CLARK COUNTY TRAFFIC SIGNAL NOTES

GENERAL

1. THESE NOTES ARE EFFECTIVE AS OF 01/07/11 AND SHALL SUPERSEDE ALL PREVIOUS VERSIONS.
2. THE CONSTRUCTION SHALL CONFORM TO THESE PLANS AND SHALL BE IN ACCORDANCE TO THE SPECIAL PROVISIONS.
3. INSTALLATION OF TRAFFIC SIGNAL COMPONENTS SHALL BE SUPERVISED BY A CERTIFIED IMSA LEVEL II TRAFFIC SIGNAL ELECTRICIAN OR LEVEL II TRAFFIC SIGNAL TECHNICIAN. This SHALL include the installation of all underground conduit and conduit bends. AN ELECTRICIAN CERTIFIED AS A JOURNEYMAN ELECTRICIAN IN CLARK COUNTY SHALL INSTALL ALL CONDUCTORS AND ELECTRICAL TERMINATIONS. the contractor shall hold a valid c-2 electrical license issued by the state of nevada.
4. TWO (2) WEEKS PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL CALL CLARK COUNTY TRAFFIC OPERATIONS AT (702) 455-7521 AND INFORM THE TRAFFIC SYSTEMS SUPERVISOR OF THE WORK START DATE FOR COORDINATION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND AND AERIAL UTILITIES AND INFRASTRUCTURES LIKELY TO BE AFFECTED BY THEIR WORK. THE LOCATION OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED PROMPTLY IN A MANNER SATISFACTORY TO THE UTILITIES' OWNERS AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE ANY DAMAGE OR MODIFICATION TO LANDSCAPE/IRRIGATION TO PRE-CONSTRUCTION CONDITION (MODIFIED LANDSCAPE SHALL BE PAID FOR AS PART OF TRAFFIC SIGNAL LUMP SUM).
7. REMOVAL AND REPLACEMENT OF ANY CURB, GUTTER AND SIDEWALK REQUIRED TO INSTALL THE TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE INCLUDED IN THE LUMP SUM COST OF THE TRAFFIC SIGNAL.
8. CONTRACTOR SHALL RESTORE ALL PAVEMENT MARKINGS DAMAGED DUE TO OR BY CONSTRUCTION OR AS SHOWN ON THE PLANS. THE TRAFFIC SIGNAL SHALL NOT BE ENERGIZED WITHOUT THE PROPER PAVEMENT MARKINGS IN-PLACE.
9. ALL STOP SIGNS, STOP AHEAD SIGNS AND/OR FLASHING BEACON ASSEMBLIES OR ANY OTHER TRAFFIC CONTROL DEVICES THAT MAY BE IN CONFLICT WITH THE TRAFFIC SIGNAL SHALL BE REMOVED AT TIME OF TRAFFIC SIGNAL ACTIVATION AND RETURNED TO THE CLARK COUNTY TRAFFIC OPERATIONS DIVISION, 5821 E. FLAMINGO ROAD, LAS VEGAS, NEVADA 89122. THE CONTRACTOR SHALL REMOVE SIGN POSTS AND POST ANCHORS AND PATCH HOLES WITH CONCRETE.
10. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL INSTALLED INDUCTION LOOPS AND ENSURING THAT THE FRONT EDGE OF EACH STOP BAR IS LOCATED TWO (2) FEET BEHIND THE FRONT EDGE OF THE INDUCTION LOOP.
11. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL EXISTING INDUCTION LOOPS AND HOME RUNS TO THE PULL BOXES REMAIN UNCUT AND OPERATIONAL. REPAIR OF DAMAGED INDUCTION LOOPS AND HOME RUNS SHALL BE INCLUDED IN THE LUMP SUM OF THE TRAFFIC SIGNAL.
12. ANY SIGN TEMPORARILY COVERED ON A MAST ARM SHALL BE MASKED WITH A COVER APPROVED BY THE CLARK COUNTY TRAFFIC MANAGER. TAPE SHALL **NOT** BE APPLIED TO THE FACE OF ANY SIGN. ANY SIGN THAT HAS HAD TAPE APPLIED TO THE REFLECTIVE SURFACE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
13. ALL MAST ARM MOUNTED SIGNS 24 INCHES BY 24 INCHES OR GREATER SHALL BE MOUNTED USING BACK-BRACING STRAPS. STRAPS SHALL BE ALUMINIMUM STRAPS OF A MINIMUM SIZE OF 1/8-INCH THICKNESS X 2-INCH WIDE. A FENDER WASHER OF A MINIMUM SIZE OF 1-INCH DIAMETER SHALL BE INSTALLED ON THE FRONT SIDE OF THE SIGN IN ADDITION TO THE NEOPRENE WASHER. ONLY STAINLESS STEEL HARDWARE SHALL BE USED. SEE SIGN MOUNTING ILLUSTRATION IN THE UNIFORM STANDARD DRAWINGS FOR ADDITIONAL DETAILS.
14. THE FOLLOWING CLARK COUNTY UNDERGROUND FACILITIES MAY Bp E LOCATED IN YOUR PROJECT AREA: **FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION** (F.A.S.T.) INTERCONNECT CABLE. CONTRACTOR MUST CONTACT F.A.S.T. AT 702-432-5300 FOR UNDERGROUND LINE LOCATIONS.
15. TRAFFIC SIGNAL INFRASTRUCTURE, INCLUDING BUT NOT LIMITED TO LOOP DETECTORS, LOOP LEAD-IN CABLES, CONDUITS, CONDUCTORS, AND PULL BOXES MAY HAVE BEEN INSTALLED IN YOUR PROJECT AREA FOR EXISTING AND/OR FUTURE TRAFFIC SIGNAL SYSTEMS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING TRAFFIC SIGNAL INFRASTRUCTURE WITHIN THE PROJECT LIMITS. ANY DAMAGE TO THE TRAFFIC SIGNAL INFRASTRUCTURE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPLACED AND/OR REPAIRED PROMPTLY IN A MANNER SATISFACTORY TO THE TRAFFIC MANAGER AT THE CONTRACTOR'S EXPENSE.

