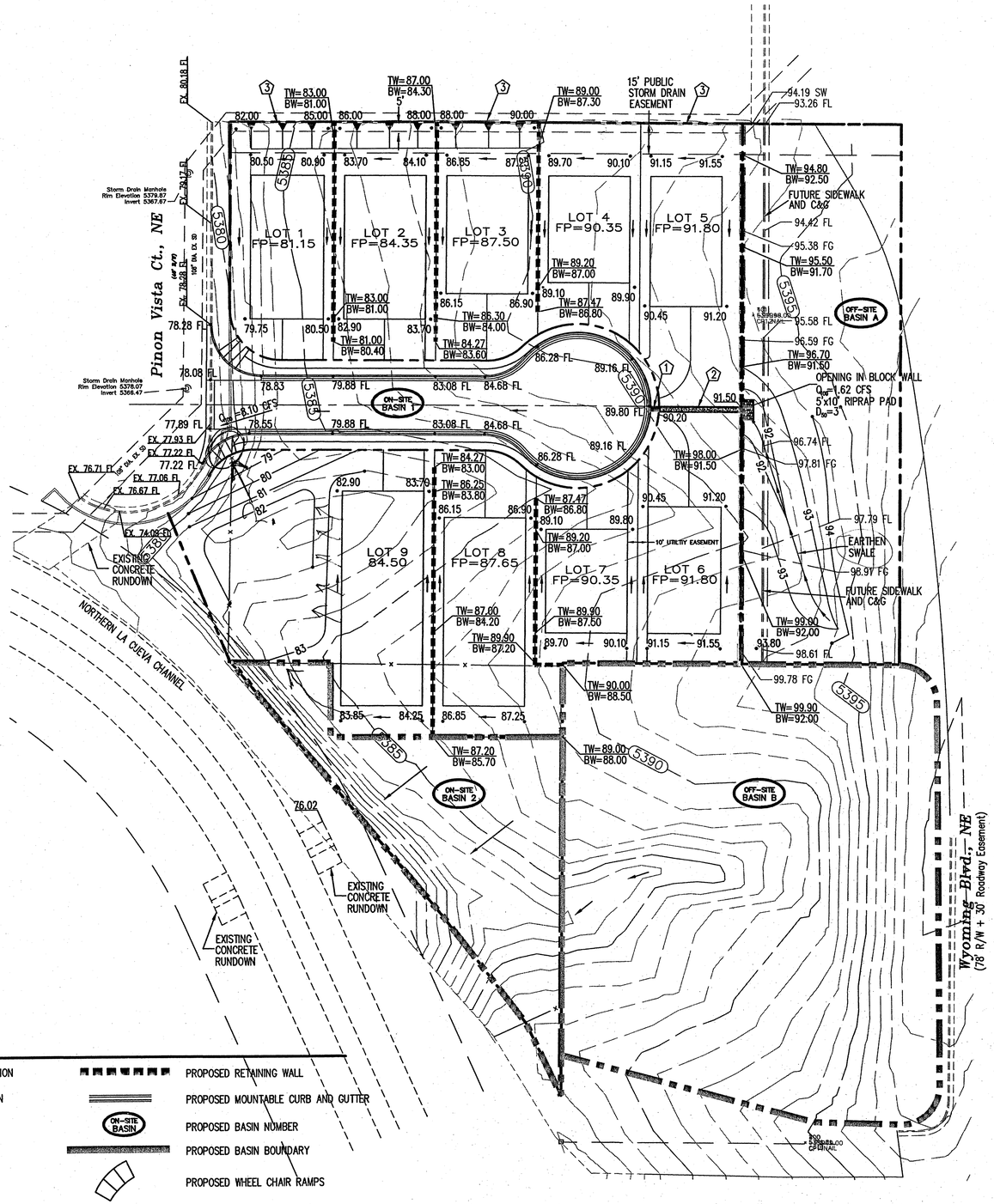

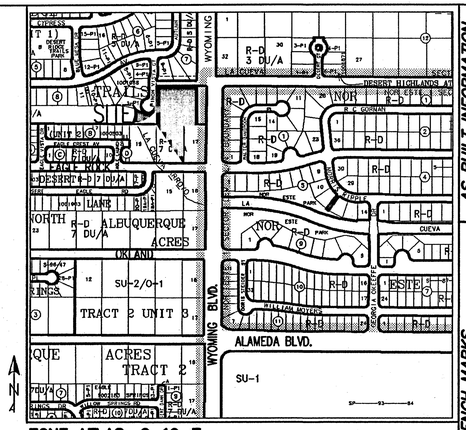

ZONE ATLAS: C-19-Z

KEY NOTES:

1. 24" SIDEWALK CULVERT SEE C.O.A. STD. DWG 2236
2. 2' CONCRETE CHANNEL SEE DETAIL SHEET 2
3. EXISTING WALL

NOTES:

1. DARING PLAN, HYDROLOGIC CALCULATIONS AND DETAILS SEE SHEET 2 THIS PLANSET
2. BUILDER WILL BE RESPONSIBLE FOR CONSTRUCTING SIDE YARD RETAINING WALLS.

LEGEND

FP=09.07	FINISHED PAD SITE ELEVATION
60.23	PROPOSED SPOT ELEVATION
TW=12.51 / BW=11.84	TOP OF WALL / BOTTOM OF WALL
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED MOUNTABLE CURB AND GUTTER
ON-SITE BASIN	PROPOSED BASIN NUMBER
	PROPOSED BASIN BOUNDARY
	PROPOSED WHEEL CHAIR RAMPS

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

AS BUILT INFORMATION

	DATE
CONTRACTOR	
WORK STAKED BY	
INSPECTOR'S ACCEPTANCE BY	
FIELD VERIFICATION BY	
DRAWINGS CORRECTED BY	
MICRO-FILM INFORMATION	
RECORDED BY	
NO.	

BENCH MARKS

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

DESIGN

DESIGNED BY	DBT	DATE 11/2010
DRAWN BY	DEM	DATE 11/2010
CHECKED BY	DBT	DATE 11/2010

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DEVELOPMENT

LA VISTA @ DESERT RIDGE SUBDIVISION
GRADING AND DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.

City Project No.	Zone Map No.	Sheet	Of
XXXXXX	C-19-Z	1	2

Q:\projects\Eagle Rock-Wyoming Subdivision\BASE-REVISED-9-LOTS.dwg 4/8/2011 10:41:56 AM MDT

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOTS 15, 16, & 18A, BLOCK 1, NORTH ALBUQUERQUE ACRES TRACT 2, UNIT 3 & A

SITE AREA: 1.92 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED SEPTEMBER 26, 2008 (PANEL NO. 35001C0133G & 35001C0141G) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. THE NORTH LA CUEVA CHANNEL AT THE SOUTHWEST CORNER HAS A FLOOD HAZARD ZONE A WITH A 1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CHANNEL.

LOCATION AND DESCRIPTION: THE PROPERTY IS LOCATED BETWEEN WYOMING BOULEVARD AND PINON VISTA COURT AND NORTH OF EAGLE ROCK AVENUE. AT THE SOUTHWEST CORNER OF THE PROPERTY IS THE NORTH LA CUEVA CHANNEL.

EXISTING DRAINAGE CONDITIONS:

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 3. THE 100-YEAR, 6-HOUR STORM IS 2.60 INCHES.

THE SITE CURRENTLY DRAINS FROM EAST TO WEST TO PINON VISTA COURT WHICH DRAINS INTO THE LA CUEVA CHANNEL. CURRENTLY THERE ARE OFFSITE FLOWS FROM THE EAST. ONCE WYOMING BOULEVARD IS BUILT OUT THESE FLOWS WILL BE DIRECTED NORTH TO THE EXISTING 108 INCH RCP STORM DRAIN.

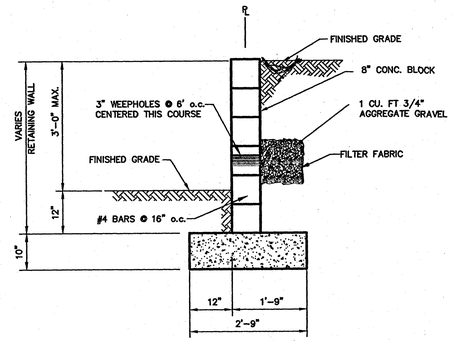
DEVELOPED DRAINAGE CONDITIONS:

THE PROPERTY HAS BEEN DIVIDED INTO FOUR DRAINAGE BASINS. OFF-SITE BASINS A AND B INCLUDE THE INTERIM UNDEVELOPED PORTION OF WYOMING BOULEVARD TO THE EAST OF THE PROPOSED SUBDIVISION. RUNOFF FROM OFF-SITE BASIN A WILL BE CONVEYED IN A DITCH TO THE WALL ALONG THE PROPOSED EAST PROPERTY LINE AND THEN CONVEYED IN A CONCRETE CHANNEL THAT WILL DISCHARGE TO THE PROPOSED CUL-DE-SAC BULB THROUGH A 24-INCH SIDEWALK CULVERT. SOME GRADING WILL BE DONE IN THE INTERIM CONDITION TO DIRECT THE FLOWS TO THE PROPOSED EAST PROPERTY LINE RETAINING WALL WHERE A 5' BY 10' RIPRAP PAD (D50 = 3") WILL BE INSTALLED. THE RETAINING WALL WILL BE CONSTRUCTED TO ACCOMODATE THE FUTURE WYOMING SIDEWALK ELEVATION. OPENINGS IN THE WALL WILL BE CONSTRUCTED TO ALLOW THE RUNOFF TO FLOW INTO THE CONCRETE CHANNEL. ONCE WYOMING BOULEVARD IS CONSTRUCTED STREET FLOWS WILL BE DIRECTED NORTH TO STORM INLETS LOCATED IN THE STREET SECTION, WHICH WILL ELIMINATE OFF-SITE FLOWS REACHING THE SUBDIVISION. IN THE INTERIM CONDITION, A TOTAL OF 1.62 CFS WILL DRAIN TO THE CUL-DE-SAC BULB FROM OFF-SITE BASIN A. OFF-SITE BASIN B WILL DRAIN 3.45 CFS DIRECTLY TO ON-SITE BASIN 2 WHICH WILL DRAIN TO THE LA CUEVA CHANNEL.

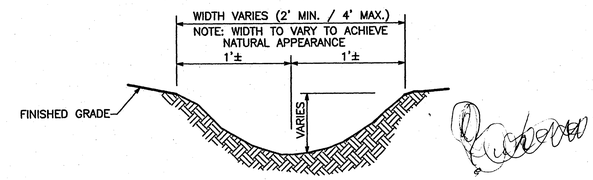
RUN-OFF FROM ON-SITE BASIN 1, WHICH INCLUDES THE CUL-DE-SAC STREET AND THE LOTS FRONTING THE STREET, WILL BE DIRECTED TOWARD THE CUL-DE-SAC. THE CUL-DE-SAC WILL THEN DRAIN TO PINON VISTA COURT. ALL FLOWS IN PINON VISTA COURT ARE DISCHARGED TO THE LA CUEVA CHANNEL THROUGH AN EXISTING CONCRETE RUNDOWN LOCATED AT THE SOUTH END OF PINON VISTA COURT. RUNOFF FROM ON-SITE BASIN 1 WILL BE 6.81 CFS. IN THE INTERIM CONDITION RUNOFF FROM BOTH THE OFF-SITE AND ON-SITE BASINS THAT WILL DRAIN TO PINON VISTA COURT TOTALS 8.43 CFS. RUNOFF FROM ON-SITE BASIN 2 WILL DRAIN DIRECTLY TO THE LA CUEVA CHANNEL. TOTAL RUNOFF FROM ON-SITE BASIN 2 AND OFF-SITE B REACHING THE LA CUEVA CHANNEL IS 4.45 CFS.

100-YEAR HYDROLOGIC CALCULATIONS

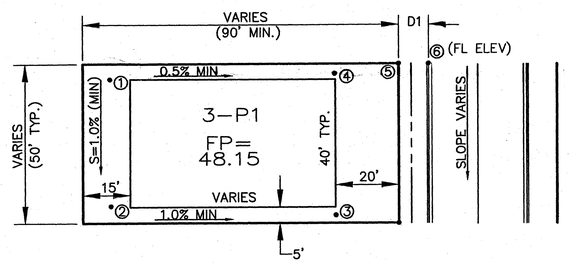
BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
OFF-SITE A	0.4700	0.00	0.00	100.00	0.00	1.29	0.05	2,201	0.05	2,201	1.62
OFF-SITE B	1.0000	0.00	0.00	100.00	0.00	1.29	0.11	4,683	0.11	4,683	3.45
ON-SITE 1	1.6300	0.00	0.00	100.00	0.00	1.29	0.18	7,633	0.18	7,633	5.62
ON-SITE 2	0.2900	0.00	0.00	100.00	0.00	1.29	0.03	1,358	0.03	1,358	1.00
TOTAL RUNOFF	3.39						0.36	15,874	0.36	15,874	11.70
PROPOSED CONDITIONS											
ON-SITE 1	1.6300	0.00	0.00	53.60	46.40	1.79	0.24	10,570	0.27	11,943	6.81
ON-SITE 2	0.2900	0.00	0.00	100.00	0.00	1.29	0.03	1,358	0.03	1,358	1.00
TOTAL RUNOFF	1.92						0.27	11,928	0.31	13,301	7.81
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q (cfs)					
									ZONE =	3	
WEIGHTED E (in) = (E)(%A) + (E)(%B) + (E)(%C) + (E)(%D)									P (in.) =	2.60	
V (acre-ft) = (WEIGHTED E)(AREA)/12									P (in.) =	3.10	
V (acre-ft) = V + (A)(P - P)/12									P (in.) =	4.90	
Q (cfs) = (Q)(A) + (Q)(A) + (Q)(A) + (Q)(A)											



RETAINING WALL BETWEEN LOTS
NO SCALE

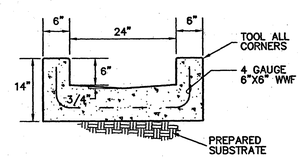


TYPICAL EARTHEN SWALE DETAIL
NO SCALE



TYPICAL LOT GRADING PLAN
NO SCALE

TO SET SPOT ① – SUBTRACT 0.25' FROM THE PAD ELEV.
TO SET SPOT ② – SUBTRACT LENGTH MULTIPLIED BY 1.0%
TO SET SPOT ③ – SUBTRACT LENGTH MUTIPLIED BY 1.0% FROM SPOT ②
TO SET SPOT ④ – SUBTRACT LENGTH MUTIPLIED BY 0.5% FROM SPOT ①
TO SET SPOT ⑤ – MULTIPLY D1 BY 2.0%, ADD CURB HEIGHT, AND ADD TO SPOT



CONCRETE CHANNEL
NO SCALE

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY
INSPECTOR'S ACCEPTANCE BY
FIELD VERIFICATION BY
DRAWINGS CORRECTED BY
MICRO-FILM INFORMATION
RECORDED BY
DATE
NO.

