

PURPOSE AND SCOPE

The purpose of this plan is to provide drainage criteria necessary to manage and control storm water runoff. This plan illustrates the grading and drainage improvements required to properly discharge flows created by the site during the 6-hour, 100-year storm. The drainage concept shown on this plan was developed in concert with AMAFCA.

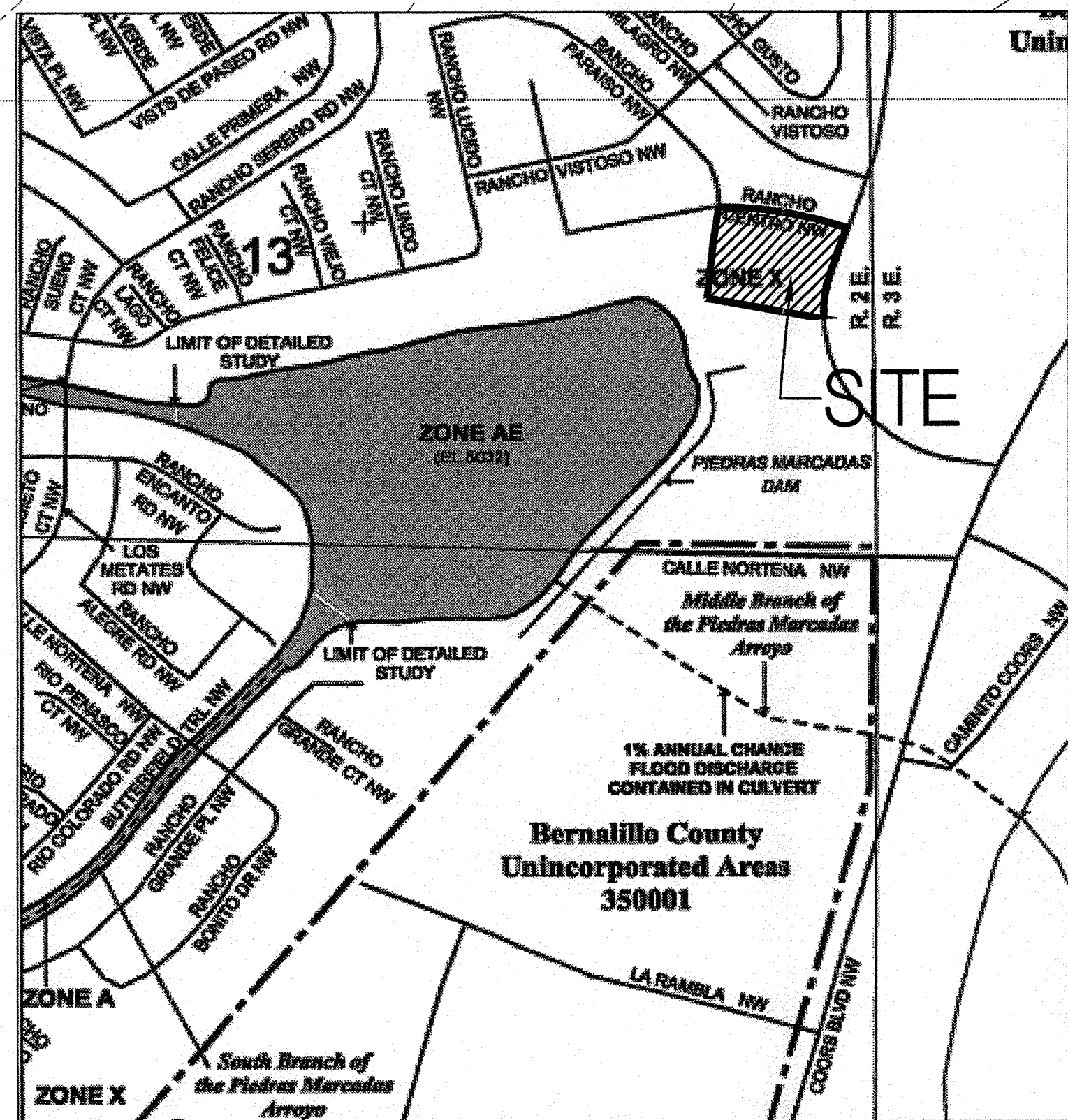
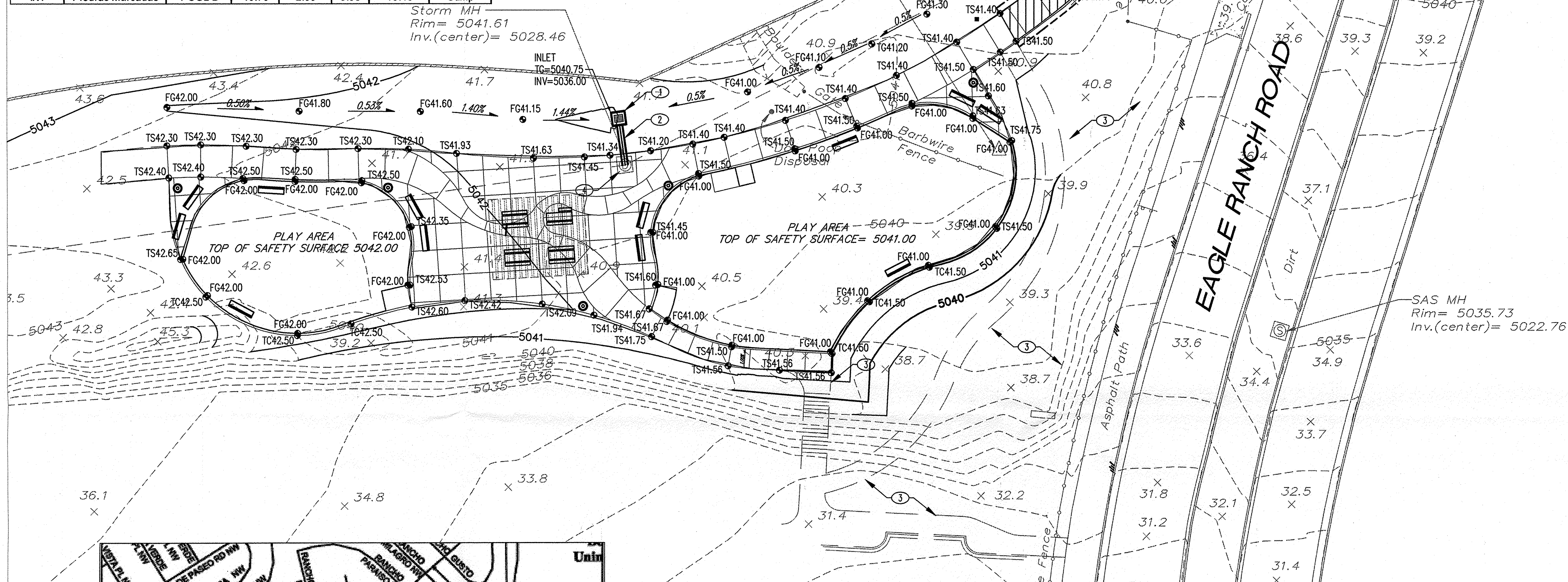
EXISTING CONDITIONS

