

CITY OF LAS VEGAS TRAFFIC SIGNAL NOTES

- 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 INSTALLATIONS SHALL CONFORM TO THE UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES 1 & II ADOPTED BY THE REGIONAL TRANSPORTATION COMMISSION APRIL 8, 1992 WITH ALL SUBSEQUENT REVISIONS. (REVISIONS THRU JUNE 1997)
- SERVICE SHALL HAVE 1-60 AMP SIGNAL POLE BREAKER FOR SIGNAL, AND ONE 40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE 200 AMP PADMOUNT.
- LINE SIDE ON 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).
- LUMINARIES ON ALL SIGNAL POLES SHALL BE 400 WATT HIGH PRESSURE SODIUM CUTOFF (G.E. M400A) WITH MC-111 DISTRIBUTION. EACH LUMINARIES SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL. FOR LUMINARIES THERE SHALL BE:
2(TWO)-#4 AWG THW CONDUCTORS FROM THE SERVICE TO THE CABINET. IN THE CABINET, THE #4 AWG THW CONDUCTORS SHALL BRANCH OFF INTO #10 AWG THW CONDUCTORS INDIVIDUALLY FUSE WITH 10 AMP FUSES. THERE SHALL BE NO SPLICES BETWEEN THE CABINET AND LUMINARIES FIXTURES.
- THE INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE WIRED TO THE LUMINARIES PHOTO CELL FOR CONTROL WITH #10 AWG THW COPPER STANDARD WIRE (TYPICAL). ON 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 PULL BOXES 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. ALL VEHICLE DETECTION WILL BE VIDEO IMAGE DETECTION.
- ALL PEDESTRIAN PUSH BUTTON SIGNS SHALL BE AUDIBLE TACTILE TYPE (MODE 'A' TACTILE PEDESTRIAN INDICATOR WITH OPTION 'A' SIGN PER POLARA ENGINEERING INC. OR APPROVED EQUAL) WITH FULL MOUNTING BRACKETS. ALL PUSH BUTTONS TO BE MOUNTED 36" ABOVE THE SIDEWALK. THE MAXIMUM HORIZONTAL REACH DISTANCE IS TO BE 24". PUSH BUTTONS ARE TO BE IN COMPLIANCE WITH ADA PER SUPPLEMENTAL SPECIFICATIONS 623. TO 2.12. SIDEWALK RAMPS WILL BE ACCORDING TO U.S.D. NO. 235 (1-4) DATED 6-13-96
- THE ROUTING AND TERMINATION OF CONDUITS AND THE PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES MUST BE APPROVED BY THE ENGINEER.
- MAST ARM R10-12 SIGNS MUST BE ADJACENT (NO GAP) TO THE M-5 SIGNAL HEAD.
- INSTALL 8# CONTROLLER IN TYPE VIII, 'R' CABINET BUILT TO UNIFORM STANDARD SPECIFICATIONS, AND SPECIAL PROVISIONS. INSTALL CABINET NEAR R.O.W. LINE AS SHOWN ON THE PLANS.
- EITHER ITERIS VANTAGE PLUS, OR AUTO SCOPE 2004 (CLASS A) VIDEO IMAGE DETECTION SYSTEM MUST BE INSTALLED. EACH VIDEO CAMERA WILL HAVE 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 TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED AT THE CONTRACTORS 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 SIGNING AND MARKING PLANS.
- ALL RED INDICATIONS ON VEHICLE SIGNAL HEADS SHALL BE SUPPLIED WITH LIGHT EMITTING DIODE (LED) VEHICLE TRAFFIC SIGNAL MODULES INSTALLED.
- NEW CONDUITS SHALL BE INSTALLED IN TRENCH SUCH THAT THE TOP OF CONDUIT SHALL HAVE A MIN. COVER OF 24" BELOW ADJACENT EDGE OF PAVEMENT OR ORIGINAL GROUND, WHICHEVER IS LOWER IN ELEVATION.