CONDUITS/PULL BOXES/CABLES

100. F.A.S.T. INTERCONNECT CABLE POLICY IS IN EFFECT. INTERCONNECT CABLE MUST BE MAINTAINED AT ALL TIMES. DEVELOPER OR CONTRACTOR SHALL PROVIDE TEMPORARY OVERHEAD INTERCONNECT CABLE WHILE PERMANENT CABLE IS BEING RELOCATED OR REPAIRED. THE TEMPORARY AERIAL INSTALLATION MUST BE ACCEPTABLE TO CLARK COUNTY TRAFFIC MANAGEMENT AND TO F.A.S.T. ANY DAMAGE TO ANY INTERCONNECT CABLE IS DEEMED AN EMERGENCY BY CLARK COUNTY, F.A.S.T., CITY OF LAS VEGAS, CITY OF NORTH LAS VEGAS, CITY OF HENDERSON, AND NDOT AND MUST BE REPORTED AND REPAIRED IMMEDIATELY TO F.A.S.T. ACCEPTANCE.
101. DAMAGES MAY BE ASSESSED AGAINST THE CONTRACTOR AFTER 24 HOURS HAS ELAPSED FROM THE TIME OF BREAK OR DAMAGE. **$2,500 PER DAY FOR DAMAGE TO COPPER WIRED INTERCONNECT CABLE AND $7,500 PER DAY FOR DAMAGE TO FIBER OPTIC CABLE.**
102. ALL SIGNAL CABLE SHALL CONFORM TO I.M.S.A. #20-1 AND SHALL BE A 25 CONDUCTOR CABLE. ALL CABLES SHALL BE INSTALLED FROM TERMINAL TO TERMINAL WITHOUT SPLICING.
103. SIX (6) SINGLE CONDUCTOR UF WIRES SHALL BE PROVIDED FROM ALL EMPTY TENONS TO THE "J" BOX ON THE MAST ARM POLE. EACH WIRE SHALL BE A DIFFERENT COLOR.
104. ALL EMPTY TRAFFIC SIGNAL OR STREET LIGHTING CONDUITS SHALL HAVE A #8 AWG THW-2 OR XHHW-2 GREEN CONDUCTOR RUN FROM PULL BOX TO PULL BOX.
105. ALL INTERCONNECT / I.T.S. CONDUITS SHALL HAVE A 6-PAIR PE-39 #22 AWG TWISTED WIRE PAIR CABLE, WITH PULL STRING, CABLE IN EACH CONDUIT RUN BETWEEN EACH PULL BOX OR SPLICE VAULT.
106. EACH CONDUCTOR OR LOOP CABLE SHALL HAVE A MINIMUM OF SIX (6) FEET AND A MAXIMUM OF TEN (10) FEET OF COILED SLACK WIRE IN EACH PULL BOX THE CONDUCTOR GOES THROUGH OR TERMINATES WITHIN.
107. OPTICOM CABLE SHALL BE 3 PAIR NO. 20, 3M MODEL 138. ALL CABLES SHALL BE RUN FROM TERMINAL TO TERMINAL WITHOUT SPLICING.
108. ONE #8 GREEN CONDUCTOR SHALL BE RUN FROM THE CONTROLLER TO ALL POLES AND PULL BOXES AS A BONDING GROUND. ALL PROPOSED CONDUITS SHALL HAVE A #8 AWG GREEN THW-2 OR XHHW-2 CONDUCTOR INSTALLED.
109. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GROUNDING THE COMPLETE TRAFFIC SIGNAL ELECTRICAL SYSTEM INCLUDING ALL EXISTING POLES, CABINETS, SERVICE PEDESTALS, PULL BOXES AND ELECTRICAL DEVICES IN ACCORDANCE WITH THE CURRENT *NATIONAL ELECTRICAL CODE* AND THE UNIFORM STANDARD DRAWINGS.
110. ALL EXISTING TRAFFIC SIGNAL RELATED NO. 3-1/2, NO. 5, AND NO. 7 METAL PULL BOX COVERS SHALL BE REPLACED WITH A HEAVY DUTY, SOLID (FULL DEPTH WITH NO VOIDS UNDER THE LID), RESIN POLYMER REINFORCED NON-CONDUCTIVE COVER MARKED "TRAFFIC SIGNAL".
111. ALL EXISTING TRAFFIC SIGNAL INTERCONNECT RELATED METAL P30 PULL BOX COVERS SHALL BE REPLACED WITH A HEAVY DUTY, SOLID (FULL DEPTH WITH NO VOIDS UNDER THE LID), RESIN POLYMER REINFORCED NON-CONDUCTIVE COVER MARKED "FIBER OPTIC".
112. ALL EXISTING STREET LIGHTING RELATED METAL PULL BOX COVERS SHALL BE REPLACED WITH A HEAVY DUTY, SOLID (FULL DEPTH WITH NO VOIDS UNDER THE LID), RESIN POLYMER REINFORCED NON-CONDUCTIVE COVER MARKED "STREET LIGHTING".
113. ALL NEW PULL BOX ASSEMBLIES (BOX WITH COVER SECURELY ATTACHED) SHALL BE DESIGNED FOR A VERTICAL STATIC LOAD OF 16,000 POUNDS APPLIED WITH A 1.3 SAFETY FACTOR. A VERTICAL TEST LOAD OF 20,800 POUNDS APPLIED TO A 10-INCHX10-INCH STEEL PLATE CENTERED ON THE COVER'S SURFACE SHALL NOT CAUSE FAILURE ON ANY PART OF THE ASSEMBLY.