The approximately .9 acre site consists of mostly unimproved ground with light vegetation. All existing flows are discharged into the existing Piedras Marcadas Dam spillway.

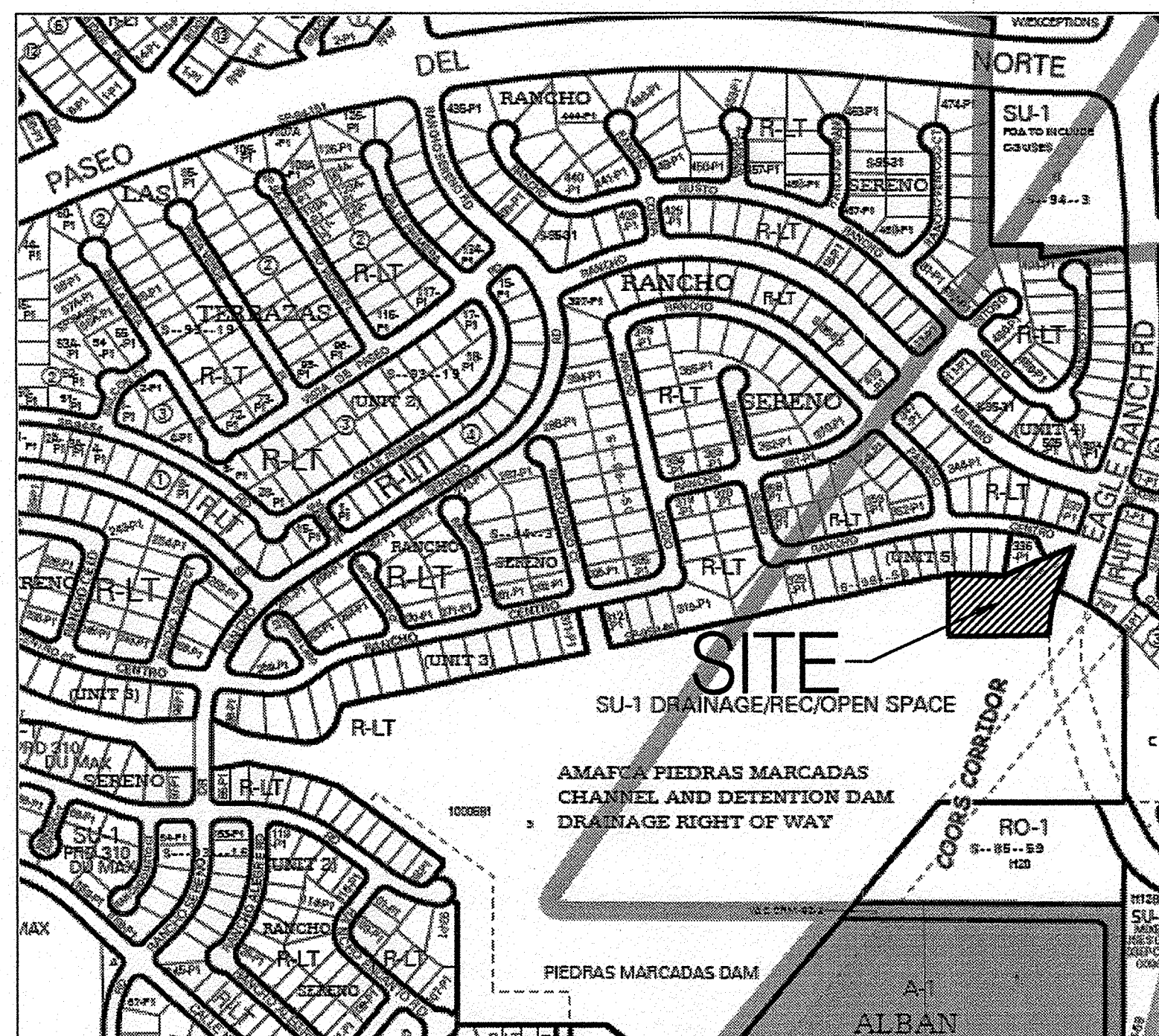
PROPOSED CONDITIONS

In accordance with AMAFCA's recommendation, all impervious areas will drain to the north into a new Type 'D' storm drain inlet. (See Inlet Table) The inlet will receive flow from all impervious surfaces (.80 cfs) as well as the landscaping area to the north (.53 cfs) and approximately 1 cfs from the offsite property north of the park. The inlet drains into an existing storm drain system. With this submittal we are requesting grading approval.

INLET TABLE							
INLET #	CONTRIBUTING BASIN	INLET TYPE	TOP OF GRATE FT	ACTUAL FLOW CFS	AVAIL HEAD FT	CAPACITY CFS	Grate Calculation
IN1	Piedras Marcadas	1-SGL D	40.75	2.33	0.58	10.46	Sump



FLOOD INSURANCE RATE MAP
MAP # 35001C0116F



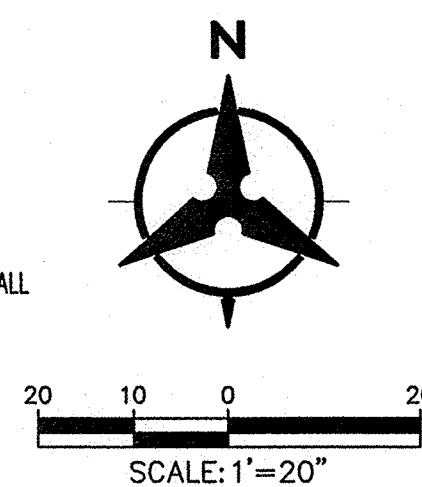
ZONE ATLAS PAGE: C-12-Z

○ KEYED NOTES

1. INSTALL STORM DRAIN INLET TYPE "SINGLE D", PER COA STD DWG 2206.
2. 18" STORM DRAIN.
3. FUTURE PHASE II DEVELOPMENT.
4. REMOVE EXISTING CONCRETE COLLAR, ADJUST MH RIM FROM 5041.61 TO 5041.33.

