

CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

September 26, 2017

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM, 87108

**RE: Ladera Crossing Self Storage
Grading Plan**
Stamp Date: 9/20/17
Hydrology File: J09D026 H09D028

Dear Mr. Arfman:

PO Box 1293

Based upon the information provided in your submittal received 9/21/17, the Conceptual Grading and Drainage Plan is approved for action by the DRB on the Site Plan for Building Permit and Site Plan for Subdivision.

Albuquerque

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

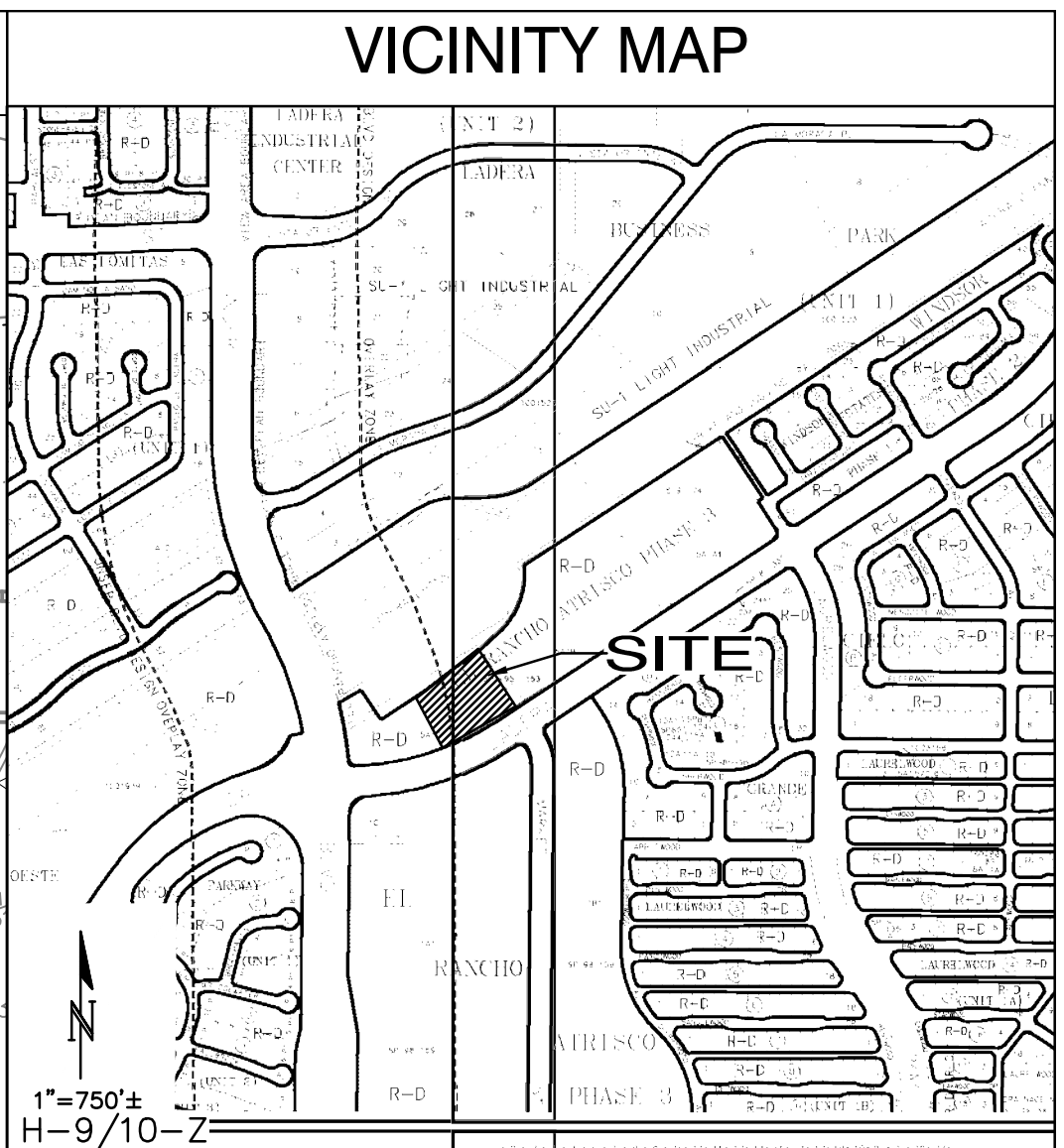
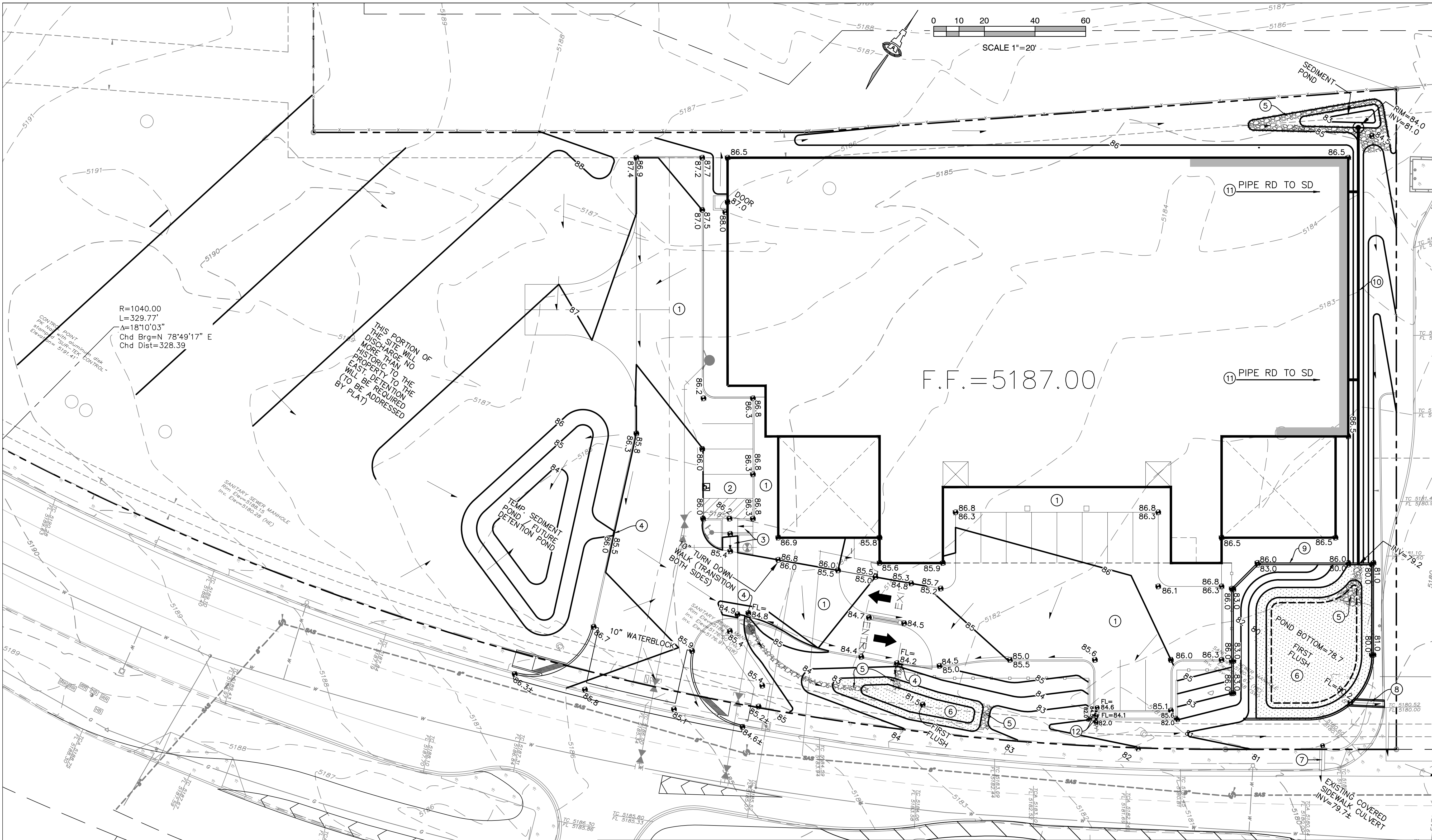
NM 87103

