

CITY OF ALBUQUERQUE



October 7, 2014

Mr. David Soule
Rio Grande Engineering
PO Box 93924
Albuquerque, NM 87199

**Re: Alice Townhomes, 5600 Alice NE
Grading and Drainage Plan with Engineer's Stamp Dated 9-16-14
Drainage Plan with Engineer's Stamp dated 5-4-13 (J18D043))**

Dear Mr. Soule,

Based upon the information provided in your submittal received September 17, 2014, the above referenced plan is approved for Building Permit SO-19 Permit . The SO-10 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.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

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

C: e-mail



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: _____ Building Permit #: _____ City Drainage #: _____

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: _____

City Address: _____

Engineering Firm: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Owner: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Architect: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Surveyor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- _____ DRAINAGE REPORT
- _____ DRAINAGE PLAN 1st SUBMITTAL
- _____ DRAINAGE PLAN RESUBMITTAL
- _____ CONCEPTUAL G & D PLAN
- _____ GRADING PLAN
- _____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- _____ ENGINEER'S CERT (HYDROLOGY)
- _____ CLOMR/LOMR
- _____ TRAFFIC CIRCULATION LAYOUT (TCL)
- _____ ENGINEER'S CERT (TCL)
- _____ ENGINEER'S CERT (DRB SITE PLAN)
- _____ ENGINEER'S CERT (ESC)
- _____ SO-19
- _____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- _____ SIA/FINANCIAL GUARANTEE RELEASE
- _____ PRELIMINARY PLAT APPROVAL
- _____ S. DEV. PLAN FOR SUB'D APPROVAL
- _____ S. DEV. FOR BLDG. PERMIT APPROVAL
- _____ SECTOR PLAN APPROVAL
- _____ FINAL PLAT APPROVAL
- _____ CERTIFICATE OF OCCUPANCY (PERM)
- _____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- _____ FOUNDATION PERMIT APPROVAL
- _____ BUILDING PERMIT APPROVAL
- _____ GRADING PERMIT APPROVAL
- _____ PAVING PERMIT APPROVAL
- _____ WORK ORDER APPROVAL
- _____ GRADING CERTIFICATION
- _____ SO-19 APPROVAL
- _____ ESC PERMIT APPROVAL
- _____ ESC CERT. ACCEPTANCE
- _____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: _____ Yes _____ No _____ Copy Provided

DATE SUBMITTED: _____ By: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

DRAINAGE REPORT

For

**ALICE TOWNHOMES
5600 ALICE NE**

Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

JUNE 2013



David Soule P.E. No. 14522

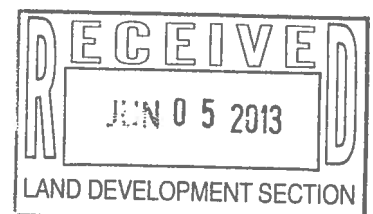


TABLE OF CONTENTS

Purpose 3

Introduction..... 3

Existing Conditions..... 3

Exhibit A-Vicinity Map 4

Proposed Conditions 5

Summary 5

Appendix

Site Hydrology A

Map Pocket

Site Grading and Drainage Plan

PURPOSE

The purpose of this report is to provide the Drainage Management Plan for four approximately 9,100 square foot apartment buildings, located on the southwest corner of Alice and Cardenas NE. This plan was prepared in accordance with the City of Albuquerque design regulations, utilizing the City of Albuquerque's Development Process Manual drainage guidelines. This report will demonstrate that the grading does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

INTRODUCTION

The subject of this report, as shown on the Exhibit A, is one parcel containing an area of 1.42 acres of land located on the southwest corner of Alice and Cardenas NE. The legal description of this site is lots 7-12 Block 14, Willis subdivision and lots 7-9, Block 13 McAffrey Subdivision. The site is currently being replatted into one single tract. As shown on FIRM map35013C0354H, the entire property is located within Flood Zone X. This site is surrounded by fully developed parcels. This site has been completely developed for many years, but the buildings were recently removed. Appendix A shows a 2010 aerial with the buildings and existing parking lots, which we consider historical conditions. This is consistent with the maps of the area within the Albuquerque Master Drainage Study Volume II. The buildings have recently been removed and the footprints replaced with gravel much, with the parking lot remaining. Based on the site location and the area characteristics of the adjacent drainage infrastructure this development shall be designed to match existing drainage patterns, and shall provide shallow water quality ponds for harvesting of rainwater for the first .44" of rainfall

EXISTING CONDITIONS

The site is currently developed. The site has historically included two large buildings with the remainder of the site paved, with very little gravel mulch landscape area along Cardenas. The site is not in native condition. The site drains from southeast to south west, historically discharging 7.11 cfs to the adjacent tract to the west and to Alice. More flows entered the alley to

the south. The site is not impacted by any offsite flows, and is surrounded by curb and gutter on the upland basin. The discharge leaves the site mainly as sheet flow.