CONSTRUCTION NOTES

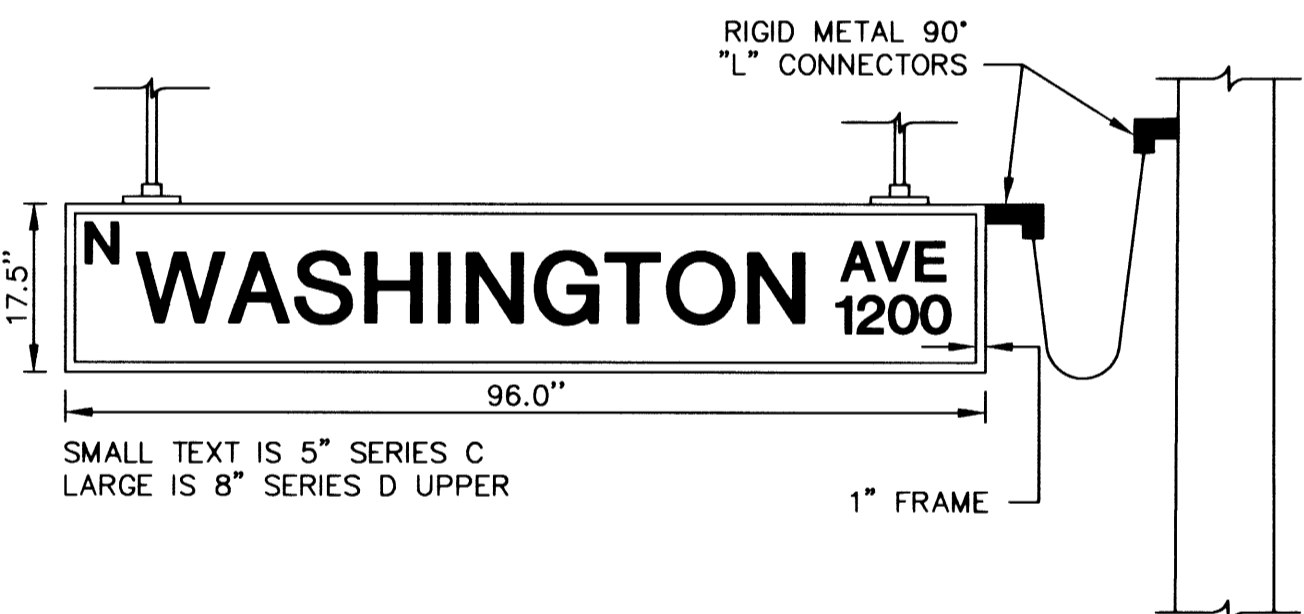
- INSTALL SERVICE PEDESTAL AS SHOWN ONTO CONCRETE FOUNDATION PER CCA STD. DWG. #404.1412. PROVIDE THE FOLLOWING EQUIPMENT: 120/240V, 1ø, 3W, (1) 200A 2P MAIN CKT BKR, (1) 60A 1P CONTROLLER CKT BKR, (1) 40A 1P INTERSECTION LIGHTING CKT BKR, (2) 60A 2P STREET LIGHTING CKT BKR, (2) 60A 2P CONTACTOR, (1) 40A IP CKT BKR, (2) 15A 1P PHOTOELECTRIC CKT BKR, AND (1) BY-PASS SWITCH PER CONTRACTOR. CONTACT NEVADA POWER FOR SERVICE CONNECTION COORDINATION. CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT FOR SERVICE CONNECTION PER NEVADA POWER SPECIFICATIONS, INCLUDING ALL CONDUIT AND CONDUCTORS UP TO TRANSFORMER. PROVIDE ADDITIONAL 2" CONDUIT STUB FROM SERVICE PEDESTAL FOUNDATION FOR FUTURE USE. INDICATE LOCATION OF CONDUIT STUB ON AS BUILT PLANS. SEE STREET LIGHTING PLAN SL-1 FOR LIGHTING CIRCUITS AND CONDUCTORS.
- INSTALL TYPE J FOUNDATION PER CCA STD. DWG. #404.213. INSTALL 2070N (8 PHASE) CONTROLLER IN TYPE VIII "R" CABINET PER CLV SPECIFICATIONS WITH EXHAUST FAN AND THERMOSTAT CONTROL, PER CCA STD. DWG. #404.307. CABINET SHALL HAVE PAINTED WHITE FINISH, INSIDE AND OUT. ALL NECESSARY AMPLIFIER UNITS, VIDEO PROCESSING MODULES, LIGHT CONTROL UNITS, SWITCHES, OPTICOM, FLASHERS, AREA WIDE COMPUTER CONTROL, ETC. SHALL BE WIRED IN CABINET TO ACTIVATE THE PHASE OPERATION AS SHOWN. THE CONTRACTOR SHALL PREPARE AS BUILT DRAWINGS UPON COMPLETION OF PROJECT DETAILING ANY CHANGES TO CONTROLLER OPERATION. CABINET SHALL BE ORIENTED SO THAT MAINTENANCE PERSONNEL SHALL BE FACING TRAFFIC WHEN SERVICING OR AS DIRECTED BY THE ENGINEER. LOCATE AND MODIFY EXISTING CONDUIT RUN 2 AS NEEDED TO PROVIDE SERVICE CONDUIT INTO CONTROLLER.