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

DESIGN
DESIGNED BY DBT DATE 11/2010
DRAWN BY DEM DATE 11/2010
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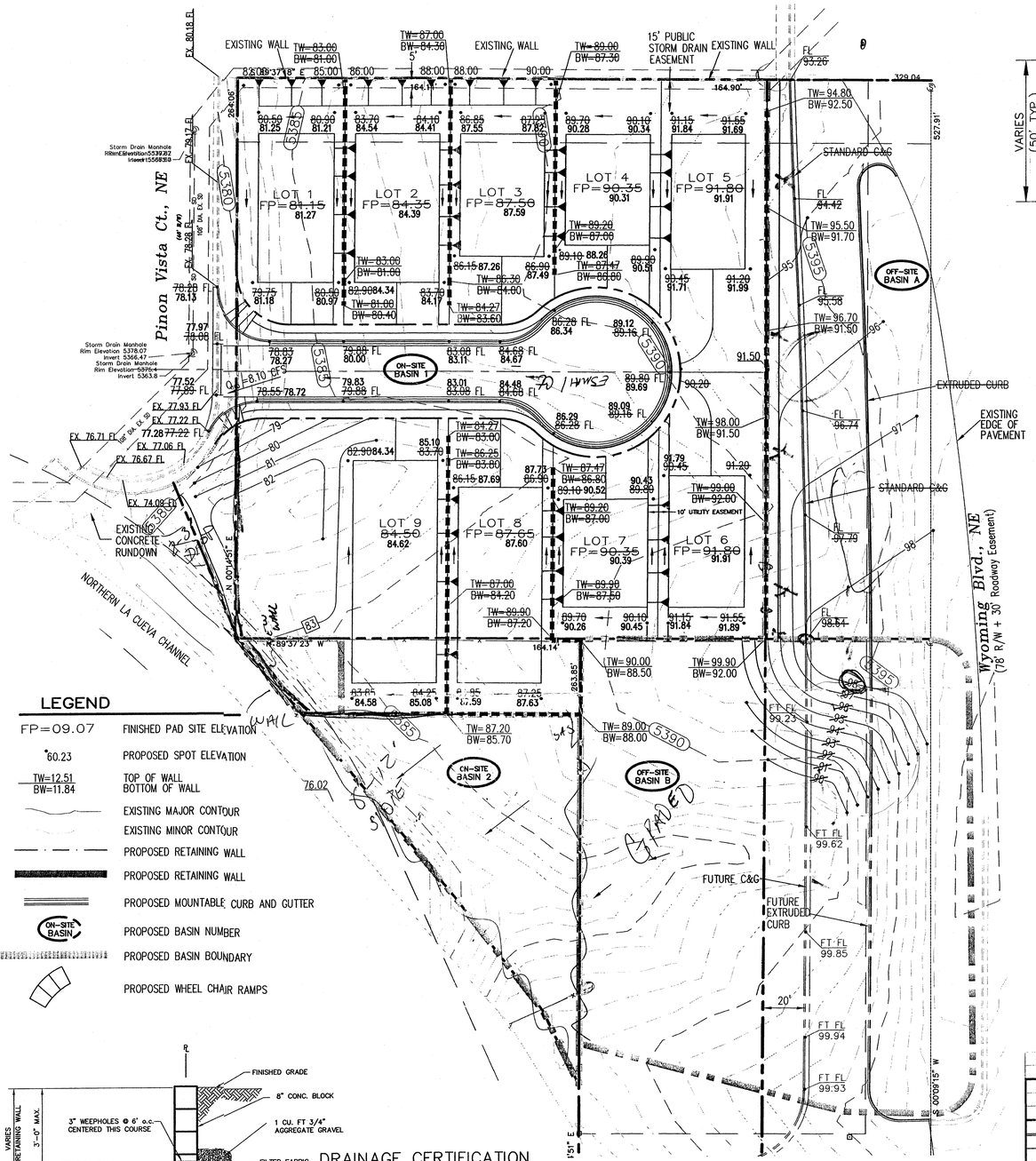
DETAILS

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL		MO./DAY/YR.	MO./DAY/YR.

City Project No.	Zone Map No.	Sheet	Of
XXXXXX	C-19-Z	2	2



LEGEND

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ON-SITE BASIN	PROPOSED BASIN NUMBER
	PROPOSED BASIN BOUNDARY
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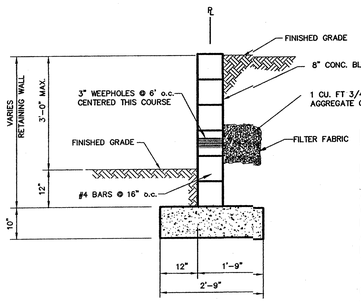
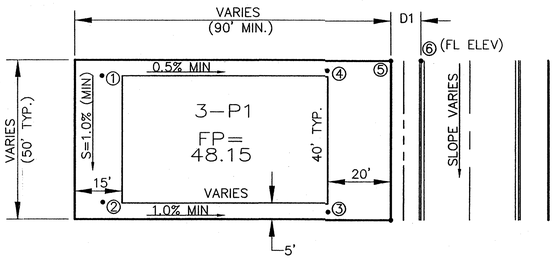


RETAINING WALL BETWEEN LOTS

NO SCALE



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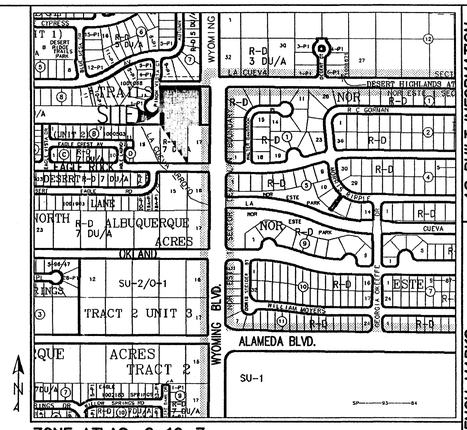

ZONE ATLAS: C-19-Z

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOTS 15, 16, & 18A, BLOCK 1, NORTH ALBUQUERQUE ACRES TRACT 2, UNIT 3 & A

SITE AREA: 1.92 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED SEPTEMBER 26, 2008 (PANEL NO. 35001C0133G & 35001C0141G) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. THE NORTH LA CUEVA CHANNEL AT THE SOUTHWEST CORNER HAS A FLOOD HAZARD ZONE A WITH A 1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CHANNEL.

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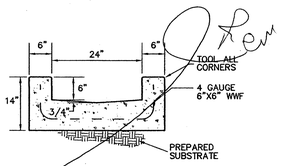
DEVELOPED DRAINAGE CONDITIONS:

THE PROPERTY HAS BEEN DIVIDED INTO FOUR DRAINAGE BASINS. OFF-SITE BASINS A AND B INCLUDE THE INTERIM UNDEVELOPED PORTION OF WYOMING BOULEVARD TO THE EAST OF THE PROPOSED SUBDIVISION. RUNOFF FROM OFF-SITE BASIN A WILL BE COLLECTED IN A TEMPORARY RETENTION POND WITHIN THE WYOMING RIGHT-OF-WAY EAST OF THE PROPERTY. THE 100-YEAR, 10-DAY VOLUME IS 1,126 CUBIC FEET. THE POND DEPTH WILL BE 1.22 FEET WITH A 100-YEAR WSEL OF 5393.22. A RETAINING WALL WILL BE CONSTRUCTED TO ACCOMODATE THE FUTURE WYOMING SIDEWALK ELEVATION. ONCE WYOMING BOULEVARD IS CONSTRUCTED STREET FLOWS WILL BE DIRECTED NORTH TO STORM INLETS LOCATED IN THE STREET SECTION, WHICH WILL ELIMINATE OFF-SITE FLOWS REACHING THE SUBDIVISION. OFF-SITE BASIN B WILL DRAIN 3.45 CFS DIRECTLY TO ON-SITE BASIN 2 WHICH WILL DRAIN TO THE LA CUEVA CHANNEL.

RUN-OFF FROM ON-SITE BASIN 1, WHICH INCLUDES THE CUL-DE-SAC STREET AND THE LOTS FRONTING THE STREET, WILL BE DIRECTED TOWARD THE CUL-DE-SAC. THE CUL-DE-SAC WILL THEN DRAIN TO PINON VISTA COURT. ALL FLOWS IN PINON VISTA COURT ARE DISCHARGED TO THE LA CUEVA CHANNEL THROUGH AN EXISTING CONCRETE RUNDOWN LOCATED AT THE SOUTH END OF PINON VISTA COURT. RUNOFF FROM ON-SITE BASIN 1 WILL BE 6.81 CFS. RUNOFF FROM ON-SITE BASIN 2 WILL DRAIN DIRECTLY TO THE LA CUEVA CHANNEL. TOTAL RUNOFF FROM ON-SITE BASIN 2 AND OFF-SITE B REACHING THE LA CUEVA CHANNEL IS 4.45 CFS.



NOT USED.

CONCRETE CHANNEL

NO SCALE

NOTES:
1. BUILDER WILL BE RESPONSIBLE FOR CONSTRUCTING SIDE YARD RETAINING WALLS.

* ADDITE #2, 7e' Alignment w/ope 6-21-12

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DRAINAGE CERTIFICATION

I, DAVID B. THOMPSON, NMPE 9677, OF THE FIRM THOMPSON ENGINEERING CONSULTANTS, INC., HEREBY CERTIFY THAT THE PADS AND THE STREET HAS BEEN GRADED AND IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 1-20-12. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY WILL PLOTNER, NMPS 14271, OF THE FIRM CARTESIAN SURVEYS INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 06-25-12 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERFIFICATION DOES NOT INCLUDE THE LOT SWALES AND WYOMING BOULEVARD.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY FOR ANY OTHER PURPOSE.

DAVID B. THOMPSON, NMPE 9677

7-9-12 DATE

DAVID B. THOMPSON NEW MEXICO 9677 REGISTERED PROFESSIONAL ENGINEER

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
OFF-SITE A	0.4700	0.00	0.00	100.00	0.00	1.29	0.05	2,201	0.05	2,201	1.62
OFF-SITE B	1.0000	0.00	0.00	100.00	0.00	1.29	0.11	4,683	0.11	4,683	3.45
ON-SITE 1	1.5500	0.00	0.00	100.00	0.00	1.29	0.17	7,258	0.17	7,258	5.35
ON-SITE 2	0.3700	0.00	0.00	100.00	0.00	1.29	0.04	1,733	0.04	1,733	1.28
TOTAL RUNOFF	3.39						0.36	15,874	0.36	15,874	11.70
PROPOSED CONDITIONS											
ON-SITE 1	1.5500	0.00	0.00	53.60	46.40	1.79	0.23	10,052	0.26	11,357	6.48
ON-SITE 2	0.3700	0.00	0.00	100.00	0.00	1.29	0.04	1,733	0.04	1,733	1.28
TOTAL RUNOFF	1.92						0.27	11,784	0.30	13,090	7.75
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E_i (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q_P (cfs)					

WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$
$V_{6\text{-}HR}$ (acre-ft) = (WEIGHTED E)(AREA)/12
V_{10DAY} (acre-ft) = $V_{6\text{-}HR} + (A_D)(P_{10DAY} - P_{6\text{-}HR})/12$
Q (cfs) = $(Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)$

ZONE = 3
$P_{6\text{-}HR}$ (in.) = 2.60
$P_{24\text{-}HR}$ (in.) = 3.10
P_{10DAY} (in.) = 4.90

Thompson Engineering Consultants, Inc.
tecnm@yahoo.com
P.O. BOX 65760 ALBUQUERQUE, NM 87193
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DEVELOPMENT

LA VISTA @ DESERT RIDGE SUBDIVISION
GRADING AND DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL		MO./DAY/YR.	MO./DAY/YR.

City Project No.	Zone Map No.	Sheet	Of
784882	C-19-Z	1	1

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY
INSPECTOR'S ACCEPTANCE BY
AS-BUILT VERIFICATION BY
CORRECTIONS MADE BY
MICRO-FILM INFORMATION
RECORDED BY
DATE
NO.

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

DESIGN
DESIGNED BY DBT DATE 11/2010
DRAWN BY DEM DATE 11/2010
CHECKED BY DBT DATE 11/2010

RECEIVED JUL 10 2012 HYDROLOGY SECTION

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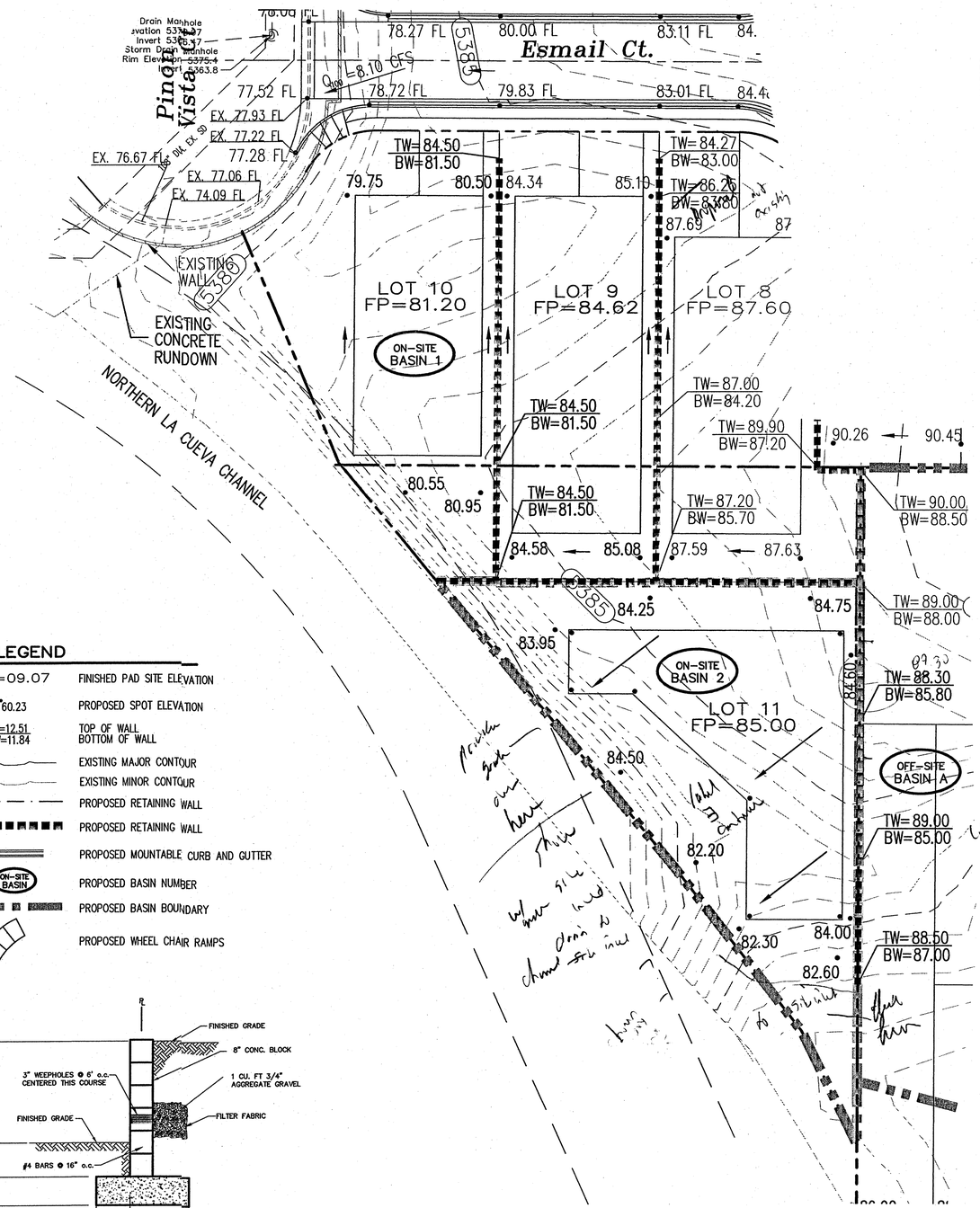

LEGEND

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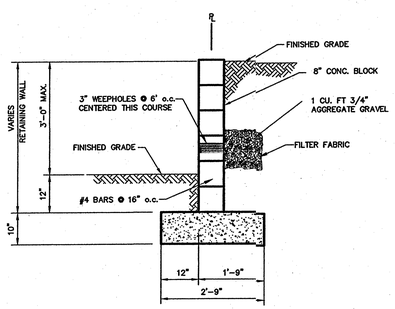
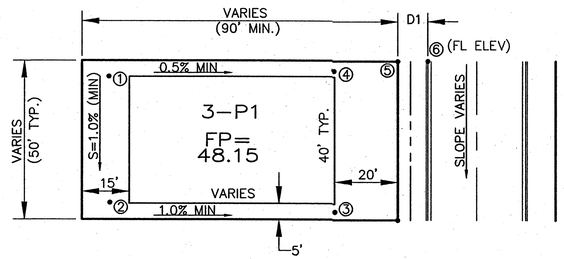


RETAINING WALL BETWEEN LOTS

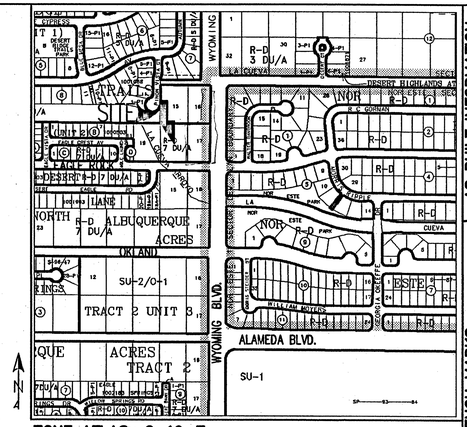
NO SCALE



TYPICAL LOT GRADING PLAN

NO SCALE

TO SET SPOT ① – SUBTRACT 0.25' FROM THE PAD ELEV.
TO SET SPOT ② – SUBTRACT LENGTH MULTIPLIED BY 1.0%
TO SET SPOT ③ – SUBTRACT LENGTH MUTIPLIED BY 1.0% FROM SPOT ②
TO SET SPOT ④ – SUBTRACT LENGTH MUTIPLIED BY 0.5% FROM SPOT ①
TO SET SPOT ⑤ – MULTIPLY D1 BY 2.0%, ADD CURB HEIGHT, AND ADD TO SPOT



ZONE ATLAS: C-19-Z

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOT 9, LA VISTA AT DESERT RIDGE SUBDIVISION

SITE AREA: 0.58 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35001C0133G & 35001C0141G) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. THE NORTH LA CUEVA CHANNEL AT THE SOUTHWEST CORNER HAS A FLOOD HAZARD ZONE A WITH A 1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CHANNEL.

