CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Matthew A. Santistevan of the firm of Bohannan Huston, Inc., a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as shown on these drawings (Rainbow Blvd./Woodmont Ave. Traffic Signal Plan) has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction and survey information provided by the contractor, MWI and their surveyor, Russ P. Hugg, NMPS 9750.

Engineer's Seal & Signature

MATTHEW A. SANTISTEVAN NEW MEXICO 14207 REGISTERED PROFESSIONAL ENGINEER 4/24/13

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
26-730073-13-2013

SCANNED BY PLANNING

PLANS FOR CONSTRUCTION

RAINBOW BLVD./WOODMONT AVE. TRAFFIC SIGNAL PLAN

PROJECT #730073

CITY OF ALBUQUERQUE · NEW MEXICO · 1706

INDEX OF SHEETS

NOTES:

1. CONTRACTOR SHALL WORK CONTINUOUSLY, 24 HOURS PER DAY, ON ALL ARTERIAL ROADWAYS WHEN TRAFFIC LANES ARE CLOSED TO TRAFFIC UNLESS THE WORK VIOLATES THE CITY'S NOISE ORDINANCE.

2. IF THE CONTRACTOR IS NOT ALLOWED TO WORK AT NIGHT DUE TO THE CITY'S NOISE ORDINANCE, THE CONTRACTOR SHALL OPEN ALL TRAFFIC LANES TO TRAFFIC WITH THE PROPER USE OF TRENCH PLATES DURING NON-WORKING HOURS, AND MUST WORK MINIMUM HOURS FROM 9:00 A.M. TO 3:00 P.M. MONDAY THROUGH SATURDAY.

3. ARTERIAL STREETS ARE AS INDICATED IN THE "LONG RANGE ROADWAY SYSTEM" MAP PUBLISHED BY THE MID-REGION COUNCIL OF GOVERNMENTS (MRCOG).

UTILITY COMPANY CONTACTS

PNM-ELECTRIC
MICHAEL MOYER
Engineering Supervisor
Michael.Moyer@pnm.com
4201 Edith Blvd., NE
Mail Stop ES10
Albuquerque, New Mexico 87107
(505) 241-3697

AT&T
DAVID STOCKTON
AREA MANAGER-GNFO
DENVER, CO.
(303) 620-2254

QWEST
NATALIA ANTONIO
Sr. Designer Engineer
201 3rd Street NW Room 700
Albuquerque, New Mexico 87102
(505) 245-6846

XSPEDIUS
STEVE BENJAMIN
505 Marquette NE, Suite 1605
Albuquerque, New Mexico 87102
(505) 998-2220

NEW MEXICO GAS CO.
MARK BOUCHARD
MAIL STOP G S66
4625 Edith Blvd., NE
Albuquerque, New Mexico 87107
(505) 697-3144

COMCAST CABLE
MIKE MORTUS
Construction Coordinator
4611 Montbel Pl., NE
Albuquerque, New Mexico 87107
(505) 761-6252

ABCWUA (WATER & SEWER)
PETER CHANG
P.O. Box 1293
Albuquerque, New Mexico 87103
(505) 768-2598

McLeodUSA
RICK MUELLER
Supervisor of Outside Techs.
505 Marquette NE, Suite 1600
Albuquerque, New Mexico 87102
(505) 217-0038

MCI WORLDCOM
ANDY DARNELL
Operation Manager
6001 Midway Park, NE
Albuquerque, NM 87107
(505) 346-4470

TIME WARNER TELECOM
ROYAL HARRISON
Plant Manager
3830 Singer Blvd. NE, Suite 1000
Albuquerque, NM 87109
(505) 938-7339

QWEST LONG DISTANCE
LARRY KELLY
400 TUERAS AVE. NW
SUITE 570
Albuquerque, New Mexico 87102
(505) 246-0501

CALL BEFORE YOU DIG!
STATEWIDE 1-800-321-ALERT
ALBUQUERQUE 260-1990

SURVEYORS CERTIFICATION

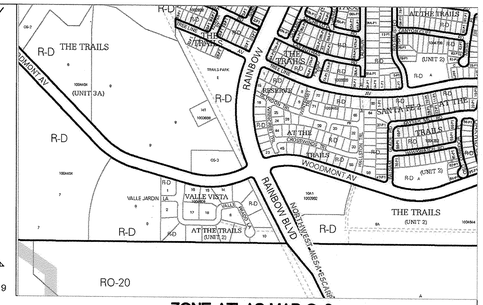
I, Russ P. Hugg, New Mexico Professional Surveyor Number 9750, hereby certify that the as-built information shown hereon is the result of an actual field survey performed by me or under my direct supervision and that the same is true and correct to the best of my knowledge and belief.

Russ P. Hugg
NMPS No. 9750
6-19, 2013

PROFESSIONAL SURVEYOR STATE OF NEW MEXICO No. 9750 RUSS P. HUGG

RECORD DRAWINGS

VICINITY MAP NTS



N
MAP NO. C-9

ZONE ATLAS MAP C-9

GENERAL NOTES

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION THROUGH UPDATE #8, AND WILL BE REFERRED TO HEREIN AS "STANDARD SPECIFICATIONS".
2. ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY OR EASEMENTS MUST BE DONE FROM APPROVED WORK ORDER DOCUMENTS FROM THE CITY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
5. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
6. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
7. CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. ONLY THE CITY SURVEYOR SHALL REPLACE SURVEY MONUMENTS. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO STANDARD SPECIFICATIONS SECTION 4.4.
8. SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL SUBMIT TO DMD CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE DMD CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF STANDARD SPECIFICATIONS. PERMIT REQUESTS MAY BE DENIED OR DELAYED DUE TO CONFLICTS WITH OTHER PROJECTS IN THE AREA.
9. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
10. CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF "AS CONSTRUCTED" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
11. AT HIS OWN EXPENSE, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENT, PAVEMENT MARKINGS, CURB AND GUTTER, WHEELCHAIR RAMPS, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS AND SHALL REPAIR OR REPLACE, PER STANDARD SPECIFICATIONS.
12. ALL STREET STRIPING, ALTERED OR DESTROYED, SHALL BE REPLACED WITH THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS BY CONTRACTOR TO SAME LOCATION AS EXISTING, OR AS INDICATED BY THIS PLAN SET. CONTRACTOR SHALL COORDINATE WITH CITY TRAFFIC OPERATIONS.
13. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
14. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND MAINTAIN ALL CONSTRUCTION SIGNING UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY.
15. EXISTING UTILITY LINE LOCATIONS ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION OF ANY SUCH EXISTING LINES IS BASED UPON INFORMATION PROVIDED BY THE UTILITY COMPANY, THE OWNER, OR BY OTHERS, AND THE INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.
16. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY AND ALL EXISTING UTILITIES.
17. REMOVALS SHALL BE DISPOSED OF OFF-SITE AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
18. WHEN ABUTTING EXISTING PAVEMENT TO NEW, SAWCUT EXISTING PAVEMENT TO A STRAIGHT EDGE AND AT A RIGHT ANGLE, OR AS APPROVED BY THE FIELD ENGINEER. REMOVAL OF BROKEN OR CRACKED PAVEMENT WILL ALSO BE REQUIRED.
19. REMOVAL OF EXISTING CURB AND GUTTER OR SIDEWALK SHALL BE TO THE NEAREST JOINT OR SAW CUT.

APPROVED AS RECORD DRAWINGS
DESIGN REVIEW SECTION
CITY CONSTRUCTION ENGINEER
DATE: 09-26-2013

DRB #s: 1002962, 1004353

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE

ENGINEER'S STAMP & SIGNATURE	APPROVED	ENGINEER	DATE	APPROVED FOR CONSTRUCTION
NANCIE L. ADAMS NEW MEXICO 14494 REGISTERED PROFESSIONAL ENGINEER 2/14/13	DRC Chairman		3-6-13	
	Transportation		3-6-13	
	ABCWUA		3-6-13	
	Hydrology		3/6/13	
	C I P			
	AMAFCA			
	Constr. Coord.			
				CITY ENGINEER DATE 5-6-13