114. MANUFACTURER'S CERTIFIED TEST RESULTS, SHOWING COMPLIANCE WITH SPECIFIED DESIGN LOADS AND SAFETY FACTORS ALONG WITH A PHYSICAL DESCRIPTION OF THE TESTING METHODS USED TO ACHIEVE THOSE RESULTS, WILL BE REQUIRED FOR EACH TYPE OF PULL BOX BEING FURNISHED. TEST RESULTS SHALL SHOW THE PROJECT NUMBER, CONTROL NUMBER, AND PROJECT LOCATION AND SHALL BE SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE FIRM MANUFACTURING THE PULL BOX.
115. ALL NEW TRAFFIC SIGNAL RELATED PULL BOXES SHALL BE CONCRETE AND HAVE A COVER MARKED "TRAFFIC SIGNAL". THE COVER SHALL BE A HEAVY DUTY, SOLID (FULL DEPTH WITH NO VOIDS UNDER THE LID), RESIN POLYMER REINFORCED NON-CONDUCTIVE COVER, WHICH CAN WITHSTAND THE STATIC LOADS AS REQUIRED ABOVE.
116. ALL NEW INTERCONNECT RELATED P30 PULL BOX SHALL BE POLYMER CONCRETE AND HAVE A COVER MARKED "FIBER OPTIC". THE COVER SHALL BE A HEAVY DUTY, SOLID (FULL DEPTH WITH NO VOIDS UNDER THE LID), RESIN POLYMER REINFORCED NON-CONDUCTIVE COVER, WHICH CAN WITHSTAND THE STATIC LOADS AS REQUIRED ABOVE.
117. ALL NEW INTERCONNECT RELATED T200 PULL BOX SHALL BE CONCRETE AND HAVE AN ADJUSTABLE TORSION SPRING ASSISTED METAL COVER MARKED "FIBER OPTIC". THE PULL BOX ASSEMBLY SHALL HAVE A DESIGN LOAD OF H-20 WHEEL LOADINGS. PULL BOX COVER SHALL BE GROUNDED PER THE PULL BOX COVER BONDING DETAIL.
118. ALL NEW STREET LIGHTING PULL BOXES SHALL BE CONCRETE AND HAVE A COVER MARKED "STREET LIGHTING". THE COVER SHALL BE A HEAVY DUTY, SOLID, RESIN POLYMER REINFORCED NON-CONDUCTIVE COVER, WHICH CAN WITHSTAND THE STATIC LOADS AS REQUIRED ABOVE.
119. FOR NEW CONSTRUCTION OR AS SHOWN IN THE PLANS, TRAFFIC SIGNAL RELATED PULL BOXES SHALL BE 34-3/4-INCH X 21-3/4-INCH X 24-INCH (LENGTH X WIDTH X DEPTH). WALLS AND BOTTOM SHALL BE OF MONOLITHIC CONCRETE CONSTRUCTION.
120. FOR RETROFITS OR AS SHOWN IN THE PLANS, TRAFFIC SIGNAL RELATED PULL BOXES SHALL BE DOUBLE STACKED NO. 7 PULL BOXES, WITH A 12-INCH DEEP PRECAST REINFORCED CONRETE BODY WITH A PRECAST REINFORCED CONCRETE EXTENSION AS SHOWN IN THE UNIFORM STANDARD DRAWINGS. CONTRACTOR SHALL USE GROUT TO FILL IN ANY GAPS BETWEEN THE PULL BOX AND THE PULL BOX EXTENSION. SPACERS SUCH AS ROCKS, CINDER BLOCKS AND WOOD PIECES SHALL NOT BE USED BETWEEN THE PULL BOX AND THE PULL BOX EXTENSION.
121. CONDUIT ROUTING AND PULL BOX LOCATION ARE SCHEMATIC FOR THE PURPOSE OF CLARITY AND MAY DIFFER FROM ACTUAL INSTALLATION. FINAL LOCATION OF PULL BOXES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
122. PULL BOXES SHALL NOT BE INSTALLED WITHIN SIDEWALK RAMPS, WITHIN ANY DRIVEWAY, OR WITHIN TEN FEET OF ANY DRIVEWAY.
123. ALL CONDUIT BENDS FOR TRAFFIC SIGNALS TERMINATING IN PULL BOXES, VAULTS, TRAFFIC SIGNAL POLES AND TRAFFIC CONTROLLER CABINETS SHALL BE PVC COATED RIGID STEEL UNLESS THE CONDUIT RUN IS SHORTER THAN THIRTY (30) FEET.
124. TRAFFIC SIGNAL AND STREET LIGHTING CONDUIT BENDS SHALL HAVE A 18 -INCH MINIMUM RADIUS.
125. INTERCONNECT CONDUITS BENDS SHALL HAVE A 24-INCH MINIMUM RADIUS.
126. All conduits shall extend a minimum of six (6) inches above the ground level of the bottom of a pull box.
127. All pull box covers shall have a minimum six (6) inch clearance from any conduit.
128. All conduit openings shall be sealed with duct seal or approved equivalent. ALL ELECTRICAL CONDUIT, FITTINGS, AND COUPLINGS SHALL BE JOINED TOGETHER PER the current *NATIONAL ELECTRICAL CODE*.
129. CONTRACTOR SHALL SUPPLY AND INSTALL THW-2 OR XHHW-2 WIRE IN LIEU OF THW WIRE AT LOCATIONS WHERE THW WIRE IS SPECIFIED IN THE STD DWG.

