

CITY OF ALBUQUERQUE



December 30, 2014

Mr. Conrad Ley, PE
Wilson & Company
4900 Lang Ave NE
Albuquerque, NM 87109

**Re: Lead Avenue Townhomes
Grading and Drainage Plan
Engineer's Date 12-22-14 (K15D094)**

Dear Mr. Ley,

Based upon the information provided in your submittal received 12-22-14, the above referenced plan is approved for Building Permit and SO-19.

The SO-19 Permit is required for construction within the City Right of Way. A copy of this approval letter must be on hand when applying for the Excavation Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

PO Box 1293

If you have any questions, you can contact me at 924-3994.

Albuquerque

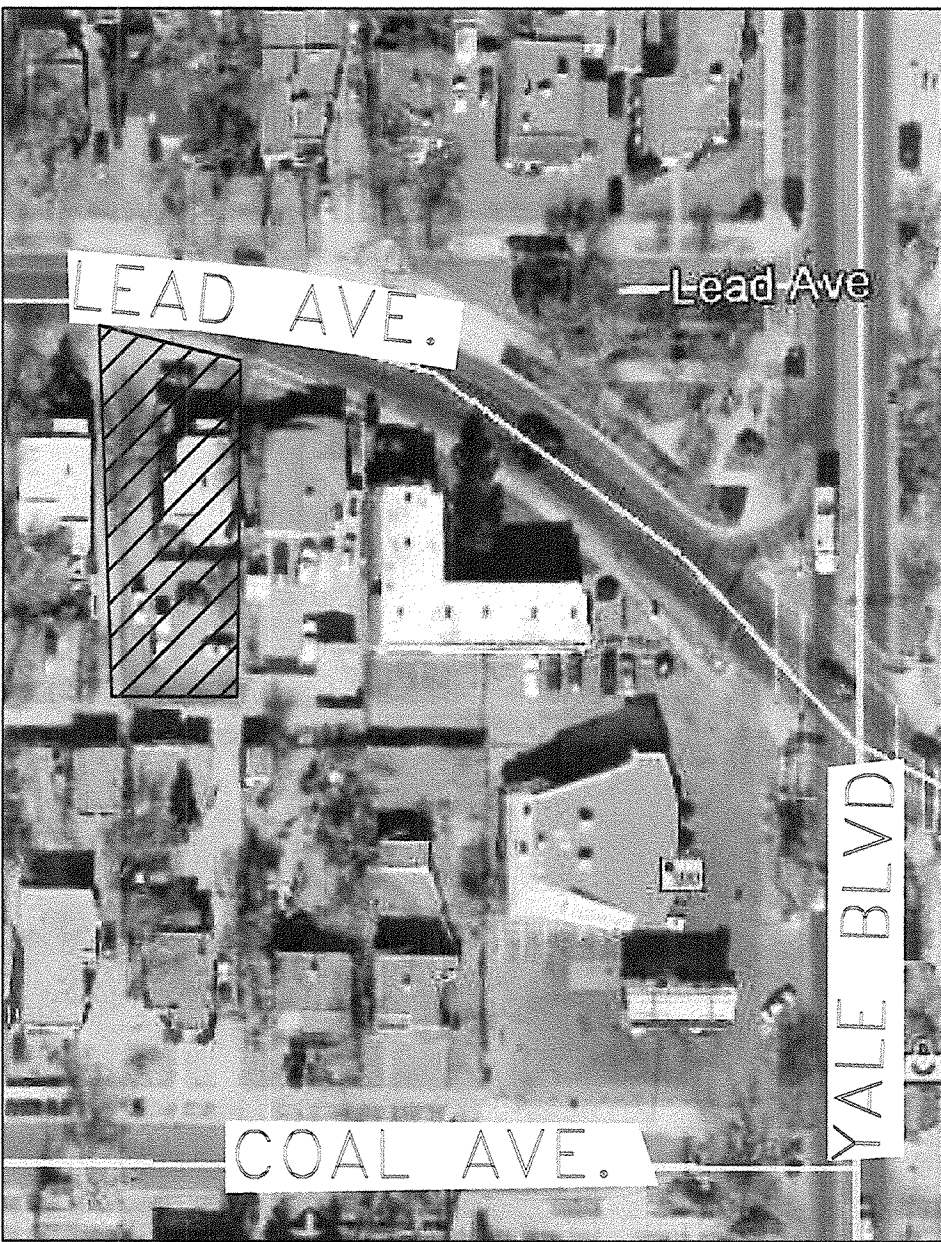
Sincerely,

New Mexico 87103

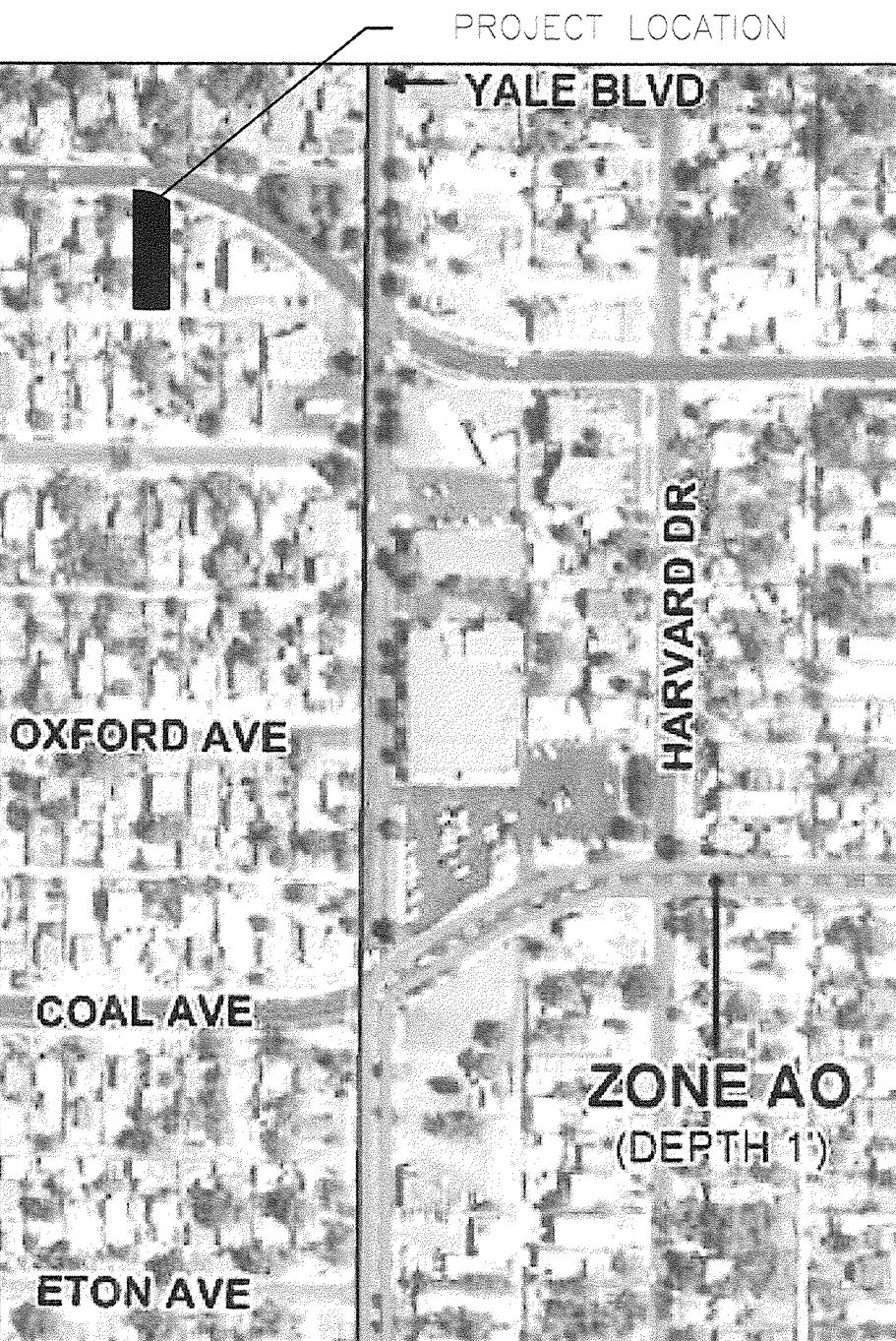
Amy L. D. Niese, P.E.
Senior Engineer, Hydrology
Planning Department

