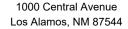
#### **County of Los Alamos**





# Agenda - Final Planning and Zoning Commission

Terry Priestley, Chair; Beverly Neal-Clinton, Vice-Chair; Melissa Arias; Jean Dewart; Michelle Griffin; Craig Martin; Neal Martin; April Wade, and Sean Williams, Commissioners

Wednesday, January 22, 2020

5:30 PM

1000 Central Avenue Suite 110, BCC Room

- 1. CALL TO ORDER/ROLL CALL
- 2. PUBLIC COMMENT

This section of the agenda is reserved for comments from the public on items that are not otherwise included in this agenda.

- 3. APPROVAL OF AGENDA
- 4. PUBLIC HEARING(S)
- A. 12721-20 Requests for Site Plan and Waivers approval for the construction of a research & development building totaling 83,798 SF to be located at 4200 W Jemez, Los Alamos Research Park.

Attachments: SIT-2019-0037 Flex Lab Research Park Staff Report

- 5. PLANNING AND ZONING COMMISSION BUSINESS
- A. <u>12720-20</u> Minutes from the Planning And Zoning Commission Meeting(s) on December 11, 2019.

Attachments: P&Z Minutes 11-December-2019

- 6. COMMISSION/DIRECTOR COMMUNICATIONS
- A. Department Report
- Update on Downtown Master-Plan Scope of Work and Chapter 16 Update; Ryan Foster, Principal Planner
- B. Chair's Report
- C. Commissioners' Comments
- 7. PUBLIC COMMENT

County of Los Alamos Printed on 1/17/2020

#### 8. ADJOURNMENT

PLEASE NOTE: Any action by the Planning and Zoning Commission in granting approval, conditional approval or disapproval of an application may be appealed by the applicant or by persons who have a personal or pecuniary interest adversely affected by the decision as defined by Section 16-454 of the County Code. Such appeals must be filed with the Community Development Department within 15 days of the action in accordance with Section 16-492.

If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing or meeting, please contact the County Human Resources Division at 505-662-8040 at least one week prior to the meeting or as soon as possible.

Public documents, including the agenda and minutes can be provided in various accessible formats. Please contact the personnel in the Community Development Department Office at 505-662-8006 if a summary or other type of accessible format is needed.

County of Los Alamos Printed on 1/17/2020



# County of Los Alamos Staff Report

January 22, 2020

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Agenda No.:	A.
Index (Council Goals):	
Presenters:	
Legislative File:	12721-20

#### **Title**

Requests for Site Plan and Waivers approval for the construction of a research & development building totaling 83,798 SF to be located at 4200 W Jemez, Los Alamos Research Park.

#### **Case Summary**

Case No. SIT-2019-0037, WVR-2019-0086, WVR-2019-0087
 Donna Marion, Studio Southwest Architects, requests Site Plan and Waivers approval for the construction of a research & development building totaling 83,798 ft2 to be located at 4200 W Jemez, Los Alamos Research Park. The property consists of approximately 38.34 acres; is located adjacent to an existing office building on the property and is zoned Research & Development (R&D). In addition, there is a request for waivers for building height and parking lot landscaping, in association with the Site Plan.

#### **Attachments**

A - Staff Report for Flex Lab Research Park

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#### Los Alamos County

#### **Community Development Department**

#### PLANNING & ZONING COMMISSION STAFF REPORT

Public Hearing Date: January 22, 2020

**Subject:** Case No. SIT-2019-0037, WVR-2019-0086, WVR-2019-0087

Owners/Applicants: Patrick Sullivan, Property Owner/Donna Marion, Applicant

Case Manager: Ryan Foster, AICP, Principal Planner

#### Case No. SIT-2019-0037, WVR-2019-0086, WVR-2019-0087:

Donna Marion, Studio Southwest Architects, requests Site Plan and Waivers approval for the construction of a research & development building totaling 83,798 SF to be located at 4200 W Jemez, Los Alamos Research Park. The property consists of approximately 38.34 acres; is located adjacent to an existing lab/office building on the property and is zoned Research & Development (R&D), as shown in Exhibit A below. This request also includes separate cases subject to motion, an application to waive the height requirements in accordance with Section 16-537, Site Development Requirements for Commercial Industrial-Special Districts (WVR-2019-0086) and an application to waive the parking lot landscaping requirements in accordance with section 16-574(b), Landscaping performance standards, (WVR-2019-0087).