DETECTION

200. ALL LOOP LEAD-IN CABLE SHALL BE 1 PAIR NO. 12 AWG, TINNED COPPER, 19 STRANDS EACH PER IMSA SPECIFICATION 50_2. THE PAIR SHALL BE TWISTED 4 TIMES PER FOOT.
201. LOOP WIRE OTHER THAN PRE-FORMED LOOPS FOR INSTALLATION IN SAW CUTS SHALL MEET IMSA SPECIFICATION 51-5. IT SHALL BE SINGLE CONDUCTOR NO. 14 AWG, COPPER WIRE WITH 19 STRANDS. THE INSULATION SHALL BE 15 MILS OF ORANGE PVC COMPLYING WITH UL 62 WITH AN OVERALL JACKET OF CLEAR NYLON IN ACCORDANCE WITH ASTM D4066.
202. induction loop wires from the pull box to the Induction loops shall not be installed in areas where future loops may be installed.
203. ALL NEW OR REPLACEMENT INDUCTION LOOPS SHALL BE INSTALLED USING CABLE-IN-DUCT WIRING OR PRE-FORMED LOOPS (AS SHOWN AND REQUIRED ON THE PLANS), SHALL HAVE INDEPENDENT LEAD-IN WIRES FOR EACH LOOP FROM THE CONTROLLER TO THE PULL BOX AND EACH LEAD-IN SHALL BE INDIVIDUALLY TAGGED.
204. THE INDUCTION LOOP WIRES SHALL BE SOLDERED AND SEALED TO THE LOOP LEAD-IN WIRES.
205. IF REQUIRED BY THE TRAFFIC SIGNAL PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL A VEHICLE VIDEO DETECTION SYSTEM WHICH SHALL BE ECONOLITE AUTOSCOPE RACK VISION, ITERIS EDGE OR PEEK TRAFFIC 910. CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT IN CONTROLLER CABINET. CONTRACTOR SHALL MOUNT CAMERAS ON THE TRAFFIC SIGNAL MAST ARM OR LUMINAIRE ARM USING A PELCO ATTACHMENT CONSISTING OF AN ASTRO BRACKET WITH A SIX (6) FOOT RISER. THE LOCATION OF THE CAMERA SHALL BE PLACED AT THE LOCATIONS AS SHOWN ON PLANS. CAMERAS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION.
206. IF REQUIRED BY THE TRAFFIC SIGNAL PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL A VIDEO DETECTION SYSTEM WHICH SHALL HAVE THE CAPABILITY OF SENSING A VEHICLE ANYWHERE WITHIN THE "MINIMUM LIMITS OF DETECTION ZONE". ONE (1) COAXIAL CABLE AND THREE (3) - #10 THW-2 OR XHHW-2 (BLUE, WHITE AND GREEN) SHALL RUN FROM THE CONTROLLER CABINET TO EACH CAMERA. COAXIAL CABLE SHALL BE BELDEN 8281 WITH A BNC CONNECTOR AT EACH END. THE CAMERA COAXIAL CABLE SHALL RUN FROM THE VPU TO THE TRAFFIC SIGNAL POLE HAND HOLE, WITHOUT A SPLICE. THE CONTRACTOR SHALL PROVIDE SIX (6) FEET COAXIAL CABLE SLACK ON THE CAMERA SIDE OF THE COAXIAL CABLE RUN. WHERE POSSIBLE, THE CONTRACTOR SHALL SEPARATE SIGNAL CABLE FROM OPTICOM AND DETECTOR CABLE IN CONDUIT RUNS.
207. IF REQUIRED BY THE TRAFFIC SIGNAL PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL A WAVETRONIX ADVANCE DETECTOR SYSTEM COMPLETE, IN-PLACE AND OPERATIONAL. THE CONTRACTOR SHALL PROVIDE A WAVETRONIX SMARTSENSOR ADVANCE MODEL 200 DETECTOR AT EACH LOCATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDE, AS PART OF THE EQUIPMENT, A DIN RAIL WITH WAVETRONIX "CLICK" MODULES (POWER CONVERTER, SURGE PROTECTION AND CONTACT CLOSURES). THE CONTRACTOR SHALL PROVIDE ALL CABLING AND WIRING PER MANUFACTURER'S REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE, SETUP AND INSTALL ALL VENDOR OPERATIONAL SOFTWARE REQUIRED FOR THE DIFFERENT SYSTEMS IDENTIFIED ON THESE PLANS.
208. IF REQUIRED BY THE TRAFFIC SIGNAL PLANS, THE CONTRACTOR SHALL FURNISH AND INSTALL A RADAR DETECTION SYSTEM WHICH SHALL HAVE THE CAPABILITY OF SENSING A VEHICLE ANYWHERE WITHIN ONE HUNDRED (100) FEET OF SENSOR TO THREE HUNDRED AND SIXTY (360) FEET IN ADVANCE OF STOP LINE FOR THE THROUGH LANES. ONE (1) BELDEN 9331 CABLE SHALL RUN FROM THE CONTROLLER CABINET TO EACH SENSOR. THE BELDEN 9331 CABLE SHALL RUN FROM THE CONTROLLER CABINET TO THE RADAR DETECTOR WITHOUT A SPLICE. THE CONTRACTOR SHALL PROVIDE SIX (6) FEET CABLE SLACK ON THE SENSOR SIDE OF THE BELDEN 9331 CABLE RUN. WHERE POSSIBLE, THE CONTRACTOR SHALL SEPARATE SIGNAL CABLE FROM OPTICOM AND DETECTOR CABLE IN CONDUIT RUNS.
209. The front of the Advanced INDUCTION LOOPs shall NORMALLY be placed in advance of the front of the presence loops (at the stop bar) in accordance with the ultimate full street Right of way (r.o.w.) width:
90 foot or greater R.O.W. - 360 feet
70 to less than 90 feet R.O.W. - 250 feet
Less than 70 foot R.O.W. - 155 feet
VARIANCES MUST BE APPROVED BY THE TRAFFIC MANAGER.
210. 6 FEET DIAMETER CIRCULAR DETECTION LOOPS MAY BE USED IN LIEU OF 6 FEET BY 6 FEET SQUARE DETECTION LOOP. SPACING BETWEEN EACH LOOP AND THE NUMBER OF LOOPS SHALL BE AS SPECIFIED IN THE PLANS.