LEGEND

- EXISTING CONTOURS
- X 5301.15
- EXISTING GROUND SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- TC=TOP OF CURB, FL=FLOW LINE
- TW=TOP OF WALL, BW=BOTTOM OF WALL
- EX=EXISTING, TO=TOP OF GRADE
- PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- TOP OF GRATE ELEVATION



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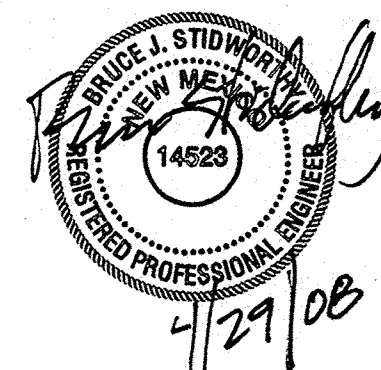
ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

GENERAL NOTES

1. ALL WORK DETAILLED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND THE PROJECT GEOTECHNICAL REPORT, WHERE APPLICABLE, CITY OF ALBUQUERQUE PUBLIC WORKS STANDARDS SHALL APPLY.
2. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA REQUIREMENTS WITH RESPECT TO STORM WATER DISCHARGE.
3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS INCLUDING ALL UNDERGROUND UTILITIES. IN THE EVENT A CONFLICT EXISTS, THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION OBSERVER OR ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
4. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT LINE LOCATING SERVICE FOR LOCATION OF EXISTING UTILITIES.
5. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES, AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.
7. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
8. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.
9. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E., BARRICADING, TOPSOIL DISTURBANCE, EXCAVATION PERMITS, EPA STORM WATER PERMITS, ETC.).
10. ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.
11. THE CONTRACTOR SHALL PREPARE A CONSTRUCTION TRAFFIC CONTROL AND SIGNING PLAN AND OBTAIN APPROVAL OF SUCH PLAN FROM THE CITY OF ALBUQUERQUE, TRAFFIC ENGINEERING DEPARTMENT, PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.
12. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), US DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
13. THE CONTRACTOR SHALL MAINTAIN ALL CONSTRUCTION BARRICADES AND SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.
14. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO CONFORM WITH EPA REQUIREMENTS, INCLUDING COMPLIANCE WITH NPDES PHASE 2 REQUIREMENTS.

GRADING NOTES

1. EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
2. THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
3. ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION," AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF ALBUQUERQUE (COA) STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).
4. EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
5. IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE PROPERTY BOUNDARIES EXCEPT AS REQUIRED BY THIS PLAN.
6. THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS OR SILT FENCE AT THE PROPERTY LINES AND WETTING THE SOIL TO PROTECT IT FROM WIND EROSION.
7. A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
8. PAVING AND ROADWAY GRADES SHALL BE $\pm 0.1'$ FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE $\pm 0.05'$ FROM BUILDING PLAN ELEVATION.
9. ALL PROPOSED CONTOURS REFLECT TOP OF PAVEMENT ELEVATIONS IN THE PARKING AREA AND MUST BE ADJUSTED FOR MEDANS AND ISLANDS.
10. VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.