Sincerely,

Reneé C. Brissette

www.cabq.gov

Reneé C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



- ### KEYED NOTES
1. CONSTRUCT PROPOSED PAVING / WALKS / CURB AND GUTTER TO ELEVATIONS SHOWN. SEE PAVING PLAN FOR PAVEMENT MATERIAL, EXTENTS, SECTIONS, PARKING LAYOUT, DIMENSIONS, STRIPING, ETC. PROVIDE SMOOTH TRANSITION TO EXISTING.
 2. CONSTRUCT HC PARKING AREA TO ADA STANDARDS. MAX. 2% SLOPE IN ANY DIRECTION.
 3. CONSTRUCT ADA COMPLIANT HANDICAP ACCESS RAMP AT ELEVATIONS SHOWN. MAX. 2% CROSS-SLOPE.
 4. PROVIDE 24" WIDE CURB OPENING AT FLOWLINE SHOWN.
 5. INSTALL ROCK EROSION PROTECTION AT CURB OPENING, WITHIN FLOWLINES CARRYING CONCENTRATED FLOW (3' WIDE) AND LIMITS HATCHED PER LEGEND.
 6. DOT HATCHED AREA REPRESENTS EXTENTS OF 'FIRST FLUSH' RETENTION PONDING. CONSTRUCT TO ELEVATIONS SHOWN.
 7. EXISTING COVERED SIDEWALK CULVERT. CONTRACTOR TO CLEAN AND REMOVE ANY MATERIAL BLOCKING ACCESS TO FLOW.
 8. CONSTRUCT 24" WIDE (BOTTOM WIDTH) CONCRETE RUNDOWN COVERED.
 9. CONSTRUCT RETAINING WALL TO ACHIEVE GRADE TRANSITIONS SHOWN. GRADES PROVIDED EACH SIDE REFLECT FINISH GRADES. SEE ARCHITECTURAL FOR INFORMATION RE: STRUCTURAL DESIGN, ADDITIONAL WALL HEIGHT, CONSTRUCTION DETAILS, WEEPHOLES, ETC.
 10. INSTALL PRIVATE STORM DRAIN SYSTEM TO DELIVER ROOF DISCHARGE TO SOUTHEAST POND. SEE CG-2.
 11. ROOF DISCHARGE TO BE PIPED DIRECTLY TO STORM DRAIN SYSTEM. SEE PLUMBING PLANS FOR CONTINUATION.
 12. PROVIDE 12" WIDE CURB OPENING AT FLOWLINE SHOWN. PROVIDE TURNED BLOCK IN WALL AT FLOWLINE SHOWN TO PASS MINOR BASIN FLOW.

CONSTRUCTION STAKING

UPON WRITTEN REQUEST COORDINATED THROUGH THE PROJECT ARCHITECT, THE ELECTRONIC FILE OF THE GRADING AND DRAINAGE WILL BE PROVIDED TO THE CONTRACTOR FOR VERTICAL CONTROL. DO NOT USE THIS PLAN FOR PROJECT STAKING.

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.isaacson.com

2228 CG-101.dwg Jun 27, 2017

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LADERA CROSSING SELF STORAGE

CONCEPTUAL GRADING AND DRAINAGE PLAN			
Date:	No. Revision:	Date:	Job No.
JUNE '17			2228
Drawn By:			CG-101
BUB			
Ckd By:			SH. OF
FCA			

DRAINAGE PLAN CONCEPT: FLOW FROM THE UNDEVELOPED PORTION OF THE PROPERTY TO THE WEST WILL PASS THROUGH A SEDIMENT CONTROL POND, EXCESS WILL OVERFLOW TO THE PAVEMENT TO CONTINUE ALONG THE HISTORIC FLOWPATH.

THE AREA TO BE DEVELOPED CONSISTS OF TWO DRAINAGE BASINS. FLOW FROM IMPERVIOUS AREA WILL PASS THROUGH FIRST FLUSH RETENTION PONDS AS REQUIRED. EXCESS WILL DISCHARGE TO LADERA BLVD. VIA THE EXISTING COVERED SIDEWALK CULVERT OR THE PROPOSED CONCRETE RUNDOWN.



CALCULATIONS: Unser & Ladera Self Storage : June 27, 2017					
Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993					
ON-SITE					
AREA OF SITE:	71866.1	SF	=	1.6	
ALLOWABLE DISCHARGE:	100-year, 6-hour	DEVELOPED FLOWS:	EXCESS PRECIP:		
Area A =	Treatment SF	%	Area A =	Treatment SF	%
Area B =	48868.948	68%	Area B =	11499	16%
Area C =	21559.83	30%	Area C =	7187	10%
Area D =	1437.322	2%	Area D =	53181	74%
Total Area =	71866.1	100%	Total Area =	71866.1	100%
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)					
Weighted E = $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$					
Allowable E =	0.79 in.	Developed E =	1.66 in.		
On-Site Volume of Runoff: V ₃₆₀ = E*A / 12					
Allowable V ₃₆₀ =	4743 CF	Developed V ₃₆₀ =	9965 CF		
On-Site Peak Discharge Rate: Q _p = Q _{pA} A _A + Q _{pB} A _B + Q _{pC} A _C + Q _{pD} A _D / 43,560					
For Precipitation Zone 1					
Q _{pA} =	1.29	Q _{pC} =	2.87		
Q _{pB} =	2.03	Q _{pD} =	4.37		
Allowable Q _p =	3.8 CFS	Developed Q _p =	6.3 CFS		

PROJECT DATA

PROPERTY: THE SITE IS A PORTION OF AN UNDEVELOPED COMMERCIAL PROPERTY WITHIN C.O.A. VICINITY MAP H-9/10. THE SITE IS BOUND TO THE WEST BY UNSER BLVD., TO THE EAST BY DEVELOPED MULTI-FAMILY, TO THE NORTH BY AMAFCA REGIONAL PONDS AND TO THE SOUTH BY LADERA BLVD.

