BERNALILLO COUNTY, NEW MEXICO
PUBLIC WORKS DIVISION

CONSTRUCTION PLANS
FOR

ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT
PHASE 2

BERNALILLO COUNTY PUBLIC WORKS
PROJECT NO. TS.2012.RSVADS

CN A301231

APPROVED RECORD DRAWINGS	
City Inspector	*Henry Blair*
Contractor	
Construction Engineer	*Muhanned Adeeb*
Date	*12/18/2019*

VICINITY MAP

Not to Scale

ZONE ATLAS MAP: A14, B14

THIS PROJECT INVOLVES THE INSTALLATION OF ADAPTIVE TRAFFIC SIGNAL EQUIPMENT, INCLUDING VIDEO DETECTION CAMERAS, TO FOUR SIGNALIZED INTERSECTIONS ALONG ALAMEDA BOULEVARD. CONSTRUCTION INCLUDES THE INSTALLATION OF VIDEO CABLE IN EXISTING PULLBOXES AND CONDUIT, TO SUPPORT THE ADAPTIVE SYSTEM.

INDEX OF SHEETS

U.S. Department of Transportation
Federal Highway Administration

NMDOT

BERNALILLO COUNTY PUBLIC WORKS

STATE OF NEW MEXICO

I, THE UNDERSIGNED, A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE INDICATED RECORD DRAWINGS ARE BASED UPON INFORMATION PROVIDED BY THE CONSTRUCTION CONTRACTOR IN THE FORM OF RED-LINED CONSTRUCTION DRAWING MARKUPS TO THE ORIGINAL DESIGN DRAWINGS. THE TRANSFER OF INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. HOWEVER, I HAVE NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THE INFORMATION PROVIDED BY THE CONSTRUCTION CONTRACTOR AND SHALL NOT BE RESPONSIBLE FOR ERRORS OR OMISSIONS THAT MAY BE INCORPORATED AS A RESULT OF ERRONEOUS INFORMATION PROVIDED BY OTHERS. ALL INFORMATION INCLUDING VERTICAL AND HORIZONTAL DIMENSIONS SHOULD BE FIELD VERIFIED PRIOR TO USE ON FUTURE PROJECTS.

GERALD K. PARKER — NEW MEXICO — 14373 — REGISTERED PROFESSIONAL ENGINEER

NAME Gerald K. Parker DATE 12-22-17

RECORD DRAWINGS

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		ENGINEERS STAMP & SIGNATURE	APPROVALS	ENGINEER	DATE	APPROVED FOR CONSTRUCTION	
KAREN ASPELIN — NEW MEXICO — 13293 — REGISTERED PROFESSIONAL ENGINEER — 08-15-14			DRC Chairman	J Woodall	2-23-15		
			Transportation	Randall Allred	8/27/14	BC PWD Engineer 15 Aug 2014 Date	
			Water/Wastewater	Russ Johnson	8/27/14		
			Hydrology	Peter T. Hahn	8/27/14		
			Water Resources	N/A			
			Constr. Mngmt.	N/A			
			Constr. Coord.	N/A		Albuquerque City Engineer 9/25/15 Date	
			County Project No.				
			City Project No. 660484	TS.2012.RSVADS		Sheet 1 Of 12	

TRAFFIC SIGNAL NOTES

1. CONTRACTOR SHALL CONTACT THE NMDOT FOR APPROVED PRODUCTS LISTING FOR TRAFFIC SIGNAL COMPONENTS.
2. LOCATIONS OF CONDUITS, FOUNDATIONS, CONTROL CABINETS, POLES, PULL BOXES, MANHOLES, AND SPLICE CABINETS SHOWN ON THE PLANS ARE SCHEMATIC AND SHALL BE ADJUSTED FOR PEDESTRIANS AND WHEELCHAIRS TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CONTRACTOR SHALL MEET WITH THE PROJECT MANAGER IN THE FIELD AT ALL LOCATIONS TO SPOT EQUIPMENT BEFORE BEGINNING THE WORK. ALL SUCH EQUIPMENT SHALL BE INSTALLED WITHIN THE RIGHT-OF-WAY.
3. THE CONTRACTOR IS WARNED THAT EXISTING CONDUITS MAY CONTAIN AC POWER AND CAUTION SHALL BE EXERCISED IN INTERCEPTING OR INSTALLING CABLE IN EXISTING CONDUIT.
4. SPLICING OF VIDEO CABLE WILL NOT BE PERMITTED BETWEEN THE MASTARM BASE AND THE CONTROLLER CABINET.
5. ALL VIDEO DETECTION CABLES SHALL BE TAGGED AT THE CONTROL CABINET TO IDENTIFY EACH CABLE BY CAMERA NUMBER AND LOCATION.
6. THE CONTRACTOR SHALL NOTIFY THE CITY OF ALBUQUERQUE FIVE WORKING DAYS IN ADVANCE OF ANY ANTICIPATED WORK ON SIGNALS. TRAFFIC ENGINEERING PERSONNEL MUST BE PRESENT WHEN SIGNALS ARE SHUT OFF OR TURNED ON. THE CONTRACTOR SHALL ALSO NOTIFY THE CITY OF ALBUQUERQUE EACH TIME A TRAFFIC SIGNAL CONTROL DOOR IS OPENED.
7. FOR CONDUITS CONTAINING ONLY LOW VOLTAGE COMMUNICATION CABLES, THE REQUIREMENTS FOR SINGLE CONDUCTOR COPPER #6 AWG MAY BE WAIVED WHERE PERMITTED BY THE NATIONAL ELECTRIC CODE.
8. EXISTING CONDUITS SHALL BE REPAIRED, ADJUSTED, OR REPLACED AS DIRECTED BY THE PROJECT MANAGER WHERE ELECTRICAL PULL BOXES ARE INSTALLED OR REPLACED.
9. THE CONTRACTOR SHALL ARRANGE TO HAVE OFF-DUTY POLICE OFFICERS TO DIRECT TRAFFIC IF/WHEN EXISTING SIGNALS ARE TEMPORARILY SHUT OFF.
10. SIGNAL EQUIPMENT NEAR EXISTING OVERHEAD POWER LINES MUST MAINTAIN A VERTICAL CLEARANCE AND/OR A HORIZONTAL CLEARANCE FROM THE CLOSEST PHASE CONDUCTOR. PNM WILL ASSIST IN MEASUREMENT AND DETERMINATION OF CLEARANCE.
11. ALL CONDUIT INSTALLED IN A TRENCH SHALL BE FLAGGED WITH CAUTION TAPE ONE FOOT ABOVE CONDUIT.
12. UNUSED WIRING SHALL BE CAPPED.
13. CONTRACTOR SHALL POT-HOLE POTENTIAL UTILITY CROSSINGS AND ADJUST BORING LOCATIONS AS NECESSARY TO AVOID DISTURBING EXISTING UTILITIES.

CONSTRUCTION TRAFFIC CONTROL NOTES

1. CONTRACTOR SHALL PREPARE FINAL CONSTRUCTION SIGNING PLANS FOR ANY SHOULDER WORK/LANE CLOSURES NEEDED FOR WORK AND SUBMIT TO NMDOT DISTRICT 3 FOR PERMIT.
2. NO LANE CLOSURES ON ALAMEDA BLVD. WILL BE ALLOWED BETWEEN 6:00 AM AND 9:00 AM EASTBOUND AND 3:00 PM TO 6:00 PM WESTBOUND.