#### Case No. SIT-2019-0037, Motion Option 1:

I move to **approve** Case No. SIT-2019-0037 — request for Site Plan approval for construction of a research & development building totaling 83,798 SF, located at 4200 W Jemez. Approval is based on the reasons stated within the staff report and per testimony entered at the public hearing, subject to the following condition(s):

- 1. Per Department of Utilities:
  - a. Applicant shall submit final utility plans, stamped by a New Mexico professional engineer, with the application for building permit.
  - b. An Easement Plan dedicating easements for new and existing utilities shall be filed prior to occupying the building.
  - c. See the attached sheets for additional DPU comments.
- 2. Per County Engineer, Public Works: The applicant shall coordinate with appropriate LANL/Traffic staff ingress/egress and circulation of vehicles, bicycle and pedestrians within the LANL transportation network.
- 3. Per County Engineer, Public Works: The applicant shall coordinate with appropriate LANL/EM staff for providing storm water management and erosion control measures including, but not limited to the following:
  - a. Divert increased storm water runoff from the proposed development away from an existing SWMU to ensure flow is not increased through the SWMU site;
  - b. Utilize LANL's 2017 Low Impact Development Standards where appropriate; and
  - c. Ensure adjacent trails are not impacted by the proposed development and storm water runoff.
- 4. Per County Engineer, Public Works: The applicant shall provide the County with confirmation that LANL staff is satisfied with any traffic and storm water mitigation measures proposed.
- 5. Per Planning Division: Applicant will provide a bond for waived landscaping requirements before a Certificate of Occupancy is issued. The bond is to ensure the parking lot landscaping requirements are met with, or without, construction of a parking garage within 5 years.

I further move to authorize the Chair to sign Findings of Fact for this case and, based on this decision, to be prepared by County staff.

#### Case No. SIT-2019-0037, Motion Option 2:

I move to **deny** Case No. SIT-2019-0037 — request for Site Plan approval for construction of a research & development building totaling 83,798 SF, located at 4200 W Jemez. Denial is due to the proposal failing to meet the Los Alamos County Code of Ordinances, Chapter 16 — Development Code review criteria within §16-152A, for the following reasons:

1. ...

#### Case No. WVR-2019-0086, Motion Option 1:

I move to **approve** Case No. WVR-2019-0086 — request for waiver from §16-537, Los Alamos County building height requirements for the research & development building, located at 4200 W Jemez, for the reasons stated in the staff report and per testimony entered at the public hearing, subject to the following condition(s):

1. ...

I further move to authorize the Chair to sign Findings of Fact for this case and, based on this decision, to be prepared by County staff.

#### Case No. WVR-2019-0086, Motion Option 2:

I move to **deny** Case No. WVR-2019-0086 — request for waiver from Los Alamos County building height requirements for the research & development building, located at 4200 W Jemez, due to failure to meet the Los Alamos County Code, Waiver review criteria within §16-157, for the following reasons:

1. ...

#### Case No. WVR-2019-0087, Motion Option 1:

I move to **approve** Case No. WVR-2019-0087 — request for waiver from §16-574(b), Los Alamos County parking lot landscaping requirements for the research & development building, located at 4200 W Jemez, for the reasons stated in the staff report and per testimony entered at the public hearing, subject to the following condition(s):

1. ...

I further move to authorize the Chair to sign Findings of Fact for this case and, based on this decision, to be prepared by County staff.