POLES AND HARDWARE

300. POLE ASSEMBLIES, TRAFFIC SIGNAL MAST ARMS, LUMINAIRE MAST ARMS AND BRACKETS, ANCHOR-BOLT AND HANDHOLE COVERS AND POLE AND MAST ARM CAPS SHALL BE HOT-DIP GALVANIZED IN CONFORMANCE WITH ASTM DESIGNATION A123. ASSOCIATED HARDWARE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION A153. FLAWS IN THE APPEARANCE OF GALVANIZED COMPONENTS SHALL BE CAUSE FOR REJECTION BY THE OWNER. THE OWNER SHALL REJECT GALVANIZED MATERIALS WITH FINISHES THAT HAVE A STRIPED OR UNEVEN APPEARANCE, A BUILD-UP OF ZINC HYDROXIDE, RUST STAINS, ASH INCLUSIONS, DROSS PROTRUSIONS AND/OR FLUX INCLUSIONS. GALVANIZED MATERIALS THAT EXHIBIT A SPIDERY APPEARANCE, A BLOTCHY OR SPOTTED APPEARANCE, OR THAT HAVE A GENERAL SURFACE ROUGHNESS OR EXHIBIT LUMPINESS OR RUNS IN THE FINISH SHALL ALSO BE REJECTED.
301. EXISTING TRAFFIC SIGNAL AND/OR LIGHTING EQUIPMENT REMOVED AND NOT REUSED ON THE PROJECT SHALL BE SALVAGED BY THE CONTRACTOR AND DELIVERED TO CLARK COUNTY TRAFFIC OPERATIONS, 5821 E. FLAMINGO ROAD, LAS VEGAS, NEVADA. ALL DELIVERIES SHALL BE BY APPOINTMENT ONLY BY CALLING (702) 455-7521 AND COORDINATING WITH THE TRAFFIC SYSTEMS SUPERVISOR AND/OR THE STREETLIGHT SUPERINTENENT. ALL STREET LIGHTING LAMPS SHALL BE SEPARATED FROM THE LUMINAIRES PRIOR TO DELIVERY TO THE COUNTY AND THE LAMPS SHALL BE DISPOSED OF PROPERLY.
302. THE FINAL POLE LOCATIONS SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION AND SHALL BE APPROVED BY THE CLARK COUNTY TRAFFIC MANAGEMENT DIVISION. ALL SIGNAL POLE INSTALLATIONS SHALL BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) REQUIREMENTS AND SHALL NOT BE DRILLED WITHOUT PRIOR APPROVAL OF THE CLARK COUNTY TRAFFIC MANAGER.
303. CONTRACTOR SHALL ENSURE THAT THE TRAFFIC SIGNAL POLES ARE PLUMB AFTER THE INSTALLATION OF THE MAST ARMS AND TRAFFIC SIGNAL HEADS. WHEN EXISTING SIGNAL POLES ARE USED, CONTRACTOR SHALL BREAK EXISTING CRASH CAPS AND REPLUMB THE SIGNAL POLES AFTER LIVE ARM LOAD IS ATTACHED. CONTRACTOR SHALL ALSO RESTORE AND/OR REPLACE CRASH CAPS AND ALL ASSOCIATED HARDWARE.
304. THE CONTRACTOR IS TO INSTALL BLANK 24" x 30" SIGN PANEL(S) HORIZONTALLY ON ALL MAST ARMS REQUIRING VIDEO DETECTION CAMERA AND/OR IF THE MAST ARM EXCEEDS SIXTY (60) FEET IN LENGTH. COORDINATE WITH THE TRAFFIC SYSTEMS SUPERVISOR AT (702) 455-7521 FOR DETAILS.
305. CONTRACTOR SHALL INSTALL McCAIN RED LIGHT VIOLATOR DETECTION UNIT, CURRENT MODELS FOR RED AND BLUE INDICATORS, AS SHOWN ON THE POLE SCHEDULE FOR EACH INTERSECTION. RED INDICATORS SHALL BE MOUNTED 16' ABOVE POLE BASE PLATE AND BLUE INDICATORS SHALL BE MOUNTED 17' ABOVE POLE BASE PLATE. FINAL ALIGNMENT OF LED INDICATORS SHALL BE COORDINATED THROUGH CLARK COUNTY TRAFFIC OPERATIONS. CONTACT THE TRAFFIC SYSTEMS SUPERVISOR AT (702) 455-7521. CONTRACTOR SHALL WIRE INDICATORS DIRECTLY TO BUSS IN "J" BOX PER CALL OUT PHASING IN POLE SCHEDULE.
306. MODEL 722 (TWO-WAY) OPTICOM DETECTORS SHALL BE MOUNTED ON TOP OF THE LEFT-MOST END OF THE MAST ARM. THE CONTROLLER SHALL BE EQUIPPED FOR OPTICOM PRE-EMPTION USING TWO (2) CONTRACTOR SUPPLIED 3M MODEL 752 PHASE SELECTORS.
307. ON LOCATIONS WHERE SINGLE DIRECTIONAL DETECTORS ARE REQUIRED AND SHOWN ON THE PLANS, MODEL 722 (TWO-WAY) DETECTORS SHALL BE USED AND SHALL BE MOUNTED OVER THE CENTER OF THE LANES FOR EACH DIRECTION. THE CONTROLLER SHALL BE EQUIPPED FOR OPTICOM PRE-EMPTION USING TWO (2) CONTRACTOR SUPPLIED 3M MODEL 752 PHASE SELECTORS.
308. ALL MAST ARM WIRING SHALL TERMINATE AT A SIDE MOUNTED JUNCTION BOX ON TRAFFIC SIGNAL POLES. IF ONE IS NOT EXISTING, CONTRACTOR SHALL SUPPLY AND INSTALL THE JUNCTION BOX.
309. AT LOCATIONS WITH FULL OFFSITE IMPROVEMENTS, CONTRACTOR SHALL DRILL HOLES FOR THE PEDESTRIAN SIGNALS ON THE SIDE OF PEDESTRIAN SIGNAL POLE OR TRAFFIC SIGNAL POLE 180-DEGREES OPPOSITE THE CURB LINE PER STD DWG 404.1300/404.1300 ALT AND AT 7-FEET, 6-INCHES ABOVE FINISHED GRADE PER STD DWG 404.600. AT LOCATIONS WITHOUT FULL OFFSITE IMPROVEMENTS, CONTRACTOR SHALL DRILL THE HOLES FOR THE PEDESTRIAN SIGNALS IN THE TRAFFIC SIGNAL POLE AS INDICATED IN THE TABLE BELOW. (QUANDRANT SIGNAL LOCATION IS DEFINED AS 1-NORTH, 2-EAST, 3-SOUTH, 4-WEST.) IF PEDESTRIAN SIGNALS ARE NOT REQUIRED PER PLAN, CONTRACTOR SHALL DRILL HOLES AS INDICATED ABOVE AND SUPPLY AND INSTALL JUNCTION BOXES TO COVER THE HOLES PER STD DWG 404.1208.

INTERSECTION CORNER	QUADRANT SIGNAL LOCATION
NE	2
SE	3
SW	4
NW	1

310. THE BOLT PATTERN FOR THE PEDESTRIAN POLE FOUNDATIONS SHALL BE ORIENTED IN THE SAME DIRECTION AS THE BOLT PATTERN FOR THE ADJACENT TRAFFIC SIGNAL POLE FOUNDATION AND NOT THE ADJACENT CURB LINE.

