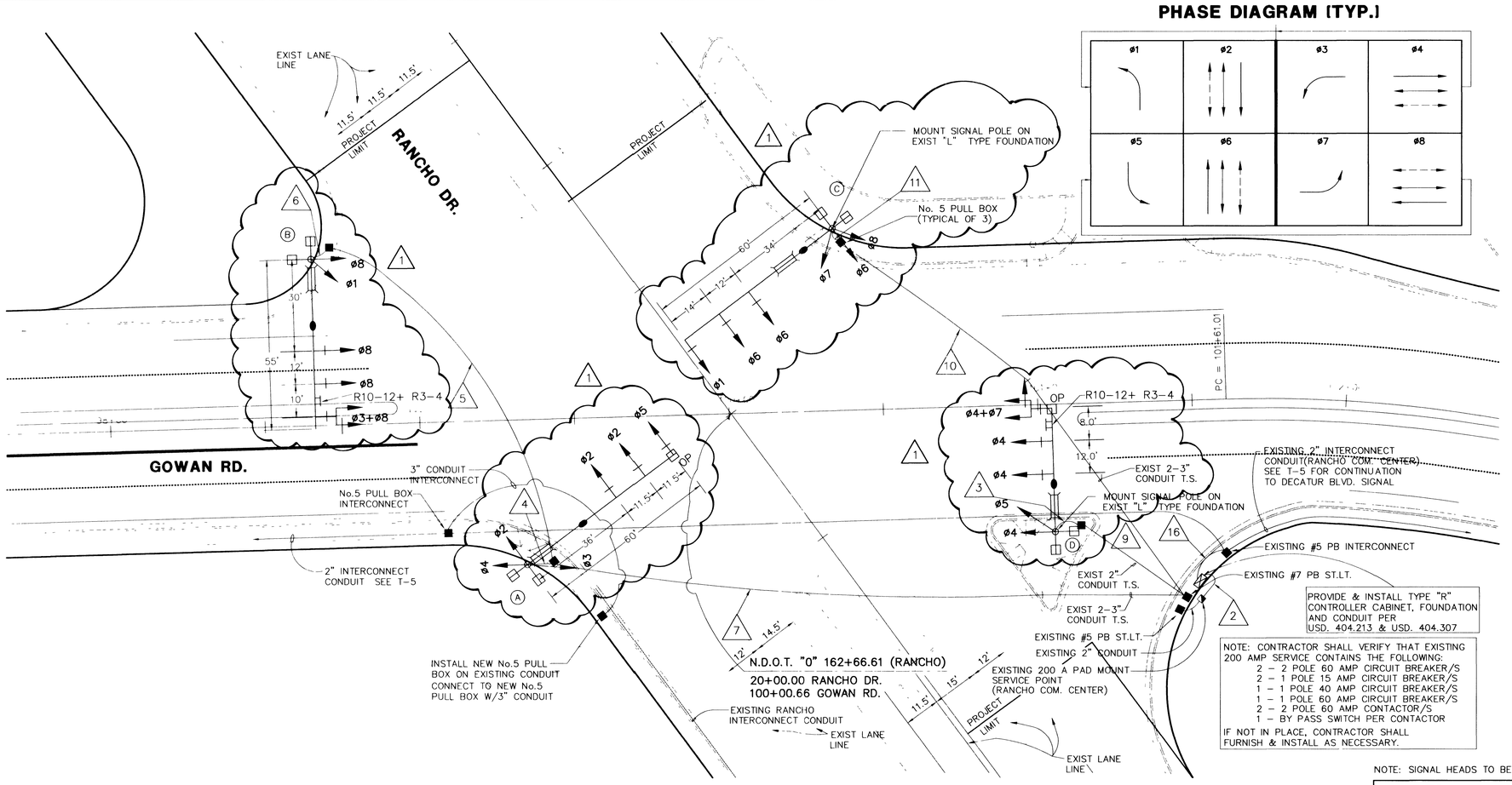


PHASE DIAGRAM (TYP.)