#### Case No. WVR-2019-0087, Motion Option 2:

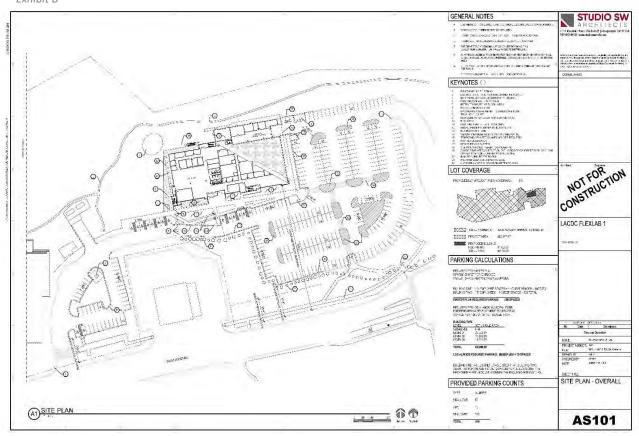
I move to **deny** Case No. WVR-2019-0087 — request for waiver from §16-574(b), Los Alamos County parking lot landscaping requirements for the research & development building, located at 4200 W Jemez, due to failure to meet the Los Alamos County Code, Waiver review criteria within §16-157, for the following reasons:

1. ...

#### **SUMMARY AND HISTORY**

The Los Alamos Research Park is an approximately 44-acre property leased to the Los Alamos Commerce & Development Corporation by the U.S. Department of Energy through 2054. The Research Park is directly adjacent to the Los Alamos National Laboratory and historically has a close partnership with LANL. The Master Plan for the research park allows for the construction of five buildings, with up to 450,000 SF of space, housing 1,500 employees. Building One was built in 2001, and is the first facility completed as part of the Master Plan, with approximately 83,000 SF of specialty laboratory, office, and computing facilities. Due to demand for laboratory space, this site plan application is a request to construct Building Two, an 83,798 SF flex lab, as the next stage of the Master Plan.

The addition of a second research & development facility will not change the site's use; however, it will increase its intensity for traffic and parking. Exhibit B (below) illustrates the architects site plan showing the footprint of the proposed flex lab building.



#### Interdepartmental Review Committee (IDRC) REVIEW

On January 2, 2020, the IDRC reviewed the application and unanimously approved to move both the Site Plan and Waiver applications forward to the Planning and Zoning Commission with conditions.

#### **IDRC Conditions**

In addition to the conditions noted in Motion Option 1 (p.2), there were additional conditions per the Fire Department that have been met in this application since the January 2, 2020 IDRC meeting:

#### Per Fire Department:

The following comments are regarding the site plan application for the Flex Lab at Research Park.

- 1. A Fire Hydrant and the Fire Department Connection for the fire sprinkler system need to be shown as located in the parking island that is the closet one to the loading dock on the NE corner of the building.
- 2. The sidewalk shown in the landscape area on the south side of the building at the SW corner will need to be constructed as a stabilized surface 12 feet wide with a drive over curb that allows for an approach from the west after passing through the retractable bollards.
- 3. A second fire hydrant needs to be installed in the landscape area at the curb directly south from the front doors.
- 4. The landscape plan needs to be adjusted to indicate no trees in the area between the stabilized surface and the building or a minimum distance of 20 feet from all sides of the stabilized surface.
- 5. A third fire hydrant needs to be indicated in the island at the SE corner of the building.

#### **Additional IDRC Comments**

Public Works (Streets Division): A section of the parking lot in front of Building 1 has a 7% slope, consider a design for the parking (parallel, angled, etc.) to ensure the parking can be safely utilized, especially since winter conditions could make a 7% slope hazardous on snow and ice.

General IDRC Comment: Consider the location of the existing utility line connecting to Building 2 when planning for the construction of a future parking garage.

#### **VOTING MEMBERS IN ATTENDANCE**

Planning Division, Community Development	Ryan Foster, Principal Planner	٧
<b>Building Division, Community Development</b>	Michael Arellano, Chief Building Official	٧
Engineering Division, Public Works	Eric Martinez, P.E., County Engineer	٧
Traffic & Streets Division, Pubic Works	Juan Rael, Traffic and Streets Mgr.	٧
Community Services	Daniel Erickson, PROS Mgr.	٧

#### **PUBLIC NOTICE**

Notice of this public hearing has been given per the requirements of the Los Alamos County Code of Ordinances, Chapter 16, Development Code, Sec. 16-192 (a), and included: U.S. mail to owners of real property within 100 yards (300') of the subject property as shown in Exhibit 3; publication in the Los Alamos Daily Post (published 1/2/20), the County's official newspaper of record; and posting at the Los Alamos County Municipal Building.