TRAFFIC SIGNAL LEGEND

NEW	EXISTING	ITEM
■	□	PULL BOX
●	○	SERVICE POLE
M	M	METER PEDESTAL
C	C	CONTROLLER CABINET
		CONDUIT RUN (SIGNALS)
		CONDUIT RUN (LIGHTING)
		CONDUIT RUN (INTERCONNECT)
		LOOP DETECTOR
		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, LUMINAIRE, AND VIDEO CAMERA
		PEDESTRIAN PUSH BUTTON (MOUNTED TO SIDE OF POLE WHERE INDICATED)
		PEDESTRIAN SIGNALS (MOUNTED TO SIDE OF POLE WHERE INDICATED)
SC	SC	SPLICE CABINET
●	⊘	TRAFFIC MANHOLE
		VIDEO CAMERA

TRAFFIC SIGNAL INCIDENTAL ITEMS

1. 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 AND CONDUITS.
2. LOCATIONS OF UTILITY LINES INCLUDING EXPLORATORY TRENCHING AND EXPOSING OF GAS LINES WHEN BORING.
3. DESIGN, MATERIALS, INSTALLATION AND REMOVAL OF SAFETY BARRIERS FOR SHIELDING EQUIPMENT OR MATERIAL.
4. APPRISING PUBLIC THROUGH THE LOCAL NEWS MEDIA.
5. PULL BOX ADJUSTMENT TO GRADE.
6. OFF-DUTY POLICE OFFICER FOR TRAFFIC CONTROL.
7. REMOVAL AND REPLACEMENT IN KIND OR BETTER LANDSCAPING INCLUDING SPRINKLERS, FOR WORK IN PULL BOXES AND CONDUITS.
8. MASTARM RISERS FOR CAMERA PLACEMENT AS SHOWN ON PLANS.

*ITEMS LISTED ARE ONLY A GENERAL DESCRIPTION OF THE REQUIRED WORK AND MATERIALS, AND MAY OR 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.

NOTICE TO CONTRACTOR

NEW FIBER OPTIC CABLE HAS RECENTLY BEEN INSTALLED ALONG THE PROJECT CORRIDOR. IF THIS CABLE, OR ANY OTHER EXISTING CITY TRAFFIC INFRASTRUCTURE, IS DAMAGED AS PART OF THIS PROJECT WORK, THE CONTRACTOR SHALL REPAIR OR REPLACE PER CITY OF ALBUQUERQUE TRAFFIC REQUIREMENTS. DAMAGED FIBER OPTIC CABLE WILL BE REPLACED FROM EXISTING FULL SPLICE TO EXISTING FULL SPLICE; NO INTERMEDIATE SPLICES WILL BE ALLOWED. THIS WORK SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR; NO ADDITIONAL PAYMENT WILL BE MADE.

SUMMARY OF QUANTITIES

BID ITEM	ITEM NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
1	6.05	CONSTRUCTION MOBILIZATION, COMPLETE	L.S.	1
2	6.01	CONSTRUCTION PROJECT SIGN, PER CONTRACT SPECIAL PROVISIONS	EACH	2
3	19.01	CONSTRUCTION TRAFFIC CONTROL & BARRICADING, COMPLETE	L.S.	1
4	424.012	ELECTRICAL CONDUIT, 3", INCL. PUSHING, BORING & JACKING, CIP	LIN.FT.	3,000
5	425.003	ELECTRICAL PULL BOX (LARGE), CIP	EACH	16
6	428.090	ADAPTIVE SIGNAL CONTROL SYSTEM, CIP	L.S.	1
7	428.093	VIDEO CABLE, CIP	LIN.FT.	3,000
8	428.094	VIDEO CAMERA, CIP	L.S.	1

UTILITY CONTACTS

ABCWUA
(WATER & SEWER)
KRIS JOHNSON, PE.
SENIOR ENGINEER
P.O. Box 568
Albuquerque, NM 87103
(505) 768-2729

City of Albuquerque
(TRAFFIC)
Call 311
Provide description of request

THESE ARE THE KNOWN UTILITIES IN THE PROJECT AREA. CONTRACTOR SHALL VERIFY UTILITIES PRIOR TO ANY EXCAVATION OR BORING ACTIVITIES.

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

APPROVED FEB 23 2015 DESIGN REVIEW COMMITTEE

APPROVED SEP 25 2015 CITY ENGINEER

RECORD DRAWINGS

KAREN ASPELIN NEW MEXICO 12555 REGISTERED PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE	BY
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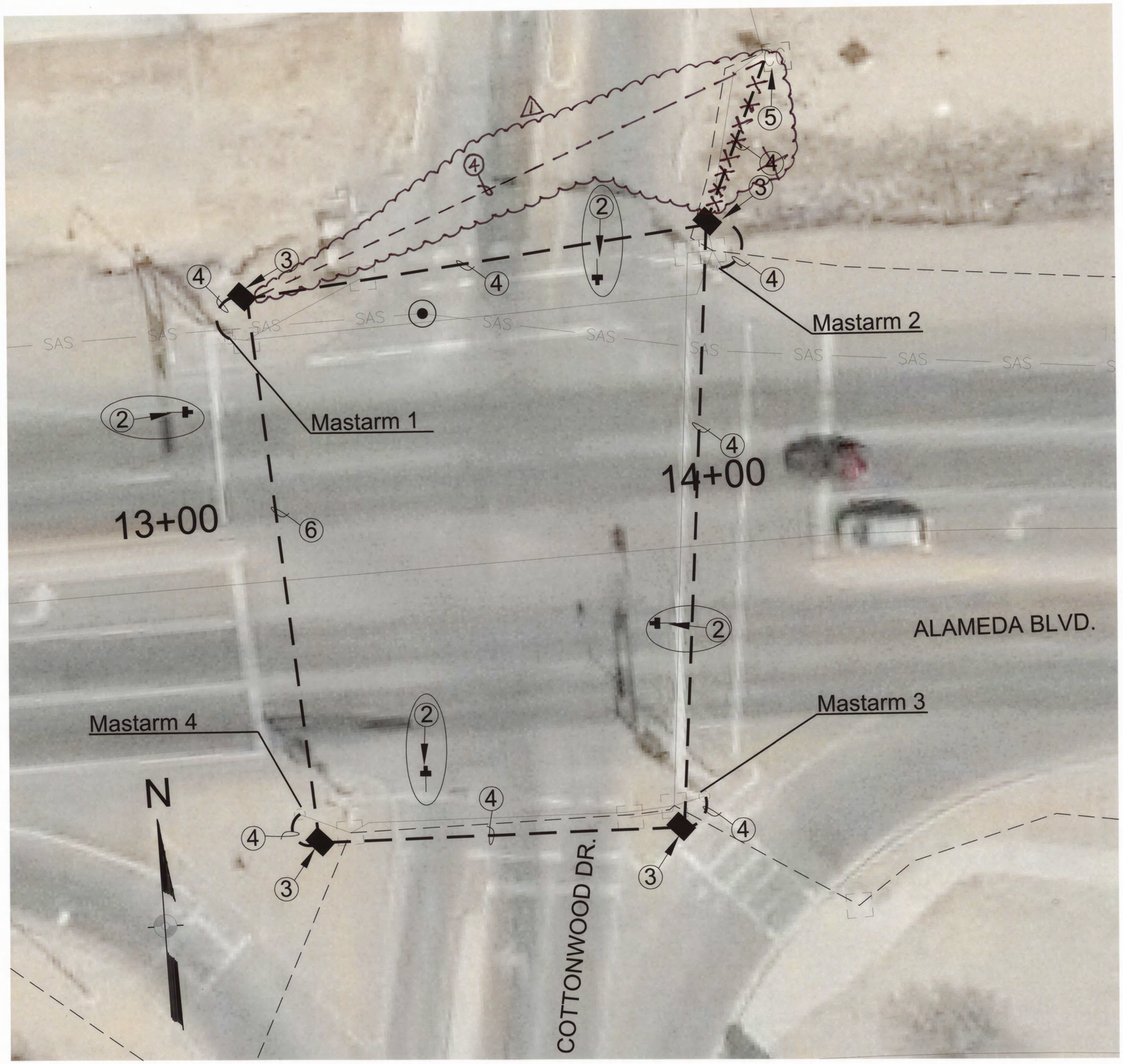
REVISIONS (OR CHANGE NOTICES)

BERNALILLO COUNTY
PUBLIC WORKS DIVISION
ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

NOTES AND SUMMARY OF QUANTITIES

DESIGNED BY: Parametrix, Inc.
PHONE: (505) 821-4700
EMAIL: kaspelin@parametrix.com

DESIGNED BY: Parametrix, Inc. NEW MEXICO PROJECT NO. TS.2012.RSVADS CITY PROJECT NO. 660484 SHEET NO. 2



GENERAL NOTES

1.) THE CONTRACTOR SHALL INSTALL A METAL CONDUIT ONTO THE OUTSIDE OF THE CABINET AND CONNECT INTO THE CABINET THROUGH A CUT OR DRILLED HOLE. ON THE OUTSIDE OF THE CABINET THE CONDUIT SHALL PENETRATE INTO THE GROUND AND INTERCEPT THE R.E.C. FROM THE NEARBY PULLBOX. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM NO. 424.012, ELECTRICAL CONDUIT 3".