NEMA PHASE DIAGRAM

OVERLAP A = PHASES 1+2+5+6
(USE FOR BOTH N + S PERMISSIVE
LEFT TURN DISPLAYS)

OVERLAP B = PHASES 3+4+7+8
(USE FOR BOTH E + W PERMISSIVE
LEFT TURN DISPLAYS)

ALL LEFT TURNS ARE PROTECTED/PERMISSIVE
CONFLICT FLASH SHALL BE ALL RED.

TRAFFIC SIGNAL NOTES

ALL TRAFFIC SIGNAL INSTALLATIONS SHALL CONFORM TO UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, VOLUMES I AND II, WITH THE LATEST ADOPTED VERSION BY THE REGIONAL TRANSPORTATION COMMISSION, WITH ALL SUBSEQUENT REVISIONS.

LINE SIDE OF METER TO BE WIRED WITH THREE #2 AWG. LOAD SIDE SHALL BE WIRED WITH FOUR #4 AWG (3 BLACK, 1 WHITE) AND ONE #4 AWG (GREEN).

LUMINAIRES ON POLES SHALL BE 750 WATT HIGH PRESSURE SODIUM CUTOFF (G.E. M400A) WITH MC-111 DISTRIBUTION, EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL AND BUILT IN BALLAST (120 V.A.C.). EACH STREET LUMINAIRE SHALL BE FUSED IN THE CABINET USING IN-LINE FUSE HOLDERS. THE NORTHEAST AND SOUTHEAST LUMINAIRES SHALL BE WIRED TO ONE 40 AMP SINGLE POLE CIRCUIT BREAKER, THE SOUTHEAST AND NORTHWEST LUMINAIRES SHALL BE WIRED TO THE SECOND 40 AMP SINGLE POLE CIRCUIT BREAKER.

THE INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL BE WIRED TO THE LUMINAIRE PHOTO CELL FOR CONTROL.

TRAFFIC SIGNAL CABLE SHALL BE 15 OR 25 CONDUCTOR #14 AWG CABLE AND SHALL CONFORM TO IMSA SPEC. NO. 20-1, ALL SIGNAL DETECTION WILL BE BY VIDEO. INTERCONNECT CABLE SHALL BE 25 PAIR OF #22 AWG SHIELD REA SPEC. PE 39.

ALL PEDESTRIAN PUSH BUTTON SIGNS SHALL BE 9"x 12" WITH FULL MOUNTING BRACKETS. ALL PUSH BUTTONS TO BE ADA COMPATIBLE.

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 TRAFFIC ENGINEER. MAST ARM R 10-12 SIGNS TO BE ADJACENT (NO GAP) TO THE M-5 SIGNAL HEADS.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

NOTE: SIGNAL HEADS TO BE LOCATED IN MIDDLE OF LANE LINES (TYP).

STREET NAME AND BLOCK NUMBER SIGN TABLE

POLE	LEGEND	WIDTH	BLOCK #
(A)	GOWAN	6-FOOT	W 5600
(B)	RANCHO	6-FOOT	N 3600
(C)	GOWAN	6-FOOT	E 5500
(D)	RANCHO	6-FOOT	S 3500

