



DEVELOPMENT APPLICATION

PROJECT INFORMATION

Title: Los Alamos North Mesa Housing Master Plan: Proposed Cottage Development

Project Address: approx. 651 San Ildefonso Road, Los Alamos, NM, 87544

Description:
Conditional Use for a Cottage Development in the SF-4 Zone and the required Site Plan.
Tract 4 Arbolada Subdivision.

Check all application types, if applicable:

- | | |
|--|---|
| <input type="checkbox"/> Administrative Deviation ... \$25 | <input checked="" type="checkbox"/> Site Plan* ... \$500 plus
\$75 per/Million \$ estimated construction cost |
| <input type="checkbox"/> Administrative Wireless Telecom ... \$250 | Estimated Construction Cost: <u>\$ 31,300,000.00</u> |
| <input type="checkbox"/> Encroachment Permit ... \$25 | <input type="checkbox"/> Major Site Plan Amendment* ... \$500 |
| <input type="checkbox"/> Temporary Use Permit ... \$25 | <input type="checkbox"/> Minor Site Plan Amendment ... \$250 |
| <input type="checkbox"/> Comprehensive Plan Adoption &
Amendment*... \$250 | <input type="checkbox"/> Major Zone Map Amendment* ... \$500 (+\$25/acre)
<i>No fee if initiated by County Council
or County Manager</i> |
| <input checked="" type="checkbox"/> Conditional Use Permit* ... \$300 | <input type="checkbox"/> Minor Zone Map Amendment* ... \$500 (+\$25/acre)
<i>No fee if initiated by County Council
or County Manager</i> |
| <input type="checkbox"/> County Landmark or Historic District
Adoption/Amendment* ... \$250 | <input type="checkbox"/> Master Plans* (Major, Minor) ...\$250 |
| <input type="checkbox"/> Development Plan* ... \$500 | <input type="checkbox"/> Text Amendment* ... \$150
<i>No fee if initiated by County Council
or County Manager</i> |
| <input type="checkbox"/> Major Development Plan Amendment* ... \$500 | <input type="checkbox"/> Variance ... \$250
<i>No fee if application is a part of a Site Plan review</i> |
| <input type="checkbox"/> Minor Development Plan Amendment ... \$250 | <input type="checkbox"/> Administrative Wireless Telecommunication
Facility ... \$250 |
| <input type="checkbox"/> Summary Plat... \$100 plus \$25 lot; \$10 / acre for
<i>non-residential</i> | <input type="checkbox"/> Discretionary Wireless Telecommunication
Facility* ... \$500 |
| <input type="checkbox"/> Sketch Plat, Subdivision*... \$250 plus
\$175/lot (1-10 lots)
\$125/lot (11-30 lots)
\$75/lot (30+ lots) | <input type="checkbox"/> Small Wireless Facility ...\$250 |
| <input type="checkbox"/> Preliminary Plat, Subdivision* ... \$250 plus
\$175/lot (1-10 lots)
\$125/lot (11-30 lots)
\$75/lot (30+ lots) | <input type="checkbox"/> Major Historic Demolition* ... \$250 |
| <input type="checkbox"/> Final Plat, Subdivision* ... \$250 plus
\$175/lot (1-10 lots)
\$125/lot (11-30 lots)
\$75/lot (30+ lots) | <input type="checkbox"/> Major Historic Property Alteration
Certification* ... \$250 |
| <input type="checkbox"/> Landscaping Plan ...\$500 | <input type="checkbox"/> Minor Historic Property Alteration Certificate ... \$250 |
| <input type="checkbox"/> Lighting Plan ...\$500 | |

*** Application reviews require a pre-application meeting.**

PROPERTY & OWNER INFORMATION

Property Address:	651 Ildefonso Road <small>Address</small>	Los Alamos <small>City</small>	NM <small>State</small>	87544 <small>ZIP</small>
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Zoning District: SFR-4	Overlay Zone: <input checked="" type="checkbox"/> N/A
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Existing Structure(s) Sq. Ft.: 0.00	Proposed Structure(s) Sq. Ft.: 159,600.00
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Lot Area (sq.ft.): 414256

Property Owner(s) Name: Sonja Donaldson, Sande Cremer

Owner(s) Email: sonjacdonaldson@gmail.com, cdcremer@aol.com

Owner(s) Phone(s)#: 805-886-3999; 505-263-8842

Owner's Address same as Property Address

Owner(s) Address:	179 Barranca Rd <small>Address</small>	Los Alamos <small>City</small>	NM <small>State</small>	87544 <small>ZIP</small>
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APPLICANT / OWNER'S AGENT INFORMATION

Applicant is same as Owner

Applicant Name: Titan Development

Applicant Address:	6300 Riverside Plaza # 200 <small>Address</small>	Albuquerque <small>City</small>	NM <small>State</small>	87120 <small>ZIP</small>
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Applicant Email: jrogers@titan-development.com

Applicant Phone(s)#: 505-998-0163

ASSOCIATED APPLICATONS

Application Type: Final Plat

Case Number:

I hereby certify and affirm, under penalty of perjury, that the information I have provide in this application is true and accurate to the best of my knowledge, information, and belief. [NMSA 1978, §30-25-1]

Signature:  , Manager	Date: 07/16/2025
Signature:	Date:

STAFF USE ONLY

Date Received:	Staff:
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Case No.#:	Meeting Date:
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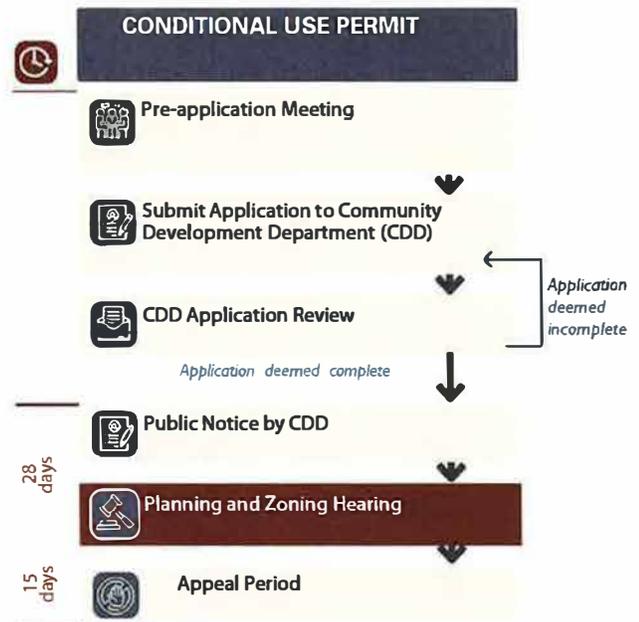
SUBMITTALS

- | | |
|---|---|
| <input type="checkbox"/> Proof of Ownership or Letter of Authorization from Owner | <input type="checkbox"/> Complete Application - Date: _____ |
| <input type="checkbox"/> Items from associated Application Checklist | <input type="checkbox"/> Payment - Accepted upon verification of a complete application - Date: _____ |

CONDITIONAL USE CHECKLIST

Applicants for all development application reviews must complete this checklist and submit it with the Development Application. Refer to the referenced code sections for additional information. Contact the Planning Division with questions regarding these requirements: planning@lacnm.us.

PRE-APPLICATION MEETING	
Date Held:	03/04/2025
VICINITY MAP	
<input checked="" type="checkbox"/>	Vicinity Map showing the boundaries of the subject property and all adjacent lots within 300'.
PLANS	
Scaled plans at a minimum of 1" = 100' that illustrates the following:	
<input checked="" type="checkbox"/>	<u>Site Plan</u>
<input checked="" type="checkbox"/>	Graphic Scale and North Arrow
<input checked="" type="checkbox"/>	Property Lines according to recorded survey
<input checked="" type="checkbox"/>	Existing and proposed structures
<input checked="" type="checkbox"/>	Existing and proposed easements
<input checked="" type="checkbox"/>	Existing and proposed setbacks
<input checked="" type="checkbox"/>	Existing and proposed utility lines
<input checked="" type="checkbox"/>	Existing and proposed fencing
<input checked="" type="checkbox"/>	Existing and proposed lighting
<input checked="" type="checkbox"/>	Existing and proposed signage
<input checked="" type="checkbox"/>	<u>Parking Plan</u>
<input checked="" type="checkbox"/>	Access and parking related to site
<input checked="" type="checkbox"/>	Parking analysis based on proposed use
<input checked="" type="checkbox"/>	Width of aisle(s)
<input checked="" type="checkbox"/>	Parking stall dimensions
<input checked="" type="checkbox"/>	<u>Lighting Plan, if applicable</u>
<input checked="" type="checkbox"/>	Proposed lighting that notes the Correlated Color Temperature, Color Rendering Index, Lumens and all other attributes related to lighting to show compliance with Ch. 16, Division 6: Outdoor Lighting.
<input checked="" type="checkbox"/>	<u>Landscaping Plan</u>
<input type="checkbox"/>	Existing plant material, amount and species and size
<input checked="" type="checkbox"/>	Proposed plant material, amount and species and size
ELEVATIONS	
Elevations drawing(s) at a minimum scale of 1/8" = 1' that indicates:	
<input checked="" type="checkbox"/>	Height (above existing grade) of all four sides



See Reverse.

DECISION CRITERIA 16-74-(b)(3)

f. There are adequate utilities, access roads, drainage, and other necessary improvements to allow the land use, or improvements are planned to provide adequate measures. Explain.

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- Staff finds that this criterion has been met*
- Staff finds that this criterion has not been met - more information is needed*

g. The location, size, design, and operating characteristics of the Conditional Use will be compatible with the use and development of properties in the vicinity. Explain.

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.....

- Staff finds that this criterion has been met*
- Staff finds that this criterion has not been met - more information is needed*

h. The Conditional Use is in compliance with the Site Plan procedures and requirements of Sec. 16- 74(h) and demonstrates that the site development will be compatible with properties in the vicinity. Explain.

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- Staff finds that this criterion has been met*
- Staff finds that this criterion has not been met - more information is needed*

Attach additional sheets, if needed.

April 23, 2025

Desirae Lujan, Senior Planner
Los Alamos County Community Development-Planning
1000 Central Ave., Suite 120
Los Alamos, NM 87544

RE: Letter of Authorization for Limited Agency

Dear Ms. Lujan:

The letter authorizes Consensus Planning and Titan Development (collectively, "Titan"), to act as a Limited Agent and Limited Applicant (collectively, the "Limited Agent") on behalf of the property owners, Sonja C. Donaldson and Sande D. Cremer (collectively, the "Owners"), of the real property located at San Ildefonso Road, currently recorded as the Plat of Arbolada (the "Property"). Pursuant to the Purchase and Sale Agreement by and between Titan and the Owners, the Owners grant Titan limited authority to act as their Limited Agent for the following matters relating to the development and replating of Property: (i) all meetings and public hearings before the County of Los Alamos, New Mexico (the "County"); and (ii) development applications submitted to the County relating to the future development of the Property and the review and approval of a new Preliminary Plat to replace the current Arbolada Subdivision Plat. The limited agency granted to Titan by the Owners does not include the authority to do the following: (i) submit any development or rezoning applications to the County without first obtaining the Owners' express written consent; (ii) sign any 'Owner Affidavit' on behalf of the Owners; or (iii) record any plat without the Owners' written consent and signature on the plat to be recorded. The Limited Agency granted to Titan herein may not be expanded without the express written consent of the Owners.

The Owners own the subject property legally described as:

A SUBDIVISION OF TRACT D WITHIN SECTION 10, T19N R6E N.M.P.M., TOWN AND
COUNTY OF LOS ALAMOS, NEW MEXICO.

The County may contact the Owners using the following contact information:

Sonja C. Donaldson
2581 Paseo Noche
Camarillo, California 93012
Telephone: (805) 886-3999
Email: sonjacdonaldson@gmail.com

Sande D. Cremer
179 Barranca Road
Los Alamos, New Mexico 87544
Telephone: (505) 263-8842
Email: cocremer@aol.com

Sincerely,



Sonja Donaldson
Owner



July 16, 2025

Ms. Desirae Lujan, Senior Planner
Los Alamos County Planning Division
1000 Central Avenue
Los Alamos, NM 87544

Re: North Mesa Housing Conditional Use and Site Plan Request

Landscape Architecture
Urban Design
Planning Services

Dear Ms. Lujan,

The purpose of this letter is to request a Conditional Use and Site Plan approval on behalf of Titan Development for a new cottage development.

302 Eighth St. NW
Albuquerque, NM 87102

SITE HISTORY

The subject property is currently known as the Arbolada Subdivision, as recorded by the County in August 2023.

(505) 764-9801
Fax 842-5495
cp@consensusplanning.com
www.consensusplanning.com

EXISTING CONDITIONS

The subject property consists of approximately 9.51 acres zoned SFR-4, Single Family Residential (8,000 s.f. minimum lot size) as shown below. The property has an approved Preliminary Plat to create the subject property (Tract D Arbolada Subdivision containing approximately 9.51 acres) and is adjacent to a proposed single family subdivision and minor zoning map amendment to SFR-5. Adjacent zoning is SFR-5 to the east (5,000 s.f. minimum lot size); Vacant land to the south and west (Pueblo Canyon); and RM-1 Residential Mixed to the north as shown:



Exhibit 1: Subject property with surrounding zoning

PRINCIPALS

James K. Strozier, FAICP
Jacqueline Fishman, AICP

ASSOCIATES

Ken Romig, PLA, ASLA
Margaret Ambrosino, AICP

The subject property is situated on the south side of San Ildefonso Road on North Mesa and is legally described as: TRACT 4, ARBOLADA SUBDIVISION, TOWN AND COUNTY OF LOS ALAMOS, NEW MEXICO.

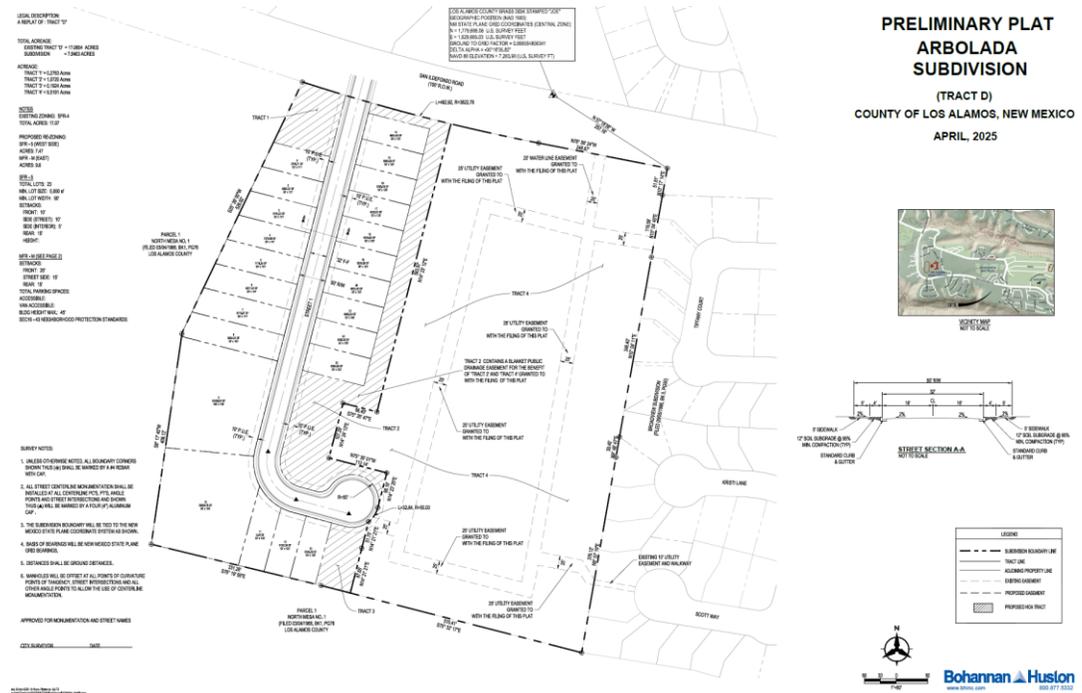


Exhibit 2: Approved Preliminary Plat, June 2025.

PROPOSAL

This request is for a proposed cottage, build-to-rent townhome concept, which requires a Conditional Use Permit and associated Site Plan. This justification letter addresses both parts of this application. The Site Plan meets the requirements for a Cottage Development, which is defined as follows:

Dwelling, cottage development means a low-density residential development in which multiple attached or detached single-family dwellings share access, parking, and common spaces, and sometimes community buildings including a larger community kitchen and dining room. Cottage development can include homes on individual lots, homes owned as condominiums, or leased homes.

The following responses address the Decision Criteria as set out in Section 16-74-(b)(3):

a. The Conditional Use substantially conforms to the intent and policies of the Comprehensive Plan and other adopted County policies and plans. Explain.

The proposed new cottage development, when completed, will yield 114 Build-to-Rent townhomes. This project is adjacent to a new single-family subdivision that creates 23 new residential lots. In total, 136 new housing units will be added to Los Alamos' housing stock when fully developed. This helps meet the goal of the 2016 Comprehensive Policy #1 by promoting and expanding the housing supply to meet the demand from employment growth. The units in the Cottage Development are intended to serve members of the



community of all ages, from families, the workforce, and retirees, thus addressing Policy #2, to promote housing for seniors, students, and the workforce.

Additionally, the 2024 Los Alamos Affordable Housing Plan states that nearly 55 percent of the County’s workforce live outside of the County, with “anecdotal evidence suggesting majority of these in-commuters are interested but unable to become residents due to insufficient, unavailable, or unaffordable housing” (pg. 20). These developments add essential housing stock, to help preserve and retain spending in the community. This housing clearly benefits the community economically because those that may otherwise commute to Los Alamos can now shop in the community where they live, thus contributing to gross receipts taxes.

b. The Conditional Use is not detrimental to public health, safety, and welfare. Explain.

Approval of this cottage development is not detrimental to public health, safety or welfare because the technical criteria have been met for a Conditional Use and associated site plan. The development team met with the North Mesa neighborhood on April 10 where the full development concept was presented with the anticipated phasing of Planning & Zoning Commission hearings.