Vector Engineering, LLC

PROJECT NUMBER	ZONE ATLAS NO.	DRAWING NO. 1 OF 10
730073	C-9	

RECORD DRAWINGS

CITY ITEM NO.	DESCRIPTION	UNIT	QTY.
	SIGNAL IMPROVEMENTS		
421.010	METER PEDESTAL (SIGNAL, SIX CIRCUIT)	EACH	1
421.015	SERVICE CONNECTION (SIGNAL)	EACH	1
422.003	TRAFFIC SIGNAL PEDESTAL POLE, 13 FEET	EACH	4
422.004	TRAFFIC SIGNAL PEDESTAL POLE, 15 FEET	EACH	4
422.018	TRAFFIC SIGNAL MASTARM, 35-FOOT ARM, TYPE II, TROMBONE	EACH	1
422.02X	TRAFFIC SIGNAL MASTARM, 40-FOOT ARM, TYPE II, TROMBONE	EACH	3
423.001	TRAFFIC SIGNAL FOUNDATION FOR PEDESTAL POLE	EACH	8
423.002	TRAFFIC SIGNAL MASTARM FOUNDATION	EACH	4
423.003	TRAFFIC SIGNAL CONTROLLER FOUNDATION (TYPE M & P CABINET)	EACH	1
424.01XX	ELECTRICAL CONDUIT, 1", INCLUDING TRENCHING, BACKFILL, PATCHING, PUSHING, BORING & JACKING	LIN.FT.	100
424.011	ELECTRICAL CONDUIT, 3", INCLUDING TRENCHING, BACKFILL, PATCHING, PUSHING, BORING & JACKING	LIN.FT.	1,700
424.1X	ELECTRICAL CONDUIT, 4", INCLUDING TRENCHING, BACKFILL, PATCHING, PUSHING, BORING & JACKING	LIN.FT.	100
425.003	ELECTRICAL PULL BOX (LARGE)	EACH	12
426.001	SINGLE CONDUCTOR #2	LIN.FT.	300
426.003	SINGLE CONDUCTOR #6	LIN.FT.	1,700
426.010	MULTI-CONDUCTOR CABLE, #5	LIN.FT.	1,550
426.011	MULTI-CONDUCTOR CABLE, #7	LIN.FT.	340
426.014	MULTI-CONDUCTOR CABLE, #20	LIN.FT.	1,600
427.002	3 SECTION TRAFFIC SIGNAL ASSEMBLY	EACH	12
427.004	5 SECTION TRAFFIC SIGNAL ASSEMBLY	EACH	8
427.02X	PEDESTRIAN SIGNAL, L.E.D., COUNTDOWN	EACH	8
427.031	3 SECTION BACKPLATE	EACH	8
428.001	LOOP VEHICLE DETECTOR, CIP	EACH	6
428.010	PUSH BUTTON STATION	EACH	8
428.050	LOOP LEAD-IN CABLE	LIN.FT.	2,680
428.05X	LOOP DETECTOR WIRE	LIN.FT.	4,700
428.060	DETECTOR SAW CUT, COMPL.	LIN.FT.	1,750
428.071	PHASE SELECTOR MODULE 2 CHANNEL	EACH	1
428.075	OPTICAL DETECTOR 1D/1C	EACH	4
428.078	OPTICAL DETECTOR CABLE	LIN.FT.	1,150
429.001	TRAFFIC ACTUATED CONTROLLER	EACH	1
429.021	8 PHASE DUAL RING CONTROLLER CABINET	EACH	1
	ROADWAY IMPROVEMENTS		
19.010	CONSTRUCTION TRAFFIC CONTROL & BARRICADING, COMPL	%	2%
336.050	BIKE TRAIL ASPHALT CONCRETE, SUPERPAVE, 2" THICK, CIP	SQ. YD.	40
340.010	SIDEWALK, 4" THICK, PCC, INCLUDING SUBGRADE COMPACTION, CIP	SQ. YD.	60
340.023	WHEELCHAIR ACCESS RAMP, 4" PCC, STD CURB, CIP. SD 2418	SQ. YD.	120
340.050	CURB & GUTTER, STANDARD, PCC, INCL. SUBGRADE PREP, CIP. SD 2415	LIN.FT.	230
340.060	CURB & GUTTER, MEDIAN, PCC, INCL. SUBGRADE PREP, CIP. SD 2408	LIN.FT.	90
340.080	PINNED CURB, TYPE II, PCC, CIP, SD 2415	LIN.FT.	25
343.020	EXISTING PVMT, ASPH CONC, UP TO 4" THICK, SAWCUT, REMOVE & DISPOSE, COMPL	SQ. YD.	50
343.030	EXISTING PVMT, ASPH CONC, >4" THICK, SAWCUT, REMOVE & DISPOSE, COMPL	SQ. YD.	90
343.040	EXISTING PVMT, PC CONC, UP TO 4" THICK, SAWCUT, REMOVE & DISPOSE, COMPL	SQ. YD.	20
343.080	EXISTING C&G OR VALLEY GUTTER, PC CONCRETE, REMOVE & DISPOSE, COMPL	LIN.FT.	345
343.085	EXISTING SIDEWALK (INCL. RAMPS) 4" PC CONC, REMOVE & DISPOSE, COMPL	SQ. YD.	170
346.100	TEXTURED MEDIAN PVMT, 4" THICK, COLORED PC CONC, INCL. SUBGR COMP, CIP SD 2408	SQ. FT.	150
441.001	REFLECTORIZED PLASTIC PAVEMENT MARKING, 4" WIDTH	LIN.FT.	25
441.004	REFLECTORIZED PLASTIC PAVEMENT MARKING, 12" WIDTH	LIN.FT.	240
441.005	REFLECTORIZED PLASTIC PAVEMENT MARKING, 24" WIDTH	LIN.FT.	60
443.101	REMOVAL OF PAVEMENT STRIPE, ANY WIDTH	LIN.FT.	270
450.001	ALUMINUM PANEL SIGN	SQ.FT.	45
450.101	SIGN, POST & BASE POST, REMOVE AND SALVAGE, COMPL.	EACH	8
450.102	SIGN, POST & BASE POST, REMOVE AND RELOCATE, COMPL.	EACH	2

AS BUILT INFORMATION

CONTRACTOR — WORK STAKED BY: SOLITEC DATE 5/29/13
INSPECTORS PERFORMANCE BY: BHI DATE 6/20/13
FIELD VERIFICATION BY: BHI DATE 6/20/13
DRAWINGS CORRECTED BY: SOLITEC DATE 6/20/13
RECORDED BY — DATE

MICRO-FILM INFORMATION

NO.

BENCH MARKS

ALBUQUERQUE CONTROL SURVEY MONUMENT "2-C9" NM STATE PLANE COORDINATES, CENTRAL ZONE (NAD83) AS PUBLISHED: Y=1,521,672.052, X=1,494,519.241
GROUND TO GRID FACTOR = 0.999666850
DELTA ALPHA = -00°16'52.77"
ELEVATION = 5454.550 (NAVD88)

SURVEY INFORMATION

FIELD NOTES — NO. — BY — DATE

ENGINEER'S SEAL

NANCY L. ADAMS — NEW MEXICO — 14494 — REGISTERED PROFESSIONAL ENGINEER — 2/20/13

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY NLA	DATE 2/19/13
		DRAWN BY NLA	DATE 2/19/13
		CHECKED BY CB	DATE 2/20/13

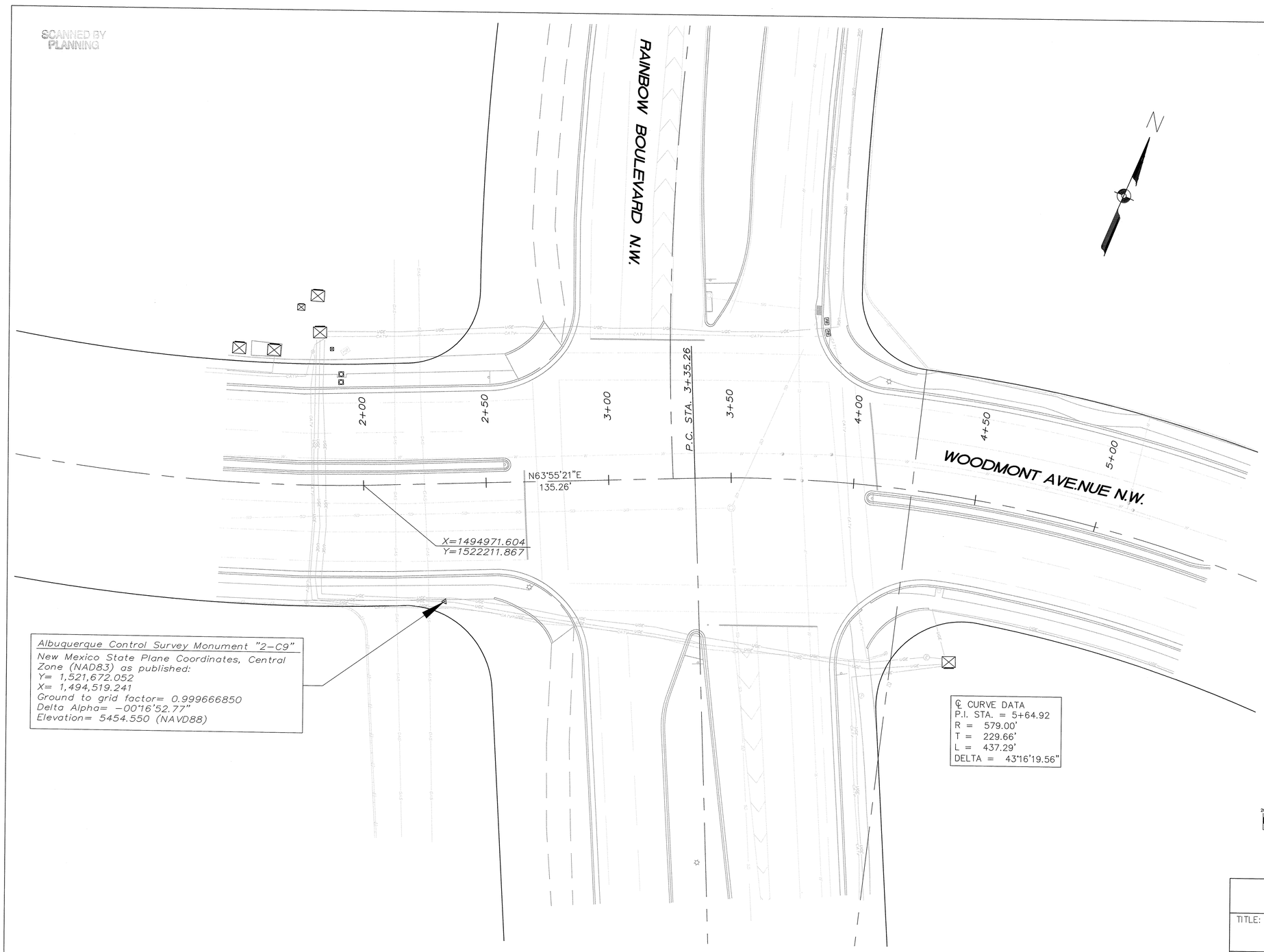
Vector Engineering, LLC

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
SUMMARY OF QUANTITIES

Design Review Committee | City Engineer Approval | Last Design Update | Mo. / Day / Yr. | Mo. / Day / Yr.

City Project No. 730073 | Zone Map No. C-9 | Sheet 2 Of 10



RECORD DRAWINGS

LEGEND

- SIGN
- CONCRETE AREA
- LIGHT POLE
- EB ELECTRIC BOX
- STOP BAR
- TELEPHONE PEDESTAL
- POWER POLE WITH FEED
- TRAFFIC SIGNAL BOX
- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- CATV PEDESTAL
- WATER VALVE
- WALL
- WATER MANHOLE
- TELEPHONE MANHOLE
- GAS LINE
- UGE UNDERGROUND ELECTRIC LINE
- SAS SANITARY SEWER LINE
- WL WATER LINE
- SD STORM DRAIN LINE
- LIGHT POLE
- ELECTRIC TRANSFORMER
- DRAIN INLET
- HOT BOX
- WATER METER
- ELECTRIC PEDESTAL / METER
- HYDRANT
- E ELECTRIC MANHOLE
- PB PULL BOX

Albuquerque Control Survey Monument "2-C9"
New Mexico State Plane Coordinates, Central Zone (NAD83) as published:
Y= 1,521,672.052
X= 1,494,519.241
Ground to grid factor= 0.999666850
Delta Alpha= -00°16'52.77"
Elevation= 5454.550 (NAVD88)

℄ CURVE DATA
P.I. STA. = 5+64.92
R = 579.00'
T = 229.66'
L = 437.29'
DELTA = 43°16'19.56"

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

Vector Engineering, LLC

AS BUILT INFORMATION
CONTRACTOR MWP
WORK STAKED BY SURVEY DATE 5/29/13
WORK INSPECTED BY BW DATE 6/25/13
ACCEPTANCE BY BW DATE 6/25/13
FIELD VERIFICATION BY BW DATE 6/25/13
DRAWINGS CORRECTED BY SURVEY DATE 6/19/13
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "2-C9" NM STATE PLANE COORDINATES, CENTRAL ZONE (NAD83) AS PUBLISHED: Y=1,521,672.052, X=1,494,519.241
GROUND TO GRID FACTOR = 0.999666850
DELTA ALPHA = -00°16'52.77"
ELEVATION = 5454.550 (NAVD88)

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

REVISIONS

NO.	DATE	BY	REMARKS
			DESIGN
			DESIGNED BY NLA DATE 2/12/13
			DRAWN BY NLA/BN DATE 2/12/13
			CHECKED BY CB DATE 2/13/13