2.) THE CONTRACTOR SHALL INSTALL NEW 3" R.E.C. AND PULL BOXES PER THE PLANS. THE LOCATIONS SHALL BE COORDINATED WITH THE CITY OF ALBUQUERQUE SIGNAL LAB. THE COST FOR INSTALLATION OF THE NEW CONDUIT AND PULL BOXES SHALL BE PAID FOR UNDER ITEM NO. 424.012 ELECTRICAL CONDUIT 3" AND ITEM NO. 425.003 ELECTRICAL PULL BOX (LARGE). ALL NEW CONDUIT SHALL BE PLACED BY BORING AND JACKING. NO ASPHALT CUTS WILL BE ALLOWED.

KEYED NOTES

(1) INSTALL NEW VIDEO DETECTION CAMERA ON EXISTING MASTARM LUMINAIRE EXTENSION

(2) INSTALL NEW VIDEO DETECTION CAMERA ON NEW MASTARM RISER. MASTARM RISER COST AND INSTALLATION SHALL BE INCIDENTAL TO ITEM NO. 428.090 ADAPTIVE SIGNAL CONTROL SYSTEM.

(3) INSTALL NEW LARGE SIZE PULLBOX

(4) INSTALL NEW VIDEO CABLE(S) IN NEW 3" BORED CONDUIT

(5) EXISTING CONTROLLER (ASC/3-2100) IN EXISTING CABINET (NEMA TS-1)

(6) INSTALL NEW 3" BORED CONDUIT WITH PULLSTRING

RECORD DRAWINGS

APPROVED SEP 25 2015 CITY ENGINEER

APPROVED FEB 23 2015 DESIGN REVIEW COMMITTEE

NO.	DESCRIPTION	DATE	BY
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1	AS BUILT - RECORD DRAWING	12-22-16	GP

REVISIONS (OR CHANGE NOTICES)

KAREN ASPEUM NEW MEXICO 10989 REGISTERED PROFESSIONAL ENGINEER

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

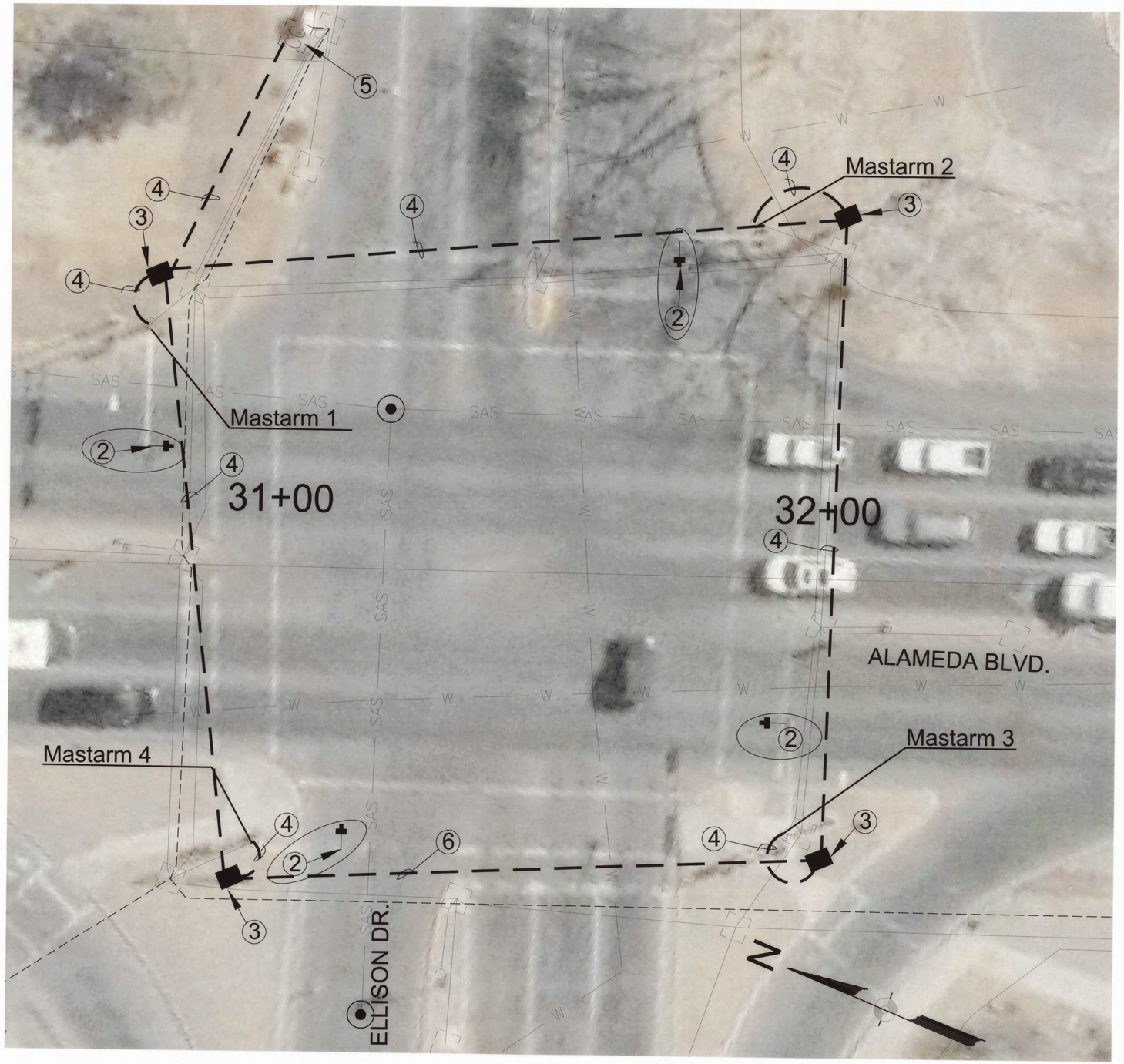
ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT-PHASE 2

ALAMEDA BLVD./COTTONWOOD DR.
SIGNAL MODIFICATION PLAN

DRAWING SCALE: 1" = 20'

DESIGNED BY: Parametrix, Inc. NEW MEXICO PROJECT NO. TS.2012.RSVADS CITY PROJECT NO. 660484 SHEET NO. 3

DESIGNED BY: Parametrix, Inc. PHONE: (505) 821-4700 EMAIL: kaspelin@parametrix.com



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6. INSTALL NEW 3" BORED CONDUIT WITH PULLSTRING

RECORD DRAWINGS

APPROVED SEP 25 2015 CITY ENGINEER

APPROVED FEB 23 2015 DESIGN REVIEW COMMITTEE

MAREK ASPELIN NEW MEXICO 13265 REGISTERED PROFESSIONAL ENGINEER

NO.	DESCRIPTION	DATE	BY
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REVISIONS (OR CHANGE NOTICES)