The first concern addressed was traffic. A Traffic Count Analysis was prepared that shows a total of 15 peak travel time morning and evening trips will be added by the proposed developments as shown and the City Engineer has determined that a TIA is not required, see attached email.

Traffic Analysis

Traffic Count Analysis Prepared By Lee Engineering

TRIP GENERATION DATA

ITE Trip Generation Manual - 10th Edition

PREVIOUSLY APPROVED	TOTAL TRIPS GENERATED							
	UNITS	WEEKDAY	AM PEAK TOTAL		PM PEAK TOTAL			
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
SINGLE FAMILY	85	869	16	48	64	54	31	85
TOTAL	85	869	16	48	64	54	31	85
<i>PROPOSED</i>								
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
BUILD TO RENT MULTIFAMILY	114	821	14	41	55	38	27	65
SINGLE FAMILY	23	261	5	15	20	16	9	25
TOTAL	137	1082	19	56	75	54	36	90
DIFFERENCE	52	213	3	8	11	0	5	5

Exhibit 3: Current Traffic Count Analysis

Also discussed was the ingress/egress to the development, with no anticipated sight obstructions present due to the deep setbacks exceeding the required front yard setback (cottage development to the east) adjacent to San Ildefonso Road. Architectural elevations were shared with the community, displaying Craftsman-inspired facades in earth tones to augment the variety of styles in the community. Lastly, concepts were discussed addressing landscape enhancements where the eastern portion of the development abuts the existing



single-family development on its western edge, with a desire expressed to work with the neighbors on a design that meets development standards, provides adequate buffering, and preserves western views to the extent feasible.

c. The subdivision is in conformance with all applicable provisions of this Code and other adopted County regulations. Explain.

The Development Team has submitted all required elements pursuant to the Preliminary Plat Application checklist. A fire access roadway is shown on the plat and conforms to the requirements of the Los Alamos County Fire Marshal. Grading will be in conformance with the County Development Code. Rear-yard setbacks, particularly on the western edge of the single-family lots, avoid steep topography and adhere to all other setback and dimensional requirements pursuant to the requested SFR-5.

d. The Conditional Use shall conform to all applicable regulations of the district in which it is located. Explain.

As evidenced by the attached Site Plan, the proposed cottage development conforms with all applicable regulations of the SFR-4 Zone District as follows:

Lot Size:	8,000 sf	Subject Property is 9.51 acres
Lot Width:	65 feet	Subject Property is 419 feet
Front Setback:	10 feet	Proposed Cottage Buildings 78 feet
Side Setback:	5 feet	Proposed Cottage Buildings 25 feet
Rear Setback:	15 feet	Proposed Cottage Buildings 31 feet

In addition, the cottage buildings will also comply with the height restriction of 35 feet and the lot coverage maximum of 45%.

e. The Conditional Use does not cause significant adverse impacts on the properties in the vicinity. Explain.

The Conditional Use does not cause significant adverse impacts on the properties in the vicinity. The proposed use is a residential cottage development that includes 114 dwellings and a pool and community amenities. As identified above, the setbacks far exceed those required for the SFR-4 zone. On the eastern edge of the property, where there are adjacent homes, the setback is increased from the 5-foot side yard requirement to over 25 feet that will include trees and landscaping. The cottage development also results in less buildings being adjacent to the existing homes from the prior approved single-family subdivision.

f. There are adequate utilities, access roads, drainage, and other necessary improvements to allow the land use, or improvements are planned to provide adequate measures. Explain.

Easements that have been identified as required in the recently approved Preliminary Plat submittal include a 26-foot wide emergency vehicular access between the southern end of this proposed subdivision at the cul-de-sac, connecting to the future cottage development to the east.



The primary access to the Cottage Development is via San Ildefonso Road and is sufficient for emergency access by County emergency standards. Utility easements are also provided with the approved Preliminary Plan that provides sufficient utility distribution for the proposed development.

g. The location, size, design, and operating characteristics of the Conditional Use will be compatible with the use and development of properties in the vicinity. Explain.

The terrain is relatively flat, with steeper slopes towards Pueblo Canyon along the southern edge of the Cottage Development tract. Setbacks along the southern edge of the project accommodate and avoid the steep slope area while providing for private patios along this edge of the project. The property was recently surveyed for the approved Arbolada Subdivision and no sensitive archaeological sites or structures were identified.

The location and size of the property accommodate the proposed Cottage Development and allows for access, circulation, appropriate setbacks and landscape buffering, and on-site amenities. This project will help the community meet its critical housing needs.

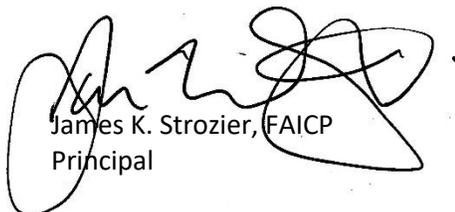
h. The Conditional Use is in compliance with the Site Plan procedures and requirements of Sec. 16- 74(i) and demonstrates that the site development will be compatible with properties in the vicinity. Explain.

The site plan adheres to and meets the procedures and requirements of Sec. 16-74(i) and more specifically, the proposed Cottage Development site plan mitigates any significant adverse impacts on properties within the vicinity to the maximum extent practicable. As discussed above, the Site Plan is designed to mitigate any significant adverse impacts to other properties in the vicinity by:

- *Increased setback with landscaping along the eastern boundary adjacent to the existing homes;*
- *Increased setback along the southern property line to protect and avoid the existing steep slopes of Pueblo Canyon;*
- *Safe and efficient access to San Ildefonso to the north;*
- *Emergency access shared with the new subdivision to the west; and*
- *Provision of on site amenities to the future residents.*

In conclusion, this submittal for a conditional use and site plan satisfies the criteria as described above and will add to the community's housing stock. Based on the responses above and the attached site plan, we respectfully request approval of the Conditional Use and associated Site Plan.

Sincerely,



James K. Strozier, FAICP
Principal

Cottage Community Design

Arbolada Los Alamos

Connecting Homes with Pedestrian Paths

Sidewalks and meandering trails provide connections throughout the community providing residents with access to the community gardens, landscape areas, and the community pool and amenity building.

Community Gardens

Commodity garden plots offer residents a convenient space to grow fresh produce, cultivate friendships with neighbors, and foster a deeper connection to the land in a village like neighborhood that helps to define the cottage community.

Parks and Greenspace

Thoughtfully placed pocket parks and greenspace throughout the development provide natural gathering spots for families and neighbors, creating focal points for community life while offering tranquil spaces for relaxation and play within the intimate, residential setting.



Sidewalks and safe roadways are the backbone of pedestrian movement



Green spaces between homes enhance community connections



Community Garden plots give residents an opportunity to grow fresh produce



Key

- Community Building
- Pedestrian Crossings
- Parks
- Trails
- Sidewalks
- Greenspace
- Community Gardens



1 LANDSCAPE PLAN

SCALE: 1"=50'-0"



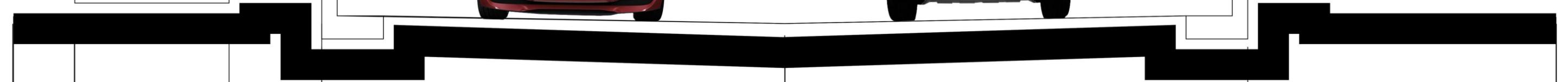
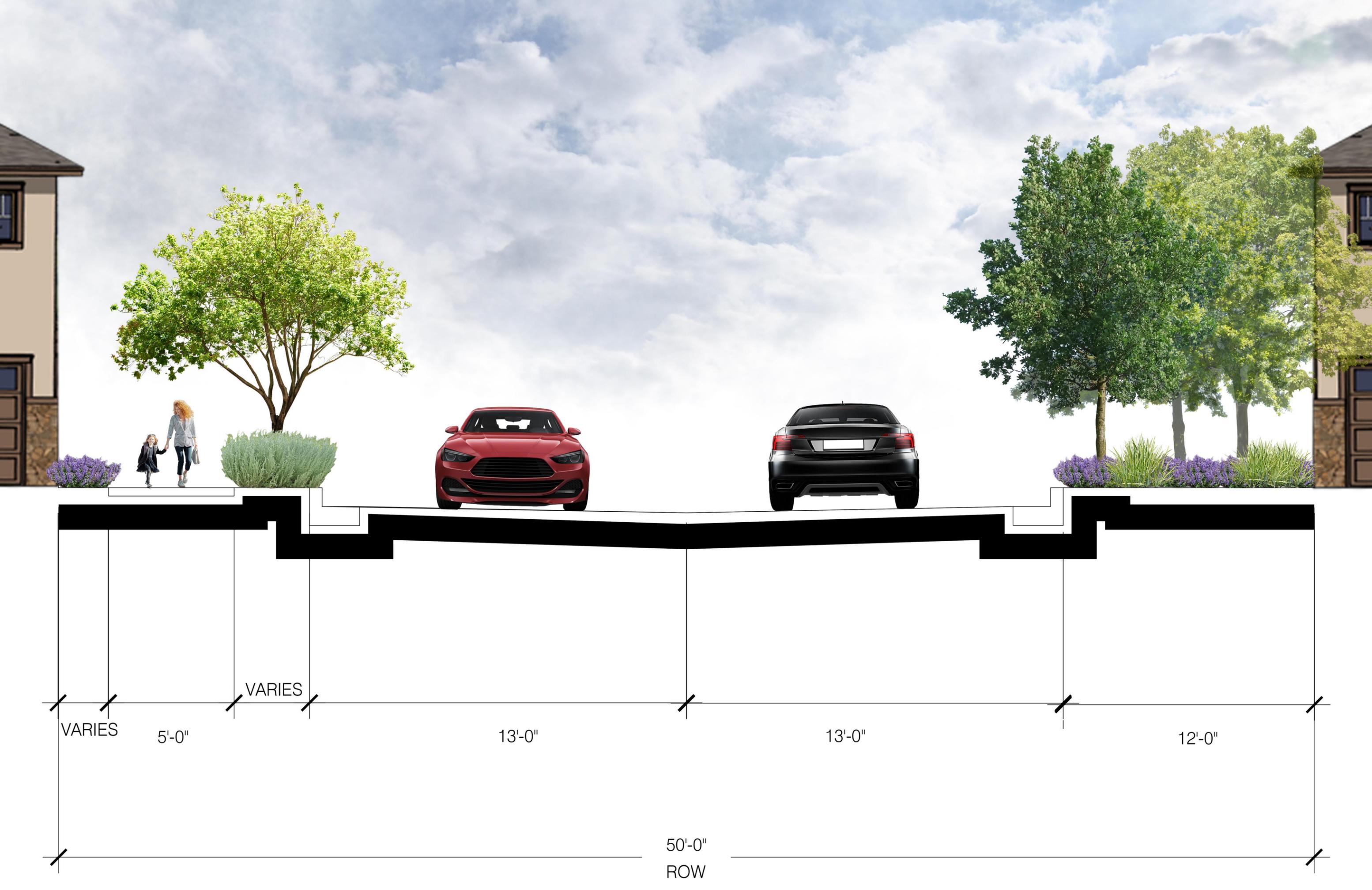
LOS ALAMOS TOWNHOMES

Los Alamos, NM.



CONSENSUS
 Planning / Landscape Architecture
 302 Eighth Street NW
 Albuquerque, NM 87102
 (505) 764-9801 Fax 842-5495
 e-mail: cp@consensusplanning.com





VARIES 5'-0" VARIES 13'-0" 13'-0" 12'-0"

50'-0"
ROW



From: [Ulibarri, Eric](#)
To: [Brian Patterson](#); [Lujan, Desirae J.](#); [Josh Rogers](#)
Cc: [Valdez, Danyelle](#); [Jim Strozier](#); [Margaret Ambrosino](#)
Subject: RE: North Mesa Application
Date: Monday, June 9, 2025 12:15:33 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)

Good Afternoon Brian,

Given the minor increase, I am OK with your engineer providing a stamped letter referencing the previous TIA and indicating that no additional warrants will be met with your development's increased trips.

Thank you,

Eric Ulibarri, PE, CFM

County Engineer

Los Alamos County - Public Works Department

(505) 709-5847

ERIC.ULIBARRI@LACNM.US

From: Brian Patterson <bpatterson@Titan-Development.com>

Sent: Monday, June 9, 2025 9:24 AM

To: Lujan, Desirae J. <desiraej.lujan@lacnm.us>; Josh Rogers <jrogers@titan-development.com>; Ulibarri, Eric <eric.ulibarri@lacnm.us>

Cc: Valdez, Danyelle <danyelle.valdez@lacnm.us>; Jim Strozier <cp@consensusplanning.com>; Margaret Ambrosino <ambrosino@consensusplanning.com>

Subject: RE: North Mesa Application

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Eric,

Attached is the TIA that Santa Fe Engineering prepared for the site in 2022. Per that study, there were no offsite roadway improvements required as the existing and proposed level of service for the 5 intersections that were studied are greater than a 'C'. Now that you have a copy of the previous TIA, hopefully you have enough now to let us proceed without doing a new TIA.

Brian

From: Brian Patterson

Sent: Friday, June 6, 2025 2:30 PM

To: Lujan, Desirae J. <desiraej.lujan@lacnm.us>; Josh Rogers <jrogers@titan-development.com>; eric.ulibarri@lacnm.us

Cc: Valdez, Danyelle <danyelle.valdez@lacnm.us>; Jim Strozier <cp@consensusplanning.com>; Margaret Ambrosino <ambrosino@consensusplanning.com>

Subject: RE: North Mesa Application

Eric,

We have been caught off guard by this new requirement from LAC as when we met for the pre-app meeting on March 4th, we specifically talked about this and agreed that it was not necessary. If you recall, the previous site plan for the property was for a 85-lot single family subdivision and those traffic counts were either apart of a standalone TIA for this property or included in the North Mesa TIA (not sure which one incorporated those counts). Either way, with our proposed development, we are only adding 11 trips in the AM and 5 trips in the PM (see table below). This data was verbally discussed in our March meeting and publicly presented to the neighbors during our neighborhood meeting on April 10th. It was discussed as the slight increase of traffic did not warrant a new TIA. Another item to highlight is if this new requirement is needed, we are now adding 4-6 months of delays to the project as all of the traffic consultants are slammed and this delay could have a huge trickle down on the rest of the project.

We are respectfully asking for this requirement to be removed or as an alternate, we can work with our traffic engineer to present a quick, engineer stamped letter that formally shows the trip generation table and a reference to previous TIA's with the ultimate recommendation that a full TIA is not needed. Please let us know your thoughts and we will be happy to jump on a call early next week to discuss.

Traffic Analysis

Traffic Count Analysis Prepared By Lee Engineering

TRIP GENERATION DATA

ITE Trip Generation Manual - 10th Edition

PREVIOUSLY APPROVED	UNITS	WEEKDAY	TOTAL TRIPS GENERATED					
			AM PEAK TOTAL			PM PEAK TOTAL		
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
SINGLE FAMILY	85	869	16	48	64	54	31	85
TOTAL	85	869	16	48	64	54	31	85
PROPOSED								
		TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
BUILD TO RENT MULTIFAMILY	114	821	14	41	55	38	27	65
SINGLE FAMILY	23	261	5	15	20	16	9	25
TOTAL	137	1082	19	56	75	54	36	90
DIFFERENCE	52	213	3	8	11	0	5	5

AM PEAK
1 Vehicle/ 48 SEC

PM PEAK
1 Vehicle/ 40 SEC



BRIAN C. PATTERSON, P.E.
Partner

P (505) 998-0163
W www.titan-development.com
E bpatterson@titan-development.com

6300 Riverside Plaza, Ste. 200
Albuquerque, NM 87120

4903 Woodrow Unit A
Austin, TX 78756

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From: Lujan, Desirae J. <desiraej.lujan@lacnm.us>

Sent: Friday, June 6, 2025 12:12 PM

To: Josh Rogers <jrogers@titan-development.com>

Cc: Valdez, Danyelle <danyelle.valdez@lacnm.us>; Jim Strozier <cp@consensusplanning.com>; Brian Patterson <bpatterson@Titan-Development.com>; Margaret Ambrosino <ambrosino@consensusplanning.com>

Subject: Re: North Mesa Application

Josh,

I reached out [Eric Ulibarri](#), County Engineer, who responded with:

Traffic Analysis: I will require the developer to follow the thresholds outlined in the State Access Management Manual (SAMM) for traffic analysis. Given the projected trips being generated by the project, I anticipate a moderate to more involved Traffic Impact Analysis. It will be the responsibility of the developer's engineer to propose the required level of traffic study required based off the requirements of the SAMM.

Once completed and agreed by the County Engineer, a scoping meeting will need to be held prior to beginning this analysis. You can coordinate this directly with Eric, or we can do that for you.

As far as the DOE review, we will nudge them to review the preliminary documents. If they have any interest or concerns, they will review the drainage analysis during the IDRC review for final plat. We hold them to the same timeframe and process as other IDRC members to provide comments, concerns, and recommendations.

Just "Arbolada" is fine. We have many streets with no suffix.

Best Regards,



June 13, 2025

Brian Patterson

Titan Development
6300 Riverside Plaza, Suite 200
Albuquerque, NM 87120

Re: Traffic Impact Analysis Arbolada Subdivision Los Alamos, New Mexico – Trip Generation Comparison

Mr. Patterson,

Lee Engineering has reviewed the development contents and trip generations contained in the report “Traffic Impact Analysis Arbolada Subdivision Los Alamos, New Mexico” dated September 2022 and Revised November 2022. The development contents studies in the referenced report contained a total 85 lots designated as 67 Single Family Detached Housing (ITE trip generation code ITE 210) and 18 Multi-Family Housing (Low Rise) (ITE trip generation code 220). The extracted page from the original report is attached to this memo. The report used the ITE Trip Generation Manual, 10th Edition.

Reproduced from the 2022 report, peak hour trip generations consisted of the following:

Table 1: Trip Generations - 2022 Traffic Impact Study

Land Use	Units		Weekday AM Peak Hour			Weekday PM Peak Hour		
			Total	In	Out	Total	In	Out
ITE 220 - Multifamily Housing (Low Rise)	18	Dwelling Units	9	2	7	13	8	5
ITE 210 - Single Family Detached Housing	67	Dwelling Units	52	13	39	70	44	26
			61	15	46	83	52	31

It is understood that development contents are now proposed to consist of 114 “Build to Rent” housing units and 23 detached single-family homes. The closest ITE Trip Generation Manual, 11th Edition land use code for “Build to Rent” housing is ITE 215 – Single Family Attached Housing. The trips produced by the proposed development are shown below with printouts from the ITE Trip Generation Manual attached to this memo.