www.cabq.gov

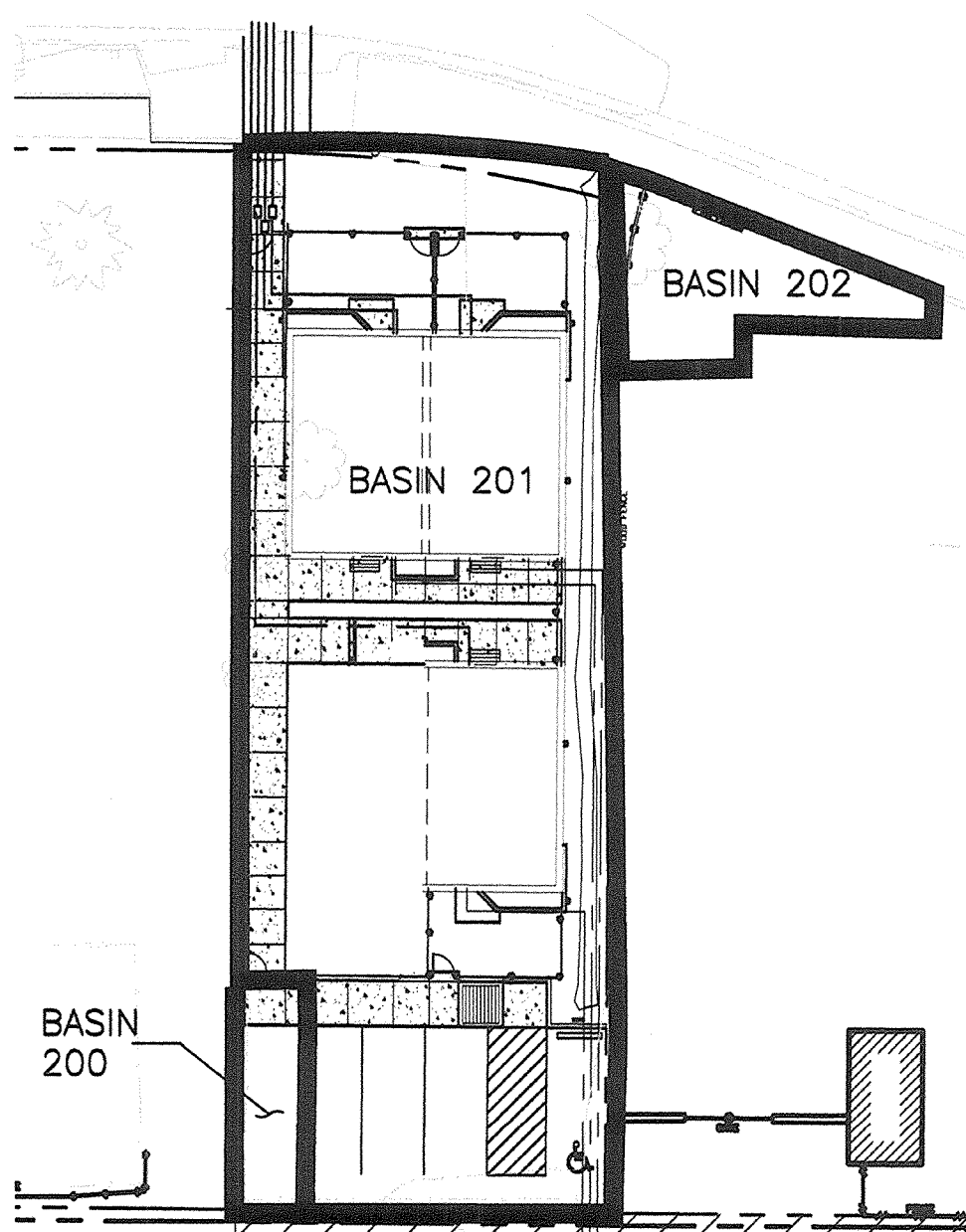
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