LOCATION AND DESCRIPTION: THE PROPERTY IS LOCATED ON ESMAIL COURT AND ADJACENT TO PINON VISTA COURT. AT THE SOUTHWEST CORNER OF THE PROPERTY IS THE NORTH LA CUEVA CHANNEL.

EXISTING DRAINAGE CONDITIONS:

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 3. THE 100-YEAR, 6-HOUR STORM IS 2.60 INCHES.

THE SITE CURRENTLY DRAINS FROM EAST TO WEST TO PINON VISTA COURT WHICH DRAINS INTO THE LA CUEVA CHANNEL OR DRAINS DIRECTLY TO THE LA CUEVA CHANNEL. CURRENTLY THERE ARE OFFSITE FLOWS FROM THE EAST.

DEVELOPED DRAINAGE CONDITIONS:

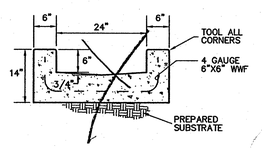
THE PROPERTY HAS BEEN DIVIDED INTO TWO ONSITE DRAINAGE BASINS. RUN-OFF FROM THE ONSITE BASIN 1, WHICH INCLUDES THE 2 LOTS THAT FRONT ESMAIL COURT, WILL BE DIRTECTED TOWARD THE ESMAIL COURT. ESMAIL COURT WILL THEN DRAIN TO PINON VISTA COURT. ALL FLOWS IN PINON VISTA COURT ARE DISCHARGED TO THE LA CUEVA CHANNEL THROUGH AN EXISTING CONCRETE RUNDOWN. RUNOFF FROM ONSITE BASIN 1 WILL BE 1.41 CFS.

RUNOFF FROM OFFSITE BASIN A WILL DRAIN TOWARD EAGLE ROCK AVENUE. RUNOFF FROM OFFSITE BASIN A WILL BE 3.45 CFS. RUNOFF FROM ONSITE BASIN 2 WILL DRAIN DIRECTLY TO THE LA CUEVA CHANNEL THROUGH AN EXISTING RUNDOWN. RUNOFF FROM ONSITE BASIN 1 WILL BE 0.95 CFS.

Show grade

RECEIVED
SEP 25 2012
LAND DEVELOPMENT SECTION

NOTES:
1. BUILDER WILL BE RESPONSIBLE FOR CONSTRUCTING SIDE YARD RETAINING WALLS.



CONCRETE CHANNEL

NO SCALE

N

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

100-YEAR HYDROLOGIC CALCULATIONS											
		LAND TREATMENT				WEIGHTED	100-YEAR PRECIPITATION				
BASIN #	AREA (acre)	A (%)	B (%)	C (%)	D (%)	E (in)	V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
OFF-SITE A	1.0000	0.00	0.00	100.00	0.00	1.29	0.11	4,683	0.11	4,683	3.45
ON-SITE 1	0.3400	0.00	0.00	100.00	0.00	1.29	0.04	1,592	0.04	1,592	1.17
ON-SITE 2	0.2400	0.00	0.00	100.00	0.00	1.29	0.03	1,124	0.03	1,124	0.83
TOTAL RUNOFF	1.58						0.17	7,399	0.17	7,399	5.45
PROPOSED CONDITIONS											
ON-SITE 1	0.3400	0.00	22.20	22.20	55.60	1.80	0.05	2,225	0.06	2,568	1.41
ON-SITE 2	0.2400	0.00	27.00	27.00	46.00	1.68	0.03	1,466	0.04	1,666	0.95
TOTAL RUNOFF	0.58						0.08	3,691	0.10	4,234	2.35
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E_1 (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q_{PI} (cfs)					
									ZONE =	3	
WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$									$P_{6\text{-}HR}$ (in.) =	2.60	
$V_{6\text{-}HR}$ (acre-ft) = (WEIGHTED E)(AREA)/12									$P_{24\text{-}HR}$ (in.) =	3.10	
V_{10DAY} (acre-ft) = $V_{6\text{-}HR} + (A_D)(P_{10DAY} - P_{6\text{-}HR})/12$									P_{10DAY} (in.) =	4.90	
Q (cfs) = $(Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)$											

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ALBUQUERQUE, NM 87193
PHONE: (505) 271-2199
FAX: (505) 830-9425

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DEVELOPMENT

LA VISTA @ DESERT RIDGE SUBDIVISION
GRADING AND DRAINAGE PLAN FOR LOTS 9,10 &11

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL		MO./DAY/YR.	MO./DAY/YR.

City Project No.	Zone Map No.	Sheet	Of
784882	C-19-Z	1	1

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
INSPECTOR'S ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

DESIGN

DESIGNED BY	DBT	DATE 11/2010
DRAWN BY	DEM	DATE 11/2010
CHECKED BY	DBT	DATE 11/2010

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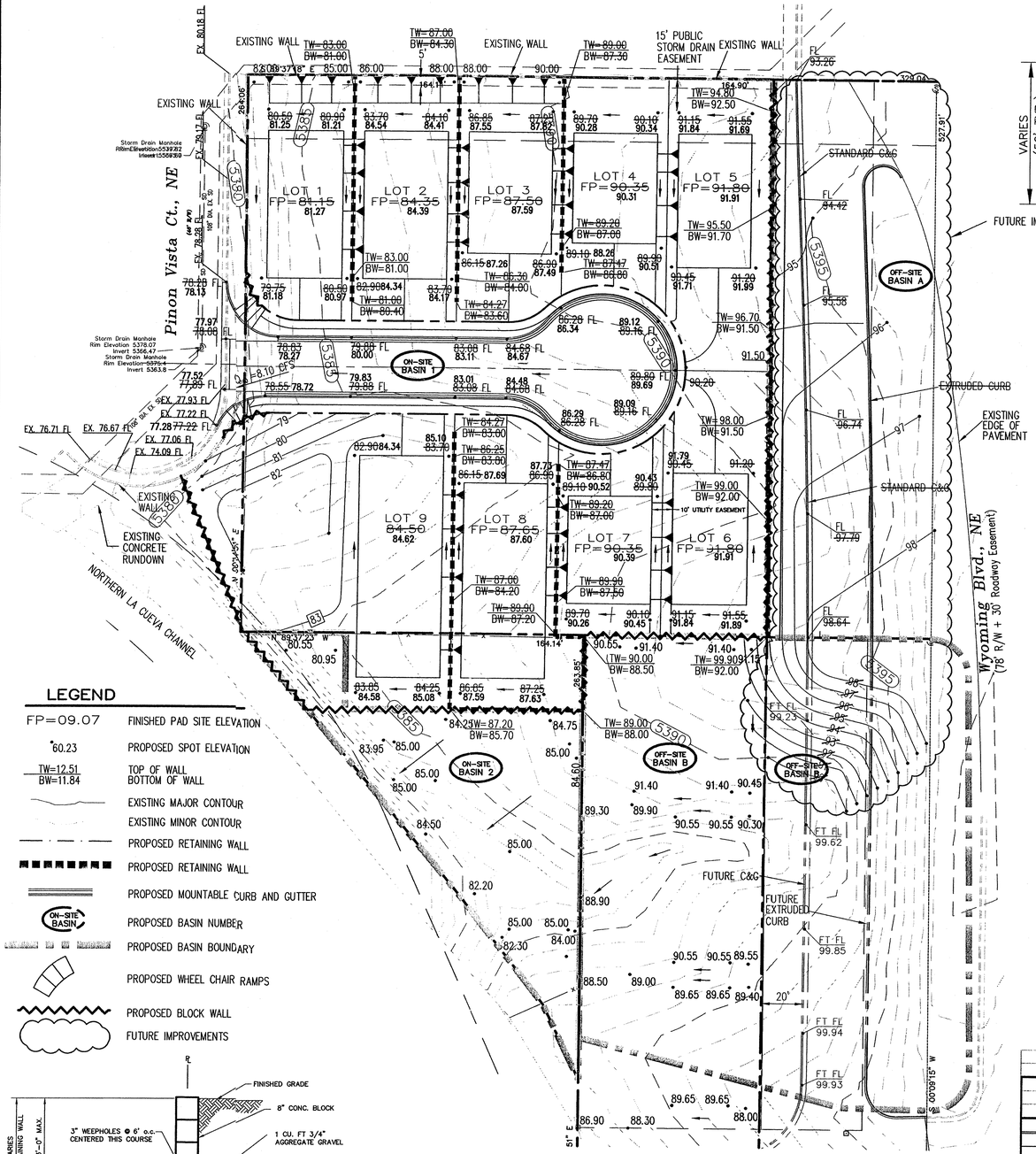
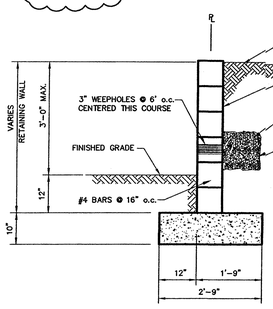


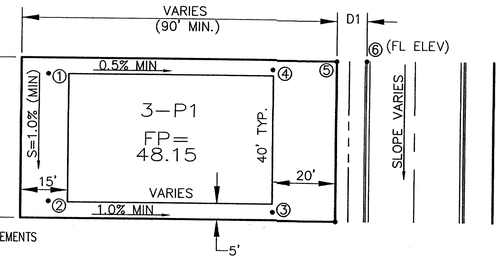
LEGEND

FP=09.07	FINISHED PAD SITE ELEVATION
60.23	PROPOSED SPOT ELEVATION
TW=12.51 / BW=11.84	TOP OF WALL / BOTTOM OF WALL
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED RETAINING WALL
	PROPOSED MOUNTABLE CURB AND GUTTER
ON-SITE BASIN	PROPOSED BASIN NUMBER
	PROPOSED BASIN BOUNDARY
	PROPOSED WHEEL CHAIR RAMPS
	PROPOSED BLOCK WALL
	FUTURE IMPROVEMENTS



RETAINING WALL BETWEEN LOTS

NO SCALE



TYPICAL LOT GRADING PLAN

NO SCALE

TO SET SPOT ① – SUBTRACT 0.25' FROM THE PAD ELEV.
TO SET SPOT ② – SUBTRACT LENGTH MULTIPLIED BY 1.0%
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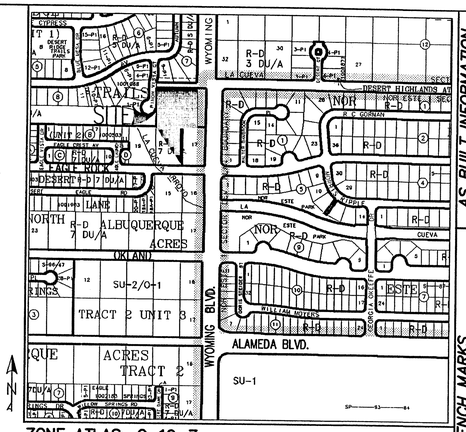

ZONE ATLAS: C-19-Z

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOTS 15, 16, & 18A, BLOCK 1, NORTH ALBUQUERQUE ACRES TRACT 2, UNIT 3 & A

SITE AREA: 1.92 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED SEPTEMBER 26, 2008 (PANEL NO. 35001C0133G & 35001C0141G) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. THE NORTH LA CUEVA CHANNEL AT THE SOUTHWEST CORNER HAS A FLOOD HAZARD ZONE A WITH A 1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CHANNEL.

LOCATION AND DESCRIPTION: THE PROPERTY IS LOCATED BETWEEN WYOMING BOULEVARD AND PINON VISTA COURT AND NORTH OF EAGLE ROCK AVENUE. AT THE SOUTHWEST CORNER OF THE PROPERTY IS THE NORTH LA CUEVA CHANNEL.

EXISTING DRAINAGE CONDITIONS:

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 3. THE 100-YEAR, 6-HOUR STORM IS 2.60 INCHES.

THE SITE CURRENTLY DRAINS FROM EAST TO WEST TO PINON VISTA COURT WHICH DRAINS INTO THE LA CUEVA CHANNEL. CURRENTLY THERE ARE OFFSITE FLOWS FROM THE EAST. ONCE WYOMING BOULEVARD IS BUILT OUT THESE FLOWS WILL BE DIRECTED NORTH TO THE EXISTING 108 INCH RCP STORM DRAIN.

DEVELOPED DRAINAGE CONDITIONS:

THE PROPERTY HAS BEEN DIVIDED INTO FOUR DRAINAGE BASINS. OFF-SITE BASINS A AND B INCLUDE THE INTERIM UNDEVELOPED PORTION OF WYOMING BOULEVARD TO THE EAST OF THE PROPOSED SUBDIVISION. RUNOFF FROM OFF-SITE BASIN A WILL BE COLLECTED IN A TEMPORARY RETENTION POND WITHIN THE WYOMING RIGHT-OF-WAY EAST OF THE PROPERTY. THE 100-YEAR, 10-DAY VOLUME IS 1,126 CUBIC FEET. THE POND DEPTH WILL BE 1.22 FEET WITH A 100-YEAR WSEL OF 5393.22. A RETAINING WALL WILL BE CONSTRUCTED TO ACCOMODATE THE FUTURE WYOMING SIDEWALK ELEVATION. ONCE WYOMING BOULEVARD IS CONSTRUCTED STREET FLOWS WILL BE DIRECTED NORTH TO STORM INLETS LOCATED IN THE STREET SECTION, WHICH WILL ELIMINATE OFF-SITE FLOWS REACHING THE SUBDIVISION. OFF-SITE BASIN B WILL DRAIN 3.45 CFS DIRECTLY TO ON-SITE BASIN 2 WHICH WILL DRAIN TO THE LA CUEVA CHANNEL.

RUN-OFF FROM ON-SITE BASIN 1, WHICH INCLUDES THE CUL-DE-SAC STREET AND THE LOTS FRONTING THE STREET, WILL BE DIRECTED TOWARD THE CUL-DE-SAC. THE CUL-DE-SAC WILL THEN DRAIN TO PINON VISTA COURT. ALL FLOWS IN PINON VISTA COURT ARE DISCHARGED TO THE LA CUEVA CHANNEL THROUGH AN EXISTING CONCRETE RUNDOWN LOCATED AT THE SOUTH END OF PINON VISTA COURT. RUNOFF FROM ON-SITE BASIN 1 WILL BE 6.81 CFS. RUNOFF FROM ON-SITE BASIN 2 WILL DRAIN DIRECTLY TO THE LA CUEVA CHANNEL. TOTAL RUNOFF FROM ON-SITE BASIN 2 AND OFF-SITE B REACHING THE LA CUEVA CHANNEL IS 4.45 CFS.

NOTES:
1. BUILDER WILL BE RESPONSIBLE FOR CONSTRUCTING SIDE YARD RETAINING WALLS.
2. SEPARATE ENGINEER'S CERTIFICATION IS REQUIRED TO OBTAIN A BUILDING PERMIT FOR LOTS 1,2,3,4,5,6,7,8 AND 9.