Table 2: Proposed Development Trip Generations

Area	Land Use	Units		Weekday Total	Weekday AM Peak Hour					Weekday PM Peak Hour				
					Total	Enter	Exit	In	Out	Total	Enter	Exit	In	Out
Build To Rent Multifamily	ITE 215 - Single Family Attached Housing	114	Dwelling Units	821	55	25%	75%	14	41	65	59%	41%	38	27
Single Family	ITE 210 - Single Family Detached Housing	23	Dwelling Units	261	20	25%	75%	5	15	25	63%	37%	16	9
Total				1082	75			19	56	90			54	36

As shown by comparing the above tables, the proposed development generates an additional 4 ingress and 10 egress trips in the AM peak hour and 2 ingress and 5 egress trips in the PM peak hour. These trips constitute less than 12% of the AM+PM peak hour trips generated by the proposed development and equate to an increase of around 1 exiting vehicle every 5-6 minutes (AM Peak Hour). In my opinion, the additional trips generated by the change in development are negligible and their consideration would not alter the recommendations presented in the previously completed traffic impact study.

Please feel free to contact me if you have any questions.

Sincerely,

Jonathon Kruse, PE, PTOE

Attachments:

Attachment A – Extracted page(s) from “Traffic Impact Analysis Arbolada Subdivision Los Alamos, New Mexico”

Attachment B – Proposed Development Trip Generation Sheets

d. Multi-Family Housing (Low Rise) (Land Use Code 220)

The ITE provides different categories of multi-family housing. Multi-family Housing (Low Rise) includes condominiums and townhouses and is considered appropriate for this project. The ITE description for Multi-Family Housing (Low Rise) is as follows:

“Low-rise multifamily housing includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have one or two levels (floors)...Apartments are rental dwelling units located within the same building with at least three other dwelling units, for example, quadraplexes and all types of apartment buildings...”

There are three independent variables available for projecting trip generations, the number of dwelling units, the number of occupied dwelling units, and the number of residents. For this analysis, the number of dwelling units was used.

The traffic generated during the peak hour was calculated. The projected traffic generated by this land use is presented in Table 3. The Trip Generation Calculations are presented in Appendix D.

TABLE 3 SUMMARY OF TRIP GENERATION CALCULATIONS				
	AM Peak		PM Peak	
	Entry	Exit	Entry	Exit
Land Use 210 – Single Family Detached Housing – 67 Dwelling Units				
	13	39	44	26
Land Use 220 – Multi-Family Housing (Low Rise) – 18 Dwelling Units				
	2	7	8	5
Total	15	46	52	31

Source: Institute of Transportation Engineers
Trip Generation, 10th Edition, 2017

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

210

LAND USE GROUP:

(200-299) Residential

LAND USE :

210 - Single-Family Detached Housing

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

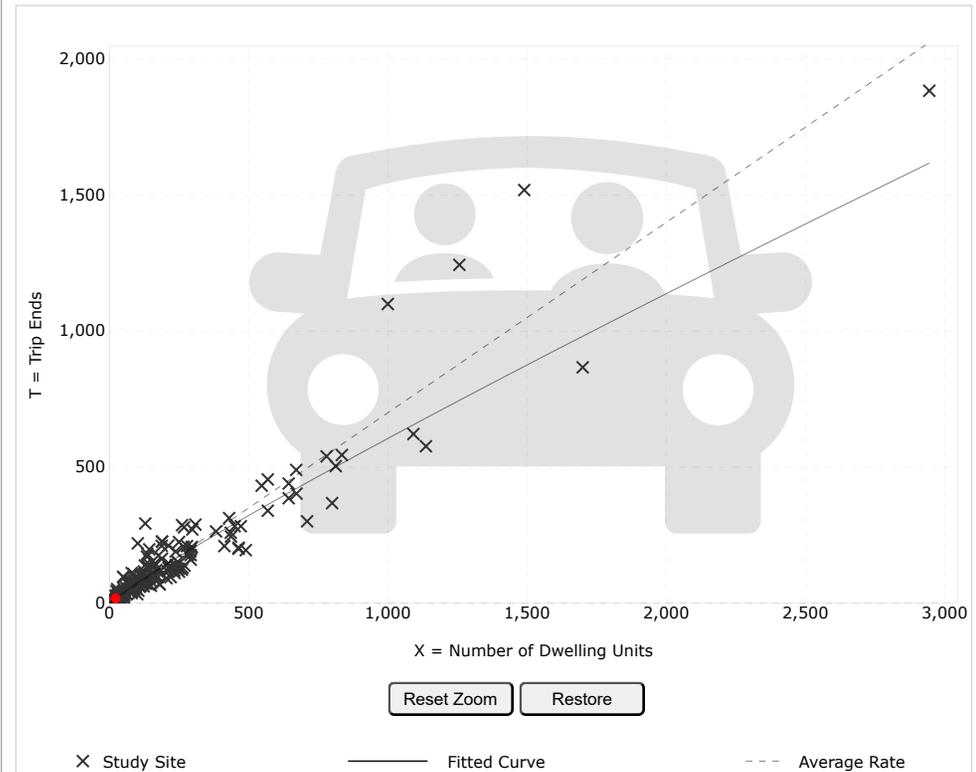
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

23

Calculate

Data Plot and Equation



Land Use:

Single-Family
Description a

Independent

Dwelling Unit

Time Period:

Weekday
Peak Hour of
One Hour Be

Setting/Loca

General Urba

Trip Type:

Vehicle

Number of S

192

Avg. Num. o

226

Average Rat

0.70

Range of Ra

0.27 - 2.27

Standard De

0.24

Fitted Curve

$\ln(T) = 0.91 I$

R²:

0.90

Directional C

25% entering

Calculated T

Average Rate

Fitted Curve:

Graph Look Up

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Graph Look Up

How to Use ITETripGen

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TGM Appendices

Support Documents

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Add-ons to do more

Try OTISS Pro

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

210

LAND USE GROUP:

(200-299) Residential

LAND USE :

210 - Single-Family Detached Housing

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

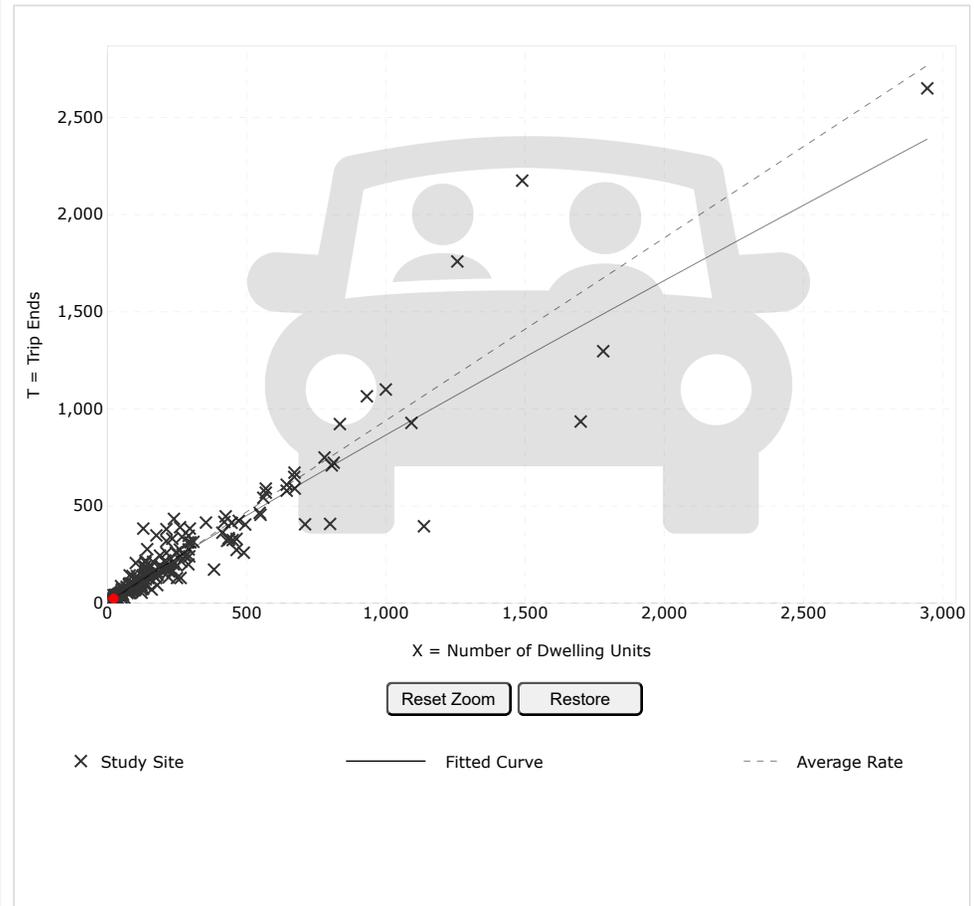
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

23

Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Land Use:	Single-Family
	Description a
Independent	Dwelling Unit
Time Period:	Weekday
	Peak Hour of
	One Hour Be
Setting/Loca	General Urba
Trip Type:	Vehicle
Number of S	208
Avg. Num. o	248
Average Rat	0.94
Range of Ra	0.35 - 2.98
Standard De	0.31
Fitted Curve	$\ln(T) = 0.94 \ln(X)$
R²:	0.92
Directional C	63% entering
Calculated T	Average Rate
	Fitted Curve:

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Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

210

LAND USE GROUP:

(200-299) Residential

LAND USE :

210 - Single-Family Detached Housing

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday

TRIP TYPE:

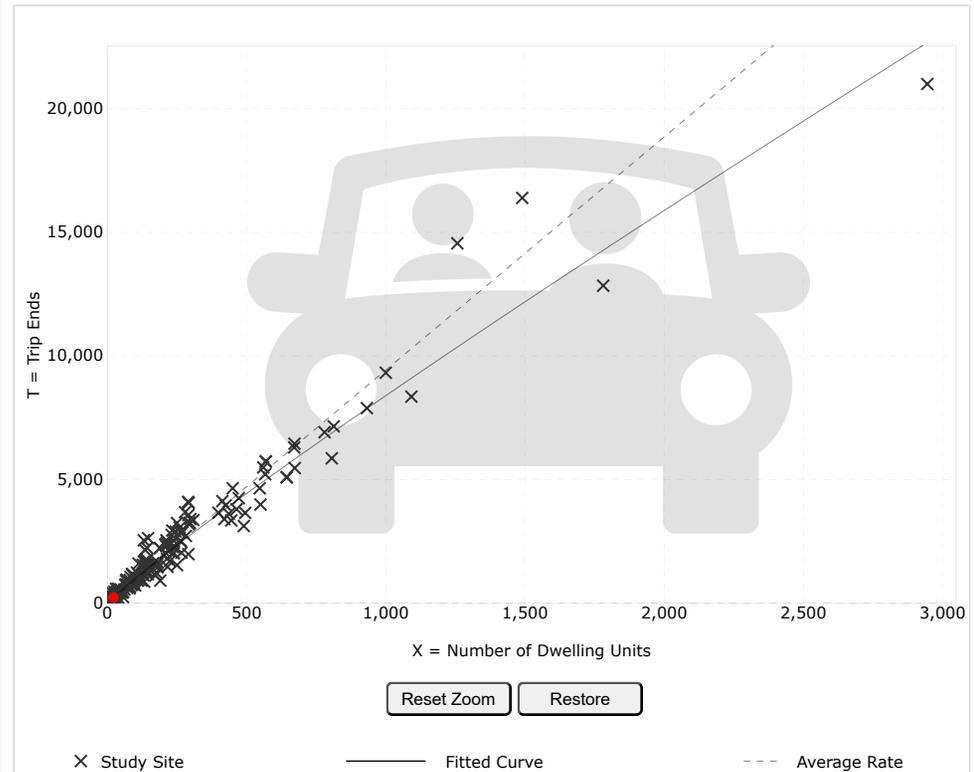
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

23

Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Land Use:	Single-Family
	Description a
Independent	Dwelling Unit
Time Period:	Weekday
Setting/Loca	General Urban
Trip Type:	Vehicle
Number of S	174
Avg. Num. of	246
Average Rate	9.43
Range of Ra	4.45 - 22.61
Standard De	2.13
Fitted Curve	$\ln(T) = 0.92 \ln(X)$
R ² :	0.95
Directional C	50% entering
Calculated T	Average Rate
	Fitted Curve:

Graph Look Up

ITETripGen Web-based App

Graph Look Up

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Support Documents

Add Users

Comments

Add-ons to do more

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Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

215

LAND USE GROUP:

(200-299) Residential

LAND USE :

215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

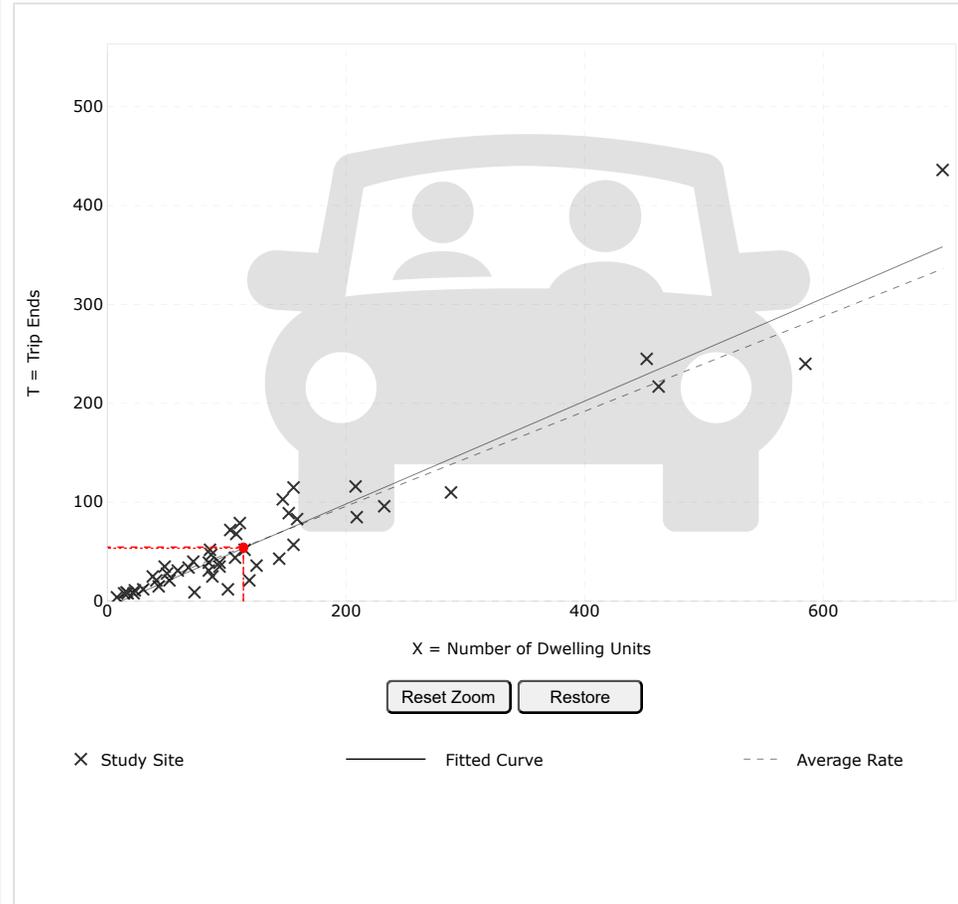
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

114

Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Land Use:

Single-Family
[Description a](#)

Independent

Dwelling Unit

Time Period:

Weekday
Peak Hour of
One Hour Be

Setting/Loca

General Urba

Trip Type:

Vehicle

Number of S

46

Avg. Num. o

135

Average Rat

0.48

Range of Ra

0.12 - 0.74

Standard De

0.14

Fitted Curve

$T = 0.52(X) -$

R²:

0.92

Directional C

25% entering

Calculated T

Average Rate

Fitted Curve:

Graph Look Up

ITETripGen Web-based App

Graph Look Up

How to Use ITETripGen

TGM Desk Reference

TGM Appendices

Support Documents

Add Users

Comments

Add-ons to do more

Try OTISS Pro

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

215

LAND USE GROUP:

(200-299) Residential

LAND USE :

215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

TRIP TYPE:

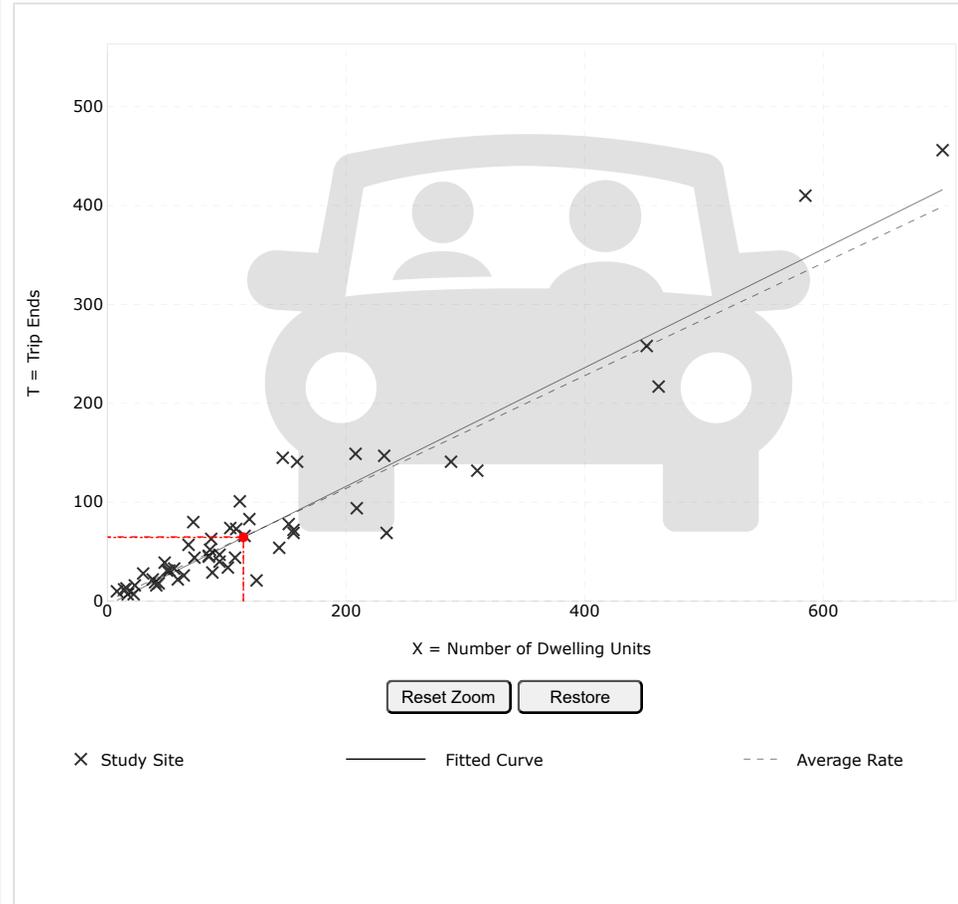
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