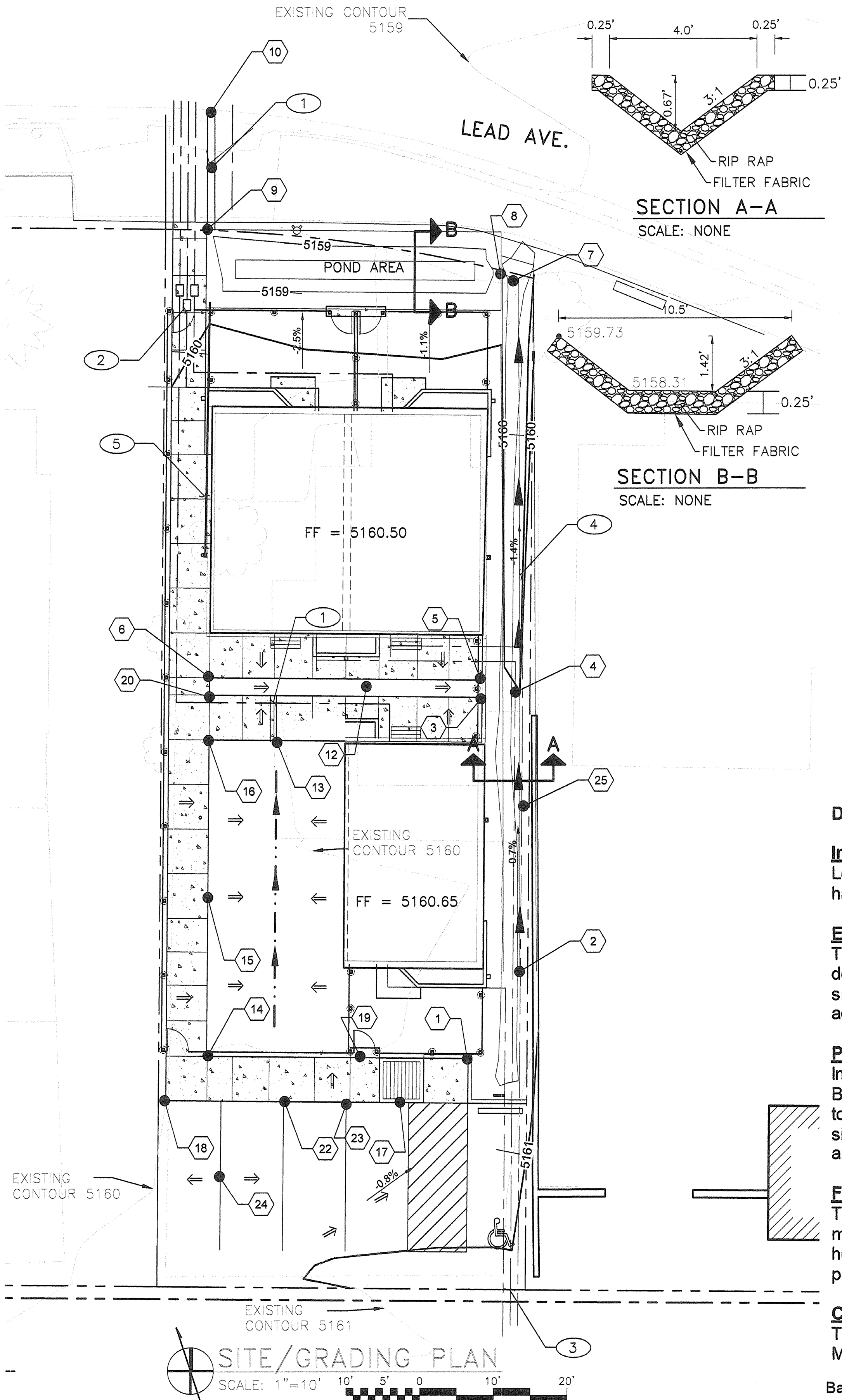
VICINITY MAP
NOT TO SCALE