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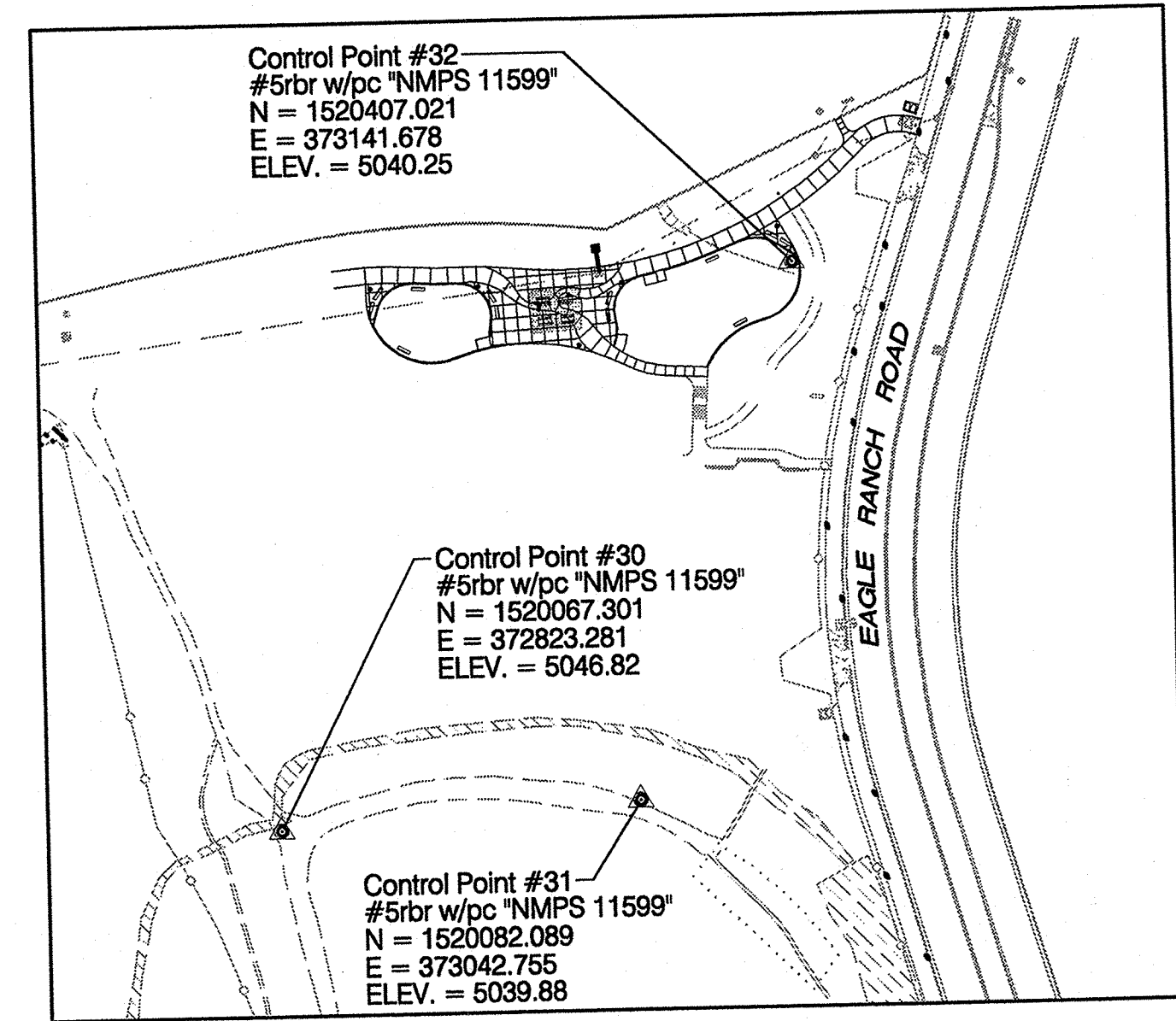
