENAYA WAY/AZURE DRIVE
TENAYA WAY/AZURE DRIVE
ROADWAY IMPROVEMENTS

SCALE: 1" = 20' HORIZ VERT

PROJECT NO.: 907.01001

DESIGNED BY: LOG

CHECKED BY: [Signature]

DRAWN BY: [Signature]

SEAL
ENGINEER
[Signature]
JULY 19, 2001
N.E. 8786

SHEET
T2
24 OF 70 SHEETS
DRAWING NO.
107-V3145

BID NO. 021730.04 DWG NO. 107-V3145