- INSTALL 3M MODEL 722 OPTICOM SENSORS (OR APPROVED EQUAL) ON THE TRAFFIC SIGNAL HEAD. RUN OPTICOM DETECTOR CABLE, 3M MODEL 138 (OR APPROVED EQUAL), FROM THE CONTROLLER TO POLES C AND D AS SHOWN IN THE CONDUIT AND CONDUCTOR SCHEDULE. WIRE CONTROLLER AND PROVIDE OPTICOM MODEL 754 PHASE SELECTORS, 1 PL CARD AND A 760 CARD RACK (OR APPROVED EQUAL) IN CABINET FOR PREEMPTION OPERATION.
- INSTALL DOUBLE-SIDED INTERNALLY ILLUMINATED STREET NAME SIGN WITH BLOCK NUMBER WHEN APPLICABLE. MOUNT STREET NAME SIGN ONTO MAST ARM PER CCA STD. DWG. #404.416 AND #404.417 AND AS MODIFIED OR AS DIRECTED BY THE ENGINEER. SEE STREET NAME SIGN SCHEDULE FOR TEXT AND SIZE DETAILS. CONFIRM BLOCK NUMBERS PRIOR TO ORDERING MATERIALS.
- CONDUITS SHALL BE INSTALLED IN TRENCH SUCH THAT THE TOP OF CONDUIT SHALL HAVE A MIN. COVER OF 24" BELOW ADJACENT EDGE OF PAVEMENT OR ORIGINAL GROUND, WHICHEVER IS LOWER IN ELEVATION. ALL CONDUITS INSTALLED THAT ARE NOT UTILIZED IN THE SIGNAL WIRING SHALL HAVE MECHANICALLY SEALED CAPS AND SHALL HAVE A PULL ROPE PROPERLY ANCHORED AT EACH END.
- INTERSECTION LIGHTING LUMINARIES SHALL BE 400 WATT HIGH PRESSURE SODIUM WITH M-C-III DISTRIBUTION COMPLETE WITH 120V MAGNETIC REGULATOR TYPE BALLAST, CHARCOAL OPTICAL FILTER AND INDIVIDUAL PHOTOCELL CONTROL (G.E. NO. M-400A CUTOFF TYPE OR APPROVED EQUAL).
- MOUNT VIDEO DETECTION CAMERA ON LUMINARIES ARM OF POLES A, B, C, AND D FOR #1+06, #4, #2+05, AND #8, RESPECTIVELY.
- INSTALL MAST ARM SIGN. (TYPE AS SHOWN ON PLAN AND SIGN DETAIL.)
- INSTALL CONDUIT RUN Δ FROM NEW CONTROLLER TO EXISTING CONTROLLER AT SAHARA/ TEDDY INTERSECTION AND INSTALL INTERCONNECT CABLE (25 PAIR). INSTALL CONDUIT RUN Δ FROM NEW CONTROLLER TO NEW CONTROLLER AT TEDDY/RANCHO INTERSECTION AND INSTALL INTERCONNECT CABLE (25 PAIR). THE CONTRACTOR SHALL EXTEND ALL INTERCONNECT CABLE INTO CABINET(S) AT LOCATION OF PUNCH BLOCK FOR LVACTS STAFF TO PUNCH DOWN INTO CABINET(S).
- INSTALL No. 7 PULLBOX PER C.C.A. STD #404.130.