N

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

DRAINAGE CERTIFICATION

I, DAVID B. THOMPSON, NMPE 9677, OF THE FIRM THOMPSON ENGINEERING CONSULTANTS, INC., HEREBY CERTIFY THAT THE PADS AND THE STREET HAS BEEN GRADED AND IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 1-20-12. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY WILL PLOTNER, NMPS 14271, OF THE FIRM CARTESIAN SURVEYS INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 06-25-12 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION DOES NOT INCLUDE THE LOT SWALES AND WYOMING BOULEVARD.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

DAVID B. THOMPSON, NMPE 9677

9-11-12
DATE

DAVID B. THOMPSON NEW MEXICO 9677 LICENSED PROFESSIONAL ENGINEER

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
OFF-SITE A	0.4700	0.00	0.00	100.00	0.00	1.29	0.05	2,201	0.05	2,201	1.62 ✓
OFF-SITE B	1.0000	0.00	0.00	100.00	0.00	1.29	0.11	4,683	0.11	4,683	3.45 ✓
ON-SITE 1	1.5500	0.00	0.00	100.00	0.00	1.29	0.17	7,258	0.17	7,258	5.35
ON-SITE 2	0.3700	0.00	0.00	100.00	0.00	1.29	0.04	1,733	0.04	1,733	1.28
TOTAL RUNOFF	3.39						0.36	15,874	0.36	15,874	11.70
PROPOSED CONDITIONS											
ON-SITE 1	1.5500	0.00	0.00	53.60	46.40	1.79	0.23	10,052	0.26	11,357	6.48
ON-SITE 2	0.3700	0.00	0.00	100.00	0.00	1.29	0.04	1,733	0.04	1,733	1.28
TOTAL RUNOFF	1.92						0.27	11,784	0.30	13,090	7.75
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E_1 (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q_{PI} (cfs)					

WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$
$V_{6\text{-}HR}$ (acre-ft) = (WEIGHTED E)(AREA)/12
V_{10DAY} (acre-ft) = $V_{6\text{-}HR} + (A_D)(P_{10DAY} - P_{6\text{-}HR})/12$
Q (cfs) = $(Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)$

ZONE = 3
$P_{6\text{-}HR}$ (in.) = 2.60
$P_{24\text{-}HR}$ (in.) = 3.10
P_{10DAY} (in.) = 4.90

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P.O. BOX 65760
ALBUQUERQUE, NM 87193
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DEVELOPMENT

LA VISTA @ DESERT RIDGE SUBDIVISION
GRADING AND DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL		MO./DAY/YR.	MO./DAY/YR.

City Project No.	Zone Map No.	Sheet	Of
784882	C-19-Z	1	1

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY — DATE
INSPECTIONS BY — DATE
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

DESIGN
DESIGNED BY DBT — DATE 11/2010
DRAWN BY DEM — DATE 11/2010
CHECKED BY DBT — DATE 11/2010

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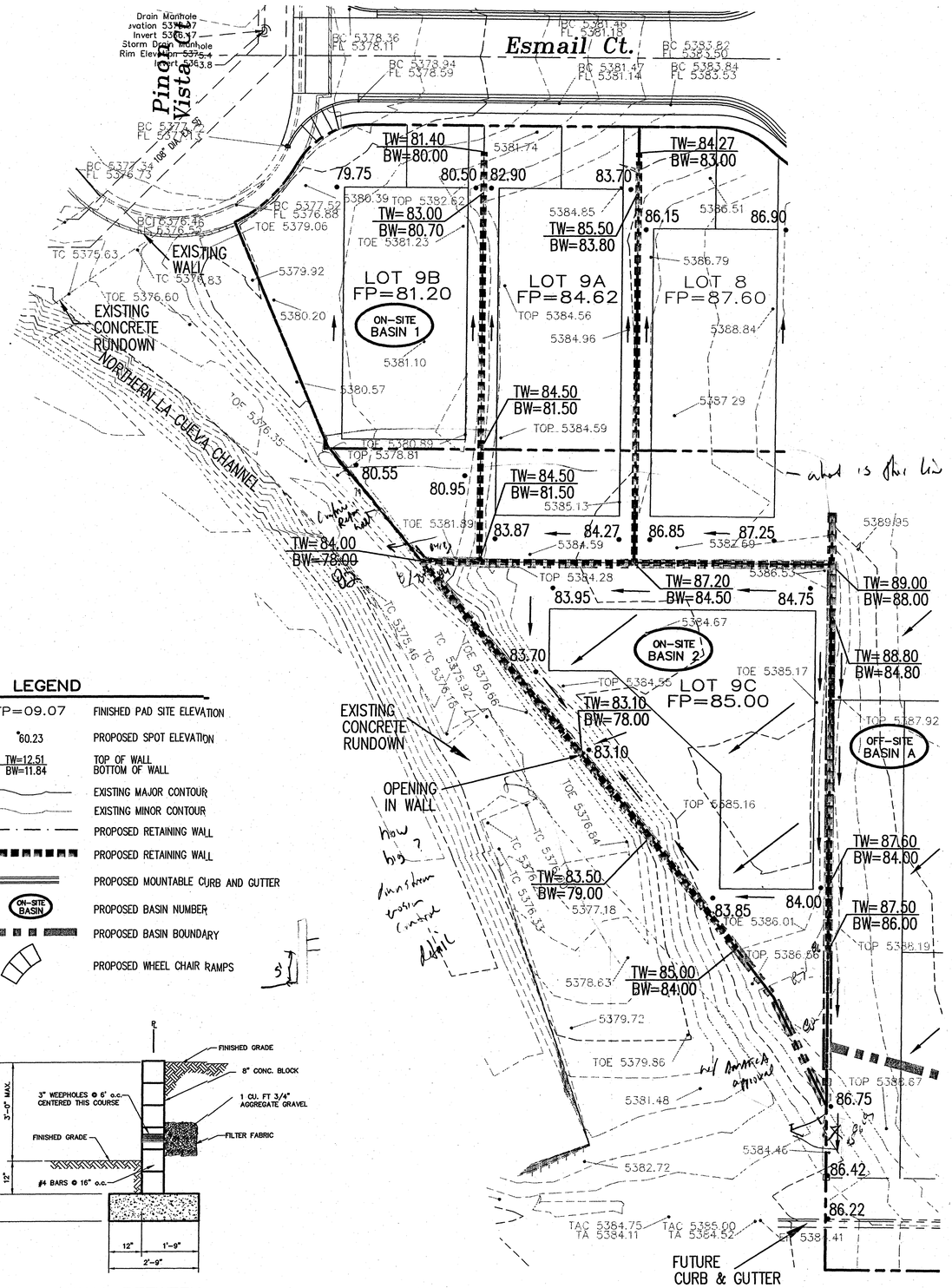
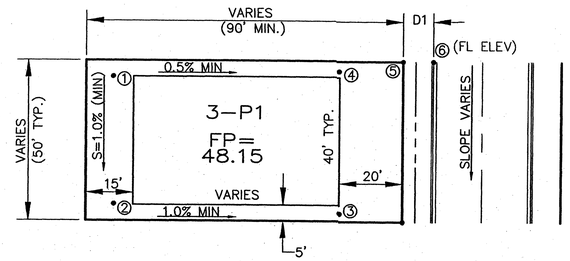


LEGEND

FP=09.07	FINISHED PAD SITE ELEVATION
60.23	PROPOSED SPOT ELEVATION
TW=12.51 / BW=11.84	TOP OF WALL / BOTTOM OF WALL
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED RETAINING WALL
	PROPOSED MOUNTABLE CURB AND GUTTER
ON-SITE BASIN	PROPOSED BASIN NUMBER
	PROPOSED BASIN BOUNDARY
	PROPOSED WHEEL CHAIR RAMPS

RETAINING WALL BETWEEN LOTS

NO SCALE



TYPICAL LOT GRADING PLAN

NO SCALE

TO SET SPOT ① – SUBTRACT 0.25' FROM THE PAD ELEV.
TO SET SPOT ② – SUBTRACT LENGTH MULTIPLIED BY 1.0%
TO SET SPOT ③ – SUBTRACT LENGTH MUTIPLIED BY 1.0% FROM SPOT ②
TO SET SPOT ④ – SUBTRACT LENGTH MUTIPLIED BY 0.5% FROM SPOT ①
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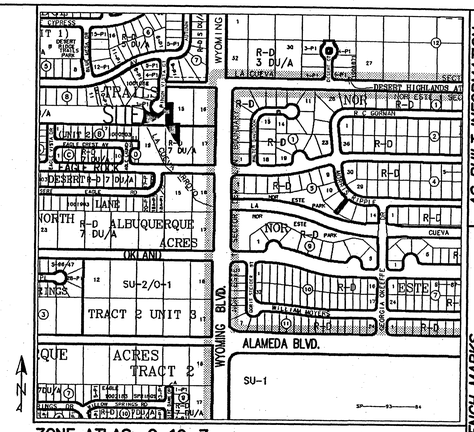

ZONE ATLAS: C-19-Z

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOT 9, LA VISTA AT DESERT RIDGE SUBDIVISION

SITE AREA: 0.58 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35001C0133G & 35001C0141G) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. THE NORTH LA CUEVA CHANNEL AT THE SOUTHWEST CORNER HAS A FLOOD HAZARD ZONE A WITH A 1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CHANNEL.

LOCATION AND DESCRIPTION: THE PROPERTY IS LOCATED ON ESMAIL COURT AND ADJACENT TO PINON VISTA COURT. AT THE SOUTHWEST CORNER OF THE PROPERTY IS THE NORTH LA CUEVA CHANNEL.

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THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 3. THE 100-YEAR, 6-HOUR STORM IS 2.60 INCHES.

THE SITE CURRENTLY DRAINS FROM EAST TO WEST TO PINON VISTA COURT WHICH DRAINS INTO THE LA CUEVA CHANNEL OR DRAINS DIRECTLY TO THE LA CUEVA CHANNEL. CURRENTLY THERE ARE OFFSITE FLOWS FROM THE EAST.

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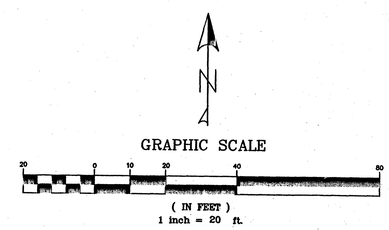
THE PROPERTY HAS BEEN DIVIDED INTO TWO ONSITE DRAINAGE BASINS. RUN-OFF FROM THE ONSITE BASIN 1, WHICH INCLUDES THE 2 LOTS THAT FRONT ESMAIL COURT, WILL BE DIRTECTED TOWARD THE ESMAIL COURT. ESMAIL COURT WILL THEN DRAIN TO PINON VISTA COURT. ALL FLOWS IN PINON VISTA COURT ARE DISCHARGED TO THE LA CUEVA CHANNEL THROUGH AN EXISTING CONCRETE RUNDOWN. RUNOFF FROM ONSITE BASIN 1 WILL BE 1.41 CFS.

RUNOFF FROM OFFSITE BASIN A WILL DRAIN TOWARD EAGLE ROCK AVENUE. RUNOFF FROM OFFSITE BASIN A WILL BE ~~3.15~~ 5.07 CFS. RUNOFF FROM ONSITE BASIN 2 WILL DRAIN DIRECTLY TO THE LA CUEVA CHANNEL THROUGH AN EXISTING RUNDOWN. RUNOFF FROM ONSITE BASIN 1 WILL BE 0.95 CFS.



100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
OFF-SITE A	1.0000	0.00	0.00	100.00	0.00	1.29	0.11	4,683	0.11	4,683	3.45
ON-SITE 1	0.3400	0.00	0.00	100.00	0.00	1.29	0.04	1,592	0.04	1,592	1.17
ON-SITE 2	0.2400	0.00	0.00	100.00	0.00	1.29	0.03	1,124	0.03	1,124	0.83
TOTAL RUNOFF	1.58						0.17	7,399	0.17	7,399	5.45
PROPOSED CONDITIONS											
ON-SITE 1	0.3400	0.00	22.20	22.20	55.60	1.80	0.05	2,225	0.06	2,568	1.41
ON-SITE 2	0.2400	0.00	27.00	27.00	46.00	1.68	0.03	1,466	0.04	1,666	0.95
TOTAL RUNOFF	0.58						0.08	3,691	0.10	4,234	2.35
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E_i (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q_P (cfs)					

$E = (E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$ — ZONE = 3

$V_{6\text{-}HR}$ (acre-ft) = (WEIGHTED E)(AREA)/12 — $P_{6\text{-}HR}$ (in.) = 2.60

V_{10DAY} (acre-ft) = $V_{6\text{-}HR} + (A_D)(P_{10DAY} - P_{6\text{-}HR})/12$ — P_{10DAY} (in.) = 3.10

Q (cfs) = $(Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)$ — P_{10DAY} (in.) = 4.90

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DEVELOPMENT

LA VISTA @ DESERT RIDGE SUBDIVISION
GRADING AND DRAINAGE PLAN FOR LOTS 9A, 9B, 9C

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL		MO./DAY/YR.	MO./DAY/YR.

City Project No.	Zone Map No.	Sheet	Of
784882	C-19-Z	1	1

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY
INSPECTOR'S AGREEMENT BY
FIELD VERIFICATION BY
DRAWINGS CORRECTED BY
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS

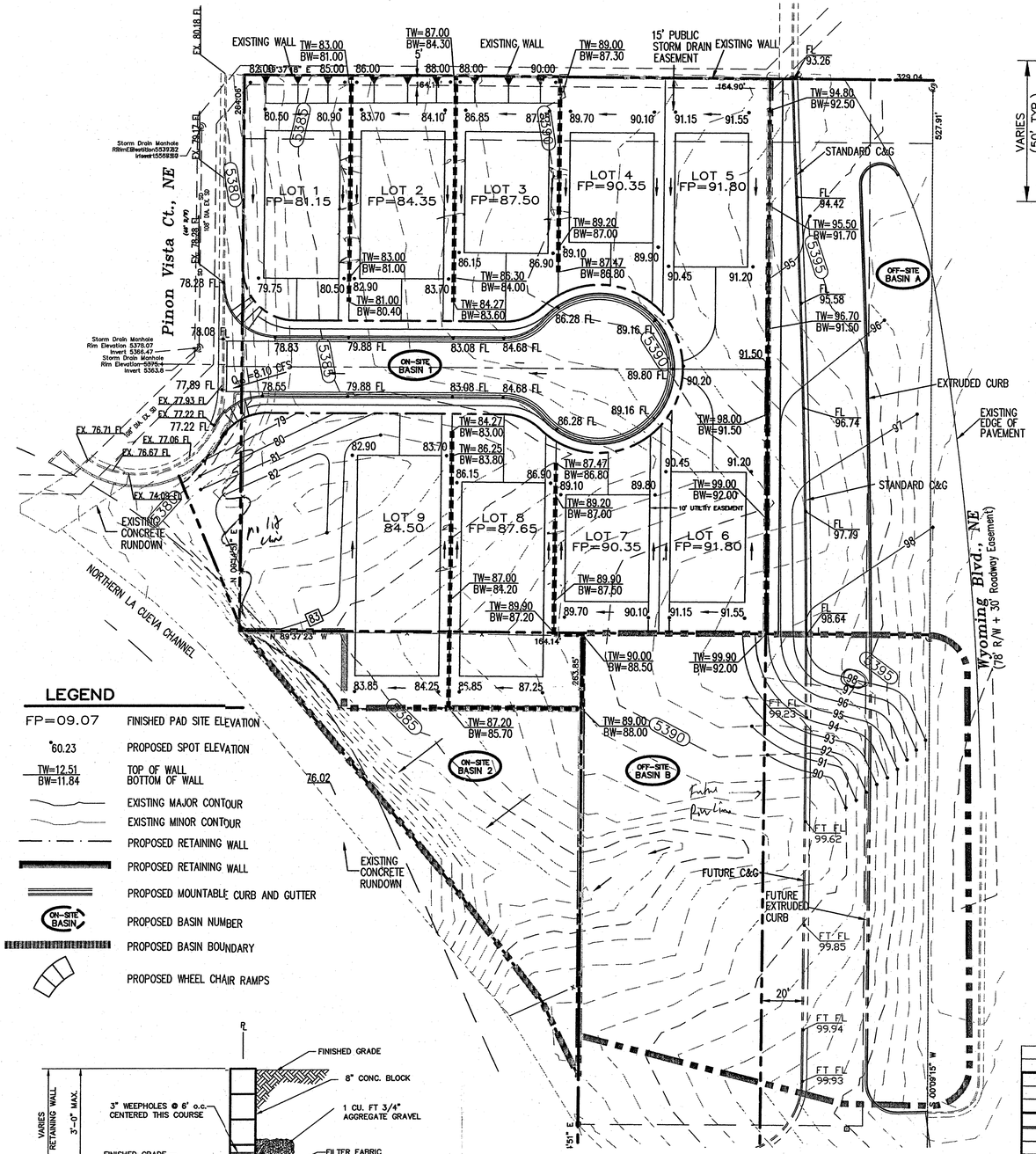
SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