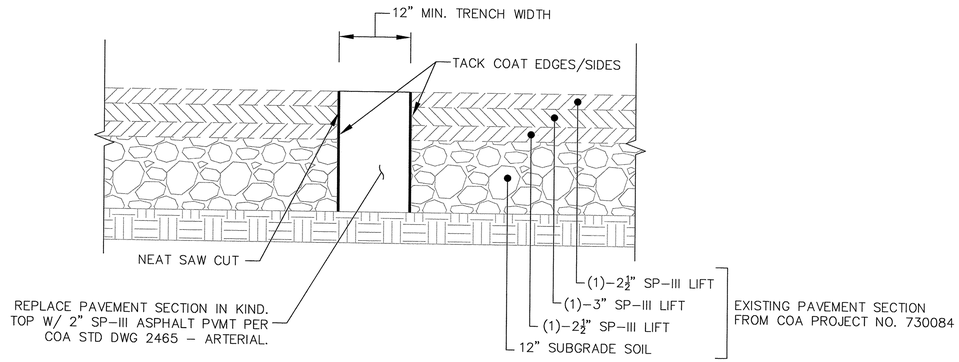
ENGINEER'S SEAL
NEW MEXICO REGISTERED PROFESSIONAL ENGINEER L. ADAMS 14391
2/14/13
Marcus Adams

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

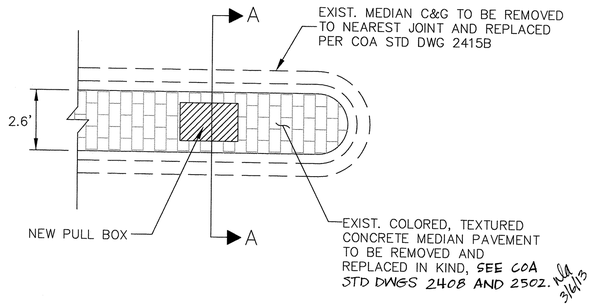
TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
SURVEY CONTROL SHEET

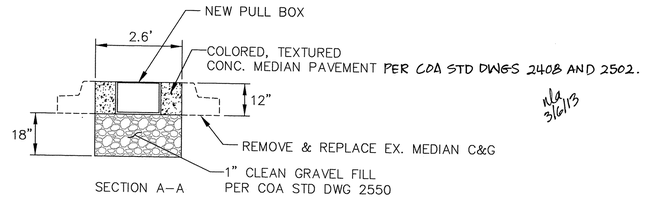
Design Review Committee: APPROVE MAR 06 2013 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVE MAY 06 2013 CITY ENGINEER
Last Design Update: Mo. / Day / Yr.

City Project No. 730073 | Zone Map No. C-9 | Sheet 3 Of 10

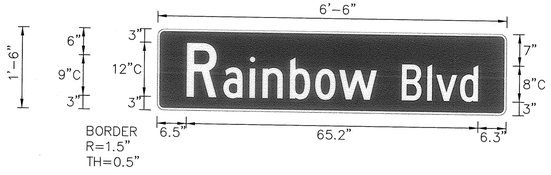


CONDUIT TRENCH & EXISTING PAVEMENT SECTION DETAIL

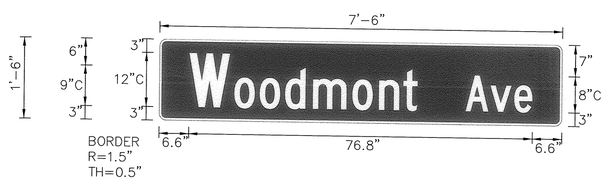




PULL BOX INSTALLATION IN MEDIAN DETAIL - WOODMONT AVE.

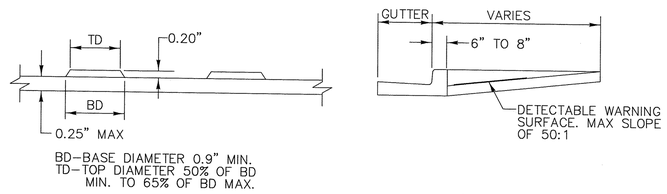


Panel Style: Street name 8-6in.ssi
M.U.T.C.D.: 2009 Edition



Panel Style: Street name 8-6in.ssi
M.U.T.C.D.: 2009 Edition

RECORD DRAWINGS



DETECTABLE WARNING SURFACE

NOT TO SCALE

DEFINITIONS:

DETECTABLE WARNING SURFACE: A SURFACE FEATURE BUILT IN OR APPLIED TO WALKING SURFACES OR OTHER ELEMENTS TO WARN OF HAZARDS ON A CIRCULATION PATH TO AID PERSONS WITH VISUAL IMPAIRMENTS.

CURB LINE: A LINE AT THE FACE OF THE CURB THAT MARKS THE TRANSITION BETWEEN THE SIDEWALK AND THE GUTTER OF THE ROADWAY.

LOCATION:
1.) DETECTABLE WARNING SURFACES SHALL BE PROVIDED WHERE A CURB RAMP OR LANDING CONNECTS TO A CROSSWALK AND/OR PEDESTRIAN ROUTE CROSSING A ROADWAY.
2.) DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" MIN. AND 8" MAX. FROM THE CURB LINE.
3.) MEDIAN AND REFUGE ISLANDS SHALL HAVE DETECTABLE WARNINGS. DETECTABLE WARNINGS AT CUT THROUGH ISLANDS SHALL BE SEPARATED BY A 24" MIN. LENGTH OF WALKWAY WITHOUT WARNINGS.
EXCEPTION: DETECTABLE WARNINGS SHALL NOT BE REQUIRED ON CUT THROUGH ISLANDS WHERE THE CROSSINGS ARE CONTROLLED BY SIGNALS AND ARE TIMED FOR FULL CROSSING ON MEDIANS LESS THAN 7 FT.

NOTES:
1.) DETAILS SPECIFIED ON THIS PLAN APPLY TO ALL CONSTRUCTION OR RECONSTRUCTION OF STREETS, CURBS, OR SIDEWALKS BY ALL PUBLIC AGENCIES AND BY ALL PRIVATE ORGANIZATIONS CONSTRUCTING FACILITIES FOR PUBLIC USE.
2.) SIDEWALK RAMPS ARE TO BE LOCATED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
3.) THE TOP OF THE JOINT FILLER FOR ALL RAMP TYPES SHALL BE FLUSH WITH THE ADJACENT CONCRETE.
4.) ALL PRODUCTS USED FOR DETECTABLE WARNING SURFACES SHALL BE ON THE CITY OF ALBUQUERQUE'S APPROVED PRODUCTS LIST.

DOME ALIGNMENT:
DETECTABLE WARNING SURFACES SHALL EXTEND 24" MIN. IN THE DIRECTION OF TRAVEL, AND FULL WIDTH OF THE CURB RAMP, LANDING, OR TRANSITION. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTIONS OF THE CROSSWALK TO PERMIT WHEELS TO ROLL BETWEEN DOMES.

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY
INSPECTOR'S ACCEPTANCE BY
FIELD VERIFICATION BY
DRAWING CORRECTED BY
RECORDED BY
DATE
NO.

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "2-C9" NM STATE PLANE COORDINATES, CENTRAL ZONE (NAD83) AS PUBLISHED: Y=1,521,672.052, X=1,494,519.241
GROUND TO GRID FACTOR = 0.999666850
DELTA ALPHA = -00°16'52.77"
ELEVATION = 5454.550 (NAVD88)

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
JOE L. ADAMS NEW MEXICO 14494 REGISTERED PROFESSIONAL ENGINEER
2/14/13

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
	DATE 2/12/13	DESIGNED BY NLA	
	DATE 2/12/13	DRAWN BY NLA	
	DATE 2/13/13	CHECKED BY CB	

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

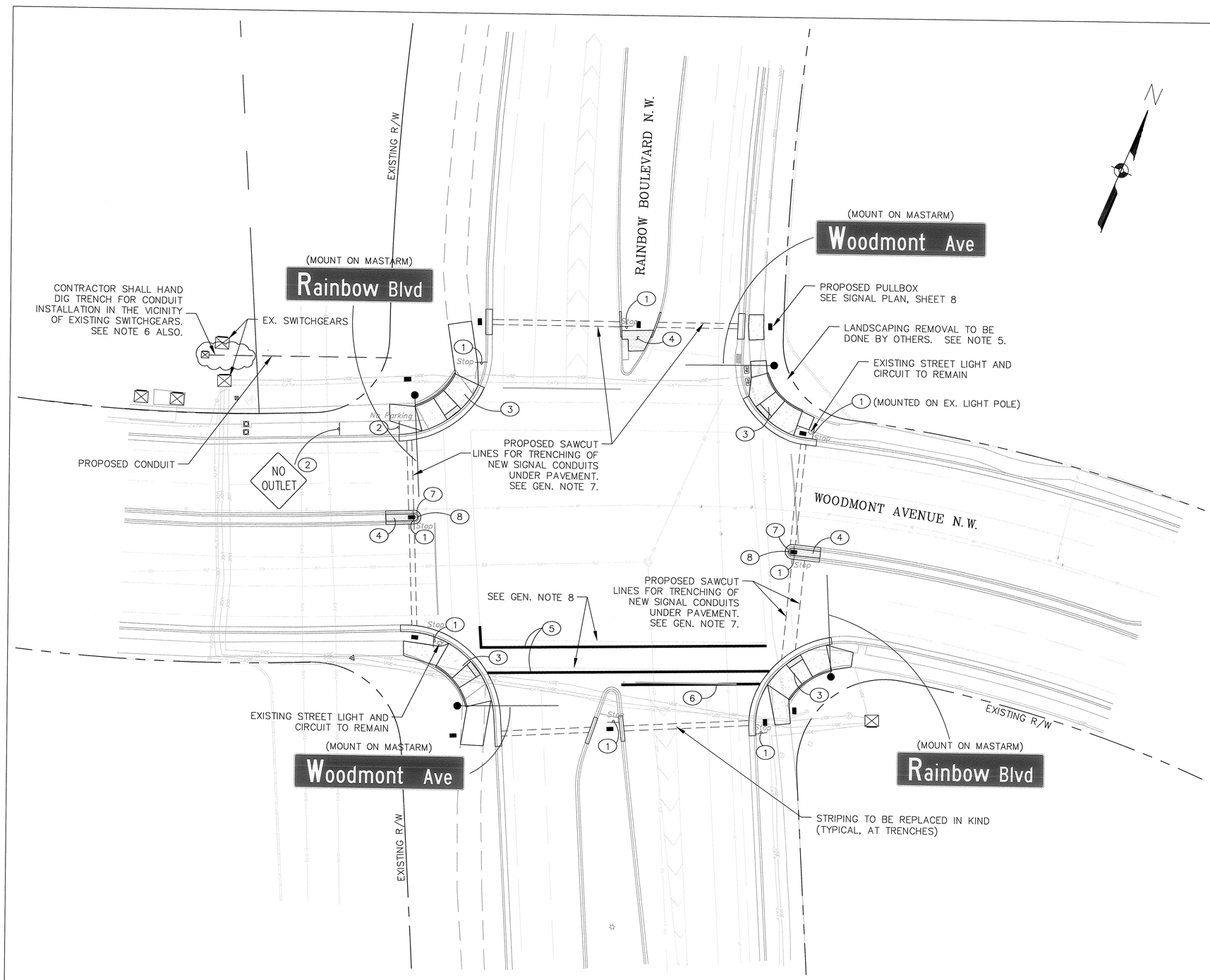
TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
MISCELLANEOUS DETAILS