PROPOSED CONDITIONS

The proposed improvements consist of four apartment buildings and associated parking. As shown in appendix A, the site will be graded to drain to Alice, with minor sidewalk and parallel parking spaces draining to the alley. The site has multiple depressed landscape areas. For ease and clarity the basins have been classified as rear yard, front court yard, and typical alley. Each basin drains in to a harvest pond. A typical rear yard basin generates 132 cubic feet during a 100-year, 6-hour event. The pond will harvest 99 cubic feet and convey the excess to the north through openings in the walls discharging to Alice. A typical courtyard basin will generate 268 cubic feet and will harvest 100 cubic feet, allowing the excess to discharge at the end of the driveway draining to Alice. The Alley pond basin contains the sidewalks adjacent to the alley and generates 30 cubic feet and has capacity of 54 cubic feet. The overall site generates 6.83 cfs draining to Alice. The harvest ponds contain 2514 cubic feet which are greater than the 2268 cubic feet required to contain the first .44" of a storm. This peak will actually be reduced significantly due to 9 depressed harvest ponds which contain more than ^{an} increase in volumetric run off and the (.25" first flush volume) for the 100-year, 6-hour design event. The development requires improvements to the existing alley to the south. The ponds are shallow and will drain within 24-hours.

SUMMARY AND RECOMMENDATIONS

This project is a redevelopment project within a completely developed area of northeast

Albuquerque. The site historically discharges 7.11 cfs to the Alice Street. The proposed drainage plan will allow for harvesting ponds which overflow to internal streets and discharge to the adjacent streets. The developed conditions will discharge 6.81 cfs. The proposed decrease of .28 cfs is minimal but with the inclusion of the harvesting ponds the flow leaving site will be less and shall have no negative impact on surrounding drainage structures. Since this site encompasses more than 1 acre, a NPDES permit and SWPPP will be required prior to any construction activity.

APPENDIX A
SITE HYDROLOGY

Weighted E Method ALICE

Existing Developed Basins

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year, 6-hr.		
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
Historic (2010)	61881.34	1.421	0%	0	0.0%	0.000	16.0%	0.2273	84%	1.193	2.451	0.290	7.11
Proposed	61881.34	1.421	0%	0	6.0%	0.085	20.0%	0.28412	74%	1.051	2.310	0.274	6.83
Typical front courtyard	1364	0.031	0%	0	0.0%	0.000	24.0%	0.00752	76%	0.024	2.357	0.006	0.15
Typical rear yard	702	0.016	0%	0	10.0%	0.002	20.0%	0.00322	70%	0.011	2.248	0.003	0.08
Alley ponds	188	0.004	0%	0	0.0%	0.000	60.0%	0.00259	40%	0.002	1.932	0.001	0.02
Harvest amount	2268.98	0.052										75.633	

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm (zone 4)