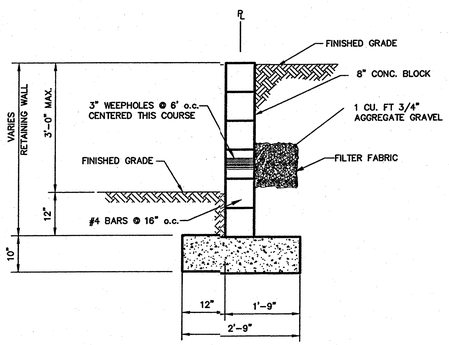
DESIGN
DESIGNED BY DBT DATE 11/2010
DRAWN BY DEM DATE 11/2010
CHECKED BY DBT DATE 11/2010

\\psf\Home\PROJECTS\Eagle Rock-Wyoming Subdivision\LOTS-9-10-11-G&D\Grading&DrainagePlan-Revised-10-18-12.dwg 10/18/2012 8:37:16 AM MDT



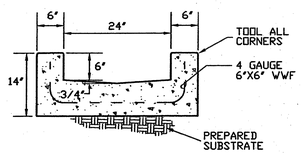
LEGEND

FP=09.07	FINISHED PAD SITE ELEVATION
60.23	PROPOSED SPOT ELEVATION
TW=12.51 / BW=11.84	TOP OF WALL / BOTTOM OF WALL
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED RETAINING WALL
	PROPOSED MOUNTABLE CURB AND GUTTER
ON-SITE BASIN	PROPOSED BASIN NUMBER
	PROPOSED BASIN BOUNDARY
	PROPOSED WHEEL CHAIR RAMPS



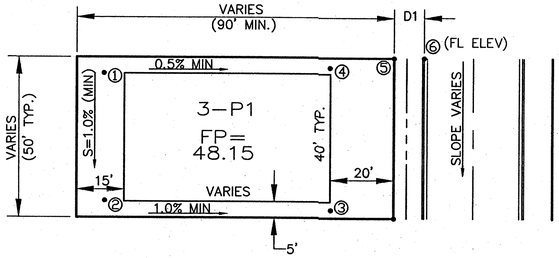
RETAINING WALL BETWEEN LOTS

NO SCALE



CONCRETE CHANNEL

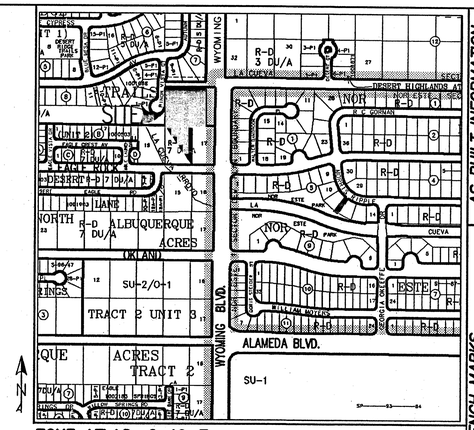
NO SCALE



TYPICAL LOT GRADING PLAN

NO SCALE

TO SET SPOT ① – SUBTRACT 0.25' FROM THE PAD ELEV.
TO SET SPOT ② – SUBTRACT LENGTH MULTIPLIED BY 1.0%
TO SET SPOT ③ – SUBTRACT LENGTH MUTIPLIED BY 1.0% FROM SPOT ②
TO SET SPOT ④ – SUBTRACT LENGTH MUTIPLIED BY 0.5% FROM SPOT ①
TO SET SPOT ⑤ – MULTIPLY D1 BY 2.0%, ADD CURB HEIGHT, AND ADD TO SPOT



ZONE ATLAS: C-19-Z

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOTS 15, 16, & 18A, BLOCK 1, NORTH ALBUQUERQUE ACRES TRACT 2, UNIT 3 & A

SITE AREA: 1.92 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED SEPTEMBER 26, 2008 (PANEL NO. 35001C0133G & 35001C0141G) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. THE NORTH LA CUEVA CHANNEL AT THE SOUTHWEST CORNER HAS A FLOOD HAZARD ZONE A WITH A 1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CHANNEL.

LOCATION AND DESCRIPTION: THE PROPERTY IS LOCATED BETWEEN WYOMING BOULEVARD AND PINON VISTA COURT AND NORTH OF EAGLE ROCK AVENUE. AT THE SOUTHWEST CORNER OF THE PROPERTY IS THE NORTH LA CUEVA CHANNEL.

EXISTING DRAINAGE CONDITIONS:

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 3. THE 100-YEAR, 6-HOUR STORM IS 2.60 INCHES.

THE SITE CURRENTLY DRAINS FROM EAST TO WEST TO PINON VISTA COURT WHICH DRAINS INTO THE LA CUEVA CHANNEL. CURRENTLY THERE ARE OFFSITE FLOWS FROM THE EAST. ONCE WYOMING BOULEVARD IS BUILT OUT THESE FLOWS WILL BE DIRECTED NORTH TO THE EXISTING 108 INCH RCP STORM DRAIN.

DEVELOPED DRAINAGE CONDITIONS:

THE PROPERTY HAS BEEN DIVIDED INTO FOUR DRAINAGE BASINS. OFF-SITE BASINS A AND B INCLUDE THE INTERIM UNDEVELOPED PORTION OF WYOMING BOULEVARD TO THE EAST OF THE PROPOSED SUBDIVISION. RUNOFF FROM OFF-SITE BASIN A WILL BE COLLECTED IN A TEMPORARY RETENTION POND WITHIN THE WYOMING RIGHT-OF-WAY EAST OF THE PROPERTY. THE 100-YEAR, 10-DAY VOLUME IS 1,126 CUBIC FEET. THE POND DEPTH WILL BE 1.22 FEET WITH A 100-YEAR WSEL OF 5393.22. A RETAINING WALL WILL BE CONSTRUCTED TO ACCOMODATE THE FUTURE WYOMING SIDEWALK ELEVATION. ONCE WYOMING BOULEVARD IS CONSTRUCTED STREET FLOWS WILL BE DIRECTED NORTH TO STORM INLETS LOCATED IN THE STREET SECTION, WHICH WILL ELIMINATE OFF-SITE FLOWS REACHING THE SUBDIVISION. OFF-SITE BASIN B WILL DRAIN 3.45 CFS DIRECTLY TO ON-SITE BASIN 2 WHICH WILL DRAIN TO THE LA CUEVA CHANNEL.

RUN-OFF FROM ON-SITE BASIN 1, WHICH INCLUDES THE CUL-DE-SAC STREET AND THE LOTS FRONTING THE STREET, WILL BE DIRECTED TOWARD THE CUL-DE-SAC. THE CUL-DE-SAC WILL THEN DRAIN TO PINON VISTA COURT. ALL FLOWS IN PINON VISTA COURT ARE DISCHARGED TO THE LA CUEVA CHANNEL THROUGH AN EXISTING CONCRETE RUNDOWN LOCATED AT THE SOUTH END OF PINON VISTA COURT. RUNOFF FROM ON-SITE BASIN 1 WILL BE 6.81 CFS. RUNOFF FROM ON-SITE BASIN 2 WILL DRAIN DIRECTLY TO THE LA CUEVA CHANNEL. TOTAL RUNOFF FROM ON-SITE BASIN 2 AND OFF-SITE B REACHING THE LA CUEVA CHANNEL IS 4.45 CFS.

RECEIVED
JAN 23 2012
HYDROLOGY SECTION

NOTES:
1. BUILDER WILL BE RESPONSIBLE FOR CONSTRUCTING SIDE YARD RETAINING WALLS.

walls ... individ pad must be certified after walls are built and grading is complete

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
OFF-SITE A	0.4700	0.00	0.00	100.00	0.00	1.29	0.05	2,201	0.05	2,201	1.62
OFF-SITE B	1.0000	0.00	0.00	100.00	0.00	1.29	0.11	4,683	0.11	4,683	3.45
ON-SITE 1	1.5500	0.00	0.00	100.00	0.00	1.29	0.17	7,258	0.17	7,258	5.35
ON-SITE 2	0.3700	0.00	0.00	100.00	0.00	1.29	0.04	1,733	0.04	1,733	1.28
TOTAL RUNOFF	3.39						0.36	15,874	0.36	15,874	11.70
PROPOSED CONDITIONS											
ON-SITE 1	1.5500	0.00	0.00	53.60	46.40	1.79	0.23	10,052	0.26	11,357	6.48
ON-SITE 2	0.3700	0.00	0.00	100.00	0.00	1.29	0.04	1,733	0.04	1,733	1.28
TOTAL RUNOFF	1.92						0.27	11,784	0.30	13,090	7.75
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E_i (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q_{PI} (cfs)					

	ZONE = 3
WEIGHTED E (in) = $(E_A)(\%A) + (E_B)(\%B) + (E_C)(\%C) + (E_D)(\%D)$	$P_{6\text{-}HR}$ (in.) = 2.60
$V_{6\text{-}HR}$ (acre-ft) = (WEIGHTED E)(AREA)/12	$P_{24\text{-}HR}$ (in.) = 3.10
V_{10DAY} (acre-ft) = $V_{6\text{-}HR} + (A_D)(P_{10DAY} - P_{6\text{-}HR})/12$	P_{10DAY} (in.) = 4.90
Q (cfs) = $(Q_{PA})(A_A) + (Q_{PB})(A_B) + (Q_{PC})(A_C) + (Q_{PD})(A_D)$	

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DEVELOPMENT

LA VISTA @ DESERT RIDGE SUBDIVISION
GRADING AND DRAINAGE PLAN

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL		MO./DAY/YR.	MO./DAY/YR.

City Project No.	Zone Map No.	Sheet	Of
784882	C-19-Z	1	1

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY
INSPECTOR'S ACCEPTANCE BY
FIELD VERIFICATION BY
DRAWINGS CORRECTED BY
MICRO-FILM INFORMATION
RECORDED BY
NO.
DATE

BENCH MARKS

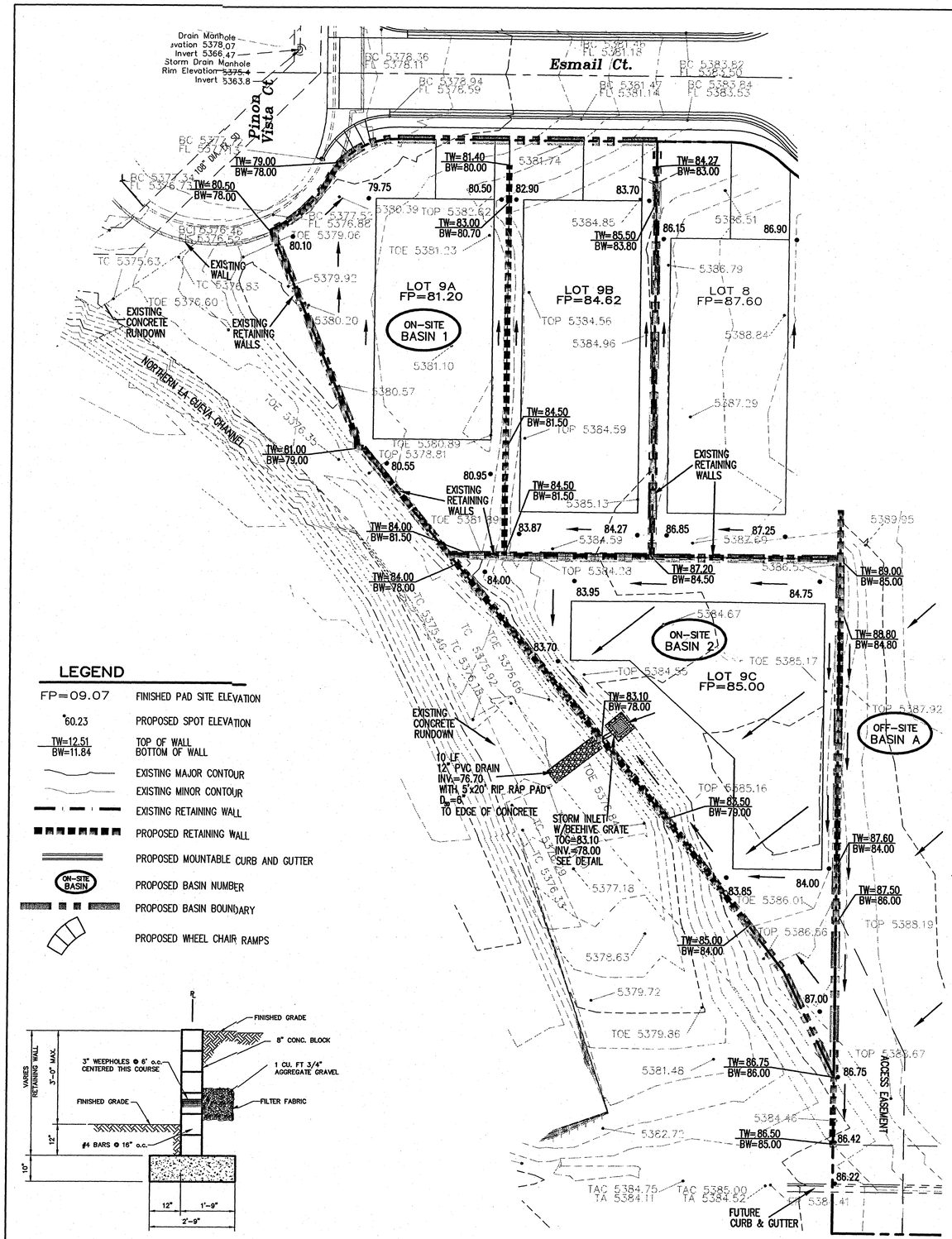
SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

ENGINEER'S SEAL
DAVID E. DOTY 9677 NEW MEXICO LICENSED PROFESSIONAL ENGINEER

NO.	DATE	REMARKS	BY

DESIGN
DESIGNED BY DBT DATE 11/2010
DRAWN BY DEM DATE 11/2010
CHECKED BY DBT DATE 11/2010

Y:\PROJECTS\Eagle Rock-Wyoming Subdivision\G&D-REVISED-9-LOTREVISED1-12-12.dwg 1/20/2012 7:36:52 AM MST2

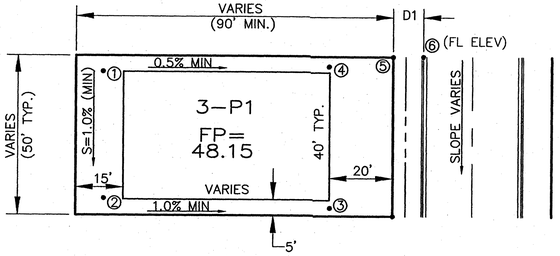


LEGEND

FP=09.07	FINISHED PAD SITE ELEVATION
60.23	PROPOSED SPOT ELEVATION
TW=12.51 / BW=11.84	TOP OF WALL / BOTTOM OF WALL
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING RETAINING WALL
	PROPOSED RETAINING WALL
	PROPOSED MOUNTABLE CURB AND GUTTER
ON-SITE BASIN	PROPOSED BASIN NUMBER
	PROPOSED BASIN BOUNDARY
	PROPOSED WHEEL CHAIR RAMPS

RETAINING WALL BETWEEN LOTS

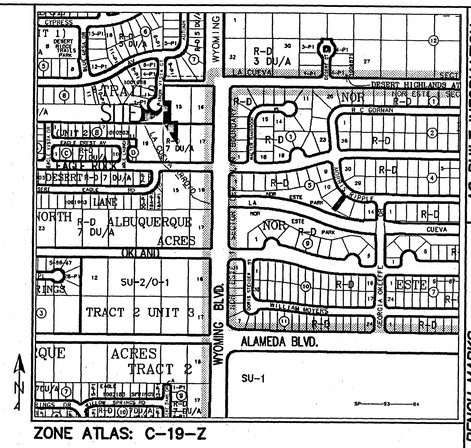
NO SCALE



TYPICAL LOT GRADING PLAN

NO SCALE

TO SET SPOT ① – SUBTRACT 0.25' FROM THE PAD ELEV.
TO SET SPOT ② – SUBTRACT LENGTH MULTIPLIED BY 1.0%
TO SET SPOT ③ – SUBTRACT LENGTH MUTIPLIED BY 1.0% FROM SPOT ②
TO SET SPOT ④ – SUBTRACT LENGTH MUTIPLIED BY 0.5% FROM SPOT ①
TO SET SPOT ⑤ – MULTIPLY D1 BY 2.0%, ADD CURB HEIGHT, AND ADD TO SPOT



ZONE ATLAS: C-19-Z

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOT 9, LA VISTA AT DESERT RIDGE SUBDIVISION

SITE AREA: 0.58 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED AUGUST 16, 2012 (PANEL NO. 35001C0133G & 35001C0141G) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. THE NORTH LA CUEVA CHANNEL AT THE SOUTHWEST CORNER HAS A FLOOD HAZARD ZONE A WITH A 1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CHANNEL.