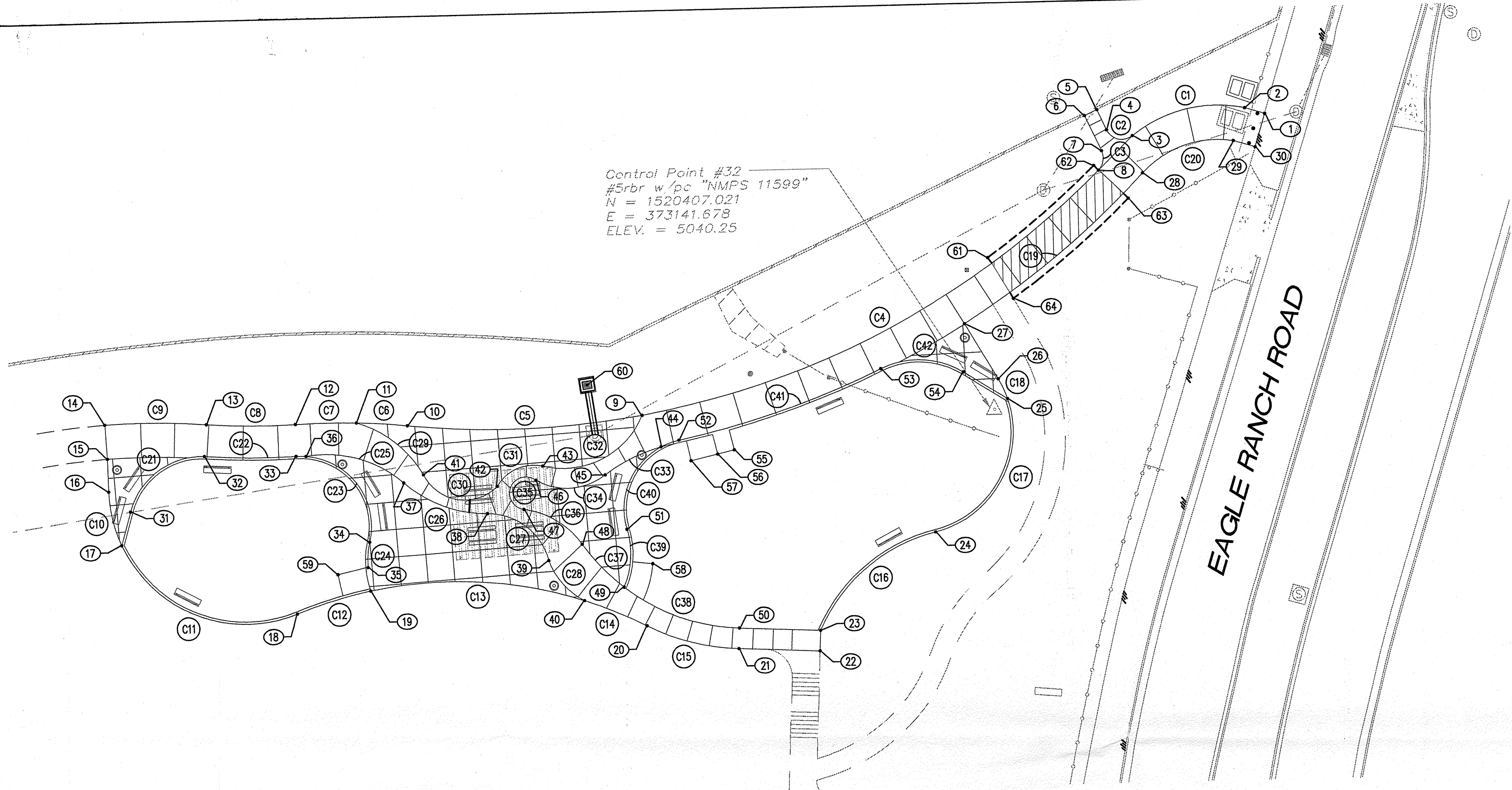
CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