114

Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Land Use:

Single-Family
[Description a](#)

Independent

Dwelling Unit

Time Period:

Weekday
Peak Hour of
One Hour Be

Setting/Loca

General Urba

Trip Type:

Vehicle

Number of S

51

Avg. Num. o

136

Average Rat

0.57

Range of Ra

0.17 - 1.25

Standard De

0.18

Fitted Curve

$T = 0.60(X) -$

$R^2:$

0.91

Directional C

59% entering

Calculated T

Average Rate

Fitted Curve:

ITETripGen Web-based App

Graph Look Up

How to Use ITETripGen

TGM Desk Reference

TGM Appendices

Support Documents

Add Users

Comments

Add-ons to do more

Try OTISS Pro

Query

Filter

DATA SOURCE:

Trip Generation Manual, 11th Ed

SEARCH BY LAND USE CODE:

215

LAND USE GROUP:

(200-299) Residential

LAND USE :

215 - Single-Family Attached Housing

LAND USE SUBCATEGORY:

All Sites

SETTING/LOCATION:

General Urban/Suburban

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday

TRIP TYPE:

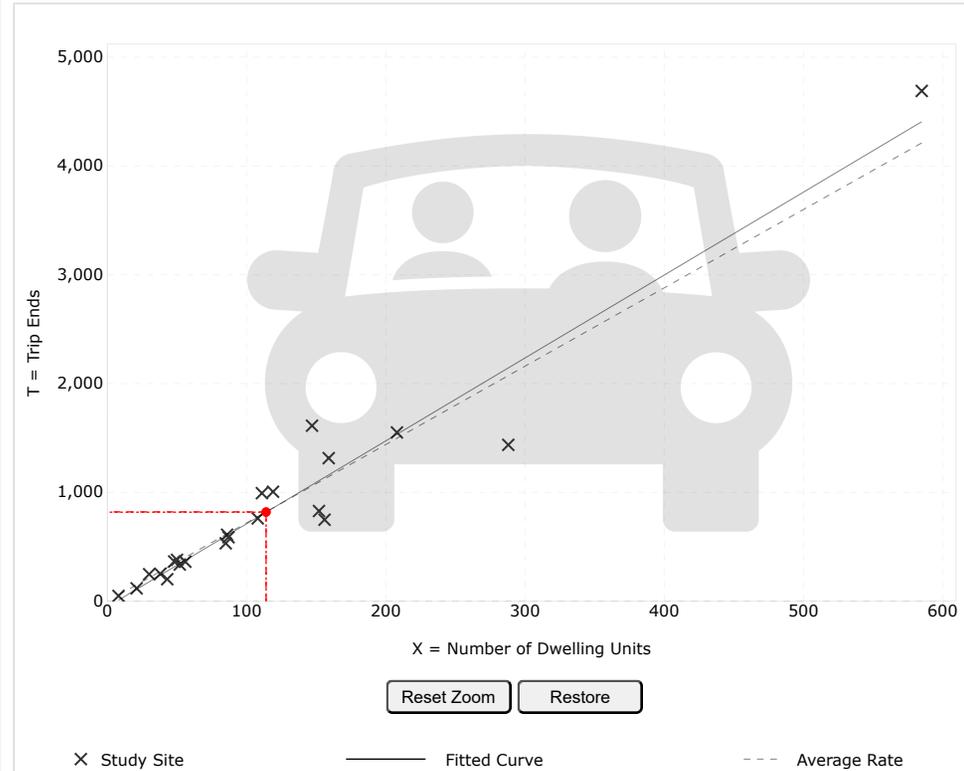
Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

114

Calculate

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

Land Use:

Single-Family
Dwelling Unit

Independent

Time Period:

Weekday

Setting/Loca

General Urba

Trip Type:

Vehicle

Number of S

22

Avg. Num. o

120

Average Ra

7.20

Range of Ra

4.70 - 10.97

Standard De

1.61

Fitted Curve

$T = 7.62(X) -$

$R^2:$

0.94

Directional C

50% entering

Calculated T

Average Rate

Fitted Curve:

SITE PLAN KEYED NOTES

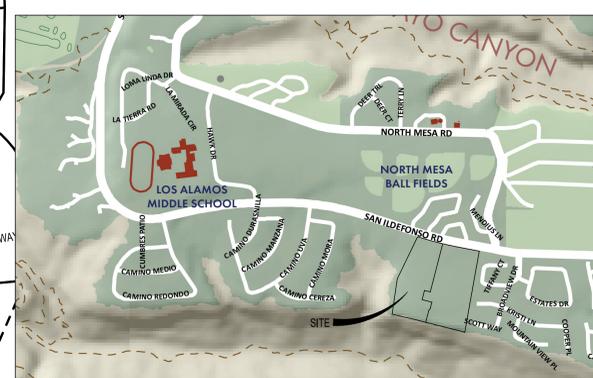
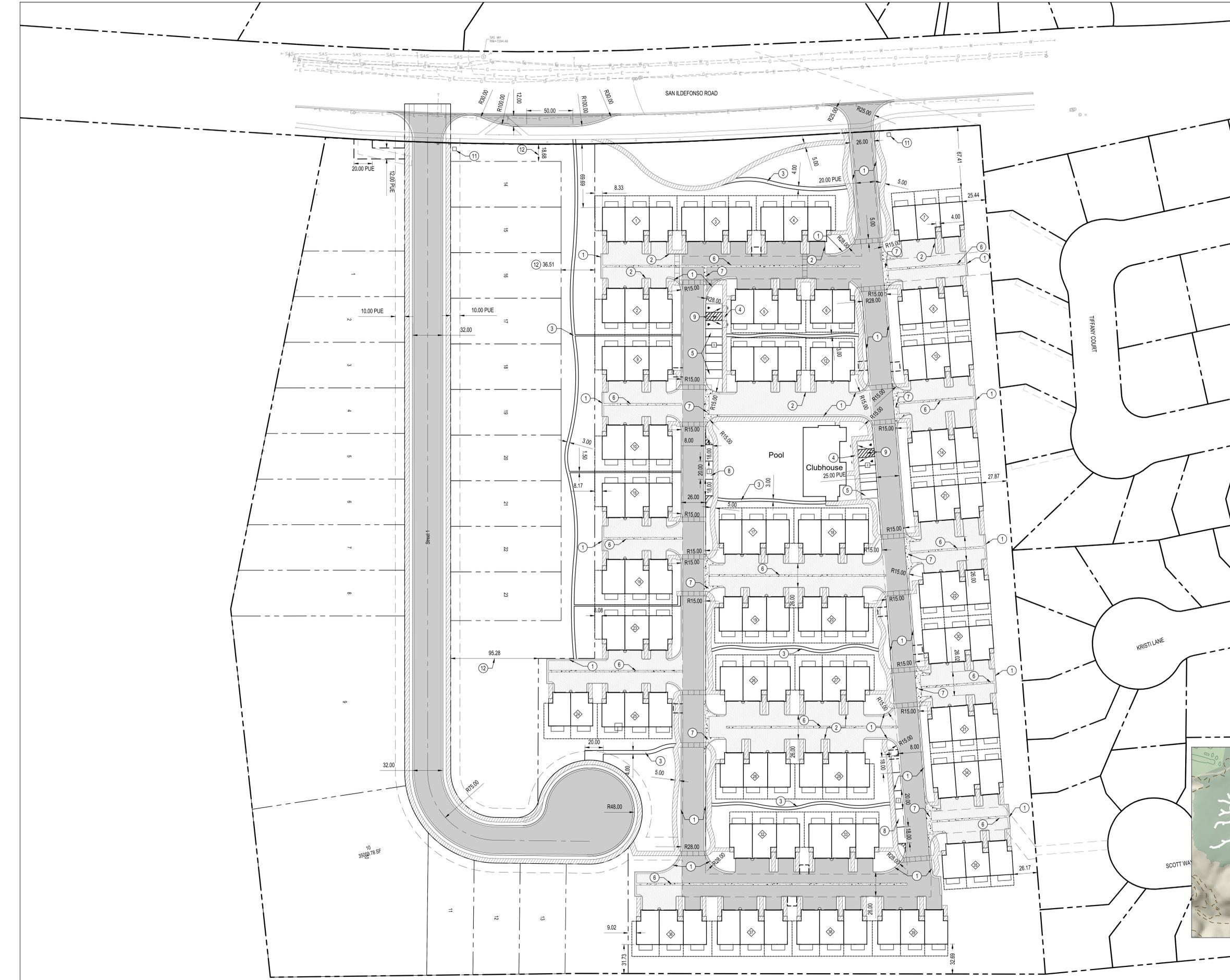
1. STANDARD CURB AND GUTTER.
2. HEADER CURB.
3. GRAVEL TRAIL.
4. ADA ACCESSIBLE ACCESS RAMP.
5. STANDARD PARKING, 9' X 18' UNLESS OTHERWISE NOTED. PAVEMENT MARKINGS ARE SHOWN FOR INFORMATION ONLY.
6. 2' ALLEY GUTTER.
7. VALLEY GUTTER.
8. ON STREET PARKING, 7' X 20' UNLESS OTHERWISE NOTED. PAVEMENT MARKINGS ARE SHOWN FOR INFORMATION ONLY.
9. ADA ACCESS AISLE AND ADA "HANDICAP PARKING ONLY" SIGN.
10. BICYCLE RACK.
11. 4' X 4' MONUMENT SIGN.
12. PUBLIC DRAINAGE EASEMENT FOR THE BENEFIT OF 'TRACT 2' AND 'TRACT 4'

LEGEND

- HEAVY DUTY ASPHALT PAVEMENT
- LIGHT DUTY ASPHALT PAVEMENT
- CONCRETE SIDEWALK
- CONCRETE VALLEY/VALLEY GUTTER
- CROSS WALK
- PROPERTY LINE
- PROPOSED CURB & GUTTER
- LANDSCAPE FENCE
- NUMBER OF PARKING STALLS
- BUILDING NUMBER

PARKING COUNT

OFF-STREET PARKING REQUIRED:	OFF-STREET PARKING PROVIDED:
114 UNITS x 2 SPACES/UNIT = 228 SPACES	114 UNITS x 2 SPACES/UNIT = 228 GARAGE SPACES
GUEST OFF-STREET PARKING REQUIREMENT:	GUEST OFF-STREET PARKING PROVIDED:
GUEST PARKING = NO REQUIREMENT	PARKING LOTS: 22 SPACES
TOTAL PARKING REQUIRED:	TOTAL PARKING PROVIDED:
228 SPACES	250 SPACES
ACCESSIBLE PARKING:	ACCESSIBLE PARKING:
1 SPACE FOR 1-25 SPACES = 1 SPACE	4 VAN ACCESSIBLE SPACES PROVIDED

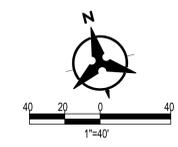


VICINITY MAP NOT TO SCALE

SITE PLAN

ARBOLADA

DRAWN BY: JCR	DATE: 7/15/2025
CHECKED BY: JL	BH PROJECT NO: 20250264
	SHEET NO: C300



File: 15-000001-02.dwg, Plot: 15-000001-02.plt, Date: 7/15/2025, Time: 10:00:00 AM, User: jcr
 P:\2025\0264\ARBOLADA\20250264.dwg

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL / COMMON NAME	INSTALL SIZE	MATURE SIZE	WATER USE
TREES					
	16	Acer grandidentatum / Bigtooth Maple	2.5" cal.	20' x 20'	Medium
	9	Acer negundo 'Sensation' / Sensation Box Elder	2.5" cal.	20' x 20'	Medium
	40	Cercis occidentalis / Western Redbud	2.5" cal.	15' x 15'	Medium
	24	Juniperus deppeana / Alligator Juniper	6'-8' ht.	25' x 35'	Low
	3	Malus x domestica / Apple	2.5" cal.	15' x 15'	Medium
	34	Pinus ponderosa / Ponderosa Pine	6'-8' HT	40' x 30'	RW
	26	Quercus buckleyi Texana / Texas Red Oak	2.5" cal.	25' x 30'	Medium
	25	Quercus gambelii / Gambel Oak	15 gal.	15' x 15'	RW
	22	Ulmus japonica x wilsoniana 'Morton' TM / Accolade Elm	2.5" cal.	25' x 30'	Medium
SHRUBS					
	119	Achillea millefolium / Common Yarrow	1 gal.	3' x 2'	RW
	117	Amelanchier utahensis / Utah Serviceberry	15 gal.	8' x 8'	RW
	179	Arctostaphylos x coloradensis 'Chieftain' / Chieftain Mock Bearberry Manzanita	5 gal.	3' x 5'	Low
	3	Cercocarpus montanus / Alderleaf Mountain Mahogany	15 gal.	6' x 6'	RW
	58	Physocarpus alternans / Dwarf Ninebark	15 gal.	4' x 4'	Low
	53	Potentilla fruticosa / Bush Cinquefoil	5 gal.	2' x 2'	RW
	275	Prunus besseyi 'P011S' / Pawnee Buttes® Sand Cherry	5 gal.	1.5' x 3'	Low
	45	Robinia neomexicana / New Mexico Locust	15 gal.	8' x 8'	RW
	198	Symphoricarpos albus / Common Snowberry	5 gal.	3' x 3'	RW
GRASSES					
	154	Andropogon scoparius 'Standing Ovation' / Little Bluestem	1 gal.	1.5' x 1.5'	Low
	340	Calamagrostis x acutiflora 'Karl Foerster' / Karl Foerster Feather Reed Grass	1 gal.	1' x 3'	Medium
	61	Muhlenbergia emersleyi 'El Toro' / El Toro Bull Grass	1 gal.	2' x 3'	Low
PERENNIALS					
	758	Eriogonum umbellatum / Sulfurflower Buckwheat	1 gal.	1' x 18"	Low
	120	Linum lewisii 'Blue Flax' / Blue Flax	1 gal.	1' x 18"	Medium
	48	Penstemon strictus / Rocky Mountain Penstemon	1 gal.	3' x 3'	RW

SURFACE LEGEND

- NATIVE MEADOW SEEDING
- ANGULAR COBBLE
- TURFGRASS

LANDSCAPE CALCULATIONS

LANDSCAPE AREA COVERAGE
 TOTAL SITE AREA (9.5 AC.): -13,386 SF
 BUILDING AREA: 401,798 SF
 NET AREA: 401,798 SF
 REQUIRED / PROVIDED LANDSCAPE: 40,179 SF (10%) / 130,370 SF (32%)

MINIMUM PLANT MATERIAL STANDARDS
 TREES
 REQUIRED/PROVIDED- 2 TREES/1000 SF LANDSCAPE AREA= 130 TREES/ 175 TREES

SHRUBS
 REQUIRED/PROVIDED- 10 SHRUBS/1000 SF LANDSCAPE AREA= 1304/1541

GROUND COVER
 REQUIRED/PROVIDED 75% COVERAGE AT MATURITY 97,777 SF/ 109,325 SF (83%)

STREETSCAPE LANDSCAPE
 UP TO 50% OF REQUIRED LANDSCAPE MAY BE IN THE PUBLIC ROW
 PERCENT LANDSCAPE IN PUBLIC ROW- LESS THAN 1%

PARKING LOT AREA
 REQUIRED: 1 TREE/12 PARKING SPACES
 # EXTERIOR PARKING SPACES- 11
 REQUIRED PARKING LOT TREES= 1
 PROVIDED PARKING LOT TREES= 10

REFERENCE NOTES SCHEDULE

- | CODE | DESCRIPTION |
|------|---|
| 1 | PEDESTRIAN CROSSING, MATERIAL, TBD |
| 2 | COMMUNITY GARDEN AND ORCHARD |
| 3 | PLAY AREA WITH SAND BOX, NATURE PLAY AND SWINGS |
| 4 | SHADE TRELLIS AND SITE FURNISHINGS |
| 5 | STROMWATER DETENTION AREA |
| 6 | POOL, BY OTHERS |
| 7 | LANDSCAPE BUFFER - EVERGREEN PLANTINGS |

CONSENSUS
 Planning / Landscape Architecture
 302 Eighth Street NW
 Albuquerque, NM 87102
 (505) 764-9801 Fax 842-5495
 e-mail: cp@consensusplanning.com

BSB
 DESIGN
 BSBDESIGN.COM

TITAN
 DEVELOPMENT

1 LANDSCAPE PLAN
 SCALE: 1"=50'-0"
 NORTH

LOS ALAMOS TOWNHOMES
 Los Alamos, NM.