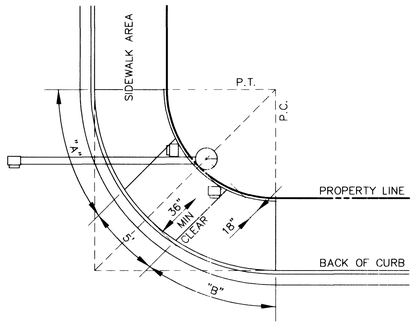
CONDUIT AND WIRE SCHEDULE

WIRE & CABLE	FROM	TO	VIA CONDUIT 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
EXISTING	N.P.Co. SERVICE PT.	SERVICE PEDESTAL								NOT USED		NOT USED			NOT USED			
3-#4, 1-#8 GRD.	SERVICE PED.	CONTROLLER		X														
25 C. #14, 2 #10 THW 2-#12, COAXIAL	CONTROLLER	POLE A				X			X									
25 C. #14, 2 #10 THW 2-#12, COAXIAL	CONTROLLER	POLE B			X		X	X	X									
25 C. #14, 2 #10 THW 2-#12, COAXIAL	CONTROLLER	POLE C										X	X					
25 C. #14, 2 #10 THW 2-#2, COAXIAL	CONTROLLER	POLE D			X													
EMERGENCY VEHICLE PRIORITY CONTROL	CONTROLLER	POLE A				X			X									
EMERGENCY VEHICLE PRIORITY CONTROL	CONTROLLER	POLE D			X													
INTERCONNECT	CONTROLLER @ JONES	CONTROLLER @ RANCHO																X
CONDUIT SIZE			2"	2"	3"	3"	2-3"	3"	2-3"			2-3"	3"					3"

A NO. 8 GREEN GROUNDING WIRE SHALL BE RUN FROM THE CONTROLLER CABINET TO EACH SIGNAL POLE BASE.

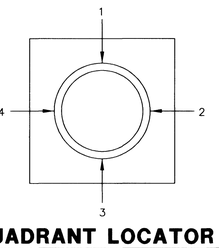
POLE SCHEDULE

POLE	LOCATION STATION (OFFSET)	POLE TYPE	SIGNAL ARM QUAD.	SIGNAL ARM LENGTH	LUM. ARM QUAD.	LUM. ARM LENGTH	SIGNALS (VEH.) TYPE	SIGNALS (VEH.) QUAD.	SIGNALS (PED.) TYPE	SIGNALS (PED.) QUAD.	PEDESTRIAN PUSH BUTTON QUAD. (PHASE)	PEDESTRIAN PUSH BUTTON SIGN	REMARKS
(A)	GOWAN 99+33.44 47.03RT	XX-A-30	2	60'	2	15'	M-2(3) B-1T(3)	MAST ARM 4	W-3T	4	1(ø4) 2(ø2)	LT. RT.	MOUNT OPTICAL DETECTOR (2-WAY) AND R10-12 ON MAST ARM. MOUNT CAMERA FOR ø2 AND ø5 ON LUMINAIRE ARM. SEE NOTE 4.
(B)	RANCHO DRIVE 98+66.30 53.95LT	XX-A-30	3	55'	3	15'	M-5* M-2(2) B-1T(2)	MAST ARM MAST ARM 1	W-3T	1	2(ø2) 3(ø8)	LT. RT.	MOUNT R10-12 ON MAST ARM MOUNT CAMERA FOR ø3 AND ø8 ON LUMINAIRE ARM. SEE NOTE 4. *GREEN AND YELLOW BALL INDICATIONS ON LEFT-TURN DISPLAY SHALL HAVE GEOM. PROG. LOUVERS (GPL).
(C)	GOWAN 100+35.18 59.03 LT	XX-A-30	4	60'	4	15'	M2-(3) B-1T(3)	MAST ARM 2	W-3T	2	3(ø8) 4(ø6)	LT. RT.	MOUNT R10-12 ON MAST ARM. MOUNT CAMERA FOR ø1 AND ø6 ON LUMINAIRE ARM. SEE NOTE 4.
(D)	RANCHO DRIVE 101+04.50 41.41 RT	XX-A-30	1	40'	1	15'	M-5* M-2(2) B-1T(2)	MAST ARM MAST ARM 3	W-3T	3	1(ø4) 4(ø2)	RT. LT.	MOUNT OPTICAL DETECTOR (2-WAY) AND R10-12 ON MAST ARM. MOUNT CAMERA FOR ø4 AND ø7 ON LUMINAIRE ARM. SEE NOTE 4. *GREEN AND YELLOW BALL INDICATIONS ON LEFT-TURN DISPLAY SHALL HAVE GEOM. PROG. LOUVERS (GPL).