Design Review Committee: APPROVED MAR 06 2013 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVED MAY 06 2013 CITY ENGINEER
Last Design Update

City Project No. 730073 | Zone Map No. C-9 | Sheet 4 Of 10

Vector Engineering, LLC

RECORD DRAWINGS



KEYED NOTES:

1. EXISTING SIGN TO BE REMOVED & SALVAGED
2. EXISTING SIGN TO REMAIN
3. REMOVE AND REPLACE WHEELCHAIR RAMP PER COA STD DWG 2441, CASE II, SEE SHEET 6.
4. REMOVE AND REPLACE COLORED, TEXTURED CONCRETE MEDIAN PAVEMENT PER COA STD DWGS 2408 AND 2502.
5. 12" THERMOPLASTIC SOLID WHITE STRIPE
6. 24" THERMOPLASTIC SOLID WHITE STRIPE
7. PAINT MEDIAN NOSES YELLOW (INCIDENTAL TO CONSTRUCTION)
8. REMOVE & RESET EXIST. OBJECT MARKER

LEGEND:

- PROPOSED SAW CUT LINE
- NEW WHEELCHAIR ACCESS RAMP
- NEW COLORED, TEXTURED CONCRETE TO MATCH EXISTING

GENERAL NOTES:

1. ALL STRIPING SHALL CONFORM TO THE CURRENT EDITION OF THE M.U.T.C.D.
2. ALL STRIPING TO BE REFLECTIVE PREFORMED THERMOPLASTIC TAPE.
3. SIGNS TO BE SALVAGED SHALL BE DELIVERED TO THE CITY'S PINO YARDS. CONTACT TED KORBIN AT 857-8025.
4. IF ROCK IS ENCOUNTERED DURING CONSTRUCTION, REMOVAL SHALL BE DONE BY OTHERS. CONTRACTOR TO COORDINATE W/GALWAY CONSTRUCTION, (505)761-9911.
5. ALL LANDSCAPING REMOVAL/REPLACEMENT NECESSARY TO COMPLETE THE PROJECT WILL BE DONE BY OTHERS. CONTRACTOR TO COORDINATE W/GALWAY CONSTRUCTION, (505) 761-9911.
6. CONTRACTOR SHALL COORDINATE CONNECTION TO EXISTING TRANSFORMER W/ PNM. CONTACT MIKE MOYER (505)241-397.
7. SAW CUTS SHALL BE ORTHOGONAL TO THE DIRECTION OF TRAVEL. ANGLED SAW CUTS WILL NOT BE ALLOWED. CONDUIT RUNS MAY BE ANGLED (SKEWED) HOWEVER, TRENCHES FOR ANY SKEWED CONDUIT RUNS SHALL BE MADE WITH SAW CUTS THAT ARE PERPENDICULAR TO THE LANE, THEREFORE WIDTH MAY VARY.
8. ALL CONFLICTING STRIPING SHALL BE ERADICATED BY WATER BLASTING OR SURFACE PLANING OF THE ROADWAY TO A MAX. DEPTH OF 0.25 INCHES AND A WIDTH EQUAL TO 2X THE WIDTH OF THE STRIPE TO BE REMOVED. REFER TO SPEC. SECTION 443.

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

Vector Engineering, LLC

AS BUILT INFORMATION
CONTRACTOR MWI
STAKED BY SURVTEK DATE 5/29/2013
INSPECTOR'S COMPLIANCE BY BHI DATE 6/12/13
FIELD VERIFICATION BY BHI DATE 6/25/13
CORRECTED BY SURVTEK DATE 6/19/13
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
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ELEVATION = 5454.550 (NAVD88)

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
MICHAEL ADAMS NEW MEXICO 14674 PROFESSIONAL ENGINEER REGISTERED PROFESSIONAL

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY NLA	DATE 2/19/13
		DRAWN BY NLA	DATE 2/19/13
		CHECKED BY CB	DATE 2/20/13

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
PLAN SHEET

Design Review Committee: APPROVED MAR 06 2013 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVED MAY 06 2013 CITY ENGINEER
Last Design Update: Mo. / Day / Yr.
Mo. / Day / Yr.

City Project No. 730073 | Zone Map No. C-9 | Sheet 5 Of 10

SCANNED BY PLANNING

RECORD DRAWINGS

RECONSTRUCT ASPHALT TRAIL TO MIN. 2' BEYOND TRENCH

REMOVE EX. ASPHALT TRAIL

EXISTING R/W

RAINBOW BLVD. N.W.

SEE NOTE 2.

P.C. STA. 3+35.26

WOODMONT AVENUE N.W.

PROPOSED PULL BOX LOCATIONS SEE SHEET 8.

6" HEADER CURB PER COA STD DWG 2415B (TYP.)

SEE NOTE 2

EXIST. WALL

EX. R/W

STA. ~~2+86.78~~, ~~57.39~~' LT. END REMOVAL/REPLCMT OF STANDARD C&G

STA. ~~3+84.66~~ ~~53.02~~' LT. BEGIN REMOVAL/REPLCMT OF STANDARD C&G

DETECTABLE WARNING SURFACE PER SHEET 4, TYPICAL AT ALL CURB RAMPS (INCIDENTAL TO WHEEL-CHAIR ACCESS RAMPS)

STA. 2+52.59, 37.14' LT. BEGIN REMOVAL/REPLCMT OF STANDARD C&G

STA. ~~4+12.74~~ 37.23' LT. END REMOVAL/REPLCMT OF STANDARD C&G

SURVEYORS CERTIFICATION

I, Russ P. Hugg, New Mexico Professional Surveyor Number 9750, hereby certify that the as-built information shown hereon is the result of an actual field survey performed by me or under my direct supervision and that the same is true and correct to the best of my knowledge and belief.

Russ P. Hugg
NMPS No. 9750
6-19, 2013

STATE OF NEW MEXICO PROFESSIONAL SURVEYOR NO. 9750 RUSS P. HUGG

STA. ~~2+51.03~~, 35.14' RT. BEGIN REMOVAL/REPLCMT OF STANDARD C&G

STA. ~~4+38.43~~ ~~34.92~~ RT. END REMOVAL/REPLCMT OF STANDARD C&G

REMOVE EX. ASPHALT TRAIL

RECONSTRUCT ASPHALT TRAIL TO MIN. 2' BEYOND TRENCH

STA. 2+89.95, ~~83.65~~ RT. END REMOVAL/REPLCMT OF STANDARD C&G

SEE NOTE 2

STA. 3+96.38, ~~78.77~~ RT. BEGIN REMOVAL/REPLCMT OF STANDARD C&G

GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
1 inch = 10 ft.

Vector Engineering, LLC

KEYED NOTES:

1. REMOVE & REPLACE STANDARD C&G PER COA STD DWG 2415A
2. REMOVE & REPLACE MEDIAN C&G PER COA STD DWG 2415B
3. REMOVE AND REPLACE PINNED CURB PER COA STD DWG 2415B (MATCH EXISTING TYPE)
4. REMOVE AND REPLACE SIDEWALK PER COA STD DWG 2430
5. BUILD ASPHALT TRAIL (TYPE C) 2" A.C. OVER 8" SUBGRADE

LEGEND:

- PROPOSED CONDUIT
- NEW WHEELCHAIR ACCESS RAMP
- NEW COLORED, TEXTURED CONCRETE TO MATCH EXISTING

GENERAL NOTES:

1. LOCATIONS OF CURB & GUTTER AND SIDEWALK REMOVALS ARE SHOWN SCHEMATICALLY, WITH A MINIMUM LENGTH OF 10' FOR ESTIMATING PURPOSES ONLY. EXISTING C&G AND SIDEWALK SHALL BE REMOVED TO THE NEAREST JOINT, THEREFORE ACTUAL REMOVAL LIMITS MAY VARY.
2. LANDSCAPING TO BE REMOVED/REPLACED BY OTHERS. CONTRACTOR TO COORDINATE W/ GALWAY CONSTRUCTION, (505) 761-9911.
3. MATCH TO EXISTING GRADE FOR ALL C&G AND SIDEWALK RECONSTRUCTION.
4. ALL CURB RAMPS SHALL BE SLOPED 12:1 MAX. ALL LANDINGS SHALL BE SLOPED 50:1 MAX.

POINT DATA

NO.	STATION	OFFSET	DESCRIPTION
1	2+52.59	37.14' LT.	PC
2	2+77.98	46.29' LT.	PCC
3	~~2+86.78~~ 2+90.69	~~57.39~~ 82.03 LT.	POC
4	~~3+84.66~~ 3+83.24	~~53.14~~ CC.37 LT.	POC
5	4+02.72	38.14' LT.	PCC
6	4+07.16	37.39' LT.	PT
7	~~4+12.74~~ 4+10.55	37.24' LT.	POT
8	4+08.02	2.22' RT.	PC
9	4+08.00	7.94' RT.	PT
10	~~4+27.60~~ 4+38.43	~~36.62~~ 34.92 RT.	POC
11	3+99.93	57.16' RT.	PCC
12	3+95.97	75.97' RT.	PT
13	3+96.38	~~78.76~~ 78.96 RT.	POT
14	2+89.95	~~83.65~~ 71.23 RT.	PT
15	2+89.74	73.66' RT.	PC
16	~~2+51.03~~ 2+52.59	35.14' RT.	PT
17	2+57.24	4.41' LT.	PC
18	2+57.57	9.80' LT.	PT

AS BUILT INFORMATION
CONTRACTOR: MWI
WORK STAKED BY: SWINTEK DATE 6/19/13
ACCEPTANCE BY: BHI DATE 6/20/13
FIELD VERIFICATION BY: BHI DATE 6/20/13
DRAWINGS CORRECTED BY: SWINTEK DATE 6/19/13
MICRO-FILM INFORMATION
RECORDED BY: DATE:
NO.:

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SURVEY INFORMATION
FIELD NOTES BY: SWINTEK DATE: 6/13
NO.:

ENGINEER'S SEAL
NEVILLE L. ADAMS NEW MEXICO 14494 REGISTERED PROFESSIONAL ENGINEER 6/19/13

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
	2/19/13	DESIGNED BY NLA	
	2/19/13	DRAWN BY NLA	
	2/20/13	CHECKED BY CB	

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
CURB RAMP DETAILS

Design Review Committee: APPROVED MAR 06 2013 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVED MAY 06 2013 CITY ENGINEER
Last Design Update: Mo. / Day / Yr.
Last Construction Update: Mo. / Day / Yr.