July 16, 2025 | 24-0782

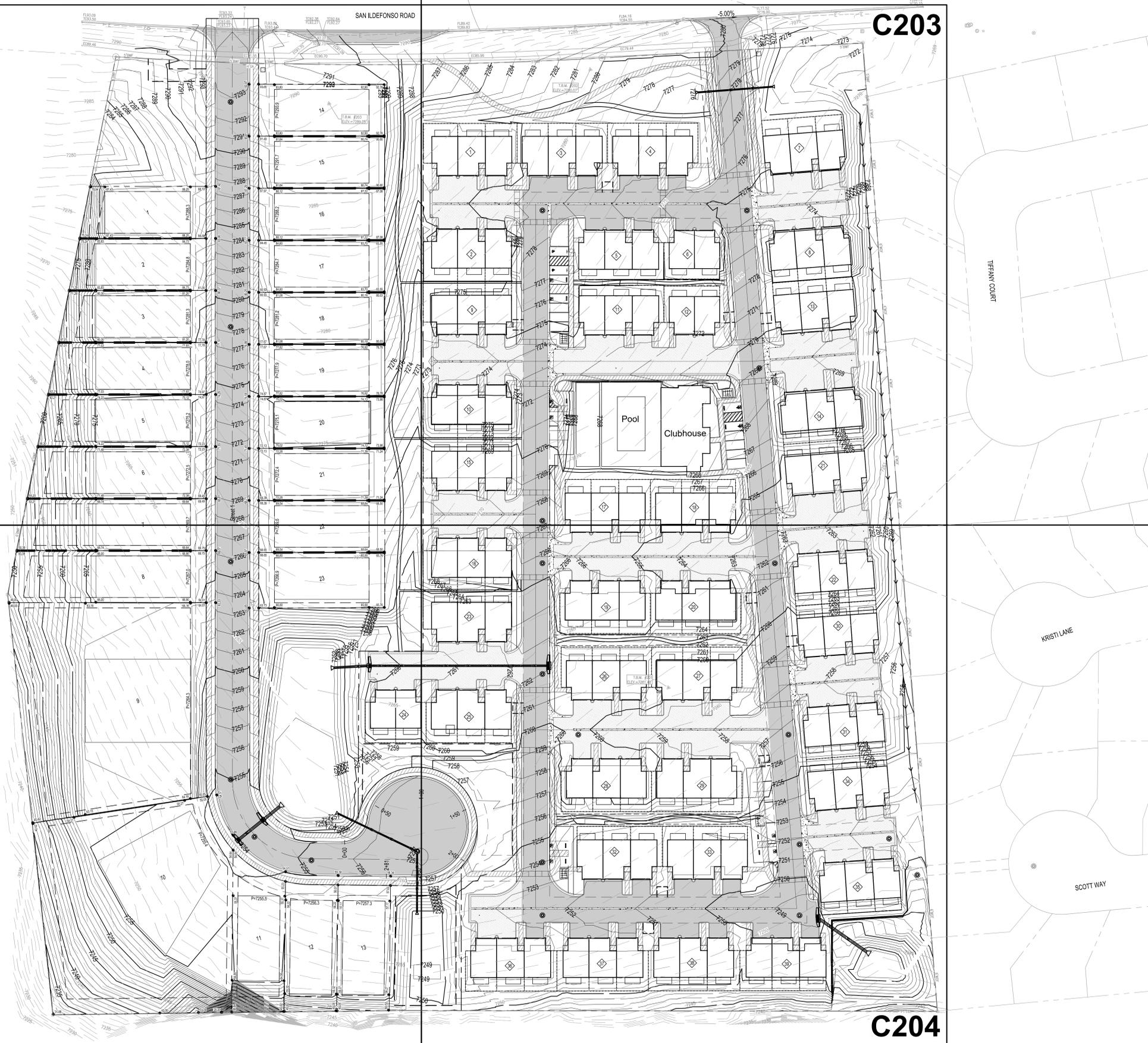
The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.) © 2017 BSB Design, Inc.

C201

C203

C202

C204

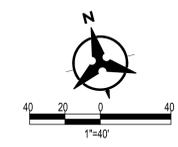


- GRADING PLAN GENERAL NOTES**
- EXCEPT AS PROVIDED HEREIN, GRADING SHALL BE PERFORMED AT THE ELEVATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THIS PLAN.
 - THE COST FOR REQUIRED CONSTRUCTION DUST AND EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT COST.
 - ALL WORK RELATIVE TO FOUNDATION CONSTRUCTION, SITE PREPARATION, AND PAVEMENT INSTALLATION, AS SHOWN ON THIS PLAN, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "GEOTECHNICAL INVESTIGATION" AS PROVIDED BY THE ARCHITECT OR OWNER. ALL OTHER WORK SHALL, UNLESS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT, (FIRST PRIORITY) SPECIFICATIONS, AND/OR THE CITY OF CLOVIS STANDARD SPECIFICATIONS FOR PUBLIC WORKS (SECOND PRIORITY).
 - EARTH SLOPES SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL UNLESS SHOWN OTHERWISE.
 - IT IS THE INTENT OF THESE PLANS THAT THIS CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE OF THE LIMITS OF WORK EXCEPT AS REQUIRED BY THIS PLAN.
 - THE CONTRACTOR IS TO ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO ADJACENT PROPERTY OR PUBLIC RIGHT-OF-WAY. THIS SHOULD BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS OR SILT FENCE AT THE PROPERTY LINES AND WETTING THE SOIL TO PROTECT IT FROM WIND EROSION.
 - A DISPOSAL SITE FOR ANY & ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL AND/OR A BORROW SITE CONTAINING ACCEPTABLE FILL MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL OR BORROW SITE AND HAUL TO OR FROM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.
 - PAVING AND ROADWAY GRADES SHALL BE $\pm 0.1'$ FROM PLAN ELEVATIONS. PAD ELEVATION SHALL BE $\pm 0.05'$ FROM BUILDING PLAN ELEVATION.
 - VERIFY ALL ELEVATIONS SHOWN ON PLAN FROM BASIS OF ELEVATION CONTROL STATION PRIOR TO BEGINNING CONSTRUCTION.
 - ALL SIDEWALK CROSS SLOPES SHALL FALL BETWEEN 1% SLOPE AND 2% SLOPE.
 - TOP OF SIDEWALK (TS) ELEVATIONS AT DOORS ANTICIPATE A FLUSH CONNECTION TO THE FF. THEREFORE, THIS DOES NOT ACCOUNT FOR ANY DOOR THRESHOLDS. CONTRACTOR TO FLOAT FINAL 2" OF CONCRETE SIDEWALK AT DOORS.
 - THE FINISHED GRADES AS SHOWN INCLUDE THE DEPTH OF THE FINAL SURFACE MATERIAL. CONTRACTOR TO SUBTRACT DEPTH OF FINAL SURFACE MATERIAL TO GET SUBGRADE ELEVATION. THIS APPLIES TO LANDSCAPE AREAS AS WELL AND SHOULD BE COORDINATED WITH THE LANDSCAPE ARCHITECTURAL PLANS.

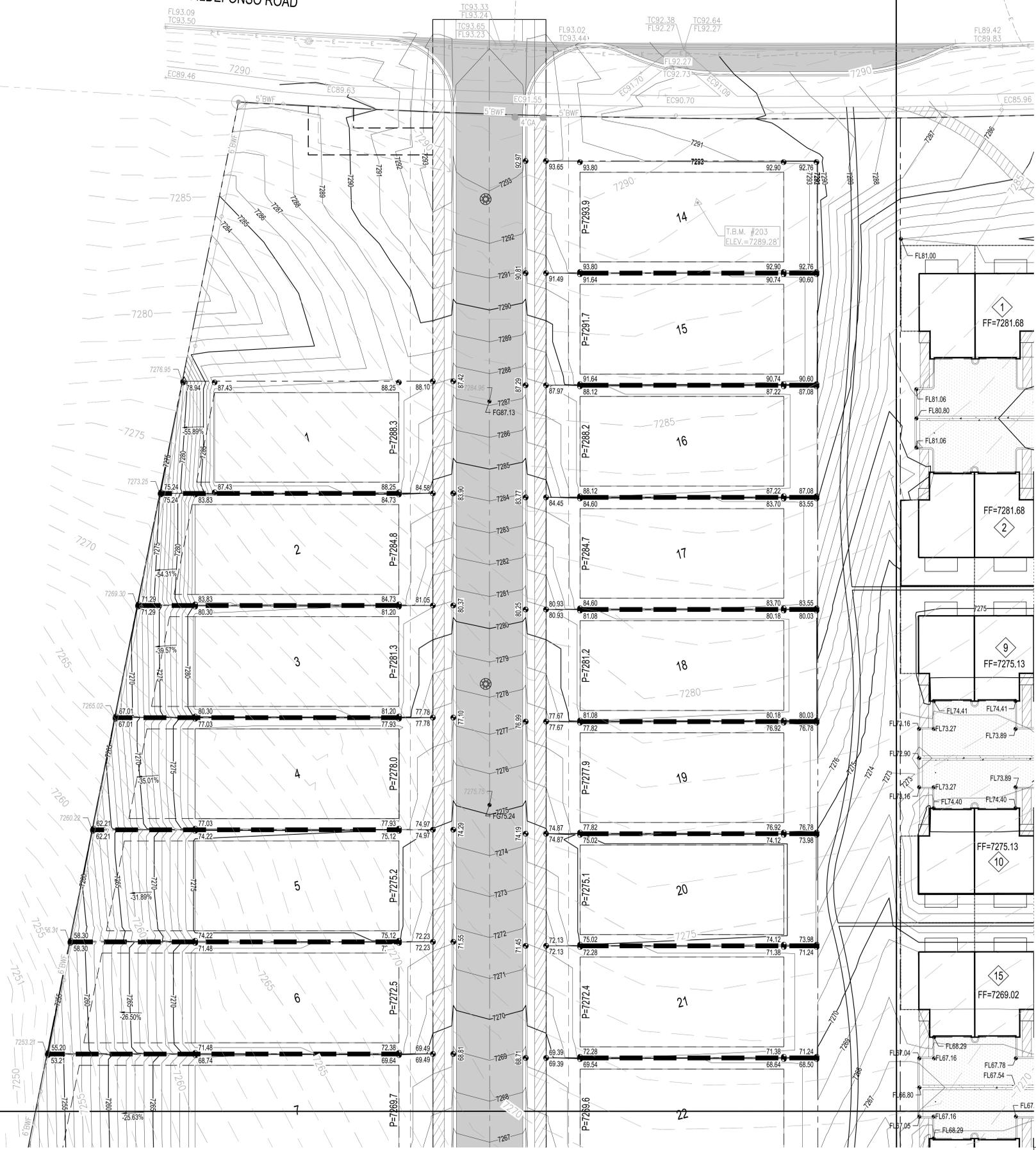
OVERALL GRADING

ARBOLADA

DRAWN BY:	JMM	DATE:	7/15/2025
CHECKED BY:	JL	BH PROJECT NO:	20250264
		SHEET NO.:	C200



SAN ILDEFONSO ROAD



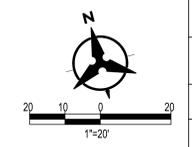
LEGEND

---	PROPERTY LINE
● 91.50	PROPOSED SPOT ELEVATION
TA	TOP OF ASPHALT
TC	TOP OF CURB
FL	FLOW LINE
TC	TOP OF CONCRETE
TS	TOP OF SIDEWALK
TG	TOP OF GRATE
FG	FINISHED GRADE
FGH	FINISHED GRADE HIGH
FGL	FINISHED GRADE LOW
INV	INVERT
FF	FINISHED FLOOR
VT	VOLCANIC TUFF SURFACE ELEVATION
P	CONCRETE PAD ELEVATION
---	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	PROPOSED INDEX CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	DRAINAGE SWALE. SEE DETAIL X, SHEET XXXX
○	PROPOSED STORM DRAIN MANHOLE
●	PROPOSED STORM DRAIN INLETS

**PRELIMINARY
NOT FOR
CONSTRUCTION**

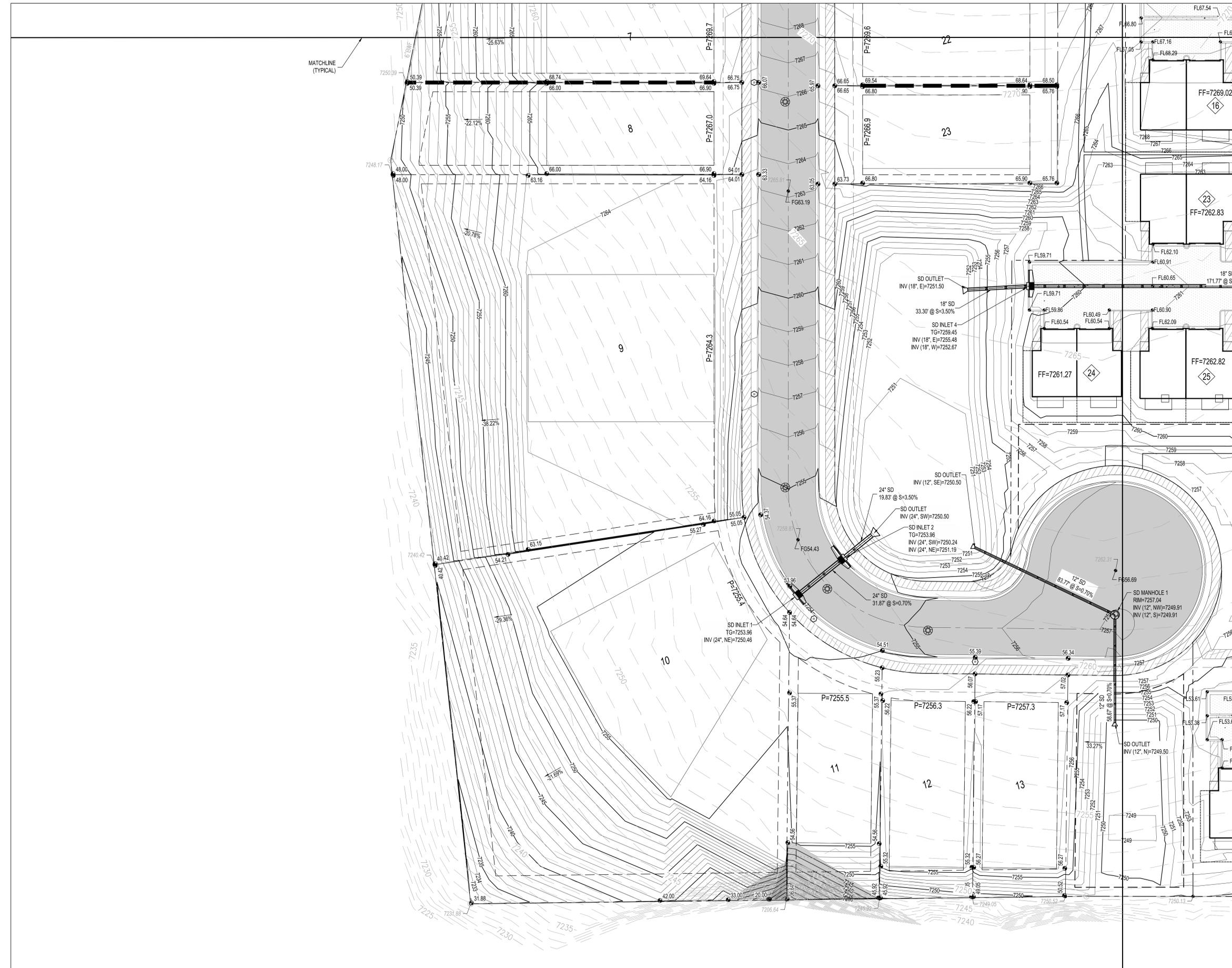
GRADING PLAN NW

ARBOLADA



DRAWN BY:	JMM	DATE:	7/15/2025
CHECKED BY:	JL	BH PROJECT NO:	20250264
		SHEET NO.:	C201

File: 15-03252-1.dwg, Name: JMM, Date: 7/15/2025, Plot: 15-03252-1.dwg, Plot Date: 7/15/2025, Plot Time: 10:00:00 AM, Plot User: JMM



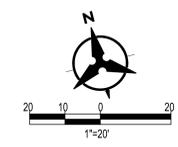
LEGEND	
---	PROPERTY LINE
● 91.50	PROPOSED SPOT ELEVATION
TA	TA-TOP OF ASPHALT
TC	TC-TOP OF CURB
FL	FL-FLOW LINE
TC	TC-TOP OF CONCRETE
TS	TS-TOP OF SIDEWALK
TG	TG-TOP OF GRATE
FG	FG-FINISHED GRADE
FGH	FGH-FINISHED GRADE HIGH
FGL	FGL-FINISHED GRADE LOW
INV	INV-INVERT
FF	FF-FINISHED FLOOR
VT	VT-VOLCANIC TUFF SURFACE ELEVATION
P	P-CONCRETE PAD ELEVATION
---	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	PROPOSED INDEX CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	DRAINAGE SWALE. SEE DETAIL X, SHEET XXXX
○	PROPOSED STORM DRAIN MANHOLE
●	PROPOSED STORM DRAIN INLETS

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NOT FOR
CONSTRUCTION**

GRADING PLAN SW

ARBOLADA

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CHECKED BY:	JL	BH PROJECT NO:	20250264
		SHEET NO.:	C202





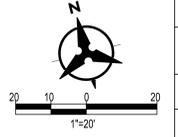
LEGEND	
---	PROPERTY LINE
● 91.50	PROPOSED SPOT ELEVATION
TA	TA-TOP OF ASPHALT
TC	TC-TOP OF CURB
FL	FL-FLOW LINE
TC	TC-TOP OF CONCRETE
TS	TS-TOP OF SIDEWALK
TG	TG-TOP OF GRATE
FG	FG-FINISHED GRADE
FGH	FGH-FINISHED GRADE HIGH
FGL	FGL-FINISHED GRADE LOW
INV	INV-INVERT
FF	FF-FINISHED FLOOR
VT	VT-VOLCANIC TUFF SURFACE ELEVATION
P	P-CONCRETE PAD ELEVATION
---	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	PROPOSED INDEX CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	DRAINAGE SWALE. SEE DETAIL X, SHEET XXXX
○	PROPOSED STORM DRAIN MANHOLE
●	PROPOSED STORM DRAIN INLETS

**PRELIMINARY
NOT FOR
CONSTRUCTION**

GRADING PLAN NE

ARBOLADA

DRAWN BY:	JMM	DATE:	7/15/2025
CHECKED BY:	JL	BH PROJECT NO:	20250264
		SHEET NO.:	C203





LEGEND	
---	PROPERTY LINE
● 91.50	PROPOSED SPOT ELEVATION
TA	TOP OF ASPHALT
TC	TOP OF CURB
FL	FLOW LINE
TC	TOP OF CONCRETE
TS	TOP OF SIDEWALK
TG	TOP OF GRATE
FG	FINISHED GRADE
FGH	FINISHED GRADE HIGH
FGL	FINISHED GRADE LOW
INV	INVERT
FF	FINISHED FLOOR
VT	VOLCANIC TUFF SURFACE ELEVATION
P	CONCRETE PAD ELEVATION
---	EXISTING INDEX CONTOUR
---	EXISTING INTERMEDIATE CONTOUR
---	PROPOSED INDEX CONTOUR
---	PROPOSED INTERMEDIATE CONTOUR
---	DRAINAGE SWALE. SEE DETAIL X, SHEET XXXX
○	PROPOSED STORM DRAIN MANHOLE
●	PROPOSED STORM DRAIN INLETS

KRISTI LANE

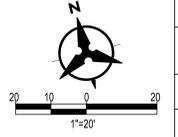
SCOTT WAY

**PRELIMINARY
NOT FOR
CONSTRUCTION**

GRADING PLAN SE

ARBOLADA

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CHECKED BY:	JL	BH PROJECT NO:	20250264
		SHEET NO.:	C204



LEGEND	
	PROPERTY LINE
	EXISTING INDEX CONTOUR
	EXISTING INTERMEDIATE CONTOUR
	DRAINAGE BASIN

DRAINAGE NARRATIVE

INTRODUCTION

THIS DRAINAGE NARRATIVE SUMMARIZES HYDROLOGIC AND HYDRAULIC ANALYSES FOR EXISTING SITE CONDITIONS FOR THE LOS ALAMOS BUILT TO RENT DEVELOPMENT IN LOS ALAMOS, NM.