TYPICAL FOUNDATION LOCATION

CENTER OF FOUNDATION 18" FROM PROPERTY LINE
REF TO SHT C-9 FOR RAMP INSTALLATION



QUADRANT LOCATOR

ARM OR SIGNAL LOCATION (TOP VIEW)

TRAFFIC SIGNAL NOTES

1. STREET RIGHT-OF-WAY IS LOCATED AT THE BACK OF SIDEWALK UNLESS OTHERWISE SHOWN.
2. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY REMOVAL, OR RELOCATION OF ANY EXISTING TRAFFIC MARKINGS, SUCH PAVEMENT MARKINGS SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER. EXISTING STRIPING IN CONFLICT WITH PROPOSED STRIPING SHALL BE REMOVED BY SANDBLASTING OR GRINDING. ANY OTHER METHOD SHALL BE APPROVED BY THE ENGINEER.
3. CONTRACTOR SHALL PROVIDE AND INSTALL FOUR (4) DOUBLE FACED INTERNALLY ILLUMINATED STREET NAME SIGNS PER STD DWG NOS. 404.416 AND 404.417 AND FOUR (4) BLOCK NUMBER SIGNS PER STD DWG NO. 404.420 ON POLES "A", "B", "C" AND "D". SEE TABLE FOR STREET NAME SIGN LEGENDS AND BLOCK NUMBERS.
4. VIDEO DETECTION SYSTEM SHALL BE INSTALLED IN CONTROLLER CABINET, MOUNT CAMERAS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. COAXIAL CABLE PER MANUFACTURER'S SPECIFICATIONS AND 2-#12 SHALL BE RUN FROM THE CONTROLLER TO EACH CAMERA.

   INSTALL VIDEO DETECTION SYSTEM AND INTERFACE EQUIPMENT, WITH (4) CAMERAS AND WIRE, INDIVIDUALLY TERMINATED PER CLV SPECIFICATIONS AND MANUFACTURERS RECOMMENDATIONS. CAMERAS TO BE LOCATED SIX FEET (6') BACK FROM LUMINAIRE HEAD.
5. CONDUIT ROUTING AND SAWCUT LINES ARE SCHEMATIC FOR THE PURPOSE OF CLARITY AND MAY DIFFER FROM THE ACTUAL INSTALLATION.
6. EMERGENCY VEHICLE PRIORITY CONTROL SYSTEM SHALL BE PROVIDED AND INSTALLED PER STD DWG NO. 404.320 AND SPECIAL PROVISIONS. OPTICAL DETECTORS SHALL BE MOUNTED ON TOP OF THE LEFT-MOST SIGNAL HEAD ON THE MAST ARMS OF POLES AS SHOWN IN THE POLE SCHEDULE. DETECTOR CABLE SHALL BE RUN FROM THE CONTROLLER TO THE OPTICAL DETECTORS AS SHOWN IN THE CONDUIT AND WIRE SCHEDULE.
7. INTERSECTION LUMINAIRES SHALL BE 750 WATT HPS. (RANCHO DRIVE ONLY)
8. ALL POLES SHALL BE PAINTED PER SPECIAL PROVISIONS.
9. ALL SALVAGED MATERIALS SHALL BE DELIVERED TO CITY OF LAS VEGAS YARDS, 3104 E. BONANZA RD.
10. CONTRACTOR SHALL PROTECT AND RESTORE EXISTING LANDSCAPING, IRRIGATION SYSTEMS AND OTHER IMPROVEMENTS IN ACCORDANCE WITH SECTION 107 OF THE STANDARD SPECIFICATIONS.

REVISION	DATE
1 PER NDOT COMMENTS	07.28.98

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TIMOTHY E. POGGEMEYER — STATE OF NEVADA — REGISTERED PROFESSIONAL ENGINEER — No. 9269 — 5TH ANNUAL

GOWAN ROAD IMPROVEMENT PROJECT
FROM US-95 TO DECATUR BOULEVARD

TRAFFIC SIGNAL PLAN
RANCHO ROAD & GOWAN ROAD

JOB NUMBER	1003003
DESIGNED BY	JJD
DRAWN BY	RCP
CHECKED BY	TEP
DATE	05.11.98
SHEET NUMBER	S-3
	57 OF 63

38278

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