LOCATION AND DESCRIPTION: THE PROPERTY IS LOCATED ON ESMAIL COURT AND ADJACENT TO PINON VISTA COURT. AT THE SOUTHWEST CORNER OF THE PROPERTY IS THE NORTH LA CUEVA CHANNEL.

EXISTING DRAINAGE CONDITIONS:

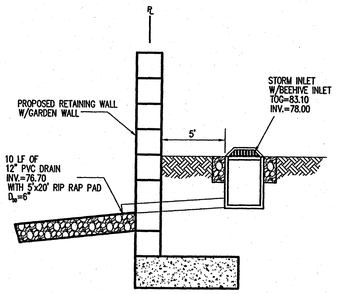
THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 3. THE 100-YEAR, 6-HOUR STORM IS 2.60 INCHES.

THE SITE CURRENTLY DRAINS FROM EAST TO WEST TO PINON VISTA COURT WHICH DRAINS INTO THE LA CUEVA CHANNEL OR DRAINS DIRECTLY TO THE LA CUEVA CHANNEL. CURRENTLY THERE ARE OFFSITE FLOWS FROM THE EAST.

DEVELOPED DRAINAGE CONDITIONS:

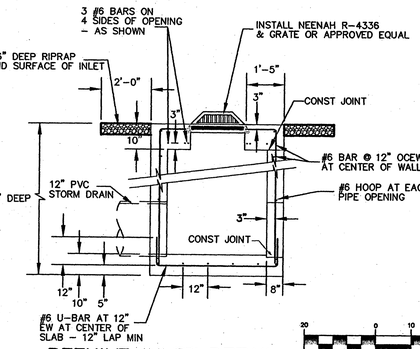
THE PROPERTY HAS BEEN DIVIDED INTO TWO ONSITE DRAINAGE BASINS. RUN-OFF FROM THE ONSITE BASIN 1, WHICH INCLUDES THE 2 LOTS THAT FRONT ESMAIL COURT, WILL BE DIRTECTED TOWARD THE ESMAIL COURT. ESMAIL COURT WILL THEN DRAIN TO PINON VISTA COURT. ALL FLOWS IN PINON VISTA COURT ARE DISCHARGED TO THE LA CUEVA CHANNEL THROUGH AN EXISTING CONCRETE RUNDOWN. RUNOFF FROM ONSITE BASIN 1 WILL BE 1.41 CFS.

RUNOFF FROM OFFSITE BASIN A WILL DRAIN TOWARD EAGLE ROCK AVENUE. RUNOFF FROM OFFSITE BASIN A WILL BE 3.45 CFS. RUNOFF FROM ONSITE BASIN 2 WILL DRAIN DIRECTLY TO THE LA CUEVA CHANNEL THROUGH AN EXISTING RUNDOWN. RUNOFF FROM ONSITE BASIN 1 WILL BE 0.95 CFS.



STORM DRAIN DETAIL

NO SCALE



BEEHIVE INLET DETAIL

NO SCALE

GRAPHIC SCALE

(IN FEET)
1 inch = 20 ft.

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
OFF-SITE A	1.4700	0.00	0.00	100.00	0.00	1.29	0.16	6,884	0.16	6,884	5.07
ON-SITE 1	0.3400	0.00	0.00	100.00	0.00	1.29	0.04	1,592	0.04	1,592	1.17
ON-SITE 2	0.2400	0.00	0.00	100.00	0.00	1.29	0.03	1,124	0.03	1,124	0.83
TOTAL RUNOFF	2.05						0.22	9,600	0.22	9,600	7.07
PROPOSED CONDITIONS											
ON-SITE 1	0.3400	0.00	22.20	22.20	55.60	1.80	0.05	2,225	0.06	2,568	1.41
ON-SITE 2	0.2400	0.00	27.00	27.00	46.00	1.68	0.03	1,466	0.04	1,666	0.95
TOTAL RUNOFF	0.58						0.08	3,691	0.10	4,234	2.35
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q (cfs)					

WEIGHTED E (in) = (E^{A})(%A) + (E^{B})(%B) + (E^{C})(%C) + (E^{D})(%D)
V$^{\cdots}$ (acre-ft) = (WEIGHTED E)(AREA)/12
V$^{\cdots}$ (acre-ft) = V$^{\cdots}$ + (A$^{\cdots}$)(P$^{\cdots}$ - P$^{\cdots}$)/12
Q (cfs) = (Q$^{\cdots}$)(A$^{\cdots}$) + (Q$^{\cdots}$)(A$^{\cdots}$) + (Q$^{\cdots}$)(A$^{\cdots}$) + (Q$^{\cdots}$)(A$^{\cdots}$)

ZONE = 3
P$^{\cdots}$ (in.) = 2.60
P$^{\cdots}$ (in.) = 3.10
P$^{\cdots}$ (in.) = 4.90

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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DEVELOPMENT

LA VISTA @ DESERT RIDGE SUBDIVISION
GRADING AND DRAINAGE PLAN FOR LOTS ~~9,10 &11~~

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL		MO./DAY/YR.	MO./DAY/YR.

City Project No.	Zone Map No.	Sheet	Of
784882	C-19-Z	1	1

AS BUILT INFORMATION
CONTRACTOR
STAKED BY DATE
INSPECTOR'S ACCEPTANCE BY DATE
FIELD VERIFICATION BY DATE
DRAWINGS CORRECTED BY DATE
MICRO-FILM INFORMATION
RECORDED BY DATE
NO.

BENCH MARKS

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

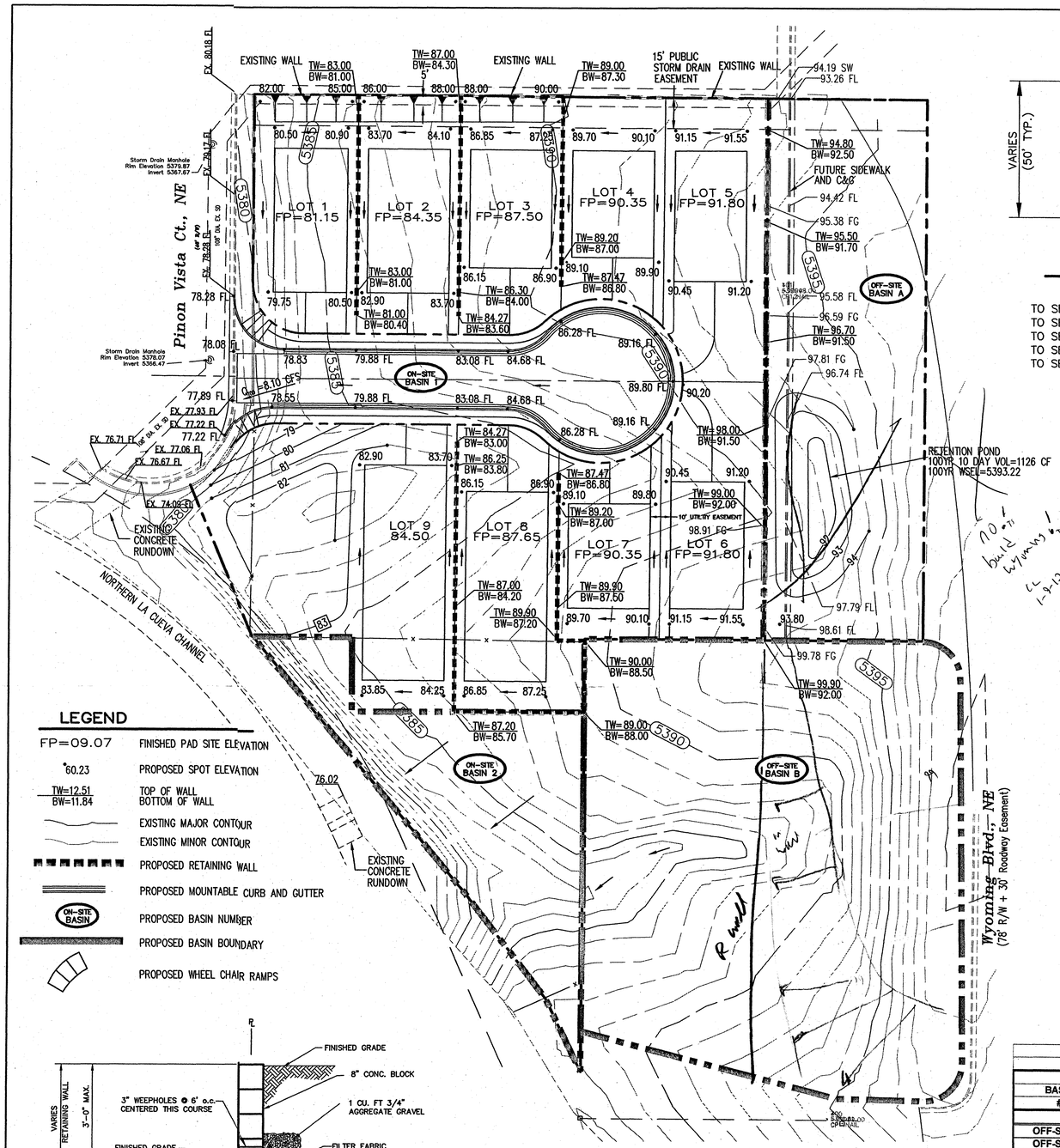
ENGINEER'S SEAL
DAVID T. BUTLER NEW MEXICO 9677 PROFESSIONAL ENGINEER
11-20-12

NO.	DATE	REMARKS	BY

DESIGN
DESIGNED BY DBT DATE 11/2010
DRAWN BY DEM DATE 11/2010
CHECKED BY DBT DATE 11/2010

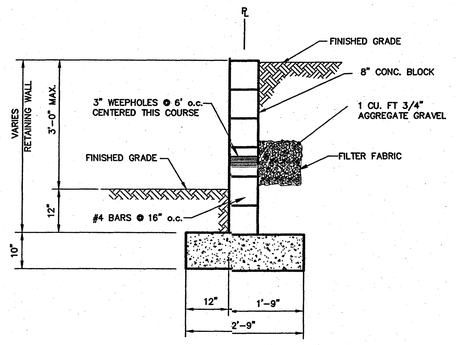
RECEIVED
NOV 20 2012
LAND DEVELOPMENT SECTION

Y:\PROJECTS\Eagle Rock-Wyoming Subdivision\LOTS-9-10-11-G&D\Grading&DrainagePlan-Revised-11-1-12.dwg 11/1/2012 11:29:46 AM MDT



LEGEND

FP=09.07	FINISHED PAD SITE ELEVATION
60.23	PROPOSED SPOT ELEVATION
TW=12.51 / BW=11.84	TOP OF WALL / BOTTOM OF WALL
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED MOUNTABLE CURB AND GUTTER
ON-SITE BASIN	PROPOSED BASIN NUMBER
	PROPOSED BASIN BOUNDARY
	PROPOSED WHEEL CHAIR RAMPS

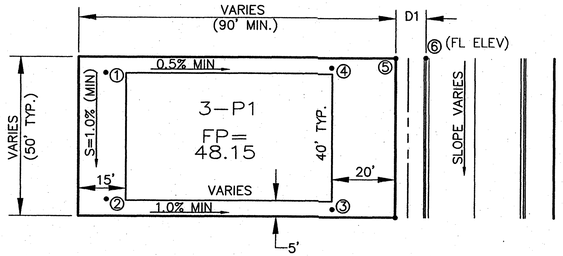


RETAINING WALL BETWEEN LOTS

NO SCALE

NOTES:

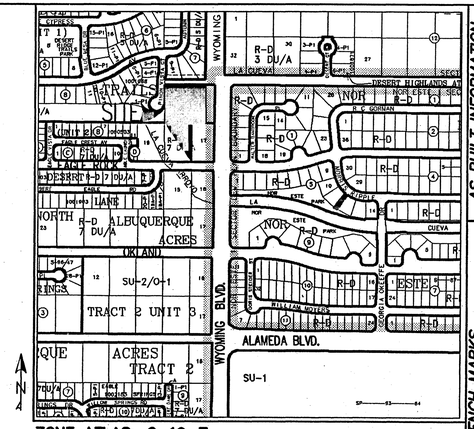
1. BUILDER WILL BE RESPONSIBLE FOR CONSTRUCTING SIDE YARD RETAINING WALLS.



TYPICAL LOT GRADING PLAN

NO SCALE

TO SET SPOT ① – SUBTRACT 0.25' FROM THE PAD ELEV.
TO SET SPOT ② – SUBTRACT LENGTH MULTIPLIED BY 1.0%
TO SET SPOT ③ – SUBTRACT LENGTH MUTIPLIED BY 1.0% FROM SPOT ②
TO SET SPOT ④ – SUBTRACT LENGTH MUTIPLIED BY 0.5% FROM SPOT ①
TO SET SPOT ⑤ – MULTIPLY D1 BY 2.0%, ADD CURB HEIGHT, AND ADD TO SPOT



ZONE ATLAS: C-19-Z

DRAINAGE PLAN:

LEGAL DESCRIPTION: LOTS 15, 16, & 18A, BLOCK 1, NORTH ALBUQUERQUE ACRES TRACT 2, UNIT 3 & A

SITE AREA: 1.92 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED SEPTEMBER 26, 2008 (PANEL NO. 35001C0133G & 35001C0141G) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN. THE NORTH LA CUEVA CHANNEL AT THE SOUTHWEST CORNER HAS A FLOOD HAZARD ZONE A WITH A 1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CHANNEL.

LOCATION AND DESCRIPTION: THE PROPERTY IS LOCATED BETWEEN WYOMING BOULEVARD AND PINON VISTA COURT AND NORTH OF EAGLE ROCK AVENUE. AT THE SOUTHWEST CORNER OF THE PROPERTY IS THE NORTH LA CUEVA CHANNEL.

EXISTING DRAINAGE CONDITIONS:

THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 3. THE 100-YEAR, 6-HOUR STORM IS 2.60 INCHES.

THE SITE CURRENTLY DRAINS FROM EAST TO WEST TO PINON VISTA COURT WHICH DRAINS INTO THE LA CUEVA CHANNEL. CURRENTLY THERE ARE OFFSITE FLOWS FROM THE EAST. ONCE WYOMING BOULEVARD IS BUILT OUT THESE FLOWS WILL BE DIRECTED NORTH TO THE EXISTING 108 INCH RCP STORM DRAIN.