THE PROJECT SITE IS LOCATED ALONG THE SOUTHERN SIDE OF ILDEFONSO ROAD BETWEEN SAN ILDEFONSO ROAD AND NORTH MESA ROAD. THE PROPERTY IS APPROXIMATELY 17 ACRES AND GENERALLY SLOPES FROM THE NORTH TO THE SOUTH. THE PROPERTY IS CURRENTLY UNDEVELOPED AND THE GENERAL COVER IS NATIVE WEEDS AND SHRUBS. A RIDGE EXISTS NEAR THE MIDDLE OF THE PROPERTY, RUNNING NORTH-TO-SOUTH, THAT SPLITS RUNOFF GENERATED FROM THE SITE TO THE EAST AND WEST. A FENCE EXISTS ALONG THE PROPERTY BOUNDARY FOR MOST OF THE SITE. AN EXISTING SUBDIVISION BORDERS THE PROPERTY ON THE EAST. UNDEVELOPED LAND BORDERS THE PROPERTY ON THE WEST. A RIDGE WITH A LARGE DROP-OFF TO AN ARROYO EXISTS ALONG THE SOUTHERN EDGE OF THE PROPERTY. THERE ARE NO DESIGNATED FEMA FLOODPLAINS ASSOCIATED WITH THE PROPERTY.

HYDROLOGIC ANALYSIS

TO ACCURATELY CHARACTERIZE AND MODEL ONSITE BASINS, DRAINAGE PATTERNS, AND ROUTING FLOWS, THE UNITED STATES ARMY CORPS OF ENGINEERS HYDRAULIC ENGINEERING CENTER HYDROLOGIC MODELING SYSTEM, VERSION 4.12 (HEC-HMS) WAS USED TO DEVELOP RUNOFF HYDROGRAPHS FOR THE SITE. THE MODELING SOFTWARE USES THE NATIONS RESOURCE CONSERVATION SERVICES UNIT HYDROGRAPH METHODOLOGY TO CHARACTERIZE THE HYDROLOGIC RESPONSE OF INDIVIDUAL BASINS WITHIN THE SITE. DRAINAGE BASINS WERE DELINEATED USING SURVEYED GRADES. WITH EACH BASIN'S HYDROLOGIC CHARACTERISTICS REPRESENTED BY NRCS RUNOFF CURVE NUMBERS (CN), THESE CN'S ARE A COMPOSITE REPRESENTATION OF THE SITE'S HYDROLOGIC SOIL CHARACTERISTICS, THE EXISTING LAND USAGE OR TREATMENT, AS WELL AS THE VEGETATIVE COVER. A BASIN CN IS USED TO CALCULATE THE AMOUNT OF PRECIPITATION THAT IS INFILTRATED VERSUS THE AMOUNT OF PRECIPITATION THAT BECOMES DIRECT RUNOFF. NRCS UNIT HYDROGRAPHS REPRESENT A GIVEN DRAINAGE BASIN'S HYDROLOGIC RESPONSE AND HOW THE PEAK RUNOFF FROM A GIVEN STORM EVENT VARIES OVER TIME. THIS METHODOLOGY IS BASED ON NRCS'S TECHNICAL RELEASE 55 URBAN HYDROLOGY FOR SMALL WATERSHEDS. THE SPECIFIC ASSUMPTIONS FOR THE EXISTING CONDITIONS HYDROLOGIC ASSESSMENTS ARE DISCUSSED IN DETAIL IN THE FOLLOWING SECTION.

AN NRCS WEB SOIL SURVEY FOR THE SITE WAS PRODUCED, SHOWING ROCK OUTCROPPINGS AND HYDROLOGIC GROUP D SOILS THROUGHOUT THE SITE.

EXISTING BASIN CHARACTERISTICS

THE PROJECT WATERSHED STARTS AT THE BACK OF CURB ALONG ILDEFONSO ROAD AND EXTENDS SOUTH TO THE SOUTHERN AND WESTERN PROPERTY LIMITS. A SMALL RIDGE THAT RUNS NORTH-TO-SOUTH NEAR THE MIDDLE OF THE SITE DIVIDES RUNOFF TO THE EAST AND WEST. FOLLOWING EXISTING DRAINAGE PATTERNS, THE PROJECT WATERSHED WAS DIVIDED INTO THREE SEPARATE BASINS. EACH BASIN REPRESENTS AN AREA THAT DRAINS TO SEPARATE OUTFALL LOCATIONS ALONG THE PROJECT BOUNDARY. BASIN EX-01 REPRESENTS THE AREA DRAINING TO THE WEST SIDE OF THE PROJECT AREA. BASIN EX-02 REPRESENTS THE AREA DRAINING TO THE SOUTH ALONG THE SOUTHERN PROPERTY LIMITS. BASIN EX-03 STARTS ALONG THE RIDGE BETWEEN EX-02 AND EX-03 AND IS CUT OFF BY THE EXISTING FENCE LINE ALONG THE EASTERN BOUNDARY, AND REPRESENTS THE AREA DRAINING TO THE SOUTHEAST CORNER OF THE SITE. RUNOFF GENERALLY LEAVES THE SITE UNDER NON-CONCENTRATED SHEET FLOW CONDITIONS ALONG THE WESTERN AND SOUTHERN PROPERTY LIMITS. RUNOFF FROM BASIN EX-03 ACCUMULATES ALONG THE EASTERN BOUNDARY BEFORE HEADING SOUTH, LEAVING THE SITE AT THE SOUTHEAST CORNER AS SHALLOW CONCENTRATED FLOW.

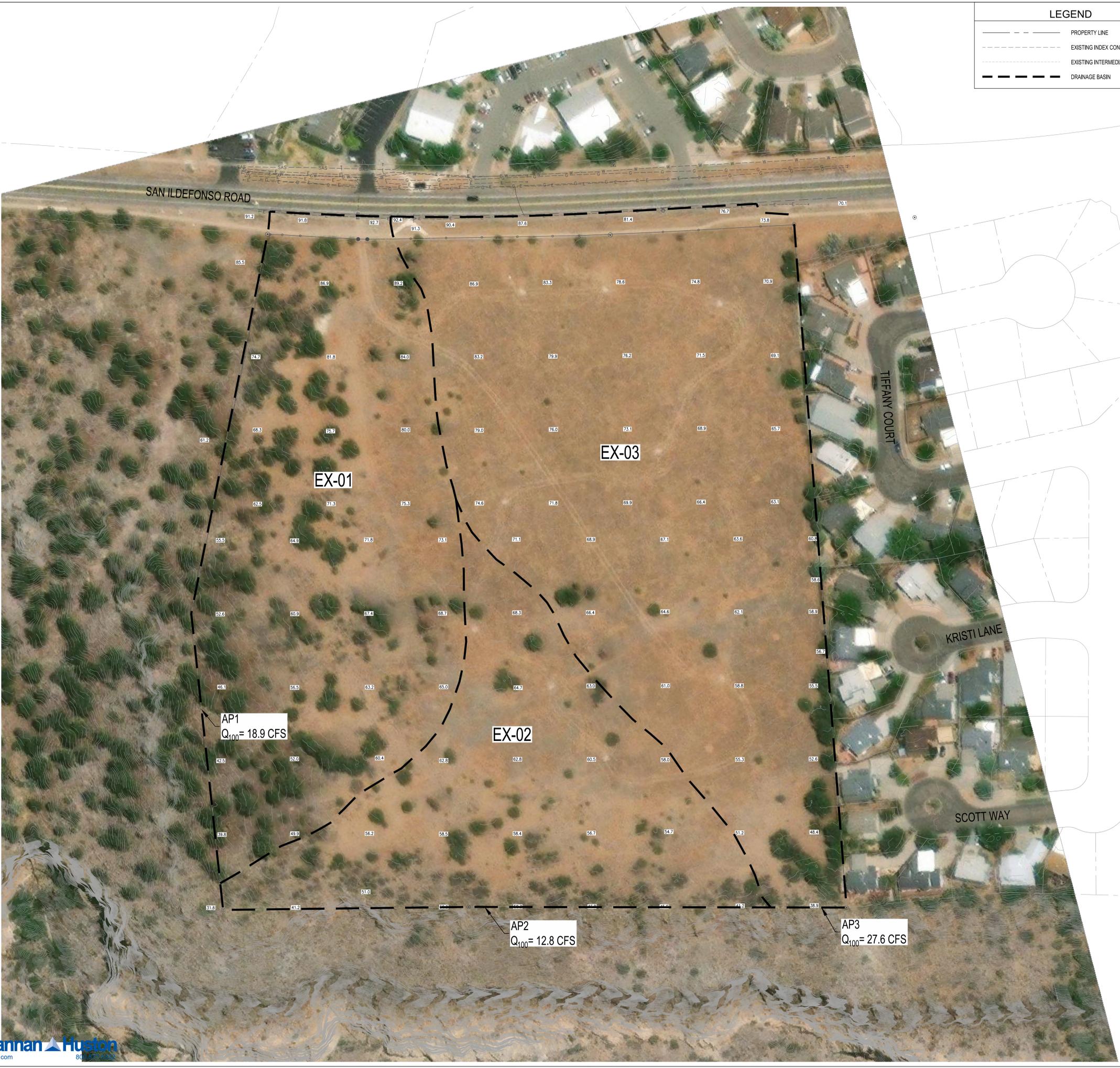
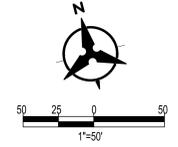
RESULTS FROM OF THE EXISTING CONDITIONS ANALYSIS ARE PROVIDED IN THE EXISTING CONDITIONS BASIN TABLE. THE TABLE SHOWS THE CHARACTERISTICS FOR EACH BASIN, THE RESULTING RUNOFF, AND THE VOLUMES GENERATED DURING THE 100-YEAR 24-HOUR STORM EVENT.

THE RECEIVING WATERS FOR ALL SITE RUNOFF IS THE CANADA DEL BUËY, AND EVENTUALLY THE RIO GRANDE. ANALYSIS OF EXISTING CONDITIONS DURING THE 100-YEAR 24-HOUR STORM EVENT SHOWS 18.9 CFS LEAVING THE SITE ALONG THE WESTERN BOUNDARY (AP1), 12.8 CFS LEAVING THE SITE ALONG THE SOUTHERN BOUNDARY (AP2), AND 27.6 CFS LEAVING THE SITE AT THE SOUTHEAST CORNER OF THE PROPERTY (AP3). BASIN CHARACTERISTICS, RUNOFF VOLUMES, AND PEAK RUNOFF RATES DURING DESIGN STORMS ARE SHOWN IN THE EXISTING CONDITIONS BASIN TABLE. PEAK DESIGN FLOWS AT ANALYSIS POINTS THAT COINCIDE WITH THE PROJECT OUTFALL LOCATIONS ARE ALSO PROVIDED IN THE TABLE.

FEMA FLOOD HAZARD AREA

THE PROPOSED DEVELOPMENT IS NOT AFFECTED BY ANY FEMA FLOODPLAINS OR HAZARD AREAS. HOWEVER, THE SITE IS IMMEDIATELY NORTH OF THE CANADA DEL BUËY FLOODPLAIN THAT EXISTS IN THE ARROYO SOUTH AND BELOW THE PROPERTY. REFERENCE THE FEMA FLOOD INSURANCE RATE MAP (FIRM) NUMBER 35028C0130C DATED JULY 18, 2011.

EXISTING CONDITIONS BASIN TABLE							
BASIN ID	AREA (AC)	LAG TIME (MIN)	CN	IMPERVIOUS PERCENT	Q50 (CFS)	V50 (AC-FT)	V100 (AC-FT)
EX-01	5.60	7.2	86	0	15.7	0.850	18.9
EX-02	3.78	7.2	86	0	10.6	0.574	12.8
EX-03	8.18	7.2	86	0	22.9	1.242	27.6
AP1	-	-	-	-	15.7	0.850	18.9
AP2	-	-	-	-	10.6	0.574	12.8
AP3	-	-	-	-	22.9	1.242	27.6



EXISTING DRAINAGE MANAGEMENT PLAN

ARBOLADA

DRAWN BY: JMM	DATE: 7/15/2025
CHECKED BY: JL	BHI PROJECT NO: 20250264
	SHEET NO: C400

SAN ILDEFONSO ROAD

STORMWATER HARVESTING DEPRESSION

TIFFANY COURT

KRISTI LANE

SCOTT WAY

AP1
Q₁₀₀ = 12.4 CFS

AP2
Q₁₀₀ = 9.3 CFS

AP3
Q₁₀₀ = 14.8 CFS

LEGEND

	PROPERTY LINE
	EXISTING INDEX CONTOUR
	EXISTING INTERMEDIATE CONTOUR
	PROPOSED INDEX CONTOUR
	PROPOSED INTERMEDIATE CONTOUR
	DRAINAGE SWALE
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN INLETS
	DIRECTION OF FLOW
	DRAINAGE BASIN

DRAINAGE NARRATIVE

INTRODUCTION

THIS DRAINAGE NARRATIVE SUMMARIZES HYDROLOGIC AND HYDRAULIC ANALYSES FOR PROPOSED SITE CONDITIONS OF THE LOS ALAMOS BUILT TO RENT DEVELOPMENT IN LOS ALAMOS, NM.

THE PROJECT SITE IS LOCATED ALONG THE SOUTHERN SIDE OF ILDEFONSO ROAD BETWEEN SAN ILDEFONSO ROAD AND NORTH MESA ROAD. THE PROPERTY IS APPROXIMATELY 17 ACRES AND GENERALLY SLOPES FROM THE NORTH TO THE SOUTH. THE PROPERTY IS CURRENTLY UNDEVELOPED AND THE GENERAL COVER IS NATIVE WEEDS AND SHRUBS. A RIDGE EXISTS NEAR THE MIDDLE OF THE PROPERTY, RUNNING NORTH-TO-SOUTH, THAT SPLITS RUNOFF GENERATED FROM THE SITE TO THE EAST AND WEST. A FENCE EXISTS ALONG THE PROPERTY BOUNDARY FOR MOST OF THE SITE. AN EXISTING SUBDIVISION BORDERS THE PROPERTY ON THE EAST. UNDEVELOPED LAND BORDERS THE PROPERTY ON THE WEST. A RIDGE WITH A LARGE DROP-OFF TO AN ARROYO EXISTS ALONG THE SOUTHERN EDGE OF THE PROPERTY. THERE ARE NO DESIGNATED FEMA FLOODPLAINS ASSOCIATED WITH THE PROPERTY.

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TO ACCURATELY CHARACTERIZE AND MODEL ONSITE BASINS, DRAINAGE PATTERNS, AND ROUTING FLOWS, THE UNITED STATES ARMY CORPS OF ENGINEERS HYDRAULIC ENGINEERING CENTER HYDROLOGIC MODELING SYSTEM, VERSION 4.12 (HEC-HMS) WAS USED TO DEVELOP RUNOFF HYDROGRAPHS FOR THE SITE. THE MODELING SOFTWARE USES THE NATIONS RESOURCE CONSERVATION SERVICES UNIT HYDROGRAPH METHODOLOGY TO CHARACTERIZE THE HYDROLOGIC RESPONSE OF INDIVIDUAL BASINS WITHIN THE SITE. DRAINAGE BASINS WERE DELINEATED USING SURVEYED GRADES, WITH EACH BASIN'S HYDROLOGIC CHARACTERISTICS REPRESENTED BY NRCS RUNOFF CURVE NUMBERS (CN). THESE CN'S ARE A COMPOSITE REPRESENTATION OF THE SITE'S HYDROLOGIC SOIL CHARACTERISTICS, THE EXISTING LAND USAGE OR TREATMENT, AS WELL AS THE VEGETATIVE COVER. A BASIN CN IS USED TO CALCULATE THE AMOUNT OF PRECIPITATION THAT IS INFILTRATED VERSUS THE AMOUNT OF PRECIPITATION THAT BECOMES DIRECT RUNOFF. NRCS UNIT HYDROGRAPHS REPRESENT A GIVEN DRAINAGE BASIN'S HYDROLOGIC RESPONSE AND HOW THE PEAK RUNOFF FROM A GIVEN STORM EVENT VARIES OVER TIME. THIS METHODOLOGY IS BASED ON NRCS'S TECHNICAL RELEASE 55 "URBAN HYDROLOGY FOR SMALL WATERSHEDS". THE SPECIFIC ASSUMPTIONS FOR THE PROPOSED CONDITIONS HYDROLOGIC ASSESSMENTS ARE DISCUSSED IN DETAIL IN THE FOLLOWING SECTIONS.