City Project No. 730073 | Zone Map No. C-9 | Sheet 6 Of 10

TRAFFIC SIGNAL GENERAL NOTES

1. THIS PROJECT INCLUDES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AT THE RAINBOW BOULEVARD/WOODMONT AVENUE INTERSECTION.
2. ALL WORK ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE CURRENT NATIONAL ELECTRIC CODE, THE STANDARDS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS FOR ELECTRICAL WIRING AND APPARATUS, AND THE CITY OF ALBUQUERQUE'S TRAFFIC ENGINEERING OPERATIONS SPECIFICATIONS (CURRENT EDITION).
3. LOCATIONS OF CONDUITS, FOUNDATIONS, CONTROL CABINETS, POLES, PULL BOXES, AND MANHOLES SHOWN ON THE PLANS ARE SCHEMATIC AND SHALL BE ADJUSTED IN THE FIELD TO MAXIMIZE CLEAR SPACE AVAILABLE FOR PEDESTRIANS AND WHEELCHAIRS TO COMPLY WITH THE AMERICAN WITH DISABILITIES ACT. THE CONTRACTOR SHALL MEET WITH THE CITY'S TRAFFIC ENGINEERING OPERATIONS PERSONNEL IN THE FIELD AT ALL LOCATIONS TO SPOT EQUIPMENT BEFORE BEGINNING THE WORK. ALL SUCH EQUIPMENT SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY.
4. THE CONTRACTOR IS WARNED THAT EXISTING CONDUITS MAY CONTAIN AC POWER AND CAUTION SHALL BE EXERCISED IN INTERCEPTING OR INSTALLING CABLE IN EXISTING CONDUIT.
5. THE CONTRACTOR SHALL BORE, DRILL, OR PUSH WHEN CROSSING EXISTING PAVEMENTS AND ANY DRIVEWAYS FOR SIDE STREET CROSSINGS. BEFORE CONDUIT CAN BE BORED, DRILLED, OR PUSHED THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES. THE CONTRACTOR SHALL LOCATE AND EXPOSE GAS LINES WHICH CROSS ANY PROPOSED BORES. THESE EXCAVATIONS SHALL REMAIN OPEN UNTIL AFTER THE BORE IS COMPLETE. CONTRACTOR SHALL REMOVE AND REPLACE IN KIND ANY SIDEWALK OR PAVEMENT REQUIRED TO EXPOSE SUCH LINES. THE CONTRACTOR MAY CUT, TRENCH, AND REPLACE EXISTING PAVEMENT ONLY WHEN APPROVED BY THE PROJECT MANAGER.
6. SPLICING OF TRAFFIC SIGNAL MCC WILL BE PERMITTED IN LARGE PULL BOXES, INCLUDING LARGE MEDIAN PULL BOXES. SPLICES IN PULL BOXES WILL BE CONNECTED USING GEL-FILLED WIRE NUTS. SPLICING OF OPTICAL DETECTOR CABLE WILL NOT BE PERMITTED FROM THE DETECTOR TO THE CONTROLLER CABINET. ALL UNUSED CONDUCTORS REQUIRE DEAD END CONNECTORS.
7. ALL OPTICAL DETECTOR CABLE SHALL BE TAGGED AT THE CONTROLLER CABINET TO IDENTIFY EACH BY DIRECTION AND LOCATION.
8. THE CONTRACTOR SHALL NOTIFY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS (857-8092) THREE WORKING DAYS IN ADVANCE OF ANY ANTICIPATED WORK ON SIGNALS AND POWER SERVICES AT THE INTERSECTION. TRAFFIC ENGINEERING OPERATIONS PERSONNEL WILL ASSIST THE CONTRACTOR IN THE FIELD LOCATION OF EQUIPMENT, COLOR CODING OF WIRING, AND MUST BE PRESENT WHEN SIGNALS ARE SHUT OFF OR TURNED ON. THE CONTRACTOR SHALL ALSO NOTIFY THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS EACH TIME A SIGNAL CONTROLLER DOOR IS TO BE OPENED AT THE INTERSECTION.
9. THE CONTRACTOR SHALL NOTIFY PNM 30 DAYS IN ADVANCE OF ANY ANTICIPATED POWER SERVICE CONNECTIONS OR MODIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH PNM TO MAINTAIN ELECTRICAL SERVICE IN THE CITY'S NAME AT THE INTERSECTION.
10. THE CONTRACTOR SHALL REMOVE ALL CONFLICTING SIGNING AND DELIVER TO THE CITY TRAFFIC ENGINEERING YARD WHEN TRAFFIC SIGNALS ARE PUT INTO OPERATION. THIS WORK IS CONSIDERED INCIDENTAL TO THE CONTRACT.
11. LIVE UNUSED CONDUCTORS WILL NOT BE ALLOWED AT MASTARM POLES AND PEDESTAL POLES. ALL SUCH UNUSED CONDUCTORS SHALL BE DISCONNECTED AT THE LARGE PULL BOX ADJACENT TO THE POLE.
12. IF TRENCH WIDTHS LESS THAN 12" ARE PROPOSED BY THE CONTRACTOR, APPROVED COMPACTION METHODS SHALL BE USED DURING BACKFILL TO PREVENT LATENT TRENCH FAILURES. THE CONTRACTOR SHALL USE GROUT OR LEAN FILL AS APPROVED BY THE PROJECT MANAGER IN LIEU OF EARTH BACKFILL.
13. THE CITY OF ALBUQUERQUE TRAFFIC ENGINEERING OPERATIONS WILL PROVIDE TRAFFIC SIGNAL TIMING PLANS AND WILL PROGRAM TRAFFIC SIGNAL CONTROLLERS AT THE INTERSECTION.
14. FOR CONDUITS CONTAINING ONLY LOW VOLTAGE COMMUNICATIONS CABLES, THE REQUIREMENTS FOR A SINGLE CONDUCTOR BARE COPPER #8 AWG MAY BE WAIVED WHERE PERMITTED BY THE N.E.C.
15. EXISTING CONDUITS TO BE REMOVED OR ABANDONED SHALL HAVE ALL WIRING REMOVED. EXISTING CONDUITS SHALL BE REPAIRED, ADJUSTED, OR REPLACED AS DIRECTED BY THE PROJECT MANAGER WHERE ELECTRICAL PULL BOXES OR TRAFFIC MANHOLES ARE INSTALLED OR REPLACED.
16. THE CONTRACTOR SHALL PROVIDE OFF-DUTY POLICE OFFICERS TO DIRECT TRAFFIC IF SIGNALS ARE TURNED OFF.
17. ALL DATA SHOWN HEREIN CONCERNING EXISTING UTILITIES HAS BEEN OBTAINED FROM "AS-BUILT" DRAWINGS AND FROM FIELD OBSERVATIONS WHICH MAY OR MAY NOT BE ACCURATE. THE CONTRACTOR WILL BE RESPONSIBLE FOR EXPLORATORY TRENCHING, IF NECESSARY, TO MORE SPECIFICALLY LOCATE UTILITY LINES. COST OF LOCATING LINES INCLUDING EXPLORATORY TRENCHING WILL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
18. REMOVAL AND REPLACEMENT OF LANDSCAPING FOR INSTALLATION OF PULL BOXES, CONDUITS, AND SIGNAL FOUNDATIONS SHALL BE DONE BY OTHERS.

TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS

1. ALL TRAFFIC SIGNAL EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE AND SHALL BE APPROVED BY CITY STAFF BEFORE BEING INSTALLED. THE CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING EQUIPMENT FOR THIS INTERSECTION:
   A. ECONOLITE ASC 3 TRAFFIC SIGNAL CONTROLLER WITH TS-1 CABINET.
   B. ECONOLITE EIGHT-PHASE DUAL RING "P" SIZE CONTROLLER CABINET WIRED FOR FULL EIGHT-PHASE OPERATION, TELEMETRY BOARDS, "IT" TRANSIENT VOLTAGE SURGE SUPPRESSOR AND ALL CONNECTING HARNESSES
   C. THE CONTROLLER CABINET SHALL BE EQUIPPED WITH A CMU SMARTMONITOR WITH LCD DISPLAY.
2. EMERGENCY VEHICLE OPTICAL DETECTOR (EVOD) SYSTEM EQUIPMENT SHALL BE THE MOST CURRENT 3M MODEL PHASE SELECTORS MOUNTED ON 3M OPTICOM MODEL 760 RACKS, OR APPROVED EQUAL. ALL RACKS SHALL BE CAPABLE OF PROVIDING FOUR CHANNELS OF DETECTION. PHASE SELECTOR MODULES SHALL BE CAPABLE OF TWO CHANNELS OF DETECTION EACH. OPTICAL DETECTORS SHALL BE MOST CURRENT 3M "OPTICOM" MODEL, ONE CHANNEL, ONE DIRECTION OR APPROVED EQUAL. OPTICAL DETECTOR CABLE SHALL BE MOST CURRENT 3M "OPTICOM" MODEL OR EQUAL. A MANUFACTURER'S REPRESENTATIVE SHALL ASSIST THE CONTRACTOR IN THE FIELD AS WORK PROGRESSES TO COMPLETE THE INSTALLATION OF ALL EVOD EQUIPMENT AND ASSIST IN SETTING UP, TURNING ON, PROGRAMMING, AND FIELD TESTING PREEMPTION EQUIPMENT, INCLUDING EMITTERS, TO INSURE THAT THE EQUIPMENT IS OPERATIONAL.
3. ALL INDICATIONS OF ALL VEHICLE SIGNAL ASSEMBLIES AND ALL PEDESTRIAN SIGNAL INDICATORS SHALL BE L.E.D. SIGNALS OF A TYPE AND MANUFACTURER APPROVED BY THE CITY OF ALBUQUERQUE. PEDESTRIAN SIGNALS SHALL INCLUDE COUNTDOWN INDICATIONS. THE COUNTDOWN SHALL BE FOR THE CLEARANCE ONLY AND SHALL NOT INCLUDE THE WALK TIME.
4. ALL SIGNAL ASSEMBLIES, PEDESTRIAN SIGNALS, PEDESTRIAN PUSH BUTTONS, CABINETS, AND FITTINGS AT THE INTERSECTION SHALL COMPLY WITH THE CITY OF ALBUQUERQUE TYPE AND COLOR FINISH REQUIREMENTS.
5. ALL PULL BOXES SHALL BE REINFORCED POLYMER MORTAR HEAVY DUTY TYPE WITH REINFORCED POLYMER MORTAR HEAVY DUTY COVERS. CONCRETE COVERS, STEEL COVERS, AND CONCRETE PULL BOXES WILL NOT BE ACCEPTABLE.
6. ALL BACKPLATES SHALL BE LOUVERED.
7. ALL MASTARMS SHALL BE STEEL.