DEVELOPED DRAINAGE CONDITIONS:

THE PROPERTY HAS BEEN DIVIDED INTO FOUR DRAINAGE BASINS. OFF-SITE BASINS A AND B INCLUDE THE INTERIM UNDEVELOPED PORTION OF WYOMING BOULEVARD TO THE EAST OF THE PROPOSED SUBDIVISION. RUNOFF FROM OFF-SITE BASIN A WILL BE COLLECTED IN A TEMPORARY RETENTION POND WITHIN THE WYOMING RIGHT-OF-WAY EAST OF THE PROPERTY. THE 100-YEAR, 10-DAY VOLUME IS 1,126 CUBIC FEET. THE POND DEPTH WILL BE 1.22 FEET WITH A 100-YEAR WSEL OF 5393.22. A RETAINING WALL WILL BE CONSTRUCTED TO ACCOMODATE THE FUTURE WYOMING SIDEWALK ELEVATION. ONCE WYOMING BOULEVARD IS CONSTRUCTED STREET FLOWS WILL BE DIRECTED NORTH TO STORM INLETS LOCATED IN THE STREET SECTION, WHICH WILL ELIMINATE OFF-SITE FLOWS REACHING THE SUBDIVISION. OFF-SITE BASIN B WILL DRAIN 3.45 CFS DIRECTLY TO ON-SITE BASIN 2 WHICH WILL DRAIN TO THE LA CUEVA CHANNEL.

RUN-OFF FROM ON-SITE BASIN 1, WHICH INCLUDES THE CUL-DE-SAC STREET AND THE LOTS FRONTING THE STREET, WILL BE DIRECTED TOWARD THE CUL-DE-SAC. THE CUL-DE-SAC WILL THEN DRAIN TO PINON VISTA COURT. ALL FLOWS IN PINON VISTA COURT ARE DISCHARGED TO THE LA CUEVA CHANNEL THROUGH AN EXISTING CONCRETE RUNDOWN LOCATED AT THE SOUTH END OF PINON VISTA COURT. RUNOFF FROM ON-SITE BASIN 1 WILL BE 6.81 CFS. RUNOFF FROM ON-SITE BASIN 2 WILL DRAIN DIRECTLY TO THE LA CUEVA CHANNEL. TOTAL RUNOFF FROM ON-SITE BASIN 2 AND OFF-SITE B REACHING THE LA CUEVA CHANNEL IS 4.45 CFS.

GRAPHIC SCALE

(IN FEET) 1 inch = 30 ft.

RECEIVED
JAN - 3 2012
Thompson Engineering Consultants, Inc. HYDROLOGY SECTION
tecnm@yahoo.com
P.O. BOX 65760 ALBUQUERQUE, NM 87193
PHONE: (505) 271-2199 FAX: (505) 830-9428

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT A (%)	B (%)	C (%)	D (%)	WEIGHTED E (in)	100-YEAR PRECIPITATION V (6-hr) (acre-ft)	V (6-hr) (cu-ft)	V(24-hr) (acre-ft)	V(24-hr) (cu-ft)	Q (cfs)
EXISTING CONDITIONS											
OFF-SITE A	0.4700	0.00	0.00	100.00	0.00	1.29	0.05	2,201	0.05	2,201	1.62
OFF-SITE B	1.0000	0.00	0.00	100.00	0.00	1.29	0.11	4,683	0.11	4,683	3.45
ON-SITE 1	1.5500	0.00	0.00	100.00	0.00	1.29	0.17	7,258	0.17	7,258	5.35
ON-SITE 2	0.3700	0.00	0.00	100.00	0.00	1.29	0.04	1,733	0.04	1,733	1.28
TOTAL RUNOFF	3.39						0.36	15,874	0.36	15,874	11.70
PROPOSED CONDITIONS											
ON-SITE 1	1.5500	0.00	0.00	53.60	46.40	1.79	0.23	10,052	0.26	11,357	6.48
ON-SITE 2	0.3700	0.00	0.00	100.00	0.00	1.29	0.04	1,733	0.04	1,733	1.28
TOTAL RUNOFF	1.92						0.27	11,784	0.30	13,090	7.75
EXCESS PRECIP.		0.66	0.92	1.29	2.36	E (in)					
PEAK DISCHARGE		1.87	2.6	3.45	5.02	Q (cfs)					

ZONE = 3
P 6 (in.) = 2.60
P 24 (in.) = 3.10
P 10 (in.) = 4.90

WEIGHTED E (in) = (E1)(%A) + (E2)(%B) + (E3)(%C) + (E4)(%D)
V6 (acre-ft) = (WEIGHTED E)(AREA)/12
V10 (acre-ft) = V6 + (A1)(P10 - P6)/12
Q (cfs) = (Q1)(A1) + (Q2)(A2) + (Q3)(A3) + (Q4)(A4)

AS BUILT INFORMATION: CONTRACTOR / WORK STAKED BY / INSPECTOR'S ACCEPTANCE BY / FIELD VERIFICATION BY / DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION: RECORDED BY / DATE / NO.

BENCH MARKS

SURVEY INFORMATION: FIELD NOTES — NO. / BY / DATE

ENGINEER'S SEAL

NO.	DATE	REMARKS	BY

DESIGN: DESIGNED BY DBT — DATE 11/2010; DRAWN BY DEM — DATE 11/2010; CHECKED BY DBT — DATE 11/2010

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
TRANSPORTATION DEVELOPMENT

LA VISTA @ DESERT RIDGE SUBDIVISION
GRADING AND DRAINAGE PLAN

DESIGN REVIEW COMMITTEE | CITY ENGINEER APPROVAL | MO./DAY/YR. | MO./DAY/YR.

City Project No. 784882 | Zone Map No. C-19-Z | Sheet 1 Of 1

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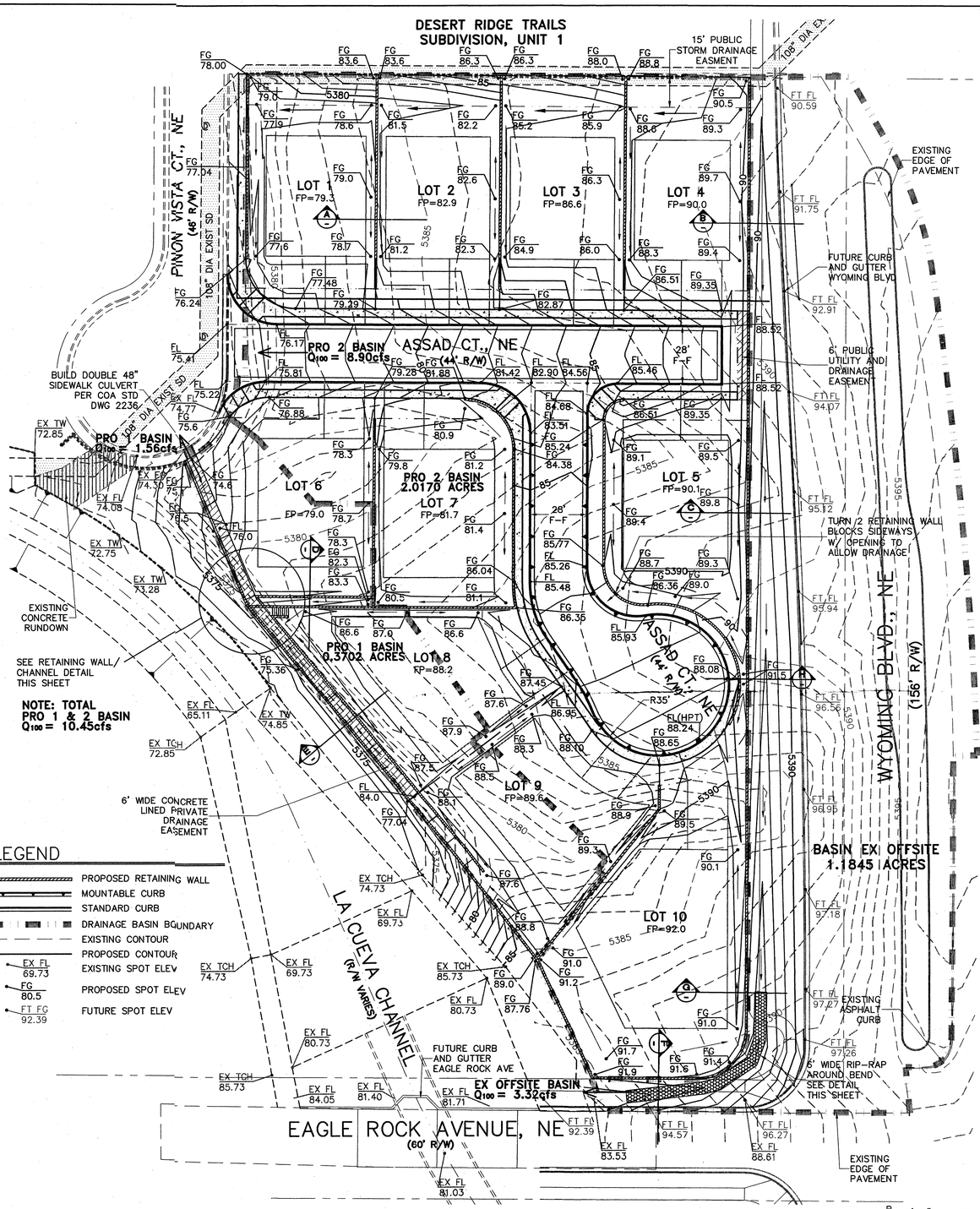


LEGEND

- PROPOSED RETAINING WALL
- MOUNTABLE CURB
- STANDARD CURB
- DRAINAGE BASIN BOUNDARY
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EX FL 69.73 — EXISTING SPOT ELEV
- FG 80.5 — PROPOSED SPOT ELEV
- FT FG 92.39 — FUTURE SPOT ELEV

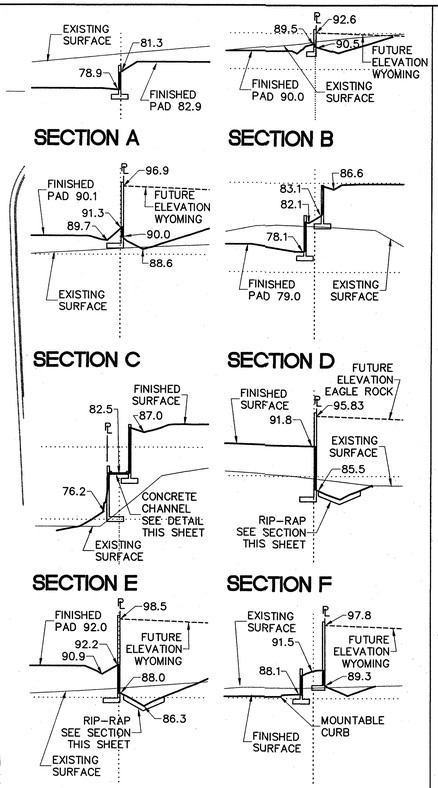
PROPOSED DRAINAGE CONDITIONS

SCALE: 1"= 30'-0"

GRAPHIC SCALE

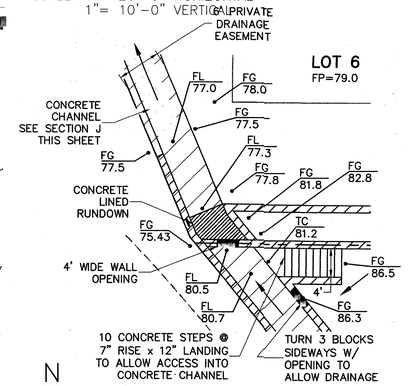
30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.



RETAINING WALL SECTIONS

SCALE: 1"= 20'-0" HORIZONTAL
1"= 10'-0" VERTICAL



RETAINING WALL/CHANNEL DETAIL

SCALE: 1"= 10'-0"

I. PURPOSE AND SCOPE

THE PURPOSE OF THIS DRAINAGE PLAN IS TO PRESENT THE EXISTING DRAINAGE CONDITIONS AND PROPOSED DRAINAGE MANAGEMENT PLAN FOR A NEW TEN (10) LOT SUBDIVISION LOCATED ON ALBUQUERQUE'S EAST SIDE AT THE NORTHWEST CORNER OF WYOMING BLVD AND EAGLE ROCK AVENUE.

II. SITE DESCRIPTION AND HISTORY

THE EXISTING 2.39-ACRE SITE IS CURRENTLY UNDEVELOPED. IT IS BORDERED ON THE EAST BY WYOMING BLVD, ON THE SOUTH BY EAGLE ROCK AVE, ON THE SOUTHWEST BY THE LA CUEVA CHANNEL AND ON THE WEST BY PINON VISTA COURT. DEVELOPED RESIDENTIAL LOTS BACK INTO THE NORTH SIDE OF THE PROPOSED SUBDIVSION. THE NATURAL, HISTORIC DRAINAGE PATTERN IS FROM EAST TO WEST. THE LAND IS HILLY WITH EVIDENCE OF TWO SMALL ARROYOS THAT CROSS THE SITE. THESE ARROYOS NO LONGER CONTINUE EAST OR WEST OF THE PROPERTY BECAUSE OF ADJACENT DEVELOPMENTS. APPROXIMATELY HALF OF THE LAND IS UNTOUCHED BY HUMAN ACTIVITY AND STILL HAS NATIVE VEGETATION. THERE IS LITTLE OR NO VEGETATION ON THE REMAINING HALF WHERE VEHICLES HAVE DRIVEN REPEATEDLY ACROSS THE SITE.

III. COMPUTATIONAL PROCEDURES

HYDROLOGIC ANALYSIS WAS PERFORMED BASED ON THE METHODS AND CRITERIA IN SECTION 22.2 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) PUBLISHED IN JULY 1997.

IV. PRECIPITATION

THE 100-YEAR, 6-HOUR STORM WAS USED AS THE DESIGN STORM FOR ANALYSIS PURPOSES. THIS STORM IS EXPECTED TO PRODUCE A TOTAL OF 2.60 INCHES OF RAINFALL WITHIN ZONE 3 AS IDENTIFIED IN DPM SECTION 22.2. TABLES IN SECTION 22.2 WERE USED TO ESTABLISH EXCESS RUNOFF VOLUMES AND PEAK DISCHARGE RATES FROM THE DESIGN STORM FOR THE VARIOUS EXISTING AND PROPOSED DRAINAGE BASINS.

V. EXISTING DRAINAGE CONDITIONS OVERVIEW

THE EXISTING SITE SLOPES TO THE WEST WITH AN AVERAGE GRADE OF APPROXIMATELY FOUR (4) PERCENT. 100% OF THE SITE IS UNDEVELOPED WITH NATIVE GRASSES AND SHRUBS GROWING ON ABOUT HALF THE AREA. THE REMAINING HALF IS BARREN OR WEEDY AND HAS BEEN COMPACTED BY HUMAN ACTIVITY. FOLLOWING SUBSURFACE EXAMINATIONS ON THE SITE AT SIX LOCATIONS, THE SOILS ARE DESCRIBED AS SILTY TO VERY SILTY SANDS AND CLAYEY SANDS. THE SANDS ARE MEDIUM DENSE WITH INFREQUENT LOOSE AND DENSE LAYERS. SANDS ARE FINE TO MEDIUM GRAINED WITH SOME COURSE GRAINS AND GRAVEL.

STREET IMPROVEMENTS ALONG WYOMING BOULEVARD DIVERT UPLAND RUNOFF TO THE NORTH AND SOUTH AWAY FROM THE PROPERTY. APPROXIMATELY 1.2 ACRES OF STREET RIGHT-OF-WAY ALONG WYOMING BLVD PRESENTLY DRAIN ONTO THE SITE. THIS FLOW HAS BEEN DETERMINED AT 3.32 CFS DURING THE 100-YEAR, 6-HOUR STORM.

UNDEVELOPED RUNOFF FROM THE SITE PRESENTLY DRAINS WESTWARD INTO THE EXISTING LA CUEVA CHANNEL AT THE SOUTHWEST EDGE OF THE PROPERTY. ON-SITE UNDEVELOPED RUNOFF HAS BEEN DETERMINED AT 6.33 CFS DURING THE 100-YEAR, 6-HOUR STORM. TOGETHER, THE 100-YEAR UPLAND AND ON-SITE RUNOFF DRAINING INTO THE LA CUEVA CHANNEL TOTAL APPROXIMATELY 9.65 CFS.