- Ea= 0.8
- Eb= 1.08
- Ec= 1.46
- Ed= 2.64

- Qa= 2.2
- Qb= 2.92
- Qc= 3.73
- Qd= 5.25

DISCHARGE PROPOSED

HISTORICAL DISCHARGE

Water harvest

WATER HARVESTED

- 6.83 CFS
- 7.11 CFS
- 9400 cf
- 12640 cf
- 2514 cf

generated

132 cf

268 cf

30 cf

provided

99

100

54

rear

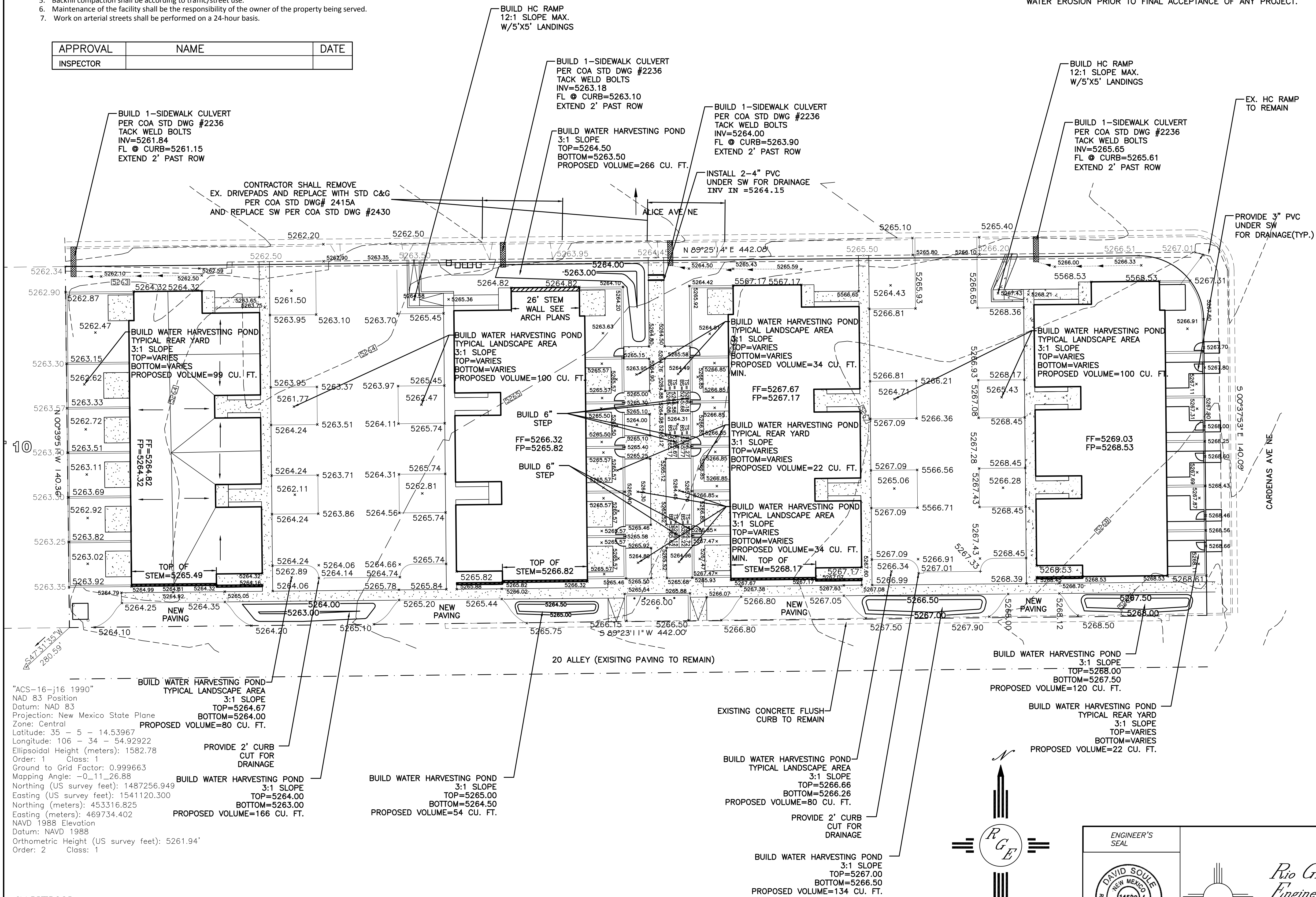
courtyard

alley

Notice to Contractor
(Special Order 19 ~ "SO-19")