TRAFFIC SIGNAL INCIDENTAL ITEMS

1. REMOVAL OF EXISTING PULL BOXES, CONDUITS, OR OTHER SIGNAL AND LIGHTING EQUIPMENT NOT SPECIFICALLY ENUMERATED AS BID ITEMS FOR INSTALLATION OF NEW SIGNAL AND LIGHTING EQUIPMENT.
2. CABLE TESTING AND DIAGRAMS.
3. BORING, DRILLING, PUSHING, AND TRENCHING, INCLUDING REMOVAL AND REPLACEMENT OF PAVEMENT, SIDEWALKS, DRIVE PADS, VALLEY GUTTERS, WHEELCHAIR RAMPS, CURB & GUTTER, AND LANDSCAPING (INCLUDING SPRINKLERS) FOR INSTALLATION OF PULL BOXES, CONDUITS. AND SIGNAL FOUNDATIONS, EXCEPT AS NOTED ON THE PLANS.
4. LOCATION OF UTILITY LINES INCLUDING EXPLORATORY TRENCHING AND EXPOSING OF GAS LINES WHEN BORING.
5. DESIGN, MATERIALS. INSTALLATION AND REMOVAL OF SAFETY BARRIER FOR SHIELDING EQUIPMENT OR MATERIAL.
6. APPRISING PUBLIC THROUGH THE LOCAL NEWS MEDIA.
7. REMOVAL, SALVAGE, AND TRANSPORTATION OF EXISTING EQUIPMENT (INCLUDING SIGNS) TO THE CITY TRAFFIC ENGINEERING OPERATIONS YARD, OR HAULING OF WASTE MATERIALS TO THE CITY LANDFILL, AS APPROPRIATE.
8. LEAN FILL FOR CONDUIT TRENCHES.
9. PULL BOX ADJUSTMENTS TO GRADE.
10. OFF-DUTY POLICE OFFICER FOR TRAFFIC CONTROL
11. CONDUIT TRACE WIRE

ITEMS LISTED ARE ONLY A GENERAL DESCRIPTION OF THE REQUIRED WORK AND MATERIALS, AND MAY NOT BE COMPLETE. THIS LIST DOES NOT INCLUDE ANY INCIDENTAL WORK OR MATERIALS REQUIRED BY THE SPECIAL PROVISIONS SERIALS (STANDARD DETAILS), SUPPLEMENTAL SPECIFICATIONS, OR THE STANDARD SPECIFICATIONS

RECORD DRAWINGS

TRAFFIC SIGNAL LEGEND

NEW	EXISTING	ITEM
■	□	PULL BOX
●	○	SERVICE POLE
M	M	METER PEDESTAL
C	C	CONTROLLER CABINET
———	———	CONDUIT RUN (SIGNALS)
———	———	CONDUIT RUN (INTERCONNECT)
◄●	◁○	TRAFFIC SIGNAL PEDESTAL POLE
X	X	CONDUIT RUN NUMBER (SIGNAL)
SX	SX	CONDUIT RUN NUMBER (POWER SERVICE)
CX	CX	CONDUIT RUN NUMBER (INTERCONNECT)
FX	FX	CONDUIT RUN NUMBER (WARNING BEACON)
		TYPE II STANDARD WITH MASTARM, TRAFFIC SIGNAL, BACKPLATE, AND OPTICAL DETECTOR
		TYPE III STANDARD WITH MASTARM, TRAFFIC SIGNAL, BACKPLATE, OPTICAL DETECTOR, LUNIMAIRE, AND CAMERA
●	○	PEDESTRIAN PUSH BUTTON (MOUNTED TO SIDE OF POLE WHERE INDICATED)
		PEDESTRIAN SIGNAL (MOUNTED TO SIDE OF POLE WHERE INDICATED)
SC	SC	SPLICE CABINET
●	⊘	TRAFFIC MANHOLE
		VIDEO CAMERA

AS BUILT INFORMATION
CONTRACTOR AW1 DATE 5/29/13
WORK STAKED BY Suevez DATE 6/12/13
INSPECTED BY BH1 DATE 6/12/13
ACCEPTANCE BY BH1 DATE 6/12/13
FIELD VERIFICATION BY Suevez DATE 6/19/13
DRAWINGS CORRECTED BY MICRO-FILM INFORMATION
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ENGINEER'S SEAL
JANICE L. ADAMS NEW MEXICO 14494 REGISTERED PROFESSIONAL ENGINEER
2/14/13

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		REVISIONS	
		DESIGN	
	2/12/13	DESIGNED BY NLA	
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Vector Engineering, LLC

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
TRAFFIC SIGNAL NOTES & LEGEND

Design Review Committee: APPROVED MAR 06 2013 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVED MAY 06 2013 CITY ENGINEER
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City Project No. 730073 | Zone Map No. C-9 | Sheet 7 Of 10

SCANNED BY PLANNING

RECORD DRAWINGS

PP5 13-FT, TYPE I STA ~~2+68.08~~, 2+69.18 ~~54.88~~ 55.89' LT

w/TYPE B Square Foundation 4'x4'x6.25' depth

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12

DL8(2) 6'X40' ϕ8

DL8(1) 6'X40' ϕ8

DL3(1) 6'X40' ϕ3

PP6 15-FT, TYPE I STA ~~3+47.38~~, 3+46.08 ~~75.12~~' LT 75.49

MA4 35-FT, TYPE II STA ~~3+94.95~~, 3+94.15 ~~67.06~~' LT 69.24

w/60' DIA. X 5.75' depth Foundation

PP7 13-FT, TYPE I STA ~~3+98.56~~, 3+97.84 ~~55.88~~' LT 53.95

MA3 40-FT, TYPE II STA ~~2+59.21~~, ~~2+55.37~~ ~~55.07~~' LT ~~52.45~~

PP8 15-FT, TYPE I STA ~~4+15.92~~, 4+19.90 ~~5.04~~' RT 5.15

PP4 15-FT, TYPE I STA ~~2+49.40~~ ~~7.01~~' RT 7.81 2+44.87

PP2 15-FT, TYPE I STA 3+33.33, 74.05' RT

PP3 13-FT, TYPE I STA ~~2+71.54~~, ~~58.07~~' RT 2+69.80 54.03

MA2 40-FT, TYPE II STA 2+72.74, 67.39' RT w/TYPE B Square Foundation 4'x4'x6'depth

MA1 40-FT, TYPE II STA ~~4+29.81~~, 4+30.72 ~~52.01~~' RT 50.68

PP1 13-FT, TYPE I STA 4+20.48, 55.38' RT 4+19.59

DL6(2) 6'X40' ϕ6

DL6(1) 6'X40' ϕ6

DL1(1) 6'X40' ϕ1

DL7(1) 6'X40' ϕ7

DL4(1) 6'X40' ϕ4

DL4(2) 6'X40' ϕ4

DL5(1) 6'X40' ϕ5

DL2(1) 6'X40' ϕ2

DL2(2) 6'X40' ϕ2

OPT-NB 4M2 4M1

OPT-WB 3M1 3M2

OPT-EB 1M2 1M1

OPT-SB 2M1 2M2

TO EXIST. POWER SOURCE SEE SHT. 5

WOODMONT AVE.

RAINBOW BLVD.

UGE GAS

SURVEYORS CERTIFICATION

I, Russ P. Hugg, New Mexico Professional Surveyor Number 9750, hereby certify that the as-built information shown hereon is the result of an actual field survey performed by me or under my direct supervision and that the same is true and correct to the best of my knowledge and belief.

Russ P. Hugg
NMPS No. 9750
6-19, 2013

PROFESSIONAL SURVEYOR STATE OF NEW MEXICO No. 9750 RUSS P. HUGG

FLASH CONDITION

YELLOW BALL	4M1, 4M2, 4A, 4B, 4C, 2M1, 2M2, 2A, 2B, 2C
RED BALL	1M1, 1M2, 1A, 1B, 1C, 3M1, 3M2, 3A, 3B, 3C

INITIALIZATION

ALL RED, THEN PHASE 2 AND 6 GREEN

TYPICAL SIGNAL FACE LENS ARRANGEMENTS

R Y G
1M1,1M2,2M1,2M2, 3M1,3M2,4M1,4M2

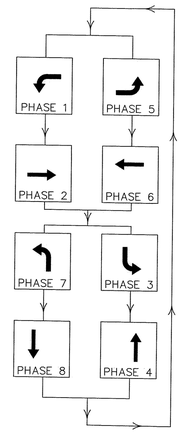
3 SECTION BACK PLATE
1M1,1M2,2M1,2M2, 3M1,3M2,4M1,4M2

R Y G
1A,2A, 3A,4A

R Y G
1B,1C,2B,2C, 3B,3C,4B,4C

P1,P2,P3,P4 P5,P6,P7,P8

SIGNAL PHASING



NOTES

1. PULLBOXES PB1 THRU PB12 ARE LARGE SIZE.
2. CONDUITS SHALL BE TRENCHED PER NEC STANDARD, TABLE 300-5

ABBREVIATIONS

MAI	MASTARM NUMBER
PP1	PEDESTAL POLE NUMBER
PPB1	PEDESTRIAN PUSH BUTTON NUMBER
CC1	CONTROL CABINET NUMBER
PB1	PULL BOX NUMBER (SIGNALS)
3A	SIGNAL HEAD NUMBER
P1	PEDESTRIAN SIGNAL NUMBER
OPT	OPTICAL DETECTOR

SYMBOL KEY

MAX SIGNAL & CABINET ID
X CONDUIT RUN ID (SIGNALS)
SX CONDUIT RUN ID (POWER SERVICE)
DLX(1) DETECTOR LOOP DESIGNATION

GRAPHIC SCALE

10 0 5 10 20
(IN FEET)
1 inch = 10 ft.

Vector Engineering, LLC

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	SurvTek	6/13

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "2-C9" NM STATE PLANE COORDINATES, CENTRAL ZONE (NAD83) AS PUBLISHED: Y=1,521,672.052, X=1,494,519.241
GROUND TO GRD FACTOR = 0.999666850
DELTA ALPHA = -0016'52.77"
ELEVATION = 5454.550 (NAVD88)

AS BUILT INFORMATION
CONTRACTOR MWI DATE 5/29/13
SURVEYED BY SURVTEK DATE 6/3/13
INSPECTOR'S ATTENDANCE BY BHI DATE 6/12/13
FIELD VERIFICATION BY BHI DATE 6/12/13
DRAWING CORRECTED BY SURVTEK DATE 6/19/13
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

ENGINEER'S SEAL
NEW MEXICO 14984 REGISTERED PROFESSIONAL ENGINEER NANCY E. L. ADAMS 2/20/13

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY NLA	DATE 2/19/13
		DRAWN BY NLA	DATE 2/19/13
		CHECKED BY CB	DATE 2/20/13

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
TRAFFIC SIGNAL PLAN

Design Review Committee: APPROVE MAR 06 2013 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVE MAY 06 2013 CITY ENGINEER
Last Design Update: Mo. / Day / Yr.