FIRM #35001C0353H
NOT TO SCALE



DRAINAGE BASINS
NOT TO SCALE



Point Table				
Point #	Elevation	Northing	Easting	Description
1	5160.51	1484229.20	1529332.01	SIDEWALK
2	5160.30	1484240.93	1529339.02	SPOT
3	5160.03	1484277.69	1529333.91	SPOT
4	5160.00	1484278.40	1529339.03	SPOT
5	5160.03	1484280.02	1529333.93	SPOT
6	5160.24	1484280.33	1529296.93	SIDEWALK
7	5159.35	1484333.86	1529338.87	SPOT
8	5159.30	1484334.57	1529336.46	SPOT
9	5159.20	1484340.50	1529296.55	SPOT
10	5158.84	1484356.41	1529297.15	SPOT
12	5160.12	1484279.10	1529318.35	SPOT

13	5160.25	1484271.92	1529306.29	SPOT
14	5160.55	1484229.49	1529296.51	SIDEWALK
15	5160.45	1484247.99	1529296.66	SIDEWALK
16	5160.36	1484271.99	1529296.86	SIDEWALK
17	5160.65	1484223.17	1529322.71	SIDEWALK
18	5160.30	1484223.54	1529290.96	SIDEWALK
19	5160.62	1484229.32	1529317.21	SIDEWALK
20	5160.24	1484277.99	1529296.91	SIDEWALK
22	5160.70	1484223.41	1529306.96	SIDEWALK
23	5160.68	1484223.34	1529315.46	SIDEWALK
24	5160.85	1484213.56	1529298.40	SPOT
25	5160.15	1484263.23	1529338.86	SPOT

The work in the City ROW must be inspected and accepted. Contractor must contact Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an inspection.

Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-19")

1. An excavation permit will be required before beginning any work within City Right-Of-Way.
2. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
3. Two working days prior to any excavation, the contractor must contact **New Mexico One Call, dial "811"** [or (505) 260-1990] for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets shall be performed on a 24-hour basis.

DEVELOPMENT REVIEW SERVICES,
SR. ENGINEER _____

STREET MAINTENANCE INSPECTOR
APPROVAL _____

Drainage Report

Introduction

Lot 6, block 4, Buena Vista Heights, shown hereon is a residential lot located on Lead Ave. in Albuquerque, Bernalillo County, NM. The drainage report has been prepared in accordance with the latest revision to Volume 2 Section 22.2 of the City of Albuquerque Design Process Manual.

Existing Conditions

The site is developed with an existing 1100 square foot building on a .164 acre lot. The lot is bounded on the east and west side by residential developments. The north side of the lot is adjacent to Lead Ave. and the south side is bound by an alley. The adjacent property to the east contributes a small amount of offsite flows to the proeject area. These flows run east to west along the north end of the proposed project. Basin 100 flows onto the adjacent property to the west.

Proposed Conditions

Improvements to the lot includes new residences being built within a 1710 square foot building envelope. The majority of onsite flows will flow to the north. Basin 100 was partially redirected north, however basin 200 will continue to flow to the west. Basin 201 will primarily be collected in a small V-ditch routed to a 17" deep pond and then flow north through curb drain lines into Lead Ave. Basin 202 will continue to flow from the east to the west onto the project site. The flows will be captured by the swale and directed into the pond where they will then be discharged onto Lead Ave. The additional proposed flows are not being detained as the increase is minimal and will not adversely affect the City's storm drain system.