VI. PROPOSED DRAINAGE MANAGEMENT PLAN

THE SUBDIVISION WILL BE DEVELOPED WITH A CUL-DE-SAC EXTENDING EAST THEN SOUTH FROM PINON VISTA COURT. THE EAST-WEST LEG OF THE CUL-DE-SAC WILL BE SURFACED WITH A RESIDENTIAL ASPHALT PAVEMENT SECTION AND HAVE STANDARD CURB AND GUTTER ON EACH SIDE WITH 28-FEET BETWEEN CURB FACES. FOUR-FOOT WIDE SIDEWALKS WILL BE CONSTRUCTED ON BOTH SIDES OF THE STREET. THE NORTH-SOUTH LEG OF THE CUL-DE-SAC WILL HAVE MOUNTABLE CURB AND GUTTER WITH 4-FOOT SIDEWALK CONSTRUCTED ALONG THE WEST EDGE OF THE STREET. IT WILL BE 28-FEET BETWEEN CURB FACES. APPROXIMATELY 2-ACRES OF THE SITE WILL DRAIN BY SURFACE TO THE NEW CUL-DE-SAC WITH A FLOW RATE OF 8.9 CFS FOR THE 100-YEAR STORM. THIS RUNOFF WILL DRAIN ON THE SURFACE INTO PINON VISTA COURT AND THEN SOUTH TO A SIDEWALK CULVERT AND CONCRETE LINED RUNDOWN BEFORE DISCHARGING BY SURFACE INTO THE LA CUEVA CHANNEL.

THE REAR OF LOTS 6, 8 AND 9 WILL DRAIN TO A NEW CONCRETE LINED, 6-FOOT WIDE PRIVATE DRAINAGE EASEMENT. THE DRAINAGE EASEMENT WILL COLLECT 1.56 CFS FROM THE REAR YARDS DURING THE 100-YEAR STORM AND DISCHARGE TO PINON VISTA COURT THROUGH A 48-INCH WIDE SIDEWALK CULVERT. THIS FLOW WILL JOIN WITH THE 8.9 CFS DESCRIBED ABOVE AND DRAIN TO THE LA CUEVA CHANNEL VIA THE CONCRETE RUNDOWN.

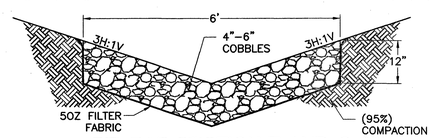
UNTIL WYOMING AND EAGLE ROCK AVENUE ARE CONSTRUCTED WITH PERMANENT CURB, GUTTER AND SIDEWALK, RUNOFF FROM THE 1.2 ACRES OF STREET ROW ALONG THE WEST EDGE OF WYOMING BLVD (EX OFFSITE) WILL DRAIN SOUTH TO EAGLE ROCK AVENUE AND THEN WEST ALONG THE NORTH SIDE OF EAGLE ROCK INTO THE EXISTING CONCRETE DIP SECTION ACROSS THE LA CUEVA CHANNEL. THIS RUNOFF WILL TOTAL 3.32 CFS FOR THE 100-YEAR STORM. TEMPORARY RIPRAP LINING WILL BE PLACED ALONG THE FLOW PATH ON THE NORTH SIDE OF EAGLE ROCK AVENUE TO CONTROL EROSION.

EVENTUALLY BOTH WYOMING BLVD AND EAGLE ROCK AVENUE WILL BE RECONSTRUCTED BY THE CITY ADJACENT TO THE SUBDIVISION. IN THEIR PERMANENT CONFIGURATION THESE STREETS WILL BE HIGHER AND CROSS OVER NEW DRAINAGE STRUCTURES THAT WILL BE BUILT ON THE LA CUEVA CHANNEL. AT THAT TIME ALL RUNOFF IN WYOMING BLVD WILL BE COLLECTED WITHIN THE STREET ROW AND DRAINED DIRECTLY TO EITHER THE LA CUEVA ARROYO OR OTHER DRAINAGE CROSSINGS NORTH OF THE PROPOSED SUBDIVISION.

VII. CONCLUSION

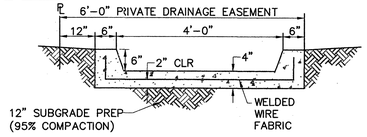
DEVELOPED RUNOFF FROM THE PROPOSED 10-LOT SUBDIVISION WILL BE DRAINED ON THE SURFACE WITHIN NEW STREET AND DRAINAGE EASEMENT IMPROVEMENTS TO THE SOUTH END OF PINON VISTA COURT. EXISTING SIDEWALK CULVERTS AND A CONCRETE LINED RUNDOWN WILL DISCHARGE THE RUNOFF FROM PINON VISTA COURT INTO THE LA CUEVA CHANNEL.

AS AN INTERIM DRAINAGE SOLUTION, RUNOFF FROM WYOMING BLVD ROW THAT IS ADJACENT TO THE PROPOSED SUBDIVISION WILL BE DRAINED SOUTHWARD TO EAGLE ROCK AVENUE AND THEN WEST IN A RIPRAP LINED SWALE TO THE LA CUEVA ARROYO. FUTURE PERMANENT STREET IMPROVEMENTS ON WYOMING AND EAGLE ROCK WILL CONTAIN THE STREET RUNOFF AND DIRECT IT TO DISCHARGE POINTS AT THE LA CUEVA ARROYO AND OTHER DRAINAGE CROSSINGS UNDER WYOMING BLVD NORTH OF THE NEW SUBDIVISION.



RIP-RAP SECTION F AND G

NTS



CONCRETE CHANNEL SECTION J

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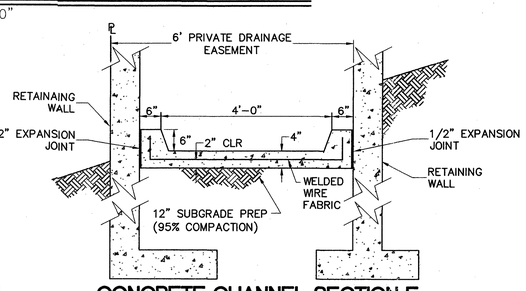

CONCRETE CHANNEL SECTION E

NTS

AS BUILT INFORMATION

CONTRACTOR		
STAKED BY		DATE
INSPECTOR'S ACCEPTANCE BY		DATE
FIELD VERIFICATION BY		DATE
DRAWINGS CORRECTED BY		DATE

MICRO-FILM INFORMATION

RECORDED BY: DATE
NO.

BENCH MARKS

"1-B20", STATION IS LOCATED AT THE INTERSECTION OF BARSTOW ST. AND MODESTO AVE., IN THE N.E. QUADRANT. STATION MARK IS A STANDARD ACS BRASS TABLET, STAMPED ACS MONUMENT "1-B20" NAD 1927 CENTRAL ZONE

X = 410,237.56
Y = 1,524092.46
Z = 5474.51 (NACD 1929)
G-G = 0.99964740
DELTA ALPHA = -0°10'23"

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

REGISTERED PROFESSIONAL ENGINEER — 12-5-07

NO.	DATE	REMARKS	BY
		REVISIONS	
		DESIGN	

DESIGNED BY: RWM, P.E. DATE 12/5/07
DRAWN BY: PJM DATE 12/5/07
CHECKED BY: RWM, P.E. DATE 12/5/07

THE group
The Hensley Engineering Group
2340 Menaul Boulevard, NE - Suite 200
Albuquerque, New Mexico 87107
Phone:(505)883-1900 FAX:(505)883-1906

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

TITLE: LA VISTA AT DESERT RIDGE TRAILS
PROPOSED DRAINAGE CONDITIONS

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

INFORMATION ONLY

City Project No. | Zone Map No. C-19-Z | Sheet CD-2 | Of

RECEIVED DEC 05 2007 HYDROLOGY SECTION

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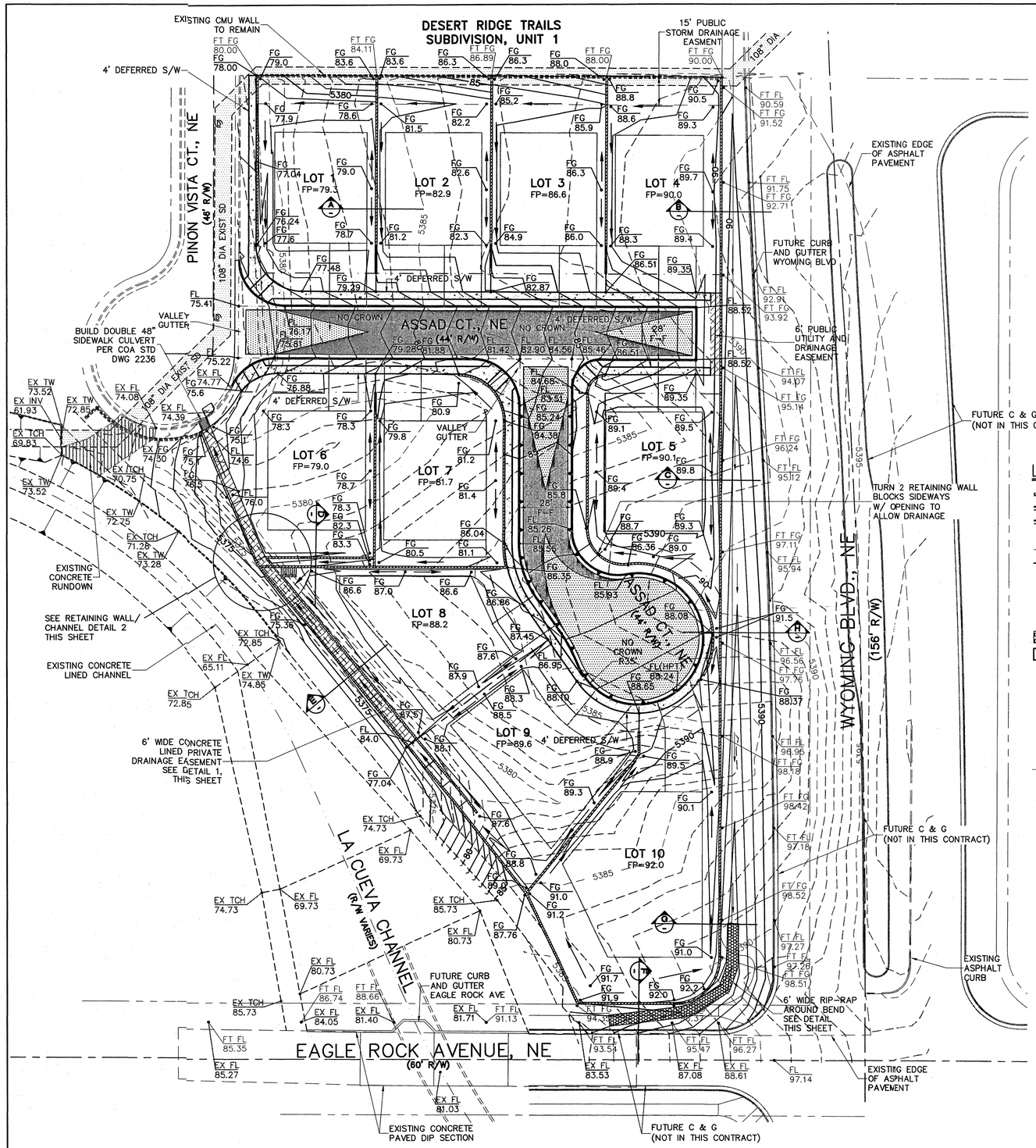
DATE: 6/14/06



N

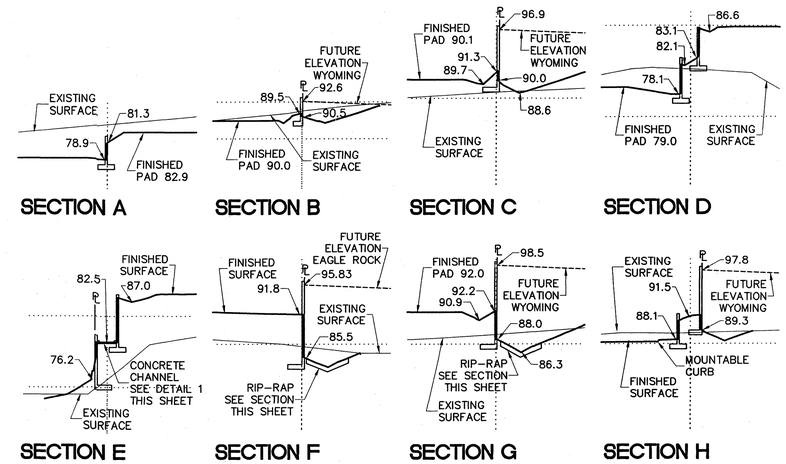
GRADING PLAN

SCALE: 1"= 30'-0"

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

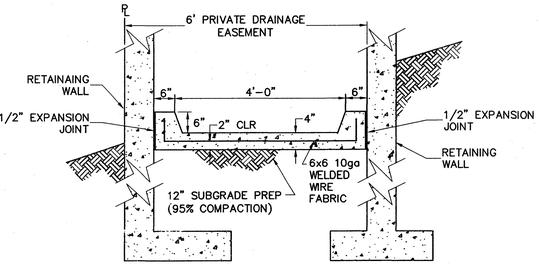


RETAINING WALL SECTIONS

NTS

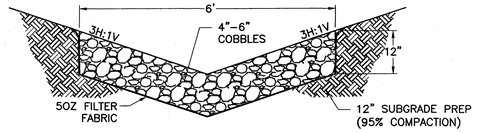
LEGEND

- PROPOSED RETAINING WALL
- MOUNTABLE CURB
- STANDARD CURB
- FLOW DIRECTION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EX FL 69.73 — EXISTING SPOT ELEV
- FG 80.5 — PROPOSED SPOT ELEV
- FT FL 90.73 — FUTURE SPOT ELEV
- RIP-RAP LINING
- CONCRETE SIDEWALK
- CROWN TRANSITION PER COA STD DWG. 2401
- WHEELCHAIR RAMP CASE I PER COA STD DWG 2441



DETAIL 1 - CONCRETE CHANNEL SECTION

NTS



DETAIL 3 - RIP-RAP SECTION

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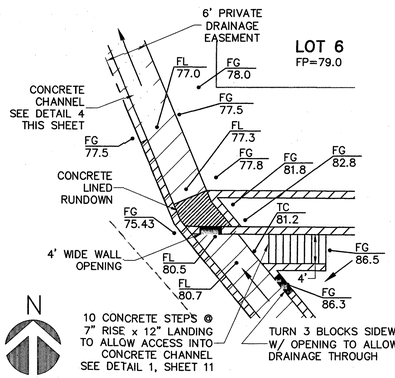
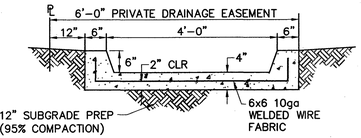


N

DETAIL 2 - RETAINING WALL/ CHANNEL DETAIL

SCALE: 1" = 10'



DETAIL 4 - CONCRETE CHANNEL SECTION J

NTS

AS BUILT INFORMATION

CONTRACTOR	
WORK STAKED BY	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
FIELD VERIFICATION BY	DATE
DRAWINGS CORRECTED BY	DATE

MICRO-FILM INFORMATION

RECORDED BY	DATE
NO.	

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DELTA ALPHA = -0°10'23"

SURVEY INFORMATION

FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL

RWMD WYNMACK NEW MEXICO 6444 REGISTERED PROFESSIONAL ENGINEER

12-5-07

NO.	DATE	REMARKS REVISIONS DESIGN	BY

DESIGNED BY: RWM, P.E.	DATE	12/5/07
DRAWN BY: PJM	DATE	12/5/07
CHECKED BY: RWM, P.E.	DATE	12/5/07

THE group

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Albuquerque, New Mexico 87107
Phone:(505)884-1900 Fax:(505)884-1906

CITY OF ALBUQUERQUE
DEPARTMENT OF MUNICIPAL DEVELOPMENT

TITLE: LA VISTA AT DESERT RIDGE TRAILS GRADING PLAN

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

City Project No.	Zone Map No.	Sheet	Of
	C-19-Z	3	11

RECEIVED DEC 05 2007 HYDROLOGY SECTION

DWG FILE - L:\2003 JOBS\03-182 WYOMING SUBD\CIVIL\WORKING DRAWINGS\03-182-MASTER-GRADE.DWG
DATE: 6/14/07