City Project No. 730073 | Zone Map No. C-9 | Sheet 8 Of 10

RECORD DRAWINGS

FUNCTION CHART – 115 VOLT CIRCUIT

CONDUCTOR			RING 1 – MULTI CONDUCTOR CABLE 20		RING 2 – MULTI CONDUCTOR CABLE 20 2/	
CONDUCTOR NUMBER	BASE COLOR	TRACER	FUNCTION	FIELD CONNECTION 1/	FUNCTION	FIELD CONNECTION
1	BLACK	–	SPARE	SPARE	SPARE	SPARE
2	WHITE	–	SPARE	SPARE	SPARE	SPARE
3	RED	–	SPARE	SPARE	SPARE	SPARE
4	GREEN	–	PHASE 1 GREEN	GREEN ARROW 3B, 3C	PHASE 5 GREEN	GREEN ARROW 1B, 1C
5	ORANGE	–	PHASE 1 YELLOW	YELLOW ARROW 3B, 3C	PHASE 5 YELLOW	YELLOW ARROW 1B, 1C
6	BLUE	–	SPARE	SPARE	SPARE	SPARE
7	WHITE	BLACK	SPARE	SPARE	SPARE	SPARE
8	RED	BLACK	PHASE 2 RED	RED BALL 1M1, 1M2, 1A, 1B, 1C	PHASE 6 RED	RED BALL 3M1, 3M2, 3A, 3B, 3C
9	GREEN	BLACK	PHASE 2 GREEN	GREEN BALL 1M1, 1M2, 1A, 1B, 1C	PHASE 6 GREEN	GREEN BALL 3M1, 3M2, 3A, 3B, 3C
10	ORANGE	BLACK	PHASE 2 YELLOW	YELLOW BALL 1M1, 1M2, 1A, 1B, 1C	PHASE 6 YELLOW	YELLOW BALL 3M1, 3M2, 3A, 3B, 3C
11	BLUE	BLACK	PHASE 2 WALK	PEDESTRIAN WALK P2, P3	PHASE 6 WALK	PEDESTRIAN WALK P6, P7
12	BLACK	WHITE	PHASE 2 DON'T WALK	PEDESTRIAN DON'T WALK P2, P3	PHASE 6 DON'T WALK	PEDESTRIAN DON'T WALK P6, P7
13	RED	WHITE	SPARE	SPARE	SPARE	SPARE
14	GREEN	WHITE	PHASE 3 GREEN	GREEN ARROW 2B, 2C	PHASE 7 GREEN	GREEN ARROW 4B, 4C
15	BLUE	WHITE	PHASE 3 YELLOW	YELLOW ARROW 2B, 2C	PHASE 7 YELLOW	YELLOW ARROW 4B, 4C
16	BLACK	RED	PHASE 4 RED	RED BALL 4M1, 4M2, 4A, 4B, 4C	PHASE 8 RED	RED BALL 2M1, 2M2, 2A, 2B, 2C
17	WHITE	RED	PHASE 4 GREEN	GREEN BALL 4M1, 4M2, 4A, 4B, 4C	PHASE 8 GREEN	GREEN BALL 2M1, 2M2, 2A, 2B, 2C
18	ORANGE	RED	PHASE 4 YELLOW	YELLOW BALL 4M1, 4M2, 4A, 4B, 4C	PHASE 8 YELLOW	YELLOW BALL 2M1, 2M2, 2A, 2B, 2C
19	BLUE	RED	PHASE 4 WALK	PEDESTRIAN WALK P1, P8	PHASE 8 WALK	PEDESTRIAN WALK P4, P5
20	RED	GREEN	PHASE 4 DON'T WALK	PEDESTRIAN DON'T WALK P1, P8	PHASE 8 DON'T WALK	PEDESTRIAN DON'T WALK P4, P5

FUNCTION CHART – 24 VOLT CIRCUIT 3/

CONDUCTOR		RING 1–MULTI CONDUCTOR CABLE 5		RING 2–MULTI CONDUCTOR CABLE 5	
NUMBER	BASE COLOR	FUNCTION	FIELD CONNECTION	FUNCTION	FIELD CONNECTION
1	BLACK	PHASE 2 PPB	PPB2 & PPB3	SPARE	SPARE
2	WHITE	COMMON	PPB2, PPB3, PPB4, PPB5	COMMON	PPB1, PPB6, PPB7, PPB8
3	RED	PHASE 4 PPB	PPB1 & PPB8	SPARE	SPARE
4	GREEN	SPARE	SPARE	PHASE 6 PPB	PPB6 & PPB7
5	ORANGE	SPARE	SPARE	PHASE 8 PPB	PPB4 & PPB5

NOTES:

1/ IDENTIFY CONDUCTORS LISTED AS "115 VOLTS".

2/ WRAP RING 2 CABLE AT EACH SPLICE POINT WITH COLORED ELECTRICAL TAPE. THE IDENTIFICATION MARKING SHALL BE PROVIDED ON EACH RING 2 CABLE AT EACH SPLICE AND LOCATED 6" BACK FROM THE END.

3/ IDENTIFY CONDUCTORS LISTED AS "PPB – LOW VOLTAGE" AT EACH SPLICE POINT. FIVE (5) CONDUCTOR CABLE SHALL BE 24 VOLTS AND USED FOR PUSH BUTTONS ONLY.

BACK UP TIME SETTING

	ø1	ø2	ø3	ø4	ø5	ø6	ø7	ø8
MINIMUM INITIAL	10	15	10	10	10	15	10	10
VEHICLE EXTENSION	3	3	3	3	3	3	3	3
MAXIMUM 1	30	30	30	30	30	30	30	30
MAXIMUM 2	40	40	40	40	40	40	40	40
YELLOW CHANGE	4	4	4	4	4	4	4	4
RED CLEAR	2	2	2	2	2	2	2	2
WALK	0	7	0	7	0	7	0	7
PEDESTRIAN CLEAR	0	30	0	30	0	30	0	30
OPERATION	OFF	MIN RECALL	OFF	OFF	OFF	MIN RECALL	OFF	OFF

DETECTOR LOOPS

LOOP ID	VEHICLE DETECTOR MODE	CALL	UNIT NO.	CHANNEL	LOOP TYPE	LOOP DIMENSIONS L	W	S	T	LOOP WIRE	PAVEMENT SAWCUT
DL1(1)	PRESENCE		ONE	CH 1	QP	40'	6'	3'	3'	361'	135'
DL2(1)	PRESENCE		TWO	CH 1	QP	40'	6'	11'	6'	383'	143'
DL2(2)	PRESENCE		TWO	CH 1	QP	40'	6'	24'	6'	409'	156'
DL3(1)	PRESENCE		FIVE	CH 1	QP	40'	6'	5'	13'	385'	137'
DL4(1)	PRESENCE		SIX	CH 1	QP	40'	6'	26'	9'	419'	158'
DL4(2)	PRESENCE		SIX	CH 1	QP	40'	6'	14'	9'	395'	146'
DL5(1)	PRESENCE		ONE	CH 2	QP	40'	6'	9'	4'	375'	141'
DL6(1)	PRESENCE		THREE	CH 1	QP	40'	6'	23'	5'	405'	155'
DL6(2)	PRESENCE		THREE	CH 1	QP	40'	6'	8'	5'	375'	140'
DL7(1)	PRESENCE		FIVE	CH 2	QP	40'	6'	8'	13'	391'	140'
DL8(1)	PRESENCE		SEVEN	CH 1	QP	40'	6'	24'	7'	411'	156'
DL8(2)	PRESENCE		SEVEN	CH 1	QP	40'	6'	11'	7'	385'	143'
									TOTAL	4,694'	1,750'
									USE	4700'	1750'

QUANTITY ESTIMATING ASSUMPTION:

LOOP WIRE

6' x 30' QP LOOP = (8*L) + (4*W) + (2*S) + (2*T) + 5 = 269 + 2(S+T)
6' x 40' QP LOOP = (8*L) + (4*W) + (2*S) + (2*T) + 5 = 349 + 2(S+T)
6' x 50' QP LOOP = (8*L) + (4*W) + (2*S) + (2*T) + 5 = 429 + 2(S+T)
6' x 30' REC LOOP = (6*L) + (6*W) + (2*S) + (2*T) + 5 = 216 + 2(S+T)
6' x 40' REC LOOP = (6*L) + (6*W) + (2*S) + (2*T) + 5 = 276 + 2(S+T)
6' x 6' EC LOOP = (6*L) + (6*W) + (2*S) + (2*T) + 5 = 77 + 2(S+T)
6' x 6' SYS LOOP = (8*L) + (8*W) + (2*S) + (2*T) + 5 = 96 + 2(S+T)

PAVEMENT SAWCUT

6' x 30' QP LOOP = (3*L) + (2*W) + S=102 + S
6' x 40' QP LOOP = (3*L) + (2*W) + S=132 + S
6' x 50' QP LOOP = (3*L) + (2*W) + S=162 + S
6' x 30' REC LOOP = (2*L) + (2*W) + S=72 + S
6' x 40' REC LOOP = (2*L) + (2*W) + S=92 + S
6' x 6' EC LOOP = (2*L) + (2*W) + S= 24 + S
6' x 6' SYS LOOP = (2*L) + (2*W) + S= 24 + S

WHERE:

L = DETECTOR LOOP LENGTH (FROM PLAN)
W = DETECTOR LOOP WIDTH (FROM PLAN)
S = SAWCUT LENGTH FROM DETECTOR LOOP TO FACE OF CURB (FROM PLAN)
T = LOOP WIRE TERMINAL LENGTH FROM FACE OF CURB TO PULL BOX (FROM PLAN)

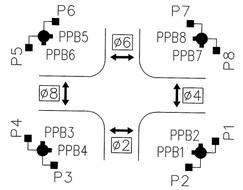
ABBREVIATIONS:

DLLIC = DETECTOR LOOP LEAD IN CABLE
EC = EXTENDED CALL LOOP
L = DETECTOR LOOP LENGTH
W = DETECTOR LOOP WIDTH
S = SAWCUT LOOP TO CURB
T = TERMINAL LOOP
EC = QUADRAPOLE LOOP
REC = RECTANGULAR LOOP

DETECTOR RACK ASSIGNMENTS

UNIT NUMBER →	POWER SUPPLY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
CHANNEL 1 →		ø1	ø2	ø6	ø2 EC	ø3	ø4	ø8	ø4 EC	DUAL LEFT ø1	DUAL LEFT ø3	SD 1	SD 3	SD 5	SD 7	SD 9	PED ISOLATION	OPTICOM 1	OPTICOM 3
CHANNEL 2 →		ø5	ø2	ø6	ø6 EC	ø7	ø4	ø8	ø8 EC	DUAL LEFT ø5	DUAL LEFT ø7	SD 2	SD 4	SD 6	SD 8	SD 10		OPTICOM 2	OPTICOM 4
DETECTOR MODULE REQUIRED →	✓	✓	✓	✓	✓	✓	✓	✓	✓								✓	✓	✓

PEDESTRIAN SIGNAL & PUSHBUTTON IDENTIFICATION



AS BUILT INFORMATION
CONTRACTOR MWI
WORK STAKED BY SURVTEK DATE 5/31/13
INSPECTORS ACCEPTANCE BY BH1 DATE 6/2/13
VERIFICATION BY BH1 DATE 6/19/13
CORRECTED BY SURVTEK DATE 6/19/13
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS
ALBUQUERQUE CONTROL SURVEY MONUMENT "2-G9" NM STATE PLANE COORDINATES, CENTRAL ZONE (NAD83) AS PUBLISHED: Y=1,521,672.052; X=1,494,519.241
GROUND TO GRID FACTOR = 0.999666850
DELTA ALPHA = -00°16'52.77"
ELEVATION = 5454.550 (NAVD88)

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
NANCIE L. ADAMS NEW MEXICO 14494 REGISTERED PROFESSIONAL ENGINEER
5/31/13

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	
		DESIGNED BY NLA	DATE 2/12/13
		DRAWN BY NLA	DATE 2/12/13
		CHECKED BY CB	DATE 2/13/13

Vector Engineering, LLC

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
FUNCTION CHARTS

Design Review Committee: APPROVED MAR 06 2013 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVED MAY 06 2013 CITY ENGINEER
Last Design Update: Mo. / Day / Yr.
Mo. / Day / Yr.