AN NRCS WEB SOIL SURVEY FOR THE SITE WAS PRODUCED, SHOWING ROCK OUTCROPPINGS AND HYDROLOGIC GROUP D SOILS THROUGHOUT THE SITE.

EXISTING BASIN CHARACTERISTICS

THE SITE WAS DIVIDED INTO THREE BASINS TO MODEL THE EXISTING CONDITIONS FLOW PATTERNS. EACH EXISTING BASIN HAS AN OUTFALL AT DIFFERENT LOCATIONS ALONG THE BOUNDARY OF THE PROPOSED SITE. THE EXISTING BASINS, OUTFALL LOCATIONS, BASIN CHARACTERISTICS, AND DATA SUMMARY TABLE ARE SHOWN ON THE EXISTING CONDITIONS DRAINAGE MANAGEMENT PLAN, SHEET C400.

PROPOSED CONDITIONS DRAINAGE ANALYSIS

REDEVELOPMENT OF THIS PROJECT SITE WILL MAINTAIN THE HISTORIC DRAINAGE FLOW PATHS AND DISCHARGE LOCATIONS FOR STORMWATER RUNOFF. GENERALLY, RUNOFF WILL DRAIN FROM HOUSING UNITS TO THE ADJACENT STREET SECTIONS, AND THEN BE DIRECTED TO ONE OF THE PONDS OR OUTFALL LOCATIONS VIA CURB AND GUTTER, ALLEY-PAN, SWALE, AND/OR STORM DRAIN, PONDS, LOCAL DEPRESSIONS, AND SWALES WITH CHECK DAMS WILL HELP MITIGATE PEAK RUNOFF RATES TO HISTORIC LEVELS.

THE PROPOSED LAYOUT AND GRADING FOR THE DEVELOPMENT DIVIDES THE SITE INTO 13 DRAINAGE BASINS. BASINS PR-01, PR-02, PR-03, PR-04, PR-05, PR-06, PR-07, AND PR-08 ALL CONVEY RUNOFF TO THE EAST SIDE OF THE PROPERTY WHERE A SWALE COLLECTS AND DIRECTS RUNOFF SOUTH TO DETENTION POND 2 IN THE SOUTHEAST CORNER OF THE SITE. AN ENGINEERED OUTFALL STRUCTURE IN POND 2 WILL HOLD BACK THE WATER AND DISCHARGE AT A RATE LOWER THAN HISTORIC CONDITIONS FOR THIS LOCATION. BASINS PR-09, PR-10, AND PR-11 DIRECT RUNOFF TO DETENTION POND 1 NEAR THE MIDDLE OF THE SITE. AN ENGINEERED OUTFALL IN POND 1 WILL ALSO HOLD BACK WATER AND DISCHARGE THROUGH STORM DRAIN TO THE SOUTH WHERE AN ADDITIONAL PONDING AREA AND RIPRAP PROTECTED OVERFLOW WILL HELP MITIGATE PEAK FLOWS TO LOWER THAN HISTORIC FLOW RATES FOR THIS LOCATION. BASIN 12 ALLOWS RUNOFF TO LEAVE THE SITE ALONG THE SOUTHERN BOUNDARY PRIMARILY UNDER SHEET FLOW CONDITIONS. BASIN 13 DIRECTS RUNOFF FROM THE HIGHER LOTS THAT HAVE RETAINING WALLS AT THE BACK, TO THE SOUTH LOTS WHERE RIPRAP PROTECTION WILL HELP DISSIPATE FLOWS BEFORE LEAVING THE SITE. ADDITIONAL FLOW FROM BASIN 13 WILL LEAVE THE SITE ALONG THE WESTERN BOUNDARY UNDER SHEET FLOW CONDITIONS. EACH OUTFALL LOCATION IS SHOWN ON THE MAP, LABELED AP1, AP2, AND AP3. THE PROPOSED OUTFALL LOCATIONS COINCIDE WITH THE EXISTING CONDITIONS OUTFALL LOCATIONS SHOWN ON SHEET C400. RIPRAP PROTECTION IS PROVIDED AT EACH OUTFALL LOCATION THAT CARRIES CONCENTRATED FLOWS.

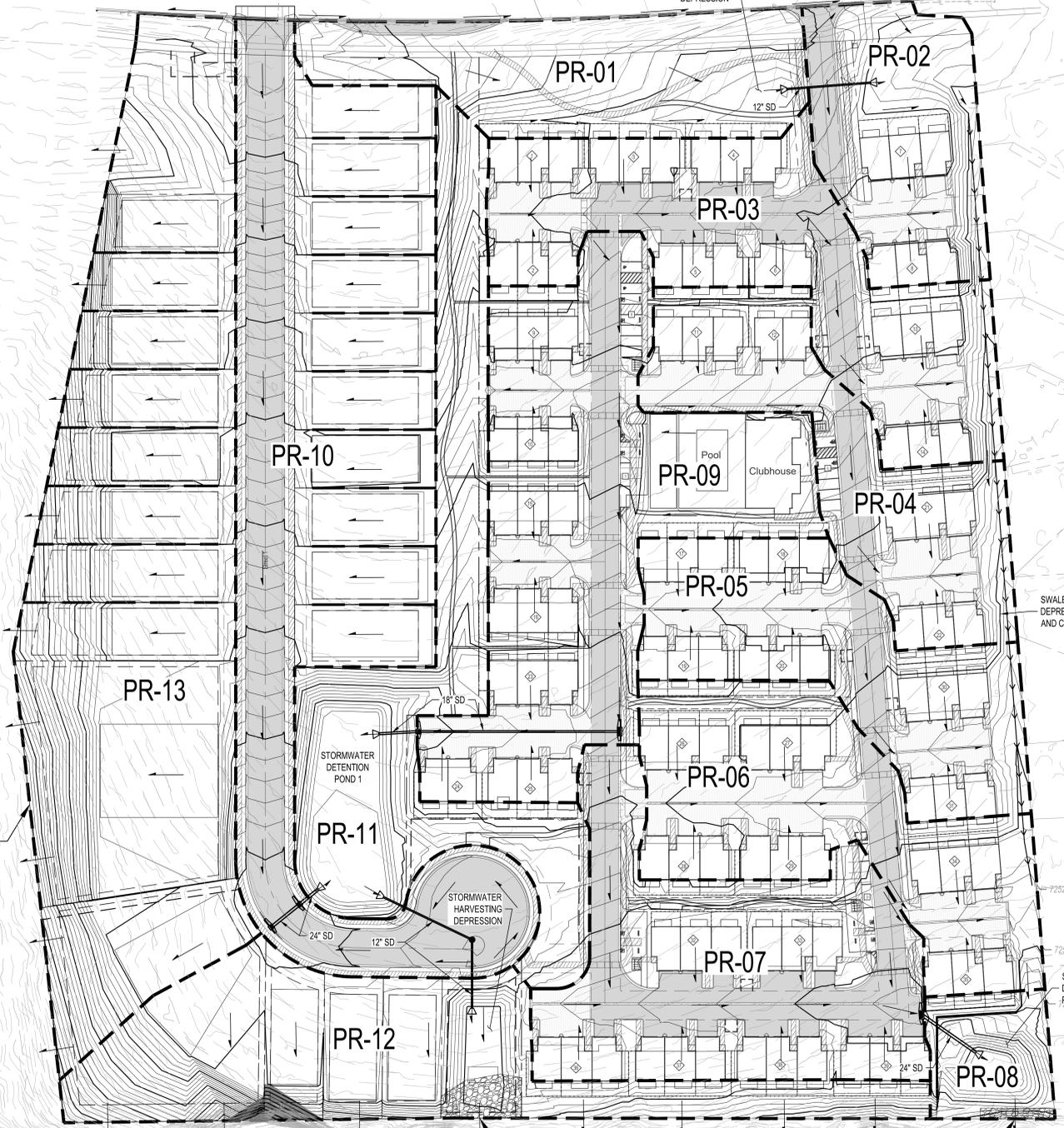
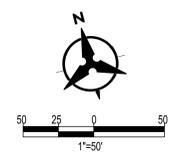
THE RECEIVING WATERS FOR ALL SITE RUNOFF IS THE CANADA DEL BUËY, AND EVENTUALLY THE RIO GRANDE. ANALYSIS OF PROPOSED CONDITIONS DURING THE 100-YEAR 24-HOUR STORM EVENT SHOWS 12.4 CFS LEAVING THE SITE ALONG THE WESTERN BOUNDARY (AP1), 9.3 CFS LEAVING THE SITE ALONG THE SOUTHERN BOUNDARY (AP2), AND 14.8 CFS LEAVING THE SITE AT THE SOUTHEAST CORNER OF THE PROPERTY (AP3). BASIN CHARACTERISTICS, RUNOFF VOLUMES, AND PEAK RUNOFF RATES DURING DESIGN STORMS ARE SHOWN IN THE EXISTING CONDITIONS BASIN TABLE. PEAK DESIGN FLOWS AT ANALYSIS POINTS THAT COINCIDE WITH THE PROJECT OUTFALL LOCATIONS ARE ALSO PROVIDED IN THE TABLE. DETENTION POND CHARACTERISTICS ARE OBTAINED IN THE PROPOSED CONDITIONS POND TABLE.

FEMA FLOOD HAZARD AREA

THE PLANNED DEVELOPMENT AREA OF THE SITE IS NOT LOCATED WITHIN A FEMA FLOOD HAZARD AREA; HOWEVER, THE SITE IS IMMEDIATELY NORTH OF THE CANADA DEL BUËY FLOODPLAIN. REFERENCE THE FEMA FLOOD INSURANCE RATE MAP (FIRM) NUMBER 350260C130C DATED JULY 18, 2011.

RESULTS AND RECOMMENDATIONS

THROUGH THE REDEVELOPMENT OF THIS SITE, PEAK FLOW RATES DISCHARGED FROM THE PROJECT BOUNDARY WILL BE REDUCED BELOW HISTORIC LEVELS FOR ALL DESIGN STORMS, INCLUDING THE 50-YEAR, 24-HOUR AND THE 100-YEAR, 24-HOUR STORM EVENTS. THIS DRAINAGE MANAGEMENT PLAN DEMONSTRATES THAT RUNOFF IS SAFELY MANAGED FOR THE DEVELOPED CONDITIONS, AND THE ONSITE DRAINAGE DESIGN IS IN ACCORDANCE WITH LOS ALAMOS COUNTY DRAINAGE REQUIREMENTS.



PROPOSED CONDITIONS POND TABLE

Pond ID	Pond Top Elevation (ft)	Pond Bottom Elevation (ft)	100YR-24HR Q _{in} (cfs)	100YR-24HR Q _{out} (cfs)	100YR-24HR Peak WSEL (ft)	100YR-24HR Peak Volume (ac-ft)	Total Pond Volume (ac-ft)
POND 1	7,254.50	7,250.50	26.8	4.8	7253.90	0.688	0.861
POND 2	7,240.00	7,234.00	20.2	14.8	7239.33	0.339	0.411

PROPOSED CONDITIONS BASIN TABLE

BASIN ID	AREA (AC)	LAG TIME (MIN)	CN	IMPERVIOUS PERCENT	Q50 (CFS)	V50 (AC-FT)	Q100 (CFS)	V100 (AC-FT)
PR-01	0.87	7.2	86	5	2.5	0.137	3.0	0.160
PR-02	0.71	7.2	86	80	2.8	0.158	3.2	0.178
PR-03	1.30	7.2	86	90	5.7	0.330	6.5	0.368
PR-04	0.92	7.2	86	85	4.0	0.229	4.5	0.255
PR-05	0.97	7.2	86	90	4.3	0.247	4.8	0.275
PR-06	1.16	7.2	86	85	5.0	0.289	5.7	0.323
PR-07	1.35	7.2	86	90	5.9	0.343	6.7	0.382
PR-08	0.26	7.2	86	0	0.7	0.039	0.9	0.045
PR-09	1.80	7.2	86	90	7.9	0.459	9.0	0.511
PR-10	2.64	7.2	86	95	11.8	0.687	13.4	0.763
PR-11	1.32	7.2	86	0	3.7	0.200	4.5	0.234
PR-12	1.33	7.2	86	40	4.6	0.261	5.4	0.297
PR-13	2.91	7.2	86	50	10.7	0.608	12.4	0.687
AP1	-	-	-	-	10.7	0.608	12.4	0.687
AP2	-	-	-	-	8.4	1.584	9.3	1.782
AP3	-	-	-	-	12.7	0.860	14.8	0.985

PROPOSED DRAINAGE MANAGEMENT PLAN

ARBOLADA

DRAWN BY: JMM DATE: 7/15/2025

CHECKED BY: JL BHI PROJECT NO: 20250264 SHEET NO: C401

GENERAL NOTES

1. NATURAL GAS LINES ARE TO BE INSTALLED BY OTHERS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. NATURAL GAS AND WATER LINES ARE TO BE INSTALLED IN A COMMON TRENCH PER DPU STANDARD DETAIL 2002 AND 6010.

WATER KEYED NOTES

1. INSTALL PUBLIC WATERLINE, SIZE PER PLAN
2. INSTALL PRIVATE WATERLINE, SIZE PER PLAN
3. CONNECT TO EXISTING STUB, SIZE PER PLAN, PRIOR TO CONSTRUCTION, CONTRACTOR TO FIELD VERIFY EXISTING SIZE, LOCATION, AND ELEVATION AND CONTACT ENGINEER.
4. INSTALL FIRE HYDRANT PER DPU STANDARDS.
5. INSTALL 1" SINGLE WATER METER, PER DPU STANDARD DETAIL 2001 AND 6003.
6. INSTALL 1.5" SINGLE WATER METER, PER DPU STANDARD DETAIL 2001 AND 6005.
7. INSTALL 2" SINGLE WATER METER, PER DPU STANDARD DETAIL 2001 AND 6006.

LEGEND

- PROPERTY LINE
- - - - - EXISTING EASEMENT
- XS-XS-XS- EXISTING SANITARY SEWER LINE
- ⊙ EXISTING SANITARY SEWER MANHOLE
- W-W-W- EXISTING WATER LINE
- G-G-G- EXISTING NATURAL GAS LINE
- XWG-XWG-XWG- EXISTING WATER AND GAS LINES, SHARED TRENCH
- W-W-W- EXISTING UNDERGROUND ELECTRICAL LINE
- PROPOSED GRAVITY SANITARY SEWER LINE
- ⊙ PROPOSED SANITARY SEWER CLEANOUT
- ⊙ PROPOSED SANITARY SEWER MANHOLE
- PROPOSED WATER LINE
- PROPOSED FIRE LINE
- ⊙ PROPOSED WATER METER
- ⊙ PROPOSED HYDRANT
- ⊙ PROPOSED CAP
- ▭ PROPOSED BACKFLOW PREVENTER HEATED ENCLOSURE
- PROPOSED UNDERGROUND ELECTRICAL LINE
- PROPOSED GAS LINE
- ⊙ PROPOSED GAS METER
- PROPOSED STORM DRAIN LINE
- ⊙ PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLET
- ◁ PROPOSED STORM DRAIN FLARED END SECTION

OVERALL UTILITIES

ARBOLADA

DRAWN BY:	JMM	DATE:	7/03/2025
CHECKED BY:	JL	BH PROJECT NO:	20250264
		SHEET NO.:	C300



Date: 10/20/2024 10:00am, Name: JMM, Job: 20250264, Path: P:\20250264\Arbolada\Overall Utilities.dwg, User: JMM



Front Elevation

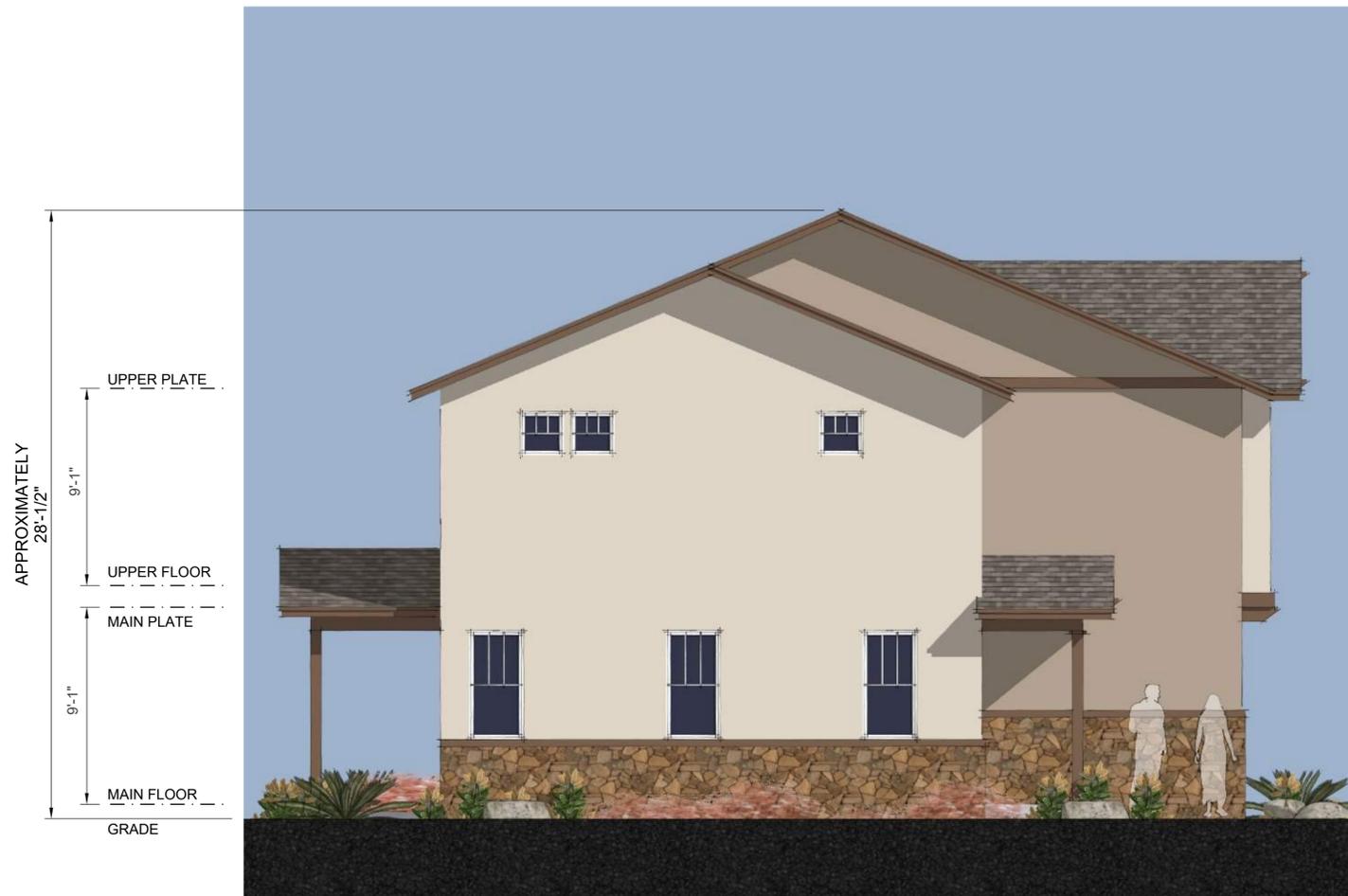
TITAN PROPERTY MANAGEMENT, LLC
 Albuquerque, New Mexico