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

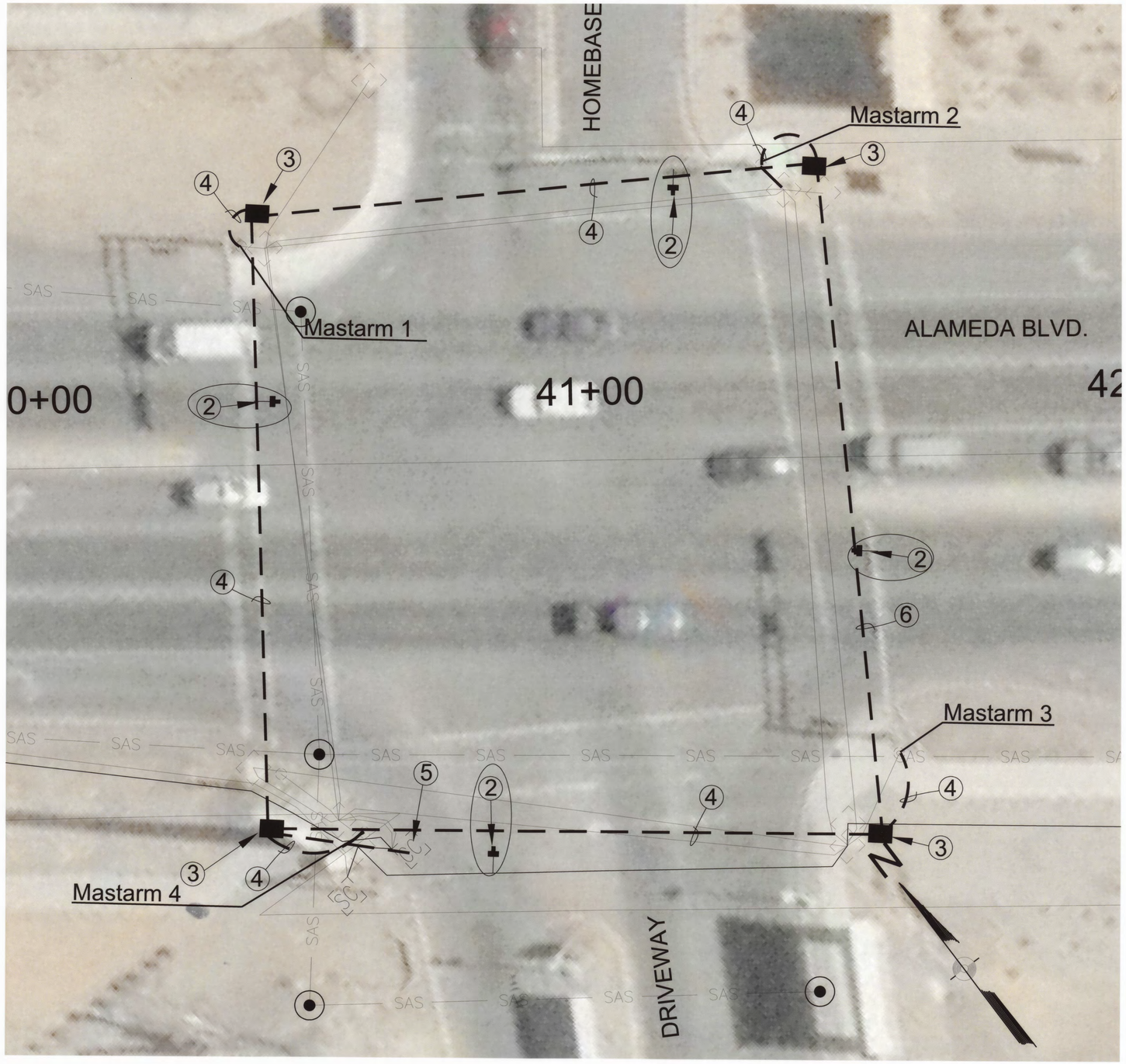
ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

ALAMEDA BLVD./ELLISON DR.
SIGNAL MODIFICATION PLAN

DRAWING SCALE: 1" = 20'

DESIGNED BY: Parametrix, Inc. NEW MEXICO PROJECT NO. TS.2012.RSVADS CITY PROJECT NO. 660484 SHEET NO. 4

DESIGNED BY: Parametrix, Inc. PHONE: (505) 821-4700 EMAIL: kaspelin@parametrix.com



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RECORD DRAWINGS

APPROVED SEP 25 2015 CITY ENGINEER

APPROVED FEB 23 2015 DESIGN REVIEW COMMITTEE

NO.	DESCRIPTION	DATE	BY
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REVISIONS (OR CHANGE NOTICES)

MAREK ASPELIN NEW MEXICO 12993 REGISTERED PROFESSIONAL ENGINEER

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

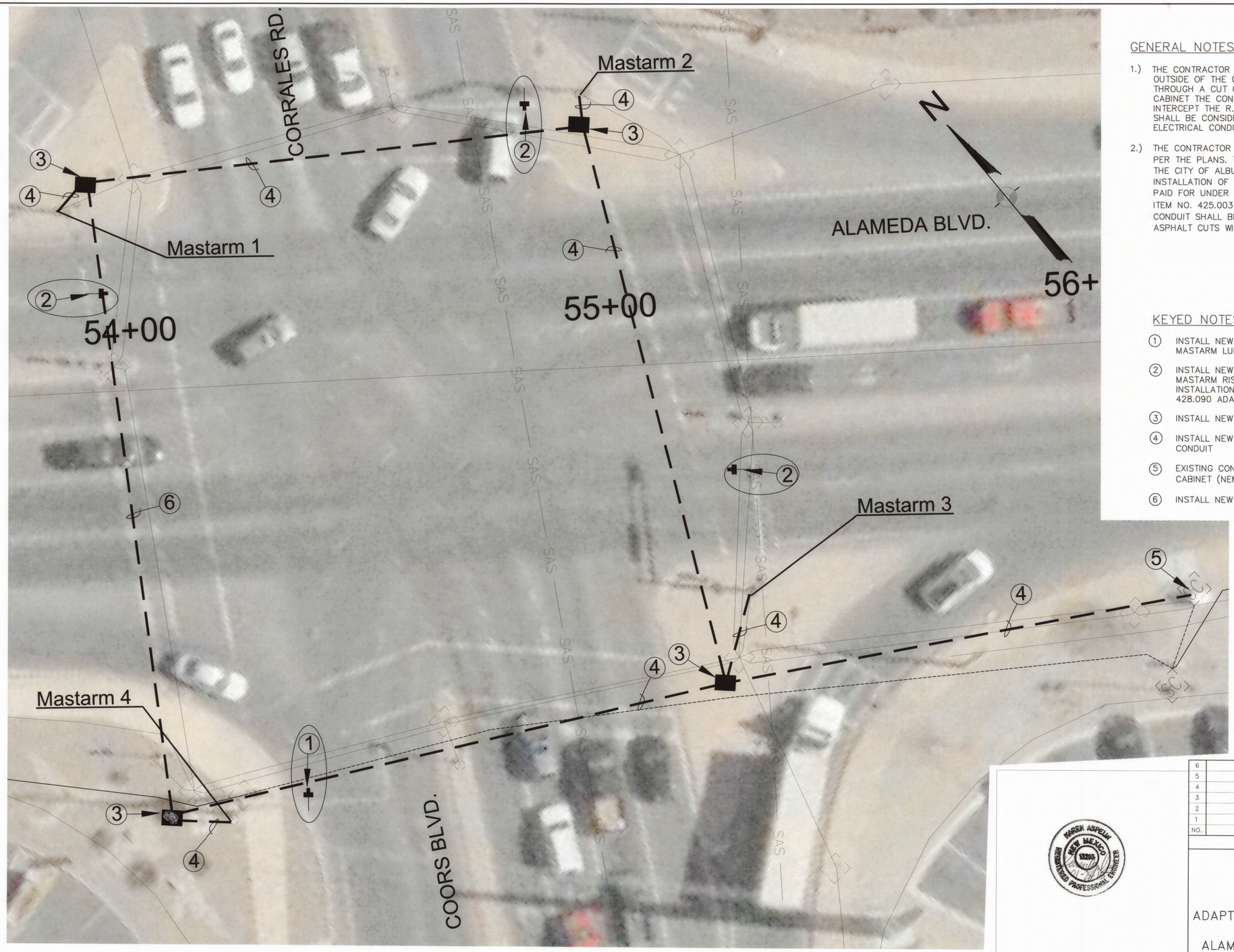
ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

ALAMEDA BLVD./HOMEBASE
SIGNAL MODIFICATION PLAN

DRAWING SCALE: 1" = 20'