MAY 01 2008

TITLE: PIEDRAS MARCADAS PARK
GRADING AND DRAINAGE PLAN

HYDROLOGY
SECTION

Design Review Committee	City Engineer Approval	Last Design Update	Mo. / Day / Yr.	Mo. / Day / Yr.
City Project No.	730906	Zone Map No. C-12	Sheet 6 of 9	



CONTROL POINT LOCATION MAP

CONTROL POINTS:

CONTROL POINT # 30
CONTROL POINT # 31
CONTROL POINT # 32
(AS SHOWN ABOVE)

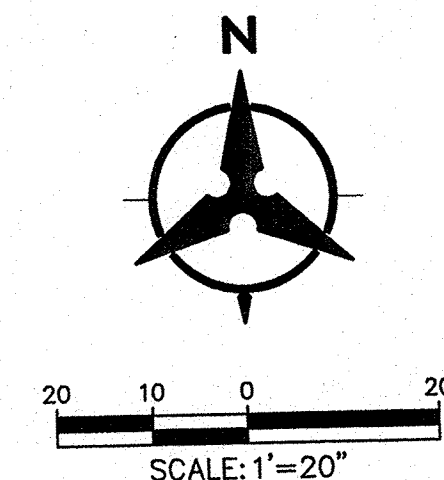
SURVEY & SITE CONTROL NOTES:

- THE COORDINATES SHOWN HEREON ARE MODIFIED (SURFACE) N.M. STATE PLANE COORDINATES-CENTRAL ZONE, NAD 83 AND WERE DERIVED BY SCALING STATE PLANE COORDINATES BY THE PROJECT COMBINED FACTOR OF 1.000318381. THE ELEVATIONS SHOWN HEREON ARE REFERRED TO SEA LEVEL, NAVD 88. THE COORDINATES AND ELEVATIONS ARE EXPRESSED IN US SURVEY FEET.
- ALL COORDINATE POINTS & CURVE DATA ARE TO EDGE OF SIDEWALK, FACE OF HEADER CURB, OR CENTER OF STORM DRAIN INLET UNLESS NOTED OTHERWISE.
- CONTRACTOR TO CONTACT ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE FOUND.

Point Table		
○	NORTHING	EASTING
1	1520491.51	373222.86
2	1520493.29	373217.07
3	1520485.93	373183.95
4	1520487.79	373176.36
5	1520493.69	373173.63
6	1520492.04	373169.98
7	1520481.75	373174.75
8	1520476.07	373173.71
9	1520407.82	373038.34
10	1520406.39	372969.48
11	1520407.58	372954.53
12	1520407.54	372936.62
13	1520408.09	372910.66
14	1520408.65	372880.83
15	1520398.66	372881.36
16	1520398.98	372881.50
17	1520373.30	372884.95
18	1520352.21	372935.81
19	1520358.33	372857.43
20	1520346.31	373038.37
21	1520339.02	373065.14
22	1520337.81	373088.85
23	1520343.81	373089.16
24	1520371.61	373123.55
25	1520410.07	373145.50
26	1520415.92	373142.90
27	1520432.25	373133.43
28	1520474.98	373186.69
29	1520483.80	373213.55
30	1520481.85	373219.88
31	1520383.00	372887.80
32	1520398.80	372909.83

Point Table		
○	NORTHING	EASTING
33	1520398.19	372936.55
34	1520372.57	372957.53
35	1520365.17	372956.82
36	1520398.12	372939.49
37	1520389.62	372967.97
38	1520380.07	372992.22
39	1520365.92	373009.92
40	1520354.06	373020.11
41	1520391.91	372973.76
42	1520387.96	372995.29
43	1520393.61	373008.78
44	1520398.42	373043.72
45	1520390.57	373027.04
46	1520389.48	373006.65
47	1520381.04	373002.93
48	1520370.48	373019.84
49	1520357.69	373031.80
50	1520345.01	373065.44
51	1520374.53	373033.06
52	1520400.25	373049.03
53	1520419.73	373108.58
54	1520418.18	373132.72
55	1520397.02	373065.10
56	1520395.87	373060.24
57	1520394.10	373052.44
58	1520364.28	373040.41
59	1520363.32	372947.90
60	1520417.06	373022.43
61	1520451.29	373140.70
62	1520477.50	373172.32
63	1520467.69	373182.31
64	1520439.23	373147.88