2 Unit Building
 Scale: 1/4" = 1'-0"

ARBOLADA
 Los Alamos, New Mexico



August 18, 2025



Plan 1

Left Elevation



Plan 1
Reversed

Right Elevation

Front Elevation

TITAN PROPERTY MANAGEMENT, LLC
Albuquerque, New Mexico

2 Unit Building
Scale: 1/4" = 1'-0"

ARBOLADA
Los Alamos, New Mexico





Rear Elevation

2 Unit Building
Scale: 1/4" = 1'-0"

TITAN PROPERTY MANAGEMENT, LLC
Albuquerque, New Mexico

ARBOLADA
Los Alamos, New Mexico



August 18, 2025



Front Elevation

TITAN PROPERTY MANAGEMENT, LLC
 Albuquerque, New Mexico

3 Unit Building
 Scale: 1/4" = 1'-0"

ARBOLADA
 Los Alamos, New Mexico



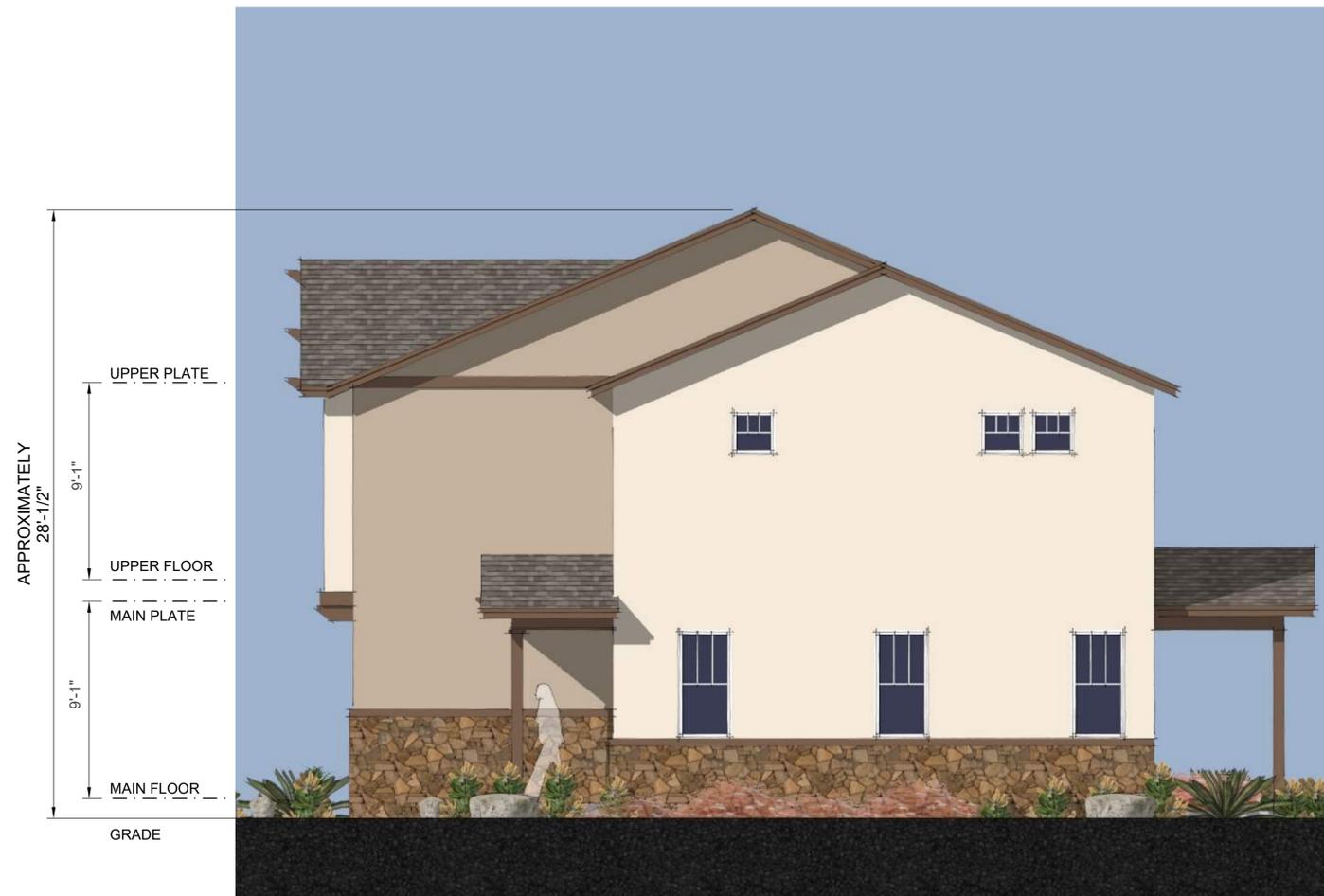
August 18, 2025

The drawings presented are illustrative of character and design intent only, and are subject to change based upon final design considerations (i.e. applicable codes, structural, and MEP design requirements, unit plan / floor plan changes, etc.) © 2025 BSB Design, Inc.



Plan 1

Left Elevation



Plan 1

Right Elevation

Side Elevations

TITAN PROPERTY MANAGEMENT, LLC
Albuquerque, New Mexico

3 Unit Building
Scale: 1/4" = 1'-0"

ARBOLADA
Los Alamos, New Mexico



August 18, 2025



Rear Elevation

3 Unit Building
 Scale: 1/4" = 1'-0"

TITAN PROPERTY MANAGEMENT, LLC
 Albuquerque, New Mexico

ARBOLADA
 Los Alamos, New Mexico



August 18, 2025

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TITAN PROPERTY MANAGEMENT, LLC
 Albuquerque, New Mexico

Clubhouse
 Scale: 1/4" = 1'-0"

ARBOLADA
 Los Alamos, New Mexico



June 16, 2025



Rear Elevation

TITAN PROPERTY MANAGEMENT, LLC
Albuquerque, New Mexico

Clubhouse
Scale: 1/4" = 1'-0"

ARBOLADA
Los Alamos, New Mexico



June 16, 2025



Left Elevation



Right Elevation

TITAN PROPERTY MANAGEMENT, LLC
Albuquerque, New Mexico

Clubhouse
Scale: 1/4" = 1'-0"

ARBOLADA
Los Alamos, New Mexico



June 16, 2025



Front



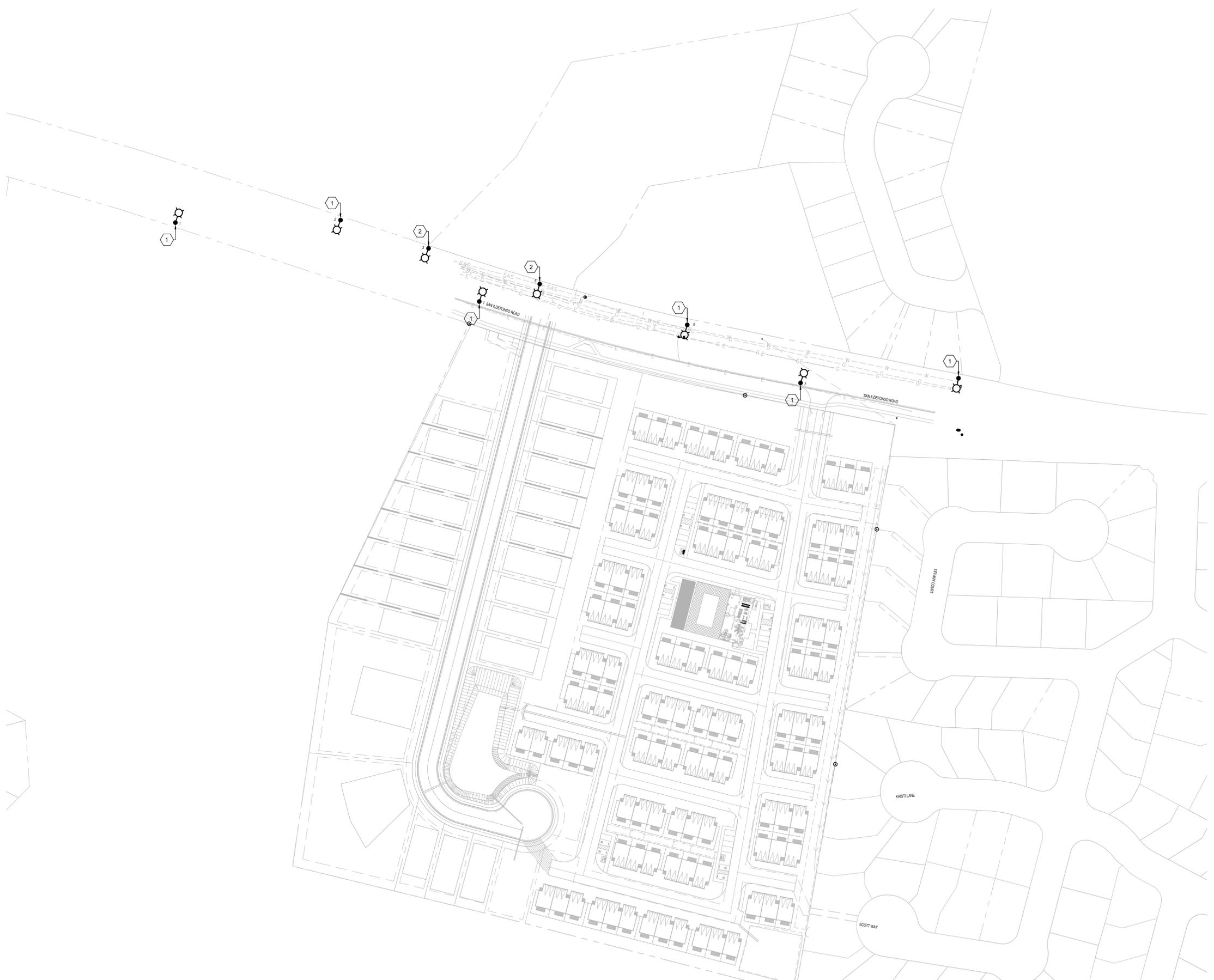
Rear

Clubhouse

TITAN PROPERTY MANAGEMENT, LLC
Albuquerque, New Mexico

ARBOLADA
Los Alamos, New Mexico





GENERAL NOTES

- A. REFER TO SHEET E102 FOR "LIGHTING PLAN - PHOTOMETRICS".
- B. ALL LIGHT POLE LOCATIONS ARE EXISTING TO REMAIN. THE EXISTING LUMINAIRE AND ARM SHALL BE SALVAGED BACK TO THE COUNTY AND REPLACED WITH ARMS AND LUMINAIRES AS NOTED.
- C. THE EXISTING LIGHT POLES HAVE POWER RUN TO THEM. THE CONTRACTOR SHALL REUTILIZE THE EXISTING POWER CIRCUIT TO FEED THE NEW LUMINAIRES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL REQUIRED CONNECTIONS FOR A COMPLETE AND OPERATIONAL SYSTEM.

KEYED NOTES

- 1. APPROXIMATE LOCATION OF EXISTING 40 FOOT TALL LIGHT POLE. THE EXISTING LUMINAIRE SHALL BE SALVAGED BACK TO THE COUNTY (OR PROPERLY DISPOSED OF AT THE COUNTY'S REQUEST), AND REPLACED WITH A NEW LUMINAIRE. THE NEW LUMINAIRE SHALL BE AMERICAN ELECTRIC LIGHTING #ATBS-P40-MVOLT-R2-27K.
- 2. APPROXIMATE LOCATION OF EXISTING 20 FOOT TALL LIGHT POLE. THE EXISTING LUMINAIRE SHALL BE SALVAGED BACK TO THE COUNTY (OR PROPERLY DISPOSED OF AT THE COUNTY'S REQUEST), AND REPLACED WITH A NEW LUMINAIRE. THE NEW LUMINAIRE SHALL BE AMERICAN ELECTRIC LIGHTING #ATBS-P10-MVOLT-R2-27K.

LIGHTING PLAN - PHOTOMETRIC

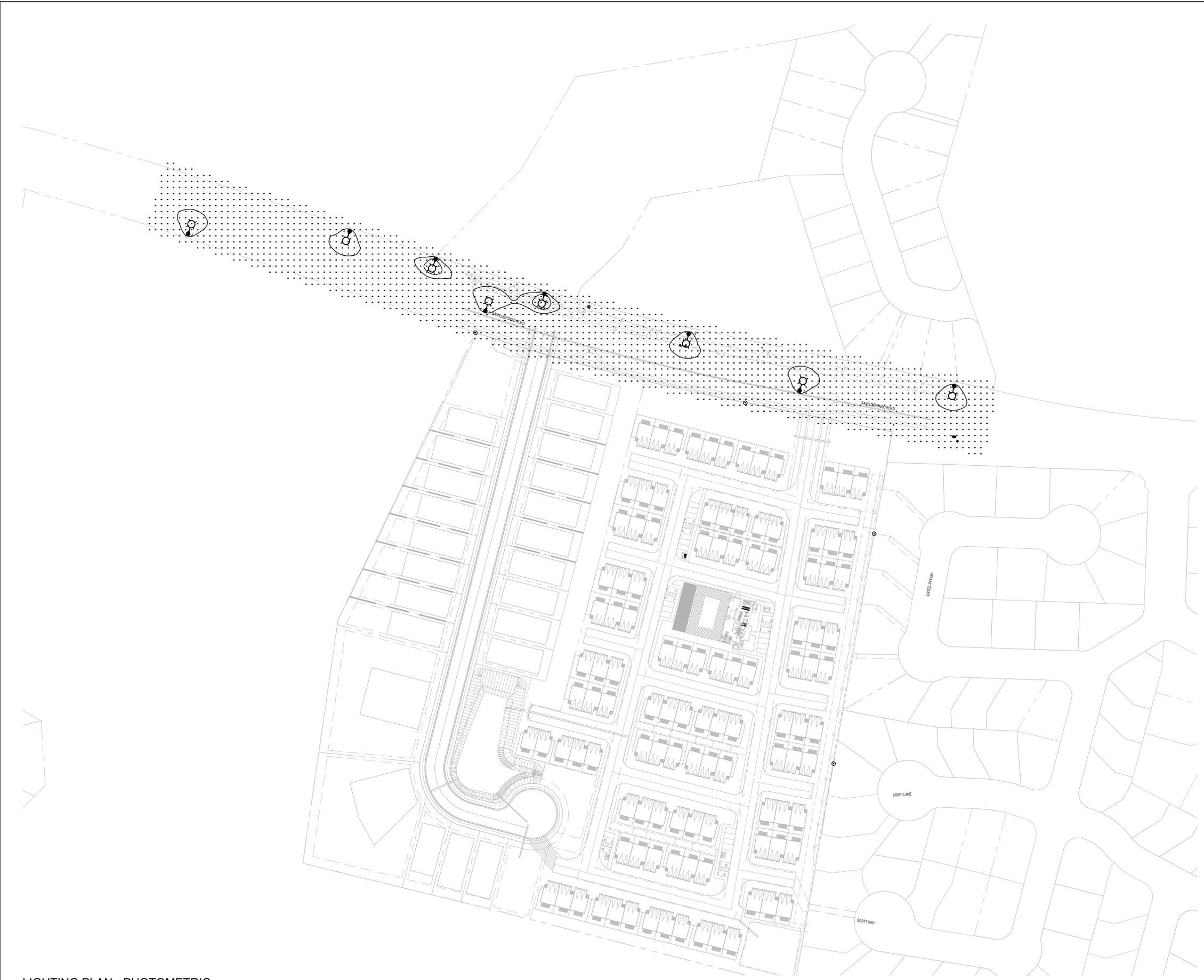
SCALE: 1" = 75'-0"



LIGHTING PLAN - PHOTOMETRICS

**Arbolada Street Lighting Analysis
Los Alamos, New Mexico**

Preliminary Not For Construction	REVISION #	REVISION DATE:	PROJECT NUMBER:	25214
			DRAWN BY:	TRG/rhp
			CHECK BY:	TRG/lfr
			SCALE:	1" = 75'-0"
			DATE:	7/16/2025
			E101	
			1 OF 2	



GENERAL NOTES

- A. REFER TO "LIGHTING PLAN" ON SHEET E101 FOR ADDITIONAL INFORMATION.
- B. THE PHOTOMETRIC CALCULATIONS SHOWN ARE WITH THE LUMINAIRES AND ARMS BEING REPLACED AS NOTED ON SHEET E101.
- C. THE PHOTOMETRIC CALCULATIONS ARE EXPRESSED IN FOOT CANDLES.

LIGHTING PLAN - PHOTOMETRIC

SCALE: 1" = 75'-0"



LIGHTING PLAN - PHOTOMETRICS

Arbolada Street Lighting Analysis
Los Alamos, New Mexico

Preliminary Not For Construction	REVISION #	REVISION DATE	PROJECT NUMBER:	25214
			DRAWN BY:	TRG/rhp
			CHECK BY:	TRG/tfr
			SCALE:	1" = 75'-0"
			DATE:	7/16/2025
			E102	
			2 OF 2	

25214