| WIRE & CABLE | FROM | TO | CONDUIT | | | | | | | | | | | | | | |
|--|------------------------|-------------------|---------|---|---|---|---|---|---|---|---|----|----|----|---|---|---|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | |
| 3- #4/0 AWG | POWER SERVICE PEDESTAL | SERVICE PEDESTAL | X | | | | | | | | | | | | | | |
| 4- #4 AWG | CONTROLLER | POLE A | | X | X | | | | | | | | | | | | |
| 1-25 #14 AWG 1-#8 AWG 2-#10 AWG 1-#10 AWG | CONTROLLER | POLE B | | X | X | X | | | | | | | | | | | |
| 1-25 #14 AWG 1-#8 AWG 2-#10 AWG 1-#10 AWG | CONTROLLER | POLE C | | X | X | X | X | | | | | | | | | | |
| 1-25 #14 AWG 1-#8 AWG 2-#10 AWG 1-#10 AWG | CONTROLLER | POLE D | | X | | | | | | X | X | | | | | | |
| OPTICOM CABLE | CONTROLLER | POLE C | | X | X | X | X | | | | | | | | | | |
| OPTICOM CABLE | CONTROLLER | POLE D | | X | | | | | | X | X | | | | | | |
| SIGNAL INTERCONNECT CABLE (25 PAIR) | CONTROLLER | CONTROLLER SAHARA | | | | | | | | | | | | | | X | |
| SIGNAL INTERCONNECT CABLE (25 PAIR) | CONTROLLER | CONTROLLER RANCHO | | | | | | | | | | | | | | | X |
| PULL ROPE | (NUMBER AS SHOWN) | | | 1 | 3 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |

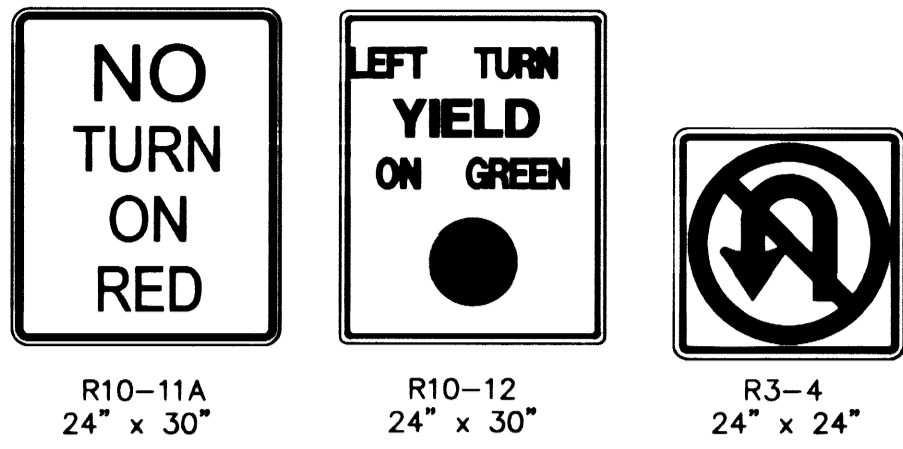
NOTES: - A #8 GREEN GROUND WIRE SHALL BE RUN FROM THE GROUND LUG OF EACH TRAFFIC SIGNAL POLE TO THE CONTROLLER CABINET AND FROM THE CONTROLLER TO THE SERVICE PEDESTAL.
VIDEO IMAGE DETECTION (VD) CABLE = 3-#16 AWG CONDUCTORS AND 1-8281 COAXIAL CABLE.

| P O L E | STREET NAME SIGN SCHEDULE 4 | | | |
|---------|-------------------------------|-----------|--------------------|----------------|
| | STREET NAME SIGN 8" LETTERING | SIZE | CARDINAL DIRECTION | BLOCK * NUMBER |
| (A) | KINGS WAY | 96"x17.5" | EAST | - |
| (B) | TEDDY DR | 96"x17.5" | NORTH | - |
| (C) | WYANDOTTE AVE | 96"x17.5" | WEST | - |
| (D) | TEDDY DR | 96"x17.5" | NORTH | - |