First Flush

The proposed imprevious area is .10 acres or 4250 square feet. Per the City Drainage Ordinance, the 90th percentile storm event, which is 0.44 inches must be managed. Due to initial impervious abstraction (0.10 inches), the impervious area needs to be multiplied by 0.34 inches. The volume necessary to hold the first flush is 120 cubic feet. A 10.5 foot wide by 40 foot long and 1.42 foot deep pond with 3:1 side slopes will be placed on the north end of the project site. The retention capacity of the pond is 129 cubic feet.

Calculations

The calculations shown below represent the flows for a 100-year 6-hour design event. The hydrology is per the Section 22.2 of the Development Process Manual for the City of Albuquerque, NM, latest revision.

Basin Data: COA Zone: 2
Precip, in/hr 2.35

Existing Conditions

Basin	Total Area (Ac)	A		B		C		D		Peak Discharge, Q	Excess Precip. (Weighted)	Volume (6 _{hr} , acre-ft)	Volume (24 _{hr} , acre-ft)	Volume (10 _{day} , acre-ft)
		%	Ac	%	Ac	%	Ac	%	Ac					
100	0.060	0	0	0	0	100	0.06	0	0.00	0.19	1.13	0.0057	0.0057	0.0057
101	0.104	0	0	0	0	75	0.08	25	0.03	0.37	1.38	0.0119	0.0128	0.0154
102	0.014	0	0	0	0	100	0.01	0	0.00	0.05	1.13	0.0014	0.0014	0.0014

Proposed Conditions

Basin	Total Area	A		B		C		D		Peak Discharge, Q	Excess Precip. (Weighted)	Volume (6 _{hr} , acre-ft)	Volume (24 _{hr} , acre-ft)	Volume (10 _{day} , acre-ft)
		%	Ac	%	Ac	%	Ac	%	Ac					
200	0.007	0	0.00	0	0.00	0	0.00	100	0.01	2.12	0.0012	0.0015	0.0022	
201	0.157	0	0.00	40	0.06	0	0.00	60	0.09	0.59	1.58	0.0207	0.0239	0.0333
202	0.014	0	0	0	0	100	0.01	0	0.00	0.05	1.13	0.0014	0.0014	0.0014

GENERAL NOTES

1. EXISTING SURVEY IS FROM 2008 COA 6442.92 LEAD & COAL IMPROVEMENTS PROJECT.
2. IF THIS SHEET IS NOT 24" X 36". THEN IT IS A REDUCED SIZE PLOT. USE GRAPHIC SCALE ACCORDINGLY.
3. FIELD VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

KEYED NOTES

- ① BUILD 2-4" DRAIN LINES THROUGH CURB PER COA STND DWG 2235
- ② CONNECT TO EXISTING WATER WITH 2" SERVICE LINE
- ③ CONNECT TO EXISTING SAS WITH 4" LINE
- ④ PROPOSED DRAINAGE SWALE (SEE SECTION A-A) HEIGHT VARIES FROM 0.3'-0.67' DEEP. SWALE SLOPES AT 0.8% MINIMUM.
- ⑤ 4" PIPE FOR ROOF DRAIN

LEGEND

- PROPOSED ELEVATION CONTOUR
- - - EXISTING ELEVATION CONTOUR
- ▨ SIDEWALK (CONCRETE)
- WOOD FENCE

revision

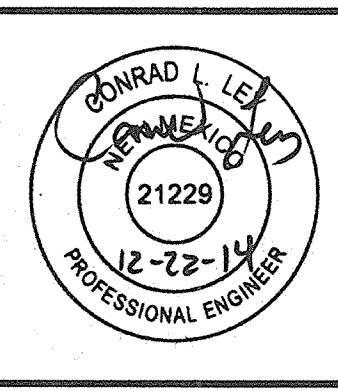
by

date

rev

MH
Mullen Heller
Architecture P.C.

WILSON
& COMPANY



10-26

DAP

Conrad Ley, PE

12/22/14

job number

drawn by

project manager

date

project title
Lead Avenue Duplexes
2122 Lead Avenue, SE,
Albuquerque, New Mexico

sheet title

sheet-

C-100