DESIGNED BY: Parametrix, Inc. NEW MEXICO PROJECT NO. TS.2012.RSVADS CITY PROJECT NO. 660484 SHEET NO. 5

DESIGNED BY: Parametrix, Inc. PHONE: (505) 821-4700 EMAIL: kaspelin@parametrix.com



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RECORD DRAWINGS

APPROVED SEP 25 2015 CITY ENGINEER

APPROVED FEB 23 2015 DESIGN REVIEW COMMITTEE

KAREN ASPELIN NEW MEXICO 12393 REGISTERED PROFESSIONAL ENGINEER

DRAWING SCALE: 1" = 20'

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REVISIONS (OR CHANGE NOTICES)

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

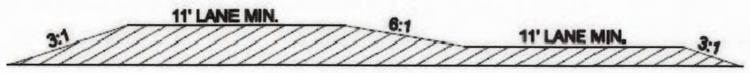
ALAMEDA BLVD./COORS–CORRALES
SIGNAL MODIFICATION PLAN

DESIGNED BY: Parametrix, Inc. PHONE: (505) 821-4700 EMAIL: kaspelin@parametrix.com

DESIGNED BY: Parametrix, Inc. NEW MEXICO PROJECT NO. TS.2012.RSVADS CITY PROJECT NO. 660484 SHEET NO. 6

Traffic Control Notes

1. The Contractor/TCP firm **MUST** adhere to the dates and times listed on the TCP permit/plan. Failure to do so will result in the permit **being revoked.**
2. The NMDOT reserves the right to make any changes and/or modifications to the approved Traffic Control Permit.
3. The Contractor/TCP firm shall adhere to all the requirements listed in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) as well as the latest edition of AASHTO Roadside Design Guide.
4. In the areas of pavement operations or other activities within the traveled way and adjacent to the existing traveled lane, the contractor shall assure that no pavement drop-offs are left exposed during non-working hours. The contractor shall initiate corrective means as per "the New Mexico Department of Transportation Pavement Drop-off Guideline" to achieve a minimum 6:1 slope between traveled lanes and a minimum 3:1 slope adjacent to the existing traveled lane with two 11foot driving lanes as shown in the detail below.



5. The Contractor/TCP firm will be required to cover up all conflicting signs within or in advance of the work zone.
6. In covering up any conflicting signs, the contractor is to use an approved method of covering existing signing so as not to damage/distort the sign sheeting or markings. The Contractor/TCP firm shall not place tape directly to the face of the sign. Failure to adhere to this requirement will result in the Contractor/TCP firm being required to replace the sign at no cost to the NMDOT.
7. The Contractor/TCP firm shall not place a lane drop taper along a horizontal curve. The lane drop taper shall be placed in advance of the horizontal curve so that it is visible to all oncoming traffic.
8. On crest vertical curves, the Contractor/TCP firm shall place lane drops in advance or at the beginning of the curve to enhance visibility of the lane drop to oncoming traffic.
9. The Contractor/TCP firm **SHALL** contact Mr. Phil Gallegos, D3 Public Information Officer (PIO), at least 48 hours before any work listed in the TCP is performed, to confirm the actual start dates of the construction. Mr. Gallegos will then publish the upcoming work in the District Three Traffic Report. Mr. Gallegos can be reached at (505) 841-2764 (Office) or (505) 220-4153.
10. All traffic devices shall be kept clean throughout the duration of the project. Any sign that is tagged by graffiti shall be cleaned (as long as it does not affect the reflective sheeting) within 24 hours or removed and replaced.
11. "BUMP", "LOOSE GRAVEL", "LANE DROP-OFF SIGN" sign placement: The contractor shall place W8-1-48 signs ("BUMP" - B/FO), W8-7-48 signs ("LOOSE GRAVEL" - B/FO) and/or W8-9a-48 signs ("SHOULDER DROP-OFFS" - B/FO) in advance of bridge approaches or other locations during cold milling and overlay operations as needed or as directed by the project manager. See standard drawing 702-01-1/3 for sign details
12. Placement of the sequential arrow shall be at or near the beginning of the lane closure taper. In areas of insufficient pavement width, the sequential arrow may be placed within the taper, but not to exceed ½ the taper length. In all cases, the sequential arrow shall be placed behind the channelization devices. Shoulder shall be closed in advance of the margining taper to direct vehicular traffic to remain within the traveled way.
13. All construction signing on the interstate and on high speed (greater or equal to 45 MPH) multilane divided facilities shall be double indicated.
14. All signs that are part of work zone that is in place for more than **3 days** shall be placed on **posts**. If there are physical restrictions at the site that prohibit the sign from being placed on posts, the contractor shall notify the NMDOT traffic section and obtain a waiver.
15. Covering existing white and yellow stripes with black paint, as a method of stripe removal, is **strictly prohibited**.

Rev. June 2011

16. The following reflectivity material shall be used on all construction signing placed on NMDOT roadways.

SIGN	SIGN CODE	COLOR	LETTER SHEETING	BACKGROUND SHEETING
APPROACH SIGNS	W20-1,2,3,4,5,7	BLK / FLUORESCENT ORANGE	———	Type VII, VIII or IX
CHEVRONS	W1-8	BLK / FLUORESCENT ORANGE	———	Type VII, VIII or IX
CURVES	W1-2	BLK / FLUORESCENT ORANGE	———	Type VII, VIII or IX
REVERSE CURVE	W1-4	BLK / FLUORESCENT ORANGE	———	Type VII, VIII or IX
MERGE	W4-1	BLK / FLUORESCENT ORANGE	———	Type VII, VIII or IX
NO PASSING ZONE	W14-3	BLK / FLUORESCENT ORANGE	———	Type VII, VIII or IX
FLAGGER PADDLE	———	BLK / FLUORESCENT ORANGE on Side 1 with RED on Side 2	———	Type VII, VIII or IX
ALL DRUMS	———	WHITE / FLUORESCENT ORANGE	———	Type VII, VIII or IX
All Other Const. Signs	———	BLK / ORANGE	———	Type III

17. All warning and regulatory signs shall meet the following size requirements:
    a. Interstate: Warning sign 48"x48" Regulatory 48"x60"
    b. Non-Interstate: Warning sign 36"x36" Regulatory 36"x42"
18. All temporary wall barrier (Steel, Concrete) end sections, within the clear zone, have to be protected with an approved crash cushion attenuator (approved based on the design speed (not posted speed/reduced speed) of the road and the corresponding manufacturer's recommendation).
19. When flaring the leading end of a Temporary Wall Barrier (TWB) within a construction work zone, the flare rate shall be done in accordance with the rates shown in the table below:

Roadway Speed Limit	Minimum Taper/Flare Rate	Desirable Taper/Flare Rate
Less than 45 MPH	8:1	18:1
Between 45 MPH and 55 MPH	10:1	24:1
Greater than 55 MPH	15:1	30:1

20. When temporary wall barrier is placed in a construction work zone, a 5' buffer area is strongly recommended between the Temporary Concrete Wall Barrier and the work zone to accommodate barrier deflection. When a 5' buffer area is not attainable, consideration shall be given to anchoring the TWB to the pavement surface. (See attachment "B" - note 8 in standard drawing 606-20-1/4 dated 1/11/2005).
21. The crash cushion attenuators shall be designed as per the District Traffic Engineer's recommendations. The District may elect to either utilize the posted/design speed or the 85% speed in the layout of the crash cushion attenuators within the work zone.