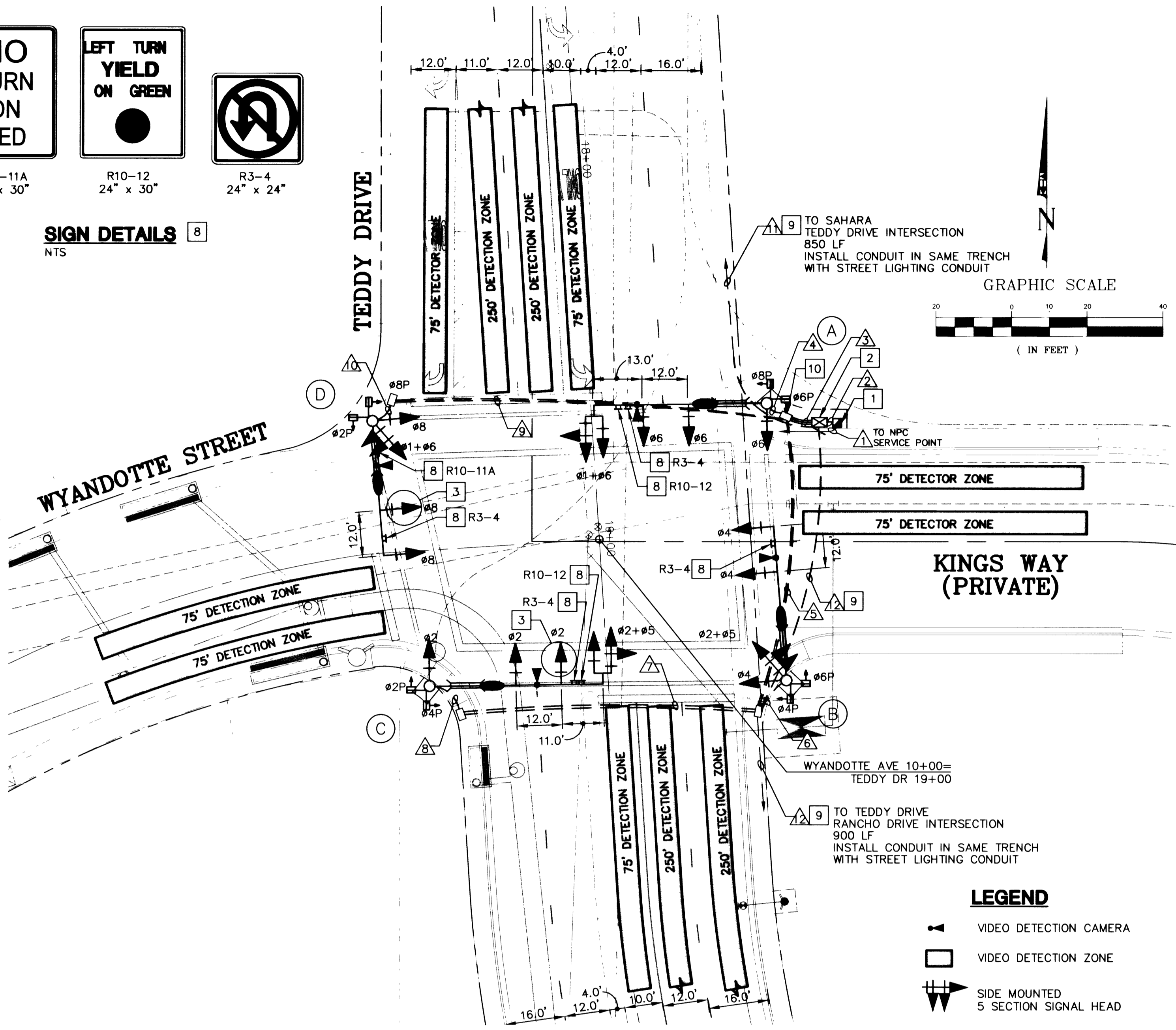
* CONFIRM BLOCK NUMBERS WITH CITY PRIOR TO ORDERING SIGNS



CITY OF LAS VEGAS TYPICAL- INTERNALLY ILLUMINATED SIGN DETAIL
NTS



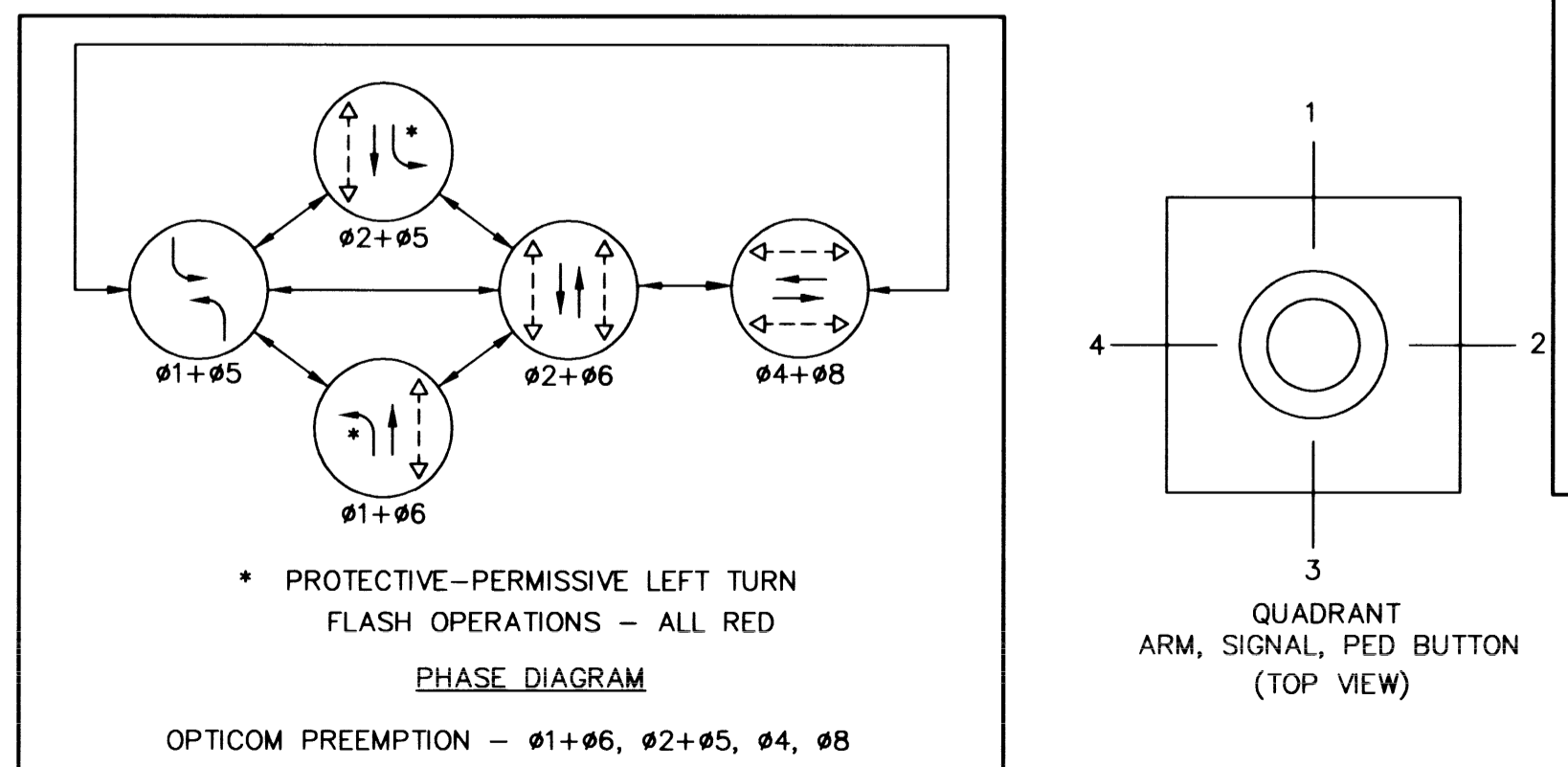
SIGN DETAILS 8
NTS



LEGEND
 VIDEO DETECTION CAMERA
 VIDEO DETECTION ZONE
 SIDE MOUNTED 5 SECTION SIGNAL HEAD

| P O L E | LOCATION STATION* | POLE | | SIGNALS (VEH.) | | SIGNALS (PED.) | | PED. PUSH BUTTONS | | REMARKS | | | | | | | | |
|---------|---------------------|-----------------|--------|----------------|------|----------------|-------------------------------------|-------------------|-------|---------|---|----|----|---|---|---|---|---|
| | | FOUNDATION TYPE | HEIGHT | TYPE | QUAD | TYPE | QUAD | QUAD | ARROW | | | | | | | | | |
| | | QUAD | LNG. | QUAD | LNG. | QUAD | QUAD | QUAD | ARROW | | | | | | | | | |
| (A) | TEDDY DRIVE 18+67 ± | XX 30" | 4 | 45' | 4 | 15' | (1)M-5 MA (2)M-2 MA (1)B-1T 2 | W-3T | 2 | 3 | 4 | RT | LT | 4 | 6 | 7 | 8 | |
| (B) | TEDDY DRIVE 19+40 ± | XX 30" | 1 | 40' | 1 | 15' | (1)M-5 MA (2)M-2 MA (1)B-1T 4 | W-3T | 3 | 1 | 4 | RT | LT | 4 | 6 | 7 | 8 | |
| (C) | TEDDY DRIVE 19+40 ± | XX 30" | 2 | 45' | 2 | 15' | (1)M-5 MA (2)M-2 MA (1)B-1T 4 | W-3T | 4 | 1 | 2 | LT | RT | 3 | 4 | 6 | 7 | 8 |
| (D) | TEDDY DRIVE 18+85 ± | XX 30" | 3 | 35' | 3 | 15' | (2)M-2 MA (1)B-14T 1 | W-3T | 1 | 3 | 2 | RT | LT | 3 | 4 | 6 | 7 | 8 |

* EXACT POLE LOCATION SHALL BE VARIFIED BY THE FIELD ENGINEER PRIOR TO CONSTRUCTION OF FOUNDATION



* PROTECTIVE-PERMISSIVE LEFT TURN FLASH OPERATIONS - ALL RED