STREETLIGHTING

400. INTERSECTION LUMINAIRES SHALL BE 400 WATT HPS WITH IES MC3 DISTRIBUTION WITH 120 VOLT MAGNETIC REGULATOR BALLAST (G.E. #MSCL40S1M22FMC3), SYLVANIA LAMP LU400/SBY (NAED CODE #67584) AND AN ELECTRONIC PHOTOCELL (TYCO ELECTRONICS #SST-PV-IES-BL OR APPROVED EQUIVALENT) INSTALLED ON EACH LUMINAIRE. IF 20-FOOT HEIGHT TRAFFIC SIGNAL POLE IS USED, AN ELECTRONIC PHOTOCELL SHALL BE INSTALLED ON THE POLE CAP (TYCO ELECTRONICS # SST-PV-IES-BL OR APPROVED EQUIVALENT). EACH POLE SUPPORTING ONE OR MORE LUMINAIRES SHALL BE ELECTRICALLY FED BY AN INDIVIDUAL 120V - 1P-30A BREAKER IN THE ELECTRICAL SERVICE PEDESTAL AND A HOMERUN OF TWO (2) #10 AWG THW-2 OR XHHW-2 COPPER WIRES (BLACK AND WHITE) FROM EACH POLE TO THE ELECTRICAL SERVICE. THE GREEN GROUND WIRE (THW-2 OR XHHW-2) SHALL BE CONNECTED TO THE GROUND BUSS WITHIN THE SERVICE PEDESTAL.
401. 240 VOLT STREET LIGHT CONDUITS SHALL BE SEPARATE FROM TRAFFIC SIGNAL AND INTERSECTION LIGHTING CONDUITS. EACH SHALL HAVE SEPARATE PULL BOXES.
402. IF REQUIRED BY THE TRAFFIC SIGNAL PLANS AND/OR STREET LIGHT PLANS, THE CONTRACTOR SHALL REMOVE AND SALVAGE EXISTING STREET LIGHT POLE ASSEMBLY; CHIP FOUNDATION EIGHTEEN (18) INCHES BELOW FINISHED GRADE OR EXISTING GRADE; INTERCEPT EXISTING CONDUIT AND WIRING INTO A No. 3½ PULL BOX, WHILE MAINTAINING THE EXISTING STREET LIGHT CIRCUIT.
403. AT LOCATIONS WHERE EXISTING INTERSECTION LIGHTING IS ON AN EXISTING 240V STREETLIGHT CIRCUIT, THE CONTRACTOR SHALL REPLACE THE EXISTING 400W, 240V STREETLIGHT FIXTURE WITH A NEW 400W, 120V CUTOFF STREETLIGHT FIXTURE. ALL REMAINING STREETLIGHTS SHALL REMAIN FULLY OPERATIONAL ON THE EXISTING STREETLIGHT CIRCUIT. THE CONTRACTOR SHALL ENSURE THE CONTINUITY OF THE EXISTING 240V STREETLIGHT CIRCUIT WHILE REPLACING THE LUMINAIRES AT THE SIGNALIZED INTERSECTION. INTERSECTION LIGHTING AND THE TRAFFIC SIGNAL SHALL BE FED FROM THE SAME SERVICE POINT.
404. STRAIGHT ARMS, IF REQUIRED, SHALL BE INSTALLED AT NO ADDITIONAL COST AND MUST BE APPROVED BY THE CLARK COUNTY TRAFFIC MANAGER.

VEHICLE/PEDESTRIAN HEADS

500. ALL TRAFFIC SIGNAL VEHICLE INDICATIONS SHALL USE A 12 INCH SIGNAL LENS.
501. ALL TRAFFIC SIGNAL PEDESTRIAN INDICATIONS SHALL USE A 9 INCH HIGH INDICATION.
502. ALL TRAFFIC SIGNAL VEHICLE HEADS SHALL USE FULL-CIRCLE VISORS UNLESS OTHERWISE NOTED ON THE PLANS.
503. AT LOCATIONS WHERE VISUALLY ORIENTED TRAFFIC SIGNAL VEHICULAR HEADS ARE REQUIRED, GEOMETRICALLY PROGRAMMED LOUVER WITH ASSOCIATED ADJUSTABLE 12-INCH FULL CIRCLE VISOR SHALL BE USED. CONTRACTOR SHALL SUPPLY AND INSTALL A GEOMETRICALLY PROGRAMMED LOUVER THAT PERMITS INCREMENTAL TILTING FROM 7 DEGREES TO 15 DEGREES ABOVE OR BELOW THE HORIZONTAL WHILE MAINTAINING A COMMON VERTIAL AXIS THROUGH COUPLERS AND MOUNTING.
504. ALL TRAFFIC SIGNAL VEHICLE HEADS SHALL HAVE LOUVERED BACKPLATES. BACKPLATES SHALL BE PAINTED OR POWDER COATED BLACK (FRONT SIDE)/GREEN (BACKSIDE).
505. PEDESTRIAN PUSH BUTTONS SHALL MEET THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND BE INSTALLED ON POLE AT A HEIGHT BETWEEN THIRTY-SIX (36) INCHES AND FORTY-TWO (42) INCHES FROM FINISHED GRADE. PEDESTRIAN PUSH BUTTON SIGN SHALL BE R10-3e (9"X15").
506. ALL PEDESTRIAN SIGNAL ASSEMBLIES SHALL BE SUPPLIED WITH L.E.D. MESSAGE MODULES. THE "HAND" SHALL BE PORTLAND ORANGE L.E.D., THE "WALKING PERSON" SHALL BE LUNAR WHITE L.E.D. AS SPECIFIED IN THE SPECIAL PROVISIONS. THE SYMBOLS SHALL BE ENTIRELY LIGHTED AND NOT HOLLOW.
507. ALL PEDESTRIAN SIGNALS SHALL BE EQUIPPED TO COUNT DOWN THE PEDESTRIAN CLEARANCE INTERVAL. EXISTING NON-COUNT DOWN PEDESTRIAN SIGNAL HEADS SHALL BE CHANGED TO COUNT DOWN TYPE.
508. ALL TRAFFIC SIGNAL VEHICLE INDICATIONS SHALL BE LIGHT EMMITING DIODE (L.E.D.) AS SPECIFIED IN THE SPECIAL PROVISIONS AND THE MOST RECENT ITE SPECIFICATIONS.
509. ALL L.E.D. MODULES SHALL COMPLY WITH THE MOST RECENT SPECIFICATIONS AND TECHNOLOGY AS ADOPTED AND APPROVED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE).
510. CONTRACTOR SHALL SUPPLY AND INSTALL TRAFFIC SIGNAL, FLASHER AND PEDESTRIAN HEAD COVERS ON EACH INSTALLED NEW SIGNAL AND PEDESTRIAN HEAD. THE COVER SHALL BE TRAFFIC JACKETS AS SUPPLIED BY PHOENIX HIGHWAY PRODUCTS, OR AN APPROVED EQUAL BY CLARK COUNTY TRAFFIC MANAGER. THE COVERS SHALL BE BRIGHT ORANGE WITH A VERTICAL MESSAGE "NOT IN SERVICE" IN BLACK ON EACH COVER, FOR NEW CONSTRUCTION. THE COVERS SHALL BE BLACK WITH A VERTICAL MESSAGE "NOT IN SERVICE" IN WHITE ON EACH COVER, FOR MODIFICATIONS TO A TRAFFIC SIGNAL ALREADY IN OPERATION. THE TRAFFIC SIGNAL, FLASHER AND/OR PEDESTRIANS HEAD COVERS REMAIN THE PROPERTY OF THE CONTRACTOR UNTIL THE SIGNAL IS ENERGIZED AND IS ACCEPTED BY CLARK COUNTY, UPON WHICH THEY BECOME THE PROPERTY OF CLARK COUNTY.