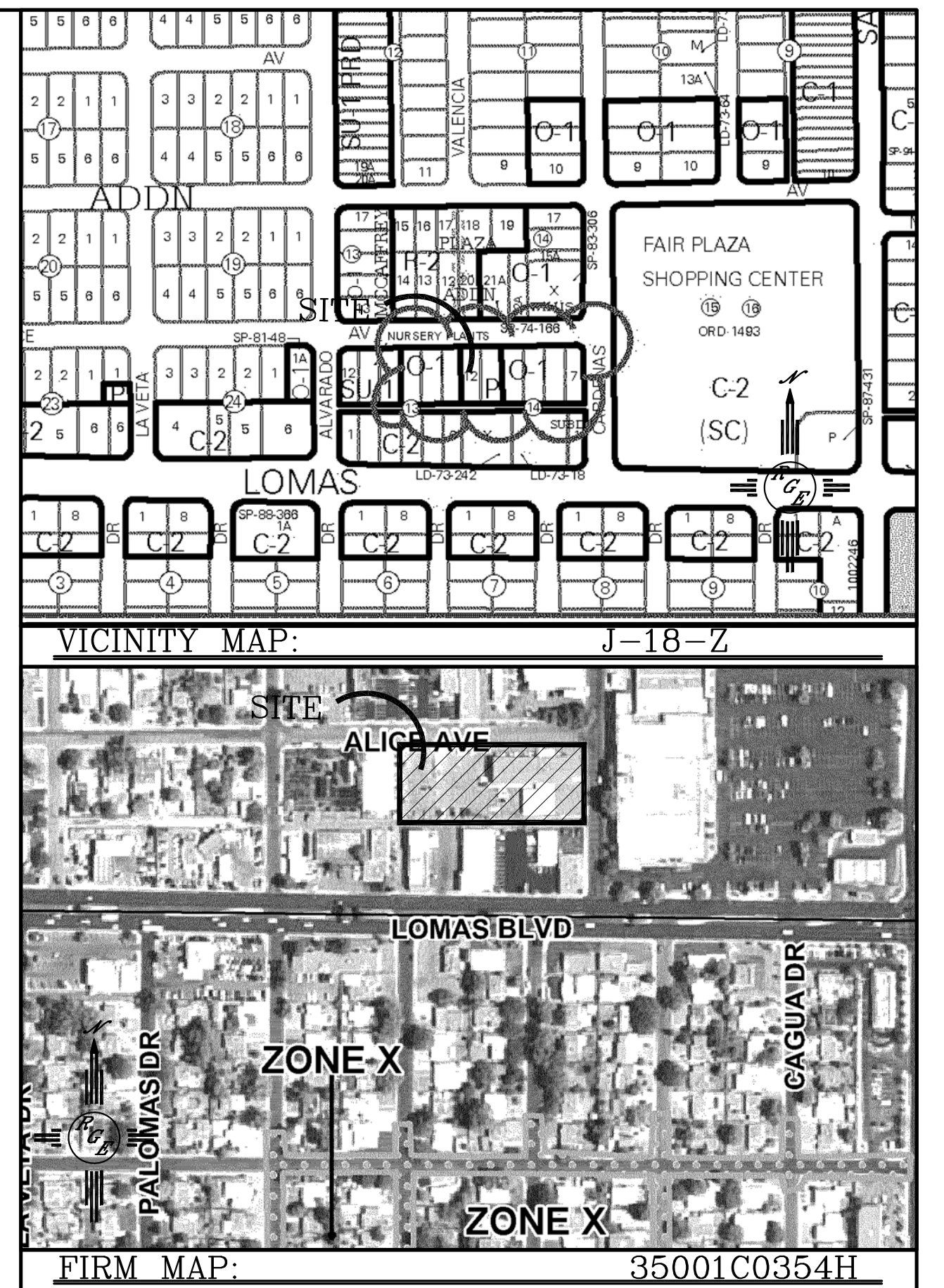
1. An excavation permit will be required before beginning any work within City Right-Of-Way.
2. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
3. Two working days prior to any excavation, the contractor must contact **New Mexico One Call, dial [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.

APPROVAL	NAME	DATE
INSPECTOR		



EXISTING UTILITIES ARE NOT SHOWN.
IT SHALL BE THE SOLE RESPONSIBILITY
OF THE CONTRACTOR TO CONDUCT ALL
NECESSARY FIELD INVESTIGATIONS PRIOR
TO ANY EXCAVATION TO DETERMINE THE
ACTUAL LOCATION OF UTILITIES & OTHER
IMPROVEMENTS.

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



LOTS 7-12, BLK 14, ALBUQUERQUE HIGHLANDS ADDITION


NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

2. ALL INTERIOR BACK YARD SCREEN WALLS BETWEEN TOWNHOUSES SHALL HAVE EVERY 3RD BLOCK TURNED AT GRADE FOR DRAINAGE.

3. PEDESTRIAN ADA PATHS AT DRIVEWAYS SHALL BE MAINTAINED WITHIN PUBLIC SW EASEMENT.

-----5601-----	EXISTING CONTOUR
-----5600-----	EXISTING INDEX CONTOUR
-----5601-----	PROPOSED CONTOUR
-----5600-----	PROPOSED INDEX CONTOUR
-----	BOUNDARY
-----	CENTERLINE
-----	RIGHT-OF-WAY
////	EXTENDED STEM WALL (SEE ARCH PLANS)
////	EXISTING SCREEN WALL
-----	PROPOSED BUILDING
-----	EXISTING EDGE OF CONCRETE
-----	ROOF DRAINAGE (TYP. FOR ALL BLDGS)
-----	FLOW LINE

<div style="text-align: center;">  <p>Cinelli ARCHITECTS</p> </div>	<p>2418 Manuel Torres Lane N.W. Albuquerque, New Mexico 87107 (505) 243-8111</p>	
<p>PROJECT TITLE:</p> <p style="text-align: center; font-size: 1.2em;">ALICE TOWNHOUSES FOR AHMET TIRYAKI</p> <p style="text-align: center;">5600 ALICE AVENUE N.E. ALBUQUERQUE, NEW MEXICO</p>		
<p>DRAWING TITLE:</p> <p style="text-align: center; font-size: 1.2em;">GRADING AND DRAINAGE PLAN</p>		
<p>SEAL</p>	<p>DATE</p> <p style="text-align: center;">MAR 25, 2013</p>	<p>PROJECT NO.</p> <p style="text-align: center;">TIRY24</p>
<p style="text-align: center;">DRAWING NO.</p> <p style="text-align: center; font-size: 2em; font-weight: bold;">DRB-2</p>		