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REVISIONS (OR CHANGE NOTICES)

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT—PHASE 2

NMDOT STANDARD TRAFFIC CONTROL NOTES

RECORD DRAWINGS

DESIGNED BY: Parametrix, Inc. PHONE: (505) 821-4700 EMAIL: kaspelin@parametrix.com

DESIGNED BY: Parametrix, Inc. NEW MEXICO PROJECT NO. TS.2012.RSVADS CITY PROJECT NO. 660484 SHEET NO. 7

22. If any of the signs and/or traffic control devices, on the project TCP, are being used overnight the following minimum reflectivity standards shall be required:

New MUTCD Table 2A-3. Minimum Maintained Retroreflectivity Levels ①

SIGN COLOR	SHEETING TYPE (ASTM D4956-04)				ADDITIONAL CRITERIA
	Beaded Sheeting			Prismatic Sheeting	
	I	II	III	III, IV, VI, VII, VIII, IX, X	
White on Green	W*; G ≥ 7	W*; G ≥ 15	W*; G ≥ 25	W ≥ 250; G ≥ 25	Overhead
	W*; G ≥ 7	W ≥ 120; G ≥ 15			Ground-mounted
Black on Yellow or Black on Orange	Y*; O*	Y ≥ 50; O ≥ 50			②
	Y*; O*	Y ≥ 75; O ≥ 75			③
White on Red	W ≥ 35; R ≥ 7				④
Black on White	W ≥ 50				—

① The minimum maintained retroreflectivity levels shown in this table are in units of cd/lx/m² measured at an observation angle of 0.2° and an entrance angle of -4.0°.
② For text and fine symbol signs measuring at least 1200 mm (48 in) and for all sizes of bold symbol signs
③ For text and fine symbol signs measuring less than 1200 mm (48 in)
④ Minimum Sign Contrast Ratio ≥ 3:1 (white retroreflectivity ÷ red retroreflectivity)
* This sheeting type should not be used for this color for this application.

BOLD SYMBOL SIGNS

- W1-1, -2 – Turn and Curve
- W1-3, -4 – Reverse Turn and Curve
- W1-5 – Winding Road
- W1-6, -7 – Large Arrow
- W1-8 – Chevron
- W1-10 – Intersection in Curve
- W1-15 – 270 Degree Loop
- W2-1 – Cross Road
- W2-2, -3 – Side Road
- W2-4, -5 – T and Y Intersection
- W2-6 – Circular Intersection
- W3-1 – Stop Ahead
- W3-2 – Yield Ahead
- W3-3 – Signal Ahead
- W4-1 – Merge
- W4-2 – Lane Ends
- W4-3 – Added Lane
- W4-6 – Entering Roadway Added Lane
- W6-1, -2 – Divided Highway Begins and Ends
- W6-3 – Two-Way Traffic
- W10-1, -2, -3, -4, -11, -12 – Highway-Railroad Advance Warning
- W11-2 – Pedestrian Crossing
- W11-3 – Deer Crossing
- W11-4 – Cattle Crossing
- W11-5 – Farm Equipment
- W11-6 – Snowmobile Crossing
- W11-7 – Equestrian Crossing
- W11-8 – Fire Station
- W11-10 – Truck Crossing
- W12-1 – Double Arrow
- W16-5p, -6p, -7p – Pointing Arrow Plaques
- W20-7a – Flagger
- W21-1a – Worker

FINE SYMBOL SIGNS – Symbol Signs Not Listed As Bold Symbol Signs

SPECIAL CASES

- W3-1 – Stop Ahead: Red retroreflectivity ≥ 7
- W3-2 – Yield Ahead: Red retroreflectivity ≥ 7; White retroreflectivity ≥ 35
- W3-3 – Signal Ahead: Red retroreflectivity ≥ 7; Green retroreflectivity ≥ 7
- W3-5 – Speed Reduction: White retroreflectivity ≥ 50
- For non-diamond shaped signs such W14-3 (No Passing Zone), W4-4p (Cross Traffic Does Not Stop), or W13-1, -2, -3, -5 (Speed Advisory Plaques), use largest sign dimension to determine proper minimum retroreflectivity level.

23. All devices that are placed within the NMDOT R/W shall adhere to section 702 - Traffic Control Devices For Construction – in the latest edition of the NMDOT Specification book

24. All stationary objects within clear zone shall be properly shielded and outlined with drums mounted with Type "A" warning lights. Use of vertically mounted retro-reflective material in lieu of a Type A warning light is **strictly** prohibited.

25. Use of Type I or II barricades for approach tapers on rural/urban Interstate or secondary roadways is **strictly** prohibited.

26. Any equipment, materials, or vehicles stored within Right –of-way (ROW) shall be outside of clear zone (based on existing posted speed).

27. Any equipment, material or vehicle stored within clear zone shall be properly shielded.

Rev. June 2011

28. Materials, work activities, equipment, and vehicles shall not be stored within the established buffer space of the project work zone.

29. All construction equipment, vehicles and materials shall remain behind traffic control devices.

30. All traffic control device types, quantities and spacing shall not deviate from the approved Traffic Control Plan. Any changes to the traffic control plan must be approved by the District Traffic Engineer or his/her designee.

31. The following Taper lengths, buffer zone, and spacing of devices requirements shall be adhered to:

Posted Speed (MPH)	Merging (L) & Shifting Taper (1/2L) Length (FT.) [1] Formula	11' lane		12' Lane		13' Lane		Shoulder Taper (Ft.) [2] 1/3 L 4'	6'	8'	10'	Transition Area/ Calming Zone [3] (2L) (Ft.)	Buffer Space or Distance [4] to Flagger Station	Maximum Spacing of Devices (Ft.) [5] On a Taper	On a Tangent
20		75	40	80	40	85	45	9	13	18	22	160	115	20	40
25	L=WS²/60	115	60	125	65	135	70	14	21	28	35	250	155	25	50
30		165	85	180	90	195	100	20	30	40	50	360	200	30	60
35		225	115	245	125	265	135	27	41	54	68	490	250	35	70
40		295	150	320	160	345	175	36	53	71	89	640	305	40	80
45		495	250	540	270	585	295	60	90	120	150	1080	360	45	90
50		550	275	600	300	650	325	67	100	133	167	1200	425	50	100
55		605	305	660	330	715	360	73	110	147	183	1320	495	55	110
60	L=WS	660	330	720	360	780	390	80	120	160	200	1440	570	60	120
65		715	360	780	390	845	425	87	130	173	217	1560	645	65	130
70		770	385	840	420	910	455	93	140	187	233	1680	730	70	140
75		825	415	900	450	975	490	100	150	200	250	1800	820	75	150

[1] See Section 6C.08 on page 6C-5 and Figure 6C-2 on page 6C-6 of the 2003 MUTCD
[2] See Section 6C.08 on page 6C-5 and Figure 6C-2 on page 6C-6 of the 2003 MUTCD
[3] See Figure 6H-37 on page 6H-79 of the 2003 MUTCD
[4] See Section 6C.06 on page 6C-04 and 6C-05 of the 2003 MUTCD

32. The contractor or the traffic Control Subcontractor Shall provide a Traffic Control Supervisor on site during working hours for response within 1 hour to traffic control issues/concerns.

33. Work Zone Interim Markings:

a. The contractor shall place reflectorized painted markings on each lane line on each intermediate lift of surfacing or milled surface at the end of day's surfacing or milling operation. These markings shall be placed in accordance with the details shown in Figure 1 or Figure 1a on this sheet. In the event the painted markings cannot be placed as described above, the contractor shall, with the approval of the project manager, place marking tape or temporary reflective raised pavement markers in accordance with the details shown in Figure 1 or Figure 1a shown in these notes or as directed by the project manager. Payment for marking tape or temporary pavement markings will be paid for under the unit price of reflectorized painted markings, unless otherwise specified. The contractor will be responsible for maintaining the Temporary tabs/raised pavement markers when requested by the project manager and /or the District Traffic Engineer and/or their designees. Maintenance of the tabs will be considered incidental to the completion of the project.

b. The contractor shall place removable marking tape or temporary reflective raised pavement markers after placement of the final lift of surfacing if permanent markings are not placed during the same working day. These markings shall be placed in accordance with the details shown in Figure 1 or Figure 1a shown in these notes or as directed by the project manager.

c. On roadways with severe curvature, broken-line interim markings with half-cycle lengths and a minimum of 2 foot stripes or a group of two temporary reflective pavement markings spaced 2 feet apart may be used where passing is allowed. Interim edge lines or channelization lines for delineation may be used as needed or as directed by the project manager. Passing/no passing zone signing to supplement interim markings for delineation may be used as needed or as directed by the project manager. All interim markings shall be in accordance with the current edition of the MUTCD.

d. Shoulder and gore area delineation will be required on each intermediate lift of surfacing or milled surface at the end of the day's pavement operation. Payment for marking tape or temporary pavement markings will be paid for under

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REVISIONS (OR CHANGE NOTICES)

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

NMDOT STANDARD TRAFFIC CONTROL NOTES

RECORD DRAWINGS

DESIGNED BY: Parametrix, Inc. PHONE: (505) 821-4700 EMAIL: kaspelin@parametrix.com

the unit price of reflectorized painted markings, unless otherwise specified. Contractor may substitute edge line pavement marking with traffic devices such as drums and/or vertical panels.