OPTICOM PREEMPTION - #1+06, #2+05, #4, #8

NOTE:
THE CONTRACTOR SHALL PROVIDE ALL UNDERGROUND MATERIAL AND CONSTRUCTION NEEDED FOR THE INSTALLATION OF TRAFFIC SIGNALS AT TEDDY DR. AND WYANDOTTE ST./KINGS WAY. THE MATERIAL AND CONSTRUCTION SHALL INCLUDE, BUT IS NOT LIMITED TO CONDUIT, PULL BOXES, POLE FOUNDATIONS, CONTROLLER AND SERVICE CABINET FOUNDATIONS AND ALL CABLES AND CONDUCTORS. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF LAS VEGAS ELECTRICAL FOR ALL POLE AND CABINET FOUNDATION REQUIREMENTS, TO INCLUDE ANCHOR BOLT LOCATIONS. THE CITY WILL PROVIDE THE CONTRACTOR WITH THE EXTRA LENGTH AMOUNT OF CABLE TO BE COILED AND PROTECTED AT EACH POLE AND CABINET FOUNDATION.
THE CITY OF LAS VEGAS WILL BE RESPONSIBLE FOR INSTALLATION OF ALL TRAFFIC POLE ASSEMBLIES, CABINETS, SIGNAL HEADS VIDEO DETECTION AND POLE SIGNING FOR THE TEDDY/WYANDOTTE INTERSECTION ONLY.

SAFETY ALERT
Call Before You Overhead
1-702-593-6111

Call before you Dig
1-800-227-2600

STATION CASINOS
1803 W. SUNSET ROAD
HENDERSON, NEVADA 89014
(702) 896-4278 Fax: (702) 898-4283

Traffic Signal Plan
TEDDY DR/WYANDOTTE AVE

TEDDY DRIVE ROADWAY IMPROVEMENTS

DRAWN BY: HMB/TEA 1/01
DESIGNED BY: CRT/RWF 1/01
CHECKED BY: CRT 1/01
PROJECT NO: 092045008
SCALE: AS NOTED

Kimley-Horn and Associates, Inc.
1050 East Flamingo Road
Suite 5-210
Las Vegas, Nevada 89119
Tel: (702) 735-4545
Fax: (702) 735-4549
Engineering, Planning, and Environmental Consultants

CARSON P. TURNER
REGISTERED PROFESSIONAL ENGINEER - STATE OF NEVADA
CIVIL
No. 11758
4-7-01

SHEET TS-1
19 OF 21 SHEETS
DRAWING NO. 107-V3414