CONTROLLER AND SERVICE PEDESTAL

600. The Nevada ENERGY transformer shall be a maximum of three hundred and fifty (350) feet from the SERVICE PEDESTAL, UNLESS APPROVED OTHERWISE BY THE TRAFFIC MANAGER.
601. The service pedestal shall be a maximum of five (5) FEET from the controller cabinet.
602. All ELECTRONIC photocells FOR STREET LIGHTS SHALL BE installed IN THE service pedestalS FROM WHICH THE STREET LIGHTS ARE FED. THE ELECTRONIC PHOTOCELLS SHALL BE TYCO ELECTRONICS # SST-PV-IES -BL OR APPROVED EQUIVALENT.
603. CONTRACTOR SHALL SUPPLY A 2070N WITH A 1B MODULE, A SIEMENS M53, AN ECONOLITE ACS/3, OR AN APPROVED EQUAL TRAFFIC SIGNAL CONTROLLER AND TWO (2) 3M MODEL 752 EMERGENCY VEHICLE PHASE SELECTORS FOR EACH TRAFFIC SIGNAL SYSTEM. CONTRACTOR SHALL DELIVER THE CONTROLLER CABINET, CONTROLLER, AND EMERGENCY VEHICLE PHASE SELECTORS TO CLARK COUNTY TRAFFIC OPERATIONS, FOURTEEN (14) DAYS PRIOR TO SIGNAL TURN-ON FOR TESTING. THE CONTRACTOR SHALL PICK-UP THE CONTROLLER CABINET AT CLARK COUNTY TRAFFIC OPERATIONS, 5821 E. FLAMINGO ROAD BY APPOINTMENT ONLY. THE CONTRACTOR SHALL NOTIFY CLARK COUNTY AT (702) 455-7521 SEVEN (7) DAYS PRIOR TO PICK-UP.
604. FOR CLARK COUNTY PUBLIC WORKS FUNDED PROJECTS, THE CONTRACTOR SHALL INSTALL THE COUNTY-SUPPLIED CONTROLLER CABINET ON A CONTRACTOR FURNISHED FOUNDATION. FOR NON- CLARK COUNTY PUBLIC WORKS FUNDED PROJECTS, THE CONTRACTOR SHALL INSTALL A CONTRACTOR-SUPPLIED COUNTY STANDARD CONTROLLER CABINET ON A CONTRACTOR FURNISHED FOUNDATION.
605. ALL TRAFFIC SIGNALS SHALL BE POWERED FROM A 200 AMP SERVICE PEDESTAL.
606. ALL 200AMP SERVICE PEDESTAL SHALL INCLUDE THE FOLLOWING:
    - ONE (1) 200 AMP DOUBLE POLE CIRCUIT BREAKER (MAIN)
    - ONE (1) 60 AMP SINGLE POLE CIRCUIT BREAKER (TRAFFIC SIGNAL)
    - FOUR (4) 30 AMP SINGLE POLE CIRCUIT BREAKERS (INTERSECTION LIGHTING)
    - ONE (1) 15 AMP SINGLE POLE CIRCUIT BREAKER (PHOTO CELL)
    - TWO (2) 60 AMP 240V DOUBLE POLE CIRCUIT BREAKERS (STREET LIGHTING)
    - TWO (2) DOUBLE POLE LIGHTING CONTACTOR W/120VOLT COIL (GE# CR360L40202AAAZ OR APPROVED EQUAL)
    - ONE (1) 120 VOLT ELECTRONIC PHOTO ELECTRIC CONTROLS (TYCO ELECTRONICS # SST-PV-IES -BL OR APPROVED EQUAL)
    - ONE (1) #4 AWG 7 STRAND BARE COPPER GROUNDING CONDUCTOR TO EARTH WITH 20 FEET OF UFFER GROUND UNDER THE PEDESTAL FOUNDATION.

    IF AN EXISTING SERVICE PEDESTAL IS USED TO POWER THE TRAFFIC SIGNAL, CONTRACTOR SHALL INSPECT THE EXISTING SERVICE PEDESTAL, AND SUPPLY AND INSTALL ANY MISSING BREAKERS.
607. NEW SERVICE PEDESTALS AND TRAFFIC SIGNAL CABINETS AND THE DOORS OF THIS EQUIPMENT SHALL BE FINISHED INSIDE AND OUT WITH GLOSS POLYURETHANE POWDER COATING CONSISTING OF FEDERAL SPECIFICATION 595 POLYURETHANE, INDUSTRIAL GRADE HIGH GLOSS POWDER PAINT WITH 1.7 MIL THICKNESS MINIMUM. SERVICE PEDESTALS SHALL BE MINT GREEN (FEDERAL COLOR 14672) AND TRAFFIC CONTROL CABINETS SHALL BE HIGH GLOSS PURE WHITE. THE FINISH SHALL PRESENT A SMOOTH SURFACE, UNIFORM IN COLOR AND FREE OF RUNS, SAGS OR OTHER IRREGULARITIES.
608. SURGE SUPPRESSORS FOR ELECTRICAL POWER SHALL BE MODEL #HS-P-SP-120A-60A-RJ, HESCO MODEL #HE-1800, OR APPROVED EQUAL, AND FOR TELECOMMUNICATIONS LINE PROTECTION SHALL BE MODEL #MDF 6 95V, OR MF 25 95V.