FIGURE 1
SHORT TERM WORK ZONE INTERIM MARKINGS
(IN PLACE FOR LESS THAN 14 CALENDAR DAYS)
(MINIMUM OF 2 COATS OR AS DIRECTED BY THE PROJECT MANAGER)

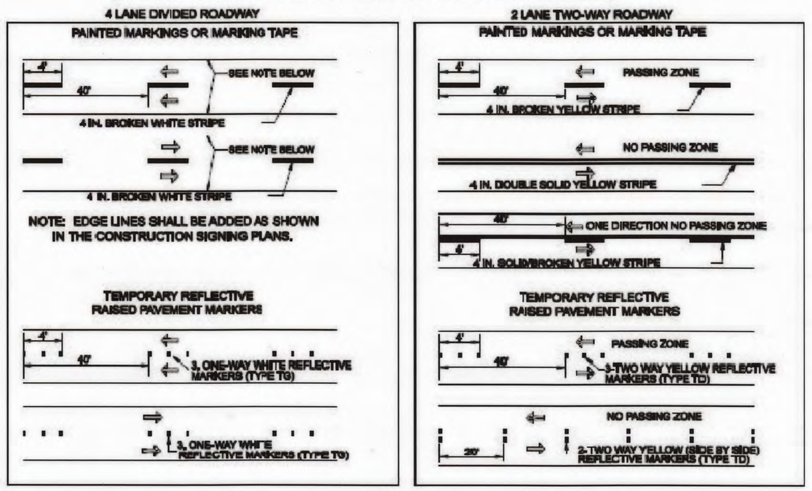
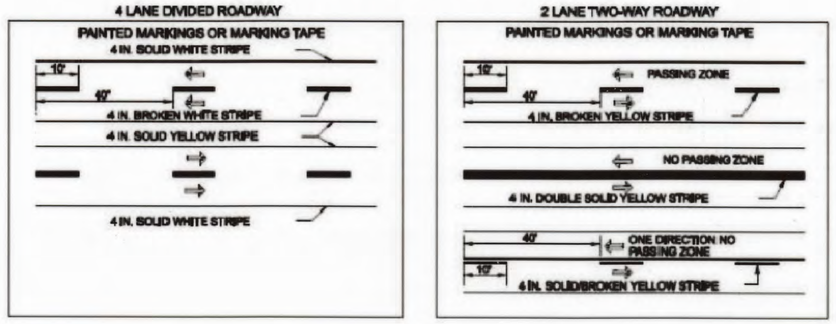


FIGURE 1A
STANDARD WORK ZONE INTERIM MARKINGS
(IN PLACE FOR 14 CALENDAR DAYS OR MORE)
(MINIMUM OF 2 COATS OR AS DIRECTED BY THE PROJECT MANAGER)



Rev. June 2011

34. Traffic Control Work Zone shall comply with requirements of FHWA 23 CFR 630 Subpart K for traffic control devices.

35. Contractor is required to comply with requirements of FHWA CFR 630 Subpart J which shall include an Incident Management Plan to be utilized for the entire duration of the project. The Incident Management Plan shall contain a method to address traffic flow through the work zone during incidents. The Incident Management Plan must be reviewed and approved by the District Traffic Engineer. The plan shall contain the following as a minimum:

1. Contacts for the contractor, local enforcement, safety agencies, municipal agencies, public information officer and NMDOT
2. Steps to be followed during incidents
3. Method of recording and reporting incidents

36. The contractor shall provide certificate of insurance in the amount of $1,000,000 per occurrence for the life of the project. NMDOT District Three shall be also named as insured at 7500 Pan American Freeway NE Albuquerque, NM 87109.

LIST OF INCIDENTALS – No Additional Payment Associated

	LIST OF INCIDENTALS for Temporary Traffic Control
A	MAINTENANCE OF TEMPORARY PAVEMENT MARKINGS FOR PROJECT DURATION

37. ***TRAFFIC CONTROL PLAN:*** *The contractor shall be required to submit and obtain approval of a Traffic Control Permit prior to commencing any construction activities on the project. The Contractor shall submit the permit to the Project Manager for review and approval by the District Three Traffic Engineer. Along with the permit, the contractor will be required to submit one of the following:*

1) The approved Traffic Control Plans that are Included in this plan set.

2) A Traffic Control Plan that will reflect the contractor's proposed construction phasing. These plans will have to be prepared and sealed by a registered New Mexico Professional Engineer. The plans shall be reviewed and approved by the District Three Traffic Engineer.

The NMDOT'S District Three Traffic Section reserves the right to make any changes to the Traffic Control Plan to address site specific items that were not shown on the plans. The NMDOT also reserves the right to add devices and/or signs to the approved plan if it is determined by the Traffic Engineer that the signs and/or devices would be required to address safety concerns within or in advance of the work zone. Any changes to the plans which result in additional signs and/or devices will be considered incidental to Item 618000 - Traffic Control Management.

The Traffic Control Permit along with the Traffic Control Plans shall be submitted to the NMDOT at least 10 working days before the Pre-Construction meeting. The Traffic Control Plans shall be submitted on an 11x17 sheets. No hand drafted Traffic Control Plans will be accepted.

A copy of the Traffic Control Permit may be obtained at the District Three Office or by calling District Traffic Engineer at (505) 841-2729.

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REVISIONS (OR CHANGE NOTICES)