City Project No. 730073 | Zone Map No. C-9 | Sheet 9 Of 10

RECORD DRAWINGS

CONDUIT AND CONDUCTOR REQUIREMENTS

CONDUIT LENGTH, SIZE & TYPE					CONDUIT FILL BY CONDUCTOR LENGTH AND TYPE								
	SIZE/LENGTH												
RUN ID	1"	3"	4"	TYPE	REMARKS	MCC 5 (# @ FT)	MCC 7 (# @ FT)	MCC 20 (# @ FT)	SCC 2 (# @ FT)	SCC 6* (# @ FT)	OPTICOM (# @ FT)	DLLIC (# @ FT)
1		15'		REC	CC TO PB1	1 @ 20'		2 @ 20'		2 @ 20'		
2		15'		REC	CC TO PB1						4 @ 20'	12 @ 20'
3		40'		REC	PB1 TO PB2	1 @ 45'		2 @ 45'		2 @ 45'		
4		40'		REC	PB1 TO PB2						2 @ 45'	6 @ 45'
5		70'		REC	PB2 TO PB3	1 @ 75'		2 @ 75'		2 @ 75'		
6		70'		REC	PB2 TO PB3						2 @ 75'	4 @ 75'
7		60'		REC	PB3 TO PB4	1 @ 65'		2 @ 65'		2 @ 65'		
8		60'		REC	PB3 TO PB4						2 @ 65'	3 @ 65'
9		50'		REC	PB4 TO PB5	1 @ 55'		2 @ 55'		2 @ 55'		
10		50'		REC	PB4 TO PB5						1 @ 55'	3 @ 55'
11		55'		REC	PB5 TO PB6	1 @ 60'		2 @ 60'		2 @ 60'		
12		55'		REC	PB5 TO PB6						1 @ 60'	1 @ 60'
13		70'		REC	PB6 TO PB7	1 @ 75'		2 @ 75'		2 @ 75'		
14		70'		REC	PB6 TO PB7						1 @ 75'	
15		20'		REC	PB7 TO PB8	1 @ 25'		2 @ 25'		2 @ 25'		
16		20'		REC	PB7 TO PB8	PULL STRING ONLY						
17		65'		REC	PB8 TO PB9	1 @ 70'		2 @ 70'		2 @ 70'		
18		65'		REC	PB8 TO PB9							2 @ 70'
19		70'		REC	PB9 TO PB10	1 @ 75'		2 @ 75'		2 @ 75'		
20		70'		REC	PB9 TO PB10							3 @ 75'
21		50'		REC	PB10 TO PB11	1 @ 55'		2 @ 55'		2 @ 55'		
22		50'		REC	PB10 TO PB11						1 @ 55'	3 @ 55'
23		55'		REC	PB11 TO PB12	1 @ 60'		2 @ 60'		2 @ 60'		
24		55'		REC	PB11 TO PB12						1 @ 60'	5 @ 60'
25		60'		REC	PB12 TO PB1	1 @ 65'		2 @ 65'		2 @ 65'		
26		60'		REC	PB12 TO PB1						1 @ 65'	6 @ 65'
27		15'		REC	PB1 TO MA3	1 @ 20'		1 @ 20'		2 @ 20'		
28		15'		REC	PB1 TO MA3						1 @ 20'	
29		20'		REC	PB1 TO PP5		1 @ 25'					
30		15'		REC	PB3 TO PP6		1 @ 20'					
31		20'		REC	PB4 TO MA4	1 @ 25'		1 @ 25'		2 @ 25'		
32		20'		REC	PB4 TO MA4						1 @ 25'	
33		20'		REC	PB5 TO PP7		1 @ 25'					
34		15'		REC	PB6 TO PP8		1 @ 20'					
35		25'		REC	PB7 TO MA1	1 @ 30'		1 @ 30'		2 @ 30'		
36		25'		REC	PB7 TO MA1						1 @ 30'	
37		15'		REC	PB7 TO PP1		1 @ 20'					
38		10'		REC	PB9 TO PP2		1 @ 15'					
39		20'		REC	PB10 TO MA2	1 @ 25'		1 @ 25'		2 @ 25'		
40		20'		REC	PB10 TO MA2						1 @ 25'	
41		30'		REC	PB10 TO PP3		1 @ 35'					
42		15'		REC	PB12 TO PP4		1 @ 20'					
43	7			REC	PB2 TO CURB							1 @ 12'
44	7			REC	PB2 TO CURB							1 @ 12'
45	13			REC	PB3 TO CURB							1 @ 18'
46	5			REC	PB5 TO CURB							1 @ 10'
47	5			REC	PB5 TO CURB							1 @ 10'
48	3			REC	PB6 TO CURB							1 @ 8'
49	9			REC	PB8 TO CURB							1 @ 14'
50	9			REC	PB8 TO CURB							1 @ 14'
51	13			REC	PB9 TO CURB							1 @ 18'
52	6			REC	PB11 TO CURB							1 @ 11'
53	6			REC	PB11 TO CURB							1 @ 11'
54	4			REC	PB12 TO CURB							1 @ 9'
S1			75'	REC	PWR SOURCE TO METER				3 @ 80'			
S2			10'	REC	METER TO CC				3 @ 15'			
SUBTOTALS	87'	1,660'	85'			845'	180'	1,590'	285'	1,690'	920'	2,597'

** ONE SCC 6 SHALL BE GREEN (BOND) AND ONE SHALL BE WHITE (NEUTRAL)*

CONDUIT AND CONDUCTOR REQUIREMENTS

CONDUIT LENGTH, SIZE & TYPE					CONDUIT FILL BY CONDUCTOR LENGTH AND TYPE								
	SIZE/LENGTH												
RUN ID	1"	3"	4"	TYPE	REMARKS	LOOP WIRE (# @ FT)	MCC 5 (# @ FT)	MCC 7 (# @ FT)	MCC 20 (# @ FT)	SCC 2 (# @ FT)	SCC 6 (# @ FT)	OPTICOM (# @ FT)	DLLIC (# @ FT)
MA1					BASE TO 1M2		1 @ 60'						
					BASE TO 1M1		1 @ 50'						
					BASE TO 1A		1 @ 20'						
					BASE TO 2C			1 @ 20'					
					BASE TO OPT-EB							1 @ 50'	
MA2					BASE TO 2M2		1 @ 60'						
					BASE TO 2M1		1 @ 50'						
					BASE TO 2A		1 @ 20'						
					BASE TO 3C			1 @ 20'					
					BASE TO OPT-SB							1 @ 55'	
MA3					BASE TO 3M2		1 @ 60'						
					BASE TO 3M1		1 @ 50'						
					BASE TO 3A		1 @ 20'						
					BASE TO 4C			1 @ 20'					
					BASE TO OPT-WB							1 @ 50'	
MA4					BASE TO 4M2		1 @ 55'						
					BASE TO 4M1		1 @ 45'						
					BASE TO 4A		1 @ 20'						
					BASE TO 1C			1 @ 20'					
					BASE TO OPT-NB							1 @ 50'	
PP1					BASE TO P1		1 @ 20'						
					BASE TO PPB1	1 @ 10'							
					BASE TO P2		1 @ 20'						
					BASE TO PPB2	1 @ 10'							
PP2					BASE TO 2B			1 @ 20'					
PP3					BASE TO P3		1 @ 20'						
					BASE TO PPB3	1 @ 10'							
					BASE TO P4		1 @ 20'						
					BASE TO PPB4	1 @ 10'							
PP4					BASE TO 3B			1 @ 20'					
PP5					BASE TO P5		1 @ 20'						
					BASE TO PPB5	1 @ 10'							
					BASE TO P6		1 @ 20'						
					BASE TO PPB6	1 @ 10'							
PP6					BASE TO 4B			1 @ 20'					
PP7					BASE TO P7		1 @ 20'						
					BASE TO PPB7	1 @ 10'							
					BASE TO P8		1 @ 20'						
					BASE TO PPB8	1 @ 10'							
PP8					BASE TO 1B			1 @ 20'					
	0'	0'	0'			80'	670'	160'	0'	0'	0'	205'	0'	SUBTOTAL, THIS TABLE
	87'	1,660'	85'			0'	845'	180'	1,590'	285'	1,690'	920'	2,597'	SUBTOTAL, PREVIOUS TABLE
	87'	**1,660'**	**85'**			**80'**	**1,515'**	**340'**	**1,590'**	**285'**	**1,690'**	**1,125'**	**2,597'**	**TOTAL**
	100'	**1,700'**	**90'**			**80'**	**1,550'**	**340'**	**1,600'**	**300'**	**1,700'**	**1,150'**	**2,600'**	**USE**

Vector Engineering, LLC

AS BUILT INFORMATION
CONTRACTOR MWS
WORK STAKED BY: SUNTEK DATE 5/29/13
INSPECTOR'S ACCEPTANCE BY BHI DATE 6/28/13
FIELD VERIFICATION BY BHI DATE 6/28/13
DRAWINGS CORRECTED BY SUNTEK DATE 6/28/13
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

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DELTA ALPHA = -00°16'52.77"
ELEVATION = 5454.550 (NAVD88)

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL
JAMES L. ADAMS NEW MEXICO 14494 REGISTERED PROFESSIONAL ENGINEER
2/14/13

NO.	DATE	REMARKS	BY
	DATE 2/12/13	DESIGN	DESIGNED BY NLA
	DATE 2/12/13	REVISIONS	DRAWN BY NLA
	DATE 2/13/13		CHECKED BY CB

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT
ENGINEERING DIVISION

TITLE: RAINBOW BLVD./WOODMONT AVE.
SIGNAL PLAN
CONDUIT AND CABLE SCHEDULES

Design Review Committee: APPROVED MAR 06 2013 DESIGN REVIEW COMMITTEE
City Engineer Approval: APPROVED MAY 06 2013 CITY ENGINEER
Last Design Update: Mo. / Day / Yr.

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