ILLUMINATED STREET NAME SIGNS

700. CONTRACTOR SHALL PROVIDE AND INSTALL THE NUMBER OF ILLUMINATED STREET NAME SIGNS AS SHOWN IN THE PLANS.
701. ALL ILLUMINATED STREET NAME SIGNS SHALL BE EIGHT (8) FEET IN LENGTH.
702. ALL ILLUMINATED STREET NAME SIGNS SHALL USE WHITE WIDE ANGLE PRISMATIC TRANSLUCENT CLASS 6 RETRO-REFLECTIVE SHEETING, EITHER REVERSE-SCREENED WITH MANUFACTURER'S RECOMMENDED GREEN INK AND CLEAR COATING OR OVER-LAYED WITH GREEN ELECTRONIC CUTABLE TRANSPARENT OVERLAY FILM, APPLIED TO A CLEAR HIGH IMPACT RESISTANT, REINFORCED ACRYLIC PANEL.
703. STREET NAME SHALL BE IN UPPER AND LOWER CASE LETTERS USING 8-INCH SERIES D WITH THE STREET CARDINAL DIRECTION, SUFFIX AND BLOCK NUMBER IN 5-INCH SERIES C. KERNING VALUE IS 110%. WIND LOADING SHALL BE A MINIMUM OF 100 MPH.
704. APPROVAL OF SHOP DRAWINGS OF SIGN FACE LAYOUT BY THE PROJECT ENGINEER IS REQUIRED PRIOR TO FABRICATION OF SIGN.
705. SHEETING SHALL BE APPLIED IN A VERTICAL ORIENTATION IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.
706. THE HOT LEAD SHALL BE CONNECTED TO THE LOAD SIDE OF THE LUMINAIRE P.E. CONTROL OF THE RELATED STREET LIGHT. THE NEUTRAL WIRE SHALL BE CONNECTED TO THE STREET LIGHT NEUTRAL AT THE HANDHOLE. USE No. 12 THW-2 OR XHHW-2 CONDUCTOR. THE STREET NAME SIGN SHALL BE WIRED TO THE LUMINAIRE PHOTO CELL ON THE RELATED STREET LIGHT.
707. ALL ILLUMINATED STREET NAME SIGNS SHALL BE DOUBLE FACED UNLESS OTHERWISE NOTED IN THE POLE SCHEDULE.
708. TWO (2) FLUORESCENT SHATTERPROOF LAMPS AND TWO (2) BALLASTS ARE REQUIRED FOR EACH ILLUMINATED STREET NAME SIGN. LAMPS SHALL BE F96T8 SINGLE PIN LAMP. BALLASTS SHALL BE ADVANCE IOP-2P59-SC.
709. CONTRACTOR SHALL SUPPLY AND INSTALL ONE 14/3 STRANDED SEOOW CORD THAT SHALL RUN CONTINUOUSLY FROM THE INTERNALLY ILLUMINATED STREET NAME SIGN ENCLOSURE, THROUGH TWO STRAIN RELIEF CONNECTORS, TO THE HAND HOLE AT THE BASE OF THE TRAFFIC SIGNAL POLE. ONE NO. 10 RED CONDUCTOR SHALL RUN FROM THE PHOTOCELL ON TOP OF THE LUMINAIRE TO THE HAND HOLE AT THE BASE OF THE TRAFFIC SIGNAL POLE. CONNECTIONS BETWEEN THE STREET NAME SIGN AND THE PHOTOCELL SHALL BE MADE AT THE HAND HOLE AT THE BASE OF THE POLE.
710. THE STRAIN RELIEF CONNECTORS SHALL BE STRAIGHT ALUMINIUM DELUXE CORD GRIP/STRAIN RELIEF CONNECTORS THAT ARE COMPATIBLE WITH A 0.005-INCH TO 0.625-INCH CORD DIAMETER. STRAIN RELIEF CONNECTOR SHALL BE HUBBELL F2 OR AN APPROVED EQUIVALENT BY THE TRAFFIC MANAGER.
711. THE SEOOW CORD SHALL HAVE THREE (3) NO. 14 AWG CONDUCTORS (BLACK, GREEN AND WHITE), AND HAVE THERMOPLASTIC ELASTOMER (TPE) INSULATION AND THERMOPLASTIC ELASTOMER (TPE) JACKET. THE SEOOW CORD SHALL BE WATER-RESISTANT, UL LISTED, RATED FOR 600 VOLTS, WITH TEMPERATURE RANGE FROM 105 DEGREES CELSIUS TO -50 DEGREES CELSIUS. SEOOW CORD SHALL BE CCI SEOPRENE 105 14 AWG 3/C SEOOW E54864 OR AN APPROVED EQUIVALENT BY THE TRAFFIC MANAGER.

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PROFESSIONAL ENGINEER - STATE OF NEVADA
JOSEPH G. JENSEN
Exp: 6-30-13
CIVIL
No. 5597
1-18-12

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REVISIONS

NO.	DATE:	SHEET	DESCRIPTION	APP'D
1	11/30/11		DEL. TURN LANE PER CLV ROW	

VALLEY VIEW BLVD – DESERT INN RD TO BONANZA RD

DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT MANAGEMENT

CITY OF LAS VEGAS NEVADA

CITY ENGINEER: DAVID BOWERS, PE, PTOE
PROGRAM MANAGER: JEREMY LEAVITT, PE

DESIGNED BY: V. PARIMI
DRAWN BY: F. PAULLO
CHECKED BY: A. MUDIGONDA DATE: 08/12/2011

TITLE: VALLEY VIEW BOULEVARD
DESERT INN RD TO BONANZA RD

SHEET: TRAFFIC SIGNAL PLAN
DESERT INN RD/VALLEY VIEW BLVD

SHEET:
TS-01A
122 of 236
DRAWING NO.
107-V5627

HANSEN NO. 38800 BID NO. 11.1730.05

P:\JOBS\W4X52900 CLV VALLEY VIEW AND JONES\700_CADD\706_TRAFFIC\SHEETS\VVB_T_TS01.DWG
1/16/12