SITE AREA: TOTAL SITE = 3.2 ACRES. PORTION TO BE DEVELOPED = 1.74 ACRES.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE A MULTI-STORY SELF STORAGE FACILITY WITH ASSOCIATED PAVED PARKING, PEDESTRIAN WALKS, DRAINAGE IMPROVEMENTS AND LANDSCAPING.

LEGAL: TRACT 5-A-1C EL RANCHO ATRISCO PHASE III CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

BENCHMARK: VERTICAL DATUM IS BASED UPON THE ALBUQUERQUE CONTROL SURVEY BENCHMARK "3-H10", ELEVATION = 5196.15 (NAVD 1988)

OFF-SITE: A SMALL STRIP OF OPEN SPACE ALONG THE NORTH PROPERTY LINE WILL CONTINUE TO DRAIN INTO THIS PROPERTY. THIS FLOW WILL BE DIRECTED TO A SHALLOW SEDIMENT POND AT THE NORTHEAST CORNER OF THE PROPERTY. A STORM DRAIN INLET WILL BE CONSTRUCTED 1' ABOVE POND BOTTOM TO ACCEPT FLOW IN EXCESS OF POND CAPACITY.

FLOOD HAZARD: THE SUBJECT PROPERTY (AS SHOWN HEREON) APPEARS TO LIE WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE 0.2% ANNUAL CHANCE FLOODPLAIN) IN ACCORDANCE WITH THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAP NO. 35001C0326 J, EFFECTIVE DATE 11-04-2016.

FIRST FLUSH: STORMWATER CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH' DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.34" [0.44" LESS 0.1" FOR INITIAL ABSTRACTION] OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM.

FIRST FLUSH RETENTION PONDS WILL BE CONSTRUCTED WITHIN THE LANDSCAPE AREAS AS DESIGNATED BY DOT HATCH. STORM WATER FROM THE IMPERVIOUS AREAS SHALL BE DIRECTED TO THESE PONDS. STORMWATER WILL THEN DISCHARGE TO LADERA BLVD. TO FOLLOW THE HISTORIC FLOWPATHS.

ENGINEER: FRED C. ARFMAN, NMPE 7322
ISAACSON & ARFMAN, PA
128 MONROE NE, 87111
TELEPHONE: (505) 268-8828

SURVEYOR: RUSS P. HUGG, NMPS NO. 9750
SURV-TEK, INC.
9384 VALLEY VIEW DR. NW, 87114
TELEPHONE: (505) 897-3366

LEGEND

	EXISTING SPOT ELEVATION
	EXISTING CONTOUR
	PROPOSED CONTOUR (1' INCREMENT)
	PROPOSED SPOT ELEVATION
	FLOW ARROW
	FINISH FLOOR ELEVATION
	GRADE BREAK
	PROPOSED FIRST FLUSH RETENTION PONDING AREA
	PERCOLATION TRENCH
	LIMITS OF EROSION CONTROL



1.5' WIDE X 7.0' LONG X DEPTH (TYPICAL) SCALE: N.T.S.
LOCATE CLAY LAYER BELOW SURFACE GRADE. MAY VARY
BASED ON LOCATION OF INFILTRATION PIT.

FOR SECURING PLATE USE 1"x5" S.S. ROD ANCHOR, "RED HEAD MULTI-SET II SRM-38 ANCHOR" OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS AT MAX. 24" O.C., A MINIMUM OF 2 PER SIDE AND ONE WITHIN 6" OF EACH END.



SCALE: N.T.S.



- SCALE: N.T.S.

- TYPICAL SWALE

SCALE: N.T.S.

Date:	No.	Revision:	Date:	Job No.
.				2228
Drawn By:				CG-501
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Ckd By:				SH. OF



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Ladera Crossing Self Storage Building Permit #: _____ City Drainage #: H9
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: Tract 5-A-1C, El Rancho Atrisco Phase III
City Address: City of Albuquerque

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred C. Arfman or Bryan J. Bobrick
Address: 128 Monroe Street NE - Albuquerque, NM 87108
Phone#: (505) 268-8828 Fax#: _____ E-mail: freda@iacivil.com
bryanb@iacivil.com

Owner: Titan Development Company Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Architect: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Other Contact: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

☒ ENGINEER ARCHITECT CERTIFICATION
☒ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ DRAINAGE MASTER PLAN
☐ DRAINAGE REPORT
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY
☐ PRELIMINARY PLAT APPROVAL
☒ SITE PLAN FOR SUB'D APPROVAL
☒ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR
☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

DATE SUBMITTED: September 20, 2017 By: Fred C. Arfman

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____