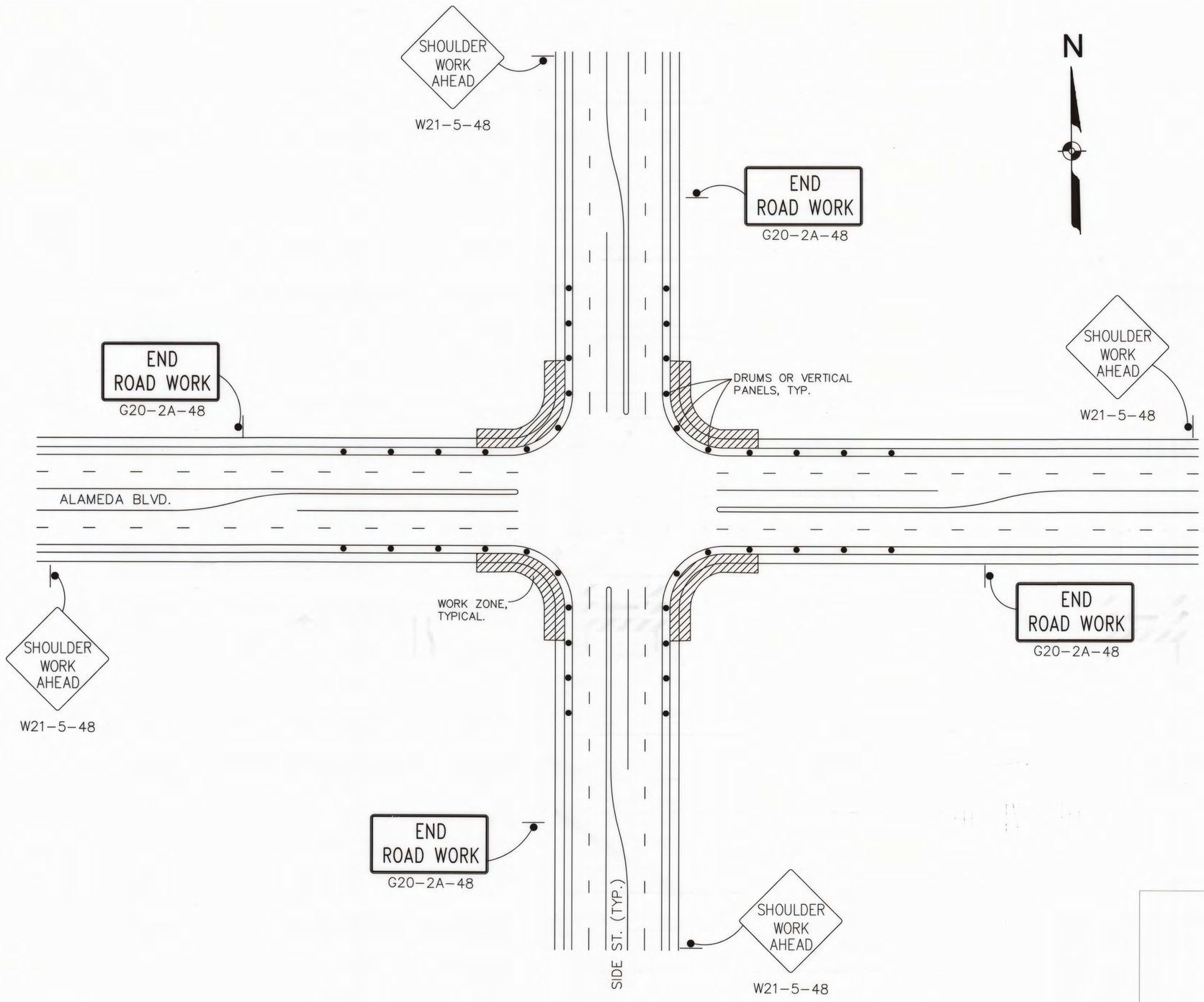
BERNALILLO COUNTY
PUBLIC WORKS DIVISION

ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

NMDOT STANDARD TRAFFIC CONTROL NOTES

RECORD DRAWINGS

DESIGNED BY: Parametrix, Inc. PHONE: (505) 821-4700 EMAIL: kaspelin@parametrix.com



RECORD DRAWINGS

KAREN ASPELIN NEW MEXICO 13293 REGISTERED PROFESSIONAL ENGINEER 08-15-12

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REVISIONS (OR CHANGE NOTICES)

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

ALAMEDA BLVD./SHOULDER WORK
TYPICAL TRAFFIC CONTROL PLAN

DRAWING SCALE: N.T.S.

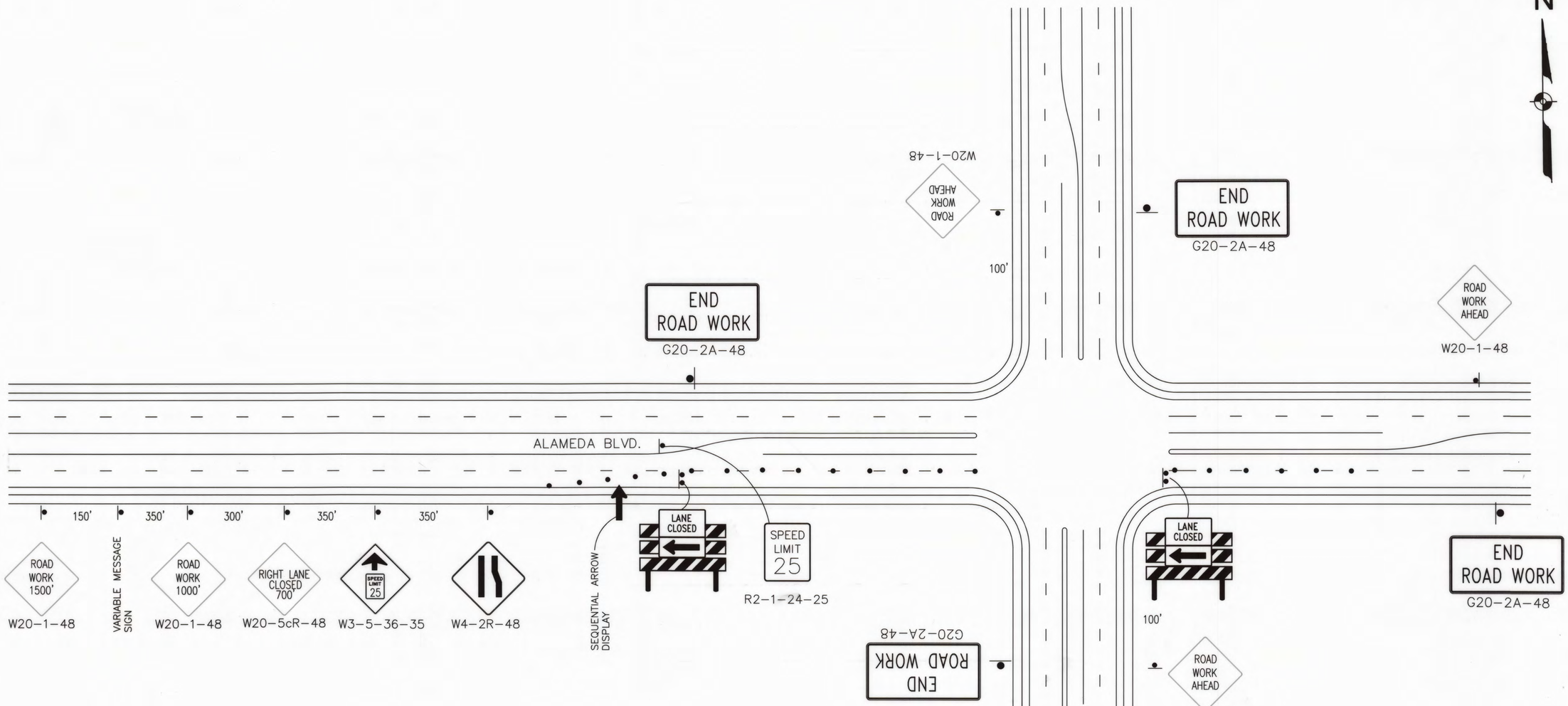
DESIGNED BY: Parametrix, Inc.

NEW MEXICO PROJECT NO. TS.2012.RSVADS

CITY PROJECT NO. 660484

SHEET NO. 10

DESIGNED BY: Parametrix, Inc. PHONE: (505) 821-4700 EMAIL: kaspelin@parametrix.com



NOTE:
SAME TRAFFIC CONTROL SETUP TO BE USED FOR EACH WAY OF THRU TRAFFIC.

RECORD DRAWINGS

KAREN ASPELIN NEW MEXICO 13293 REGISTERED PROFESSIONAL ENGINEER 08-15-14

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REVISIONS (OR CHANGE NOTICES)

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

TYPICAL TRAFFIC CONTROL PLAN
OUTSIDE LANE CLOSURE

DRAWING SCALE: N.T.S.

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NEW MEXICO PROJECT NO. TS.2012.RSVADS
CITY PROJECT NO. 660484
SHEET NO. 11

ENVIRONMENTAL COMMITMENTS

THE CONTRACTOR SHALL REFER TO SECTION 107 OF THE NMDOT STANDARD SPECIFICATIONS, MAKING SPECIAL NOTE OF SUB-SECTION107.14: CONTRACTOR'S RESPONSIBILITIES FOR ENVIRONMENTAL AND CULTURAL RESOURCE APPROVAL

[X] NO ADDITIONAL PROJECT-SPECIFIC ENVIRONMENTAL REQUIREMENTS APPLY.

[ ] IN ADDITION TO SECTION 107, THE FOLLOWING PROJECT-SPECIFIC ENVIRONMENTAL REQUIREMENTS APPLY:

for Dwyatte Duncan — 8-6-14

ENVIRONMENTAL SECTION MANAGER, NEW MEXICO DEPARTMENT OF TRANSPORTATION — DATE

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REVISIONS (OR CHANGE NOTICES)

BERNALILLO COUNTY
PUBLIC WORKS DIVISION

ALAMEDA BOULEVARD
ADAPTIVE SIGNAL PROJECT–PHASE 2

ENVIRONMENTAL COMMITMENTS
CN A301231

RECORD DRAWINGS

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