Curve Table						
ID	RADIUS	ARC	DELTA	TANGENT	CHORD BEARING	CHORD LENGTH
C1	40.00'	35.03'	50°10'55"	18.73'	S77°27'39"W	33.92'
C2	5.00'	8.97'	102°46'15"	6.26'	N76°14'41"W	7.81'
C3	5.00'	6.15'	70°27'01"	3.53'	S10°21'58"W	5.77'
C4	250.00'	154.03'	35°18'07"	79.55'	S63°14'32"W	151.61'
C5	250.00'	69.09'	15°50'07"	34.77'	S88°48'39"W	68.87'
C6	175.54'	15.01'	04°53'53"	7.51'	N85°25'15"W	15.00'
C7	224.66'	17.91'	04°34'02"	8.96'	S89°51'52"W	17.90'
C8	190.00'	25.99'	07°50'13"	13.01'	N88°46'57"W	25.97'
C9	210.00'	29.86'	08°08'47"	14.95'	N88°56'15"W	29.83'
C10	40.00'	16.17'	23°09'23"	8.19'	S12°24'25"E	16.06'
C11	40.00'	60.73'	86°59'09"	37.95'	S67°28'41"E	55.06'
C12	125.00'	22.50'	10°18'50"	11.28'	N74°11'10"E	22.47'
C13	125.00'	63.51'	29°06'38"	32.46'	S86°06'05"E	62.83'
C14	125.00'	19.85'	09°06'01"	9.95'	S66°59'46"E	19.83'
C15	65.00'	27.96'	24°38'41"	14.20'	S74°46'06"E	27.74'
C16	50.00'	45.81'	52°29'30"	24.65'	N51°02'36"E	44.22'
C17	30.00'	49.81'	95°08'04"	32.82'	N29°43'19"E	44.28'
C18	30.00'	6.42'	12°15'14"	3.22'	N23°58'19"W	6.40'
C19	260.00'	68.48'	15°05'26"	34.44'	N51°15'42"E	68.28'
C20	30.00'	29.44'	56°13'08"	16.02'	N71°49'33"E	28.27'
C21	21.70'	29.27'	77°17'04"	17.35'	N54°21'45"E	27.10'
C22	199.33'	26.76'	07°41'25"	13.40'	S88°42'34"E	26.73'
C23	20.67'	38.41'	106°29'06"	27.67'	S39°18'43"E	33.12'
C24	25.33'	7.46'	16°52'40"	3.76'	S05°29'30"W	7.44'
C25	34.40'	30.74'	51°12'03"	16.48'	S73°23'57"E	29.73'
C26	36.87'	26.64'	41°23'46"	13.93'	S68°29'48"E	26.06'
C27	18.47'	24.40'	75°40'57"	14.35'	S51°21'13"E	22.66'
C28	20.87'	16.03'	44°00'54"	8.43'	S40°40'46"E	15.64'
C29	32.90'	25.44'	44°18'07"	13.39'	S50°48'50"E	24.81'
C30	13.45'	25.57'	108°58'28"	18.84'	S79°36'44"E	21.89'
C31	12.35'	15.65'	72°37'06"	9.08'	N67°16'43"E	14.63'
C32	25.15'	35.72'	81°23'48"	21.63'	N64°19'51"E	32.79'
C33	50.05'	18.54'	21°13'10"	9.38'	S64°47'22"W	18.43'
C34	18.29'	21.67'	67°52'21"	12.31'	S86°55'17"W	20.42'
C35	4.78'	17.59'	210°42'56"	10.87'	S23°49'37"W	9.23'
C36	25.00'	20.50'	46°59'22"	10.87'	S58°02'10"E	19.93'
C37	59.04'	17.59'	17°04'02"	8.86'	S43°04'30"E	17.52'
C38	59.01'	36.53'	35°28'01"	18.87'	S69°21'21"E	35.95'
C39	25.33'	17.22'	38°56'56"	8.96'	N04°16'04"E	16.89'
C40	20.69'	33.96'	94°01'40"	22.20'	N31°50'09"E	30.27'
C41	259.33'	62.81'	13°52'38"	31.56'	N71°53'14"E	62.66'
C42	25.17'	25.23'	57°26'56"	13.79'	S86°19'38"E	24.19'



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CITY OF ALBUQUERQUE
 DEPARTMENT OF MUNICIPAL DEVELOPMENT

TITLE: **PIEDRAS MARCADAS PARK
 SITE HORIZONTAL CONTROL PLAN**

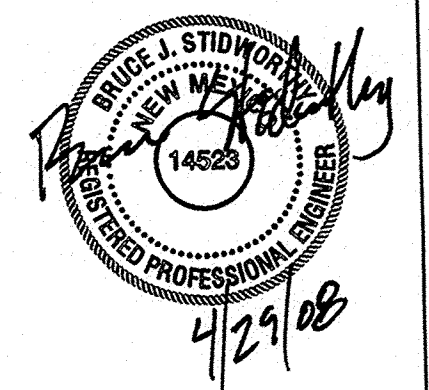
Design Review Committee City Engineer Approval

City Project No. **730906**

Zone Map No. **C-12**

Sheet **7** of **9**

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEERS SEAL	
CONTRACTOR	DATE	NO.	DATE	FIELD NOTES	NO.	DATE	REMARKS
WORKED BY	DATE	INSPECTOR'S	DATE	BY	BY	NO.	DATE
ACCEPTANCE BY	DATE	VERIFICATION BY	DATE				REVISIONS
DRAWINGS BY	DATE	CHECKED BY	DATE				DESIGN
MICRO-FILM INFORMATION							DESIGNED BY
RECORDED BY	DATE						DRAWN BY
NO.							CHECKED BY
							DATE
							DATE
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