#### SITE PLAN REVIEW CRITERIA

Section 16-152A of the Los Alamos County Development Code states that during the course of the review of any Site Plan, the Planning and Zoning Commission shall utilize the following criteria in making its determination of approval, conditional approval or denial:

(a) The site plan shall substantially conform to the comprehensive plan and shall not be materially detrimental to the health, safety and general welfare of the county.

<u>Applicant Response:</u> The property is zoned as Research & Development, described as follows:

Research and development district (R&D). The R&D research and development district is intended to accommodate scientific research and development establishments, except for those scientific activities which could endanger or become detrimental to persons or property. The building contains laboratories and office spaces which do not incur the production of hazardous waste.

This project design will follow all applicable life safety codes, and conforms to the Los Alamos Comprehensive Plan and the Los Alamos Research Park Master Plan including the following strategies:

"Promote a strong and diverse economic base by encouraging new business growth"

- The development of this property will support economic development by providing additional jobs in Los Alamos.
- "Collaborate with Los Alamos National Laboratory as the area's #1 employer"
  - The anticipated building tenant is a well established laboratory and research organization that works closely with Los Alamos National Laboratory and aligns with their overall mission. Creating a building that houses their operations is a means of continuing the collaborative relationship with LANL.
- "Trails/Open Space System: provide long term protection of the community's natural and recreational landscapes"
  - o The design includes thoughtful integration with nature, maintaining the existing pond and connecting into the existing trails on the site; the building design mimics the sloping topography natural to the site and respecting the context of nearby architecture. Open green spaces are established between the buildings, referred to as "commons" in the master plan. The building also includes a patio area on the west side, overlooking the pond, commons area, and sloping topography adjacent to the site.
- "Create designated safe, convenient, and well-maintained bike and pedestrian pathways and sidewalks"
  - The deep setback is landscaped and pedestrian-oriented, providing a safe and scenic promenade between the buildings in the research park. Retractable bollards between the east and west parking areas maintain the existing security barrier, allowing pedestrian, bike, and emergency vehicle access, while prohibiting vehicular access for the general public.

<u>Staff Response:</u> Staff concurs with the cited sections of the Comprehensive Plan. The site plan substantially conforms to the Comprehensive Plan as the proposed flex lab/research & development building meets the goal of collaborating with the Los Alamos National Laboratory, as well as the County's goals of enhancing recreational use, and promoting a strong and diverse economic base by encouraging new business growth.

(b) Ingress, egress, traffic circulation and parking on the site shall be accomplished with safety for motorists, bicyclists and pedestrians. Provisions shall be made for the safe ingress, egress and circulation of vehicles, bicyclists and pedestrians.

<u>Applicant Response:</u> The site design maintains the current vehicular access from Diamond Road and West Jemez Road to the parking areas. Retractable bollards between the two parking areas allow for pedestrian, cyclist, and emergency vehicle access but maintain the existing security barrier and do not allow vehicular access for the general public. Adequate site distance and turning radii are provided throughout the site in order to promote safe pedestrian, vehicular, and emergency vehicle access.

A designated pedestrian pathway is provided through the parking lot to the sidewalk along West Jemez, while a landscaped pedestrian promenade connects the proposed building to the existing building to the west in the research park.

<u>Staff Response</u>: Off-street parking has been provided in accordance with Section 16-370. According to those specifications, the total amount of parking spaces required for the Building #2 site plan is 70, of

Location	Net Usable Area	ADA Required	Total Spaces Required
Building 1 (Existing)	Less 69,689 SF approximately	4	70
Building 2 (Proposed)	69,689 SF	4	70
	<b>Total Required Parking Spaces:</b>	8	140
	Total Provided Parking Spaces:	16	318

which four (4) are required to be ADA spaces. The site plan also provides parking calculations for Building #1, at 70 spaces with four (4) ADA spaces required, for a required minimum of 140 spaces between the two buildings. The site plan exceeds the parking requirements by providing a total of 318 parking spaces; 235 standard spaces, 16 ADA spaces, and 67 compact spaces.

Ingress and egress to the property remains unchanged, though there will be bollards installed (where concrete jersey barriers are currently) in front of the proposed building in order to control vehicle access from County property to LANL property. The County Fire Department will have access codes/keys to control these bollards and ensure fire department access.

The submitted site plan preserves existing trails to and through the property. In addition, a pedestrian promenade extends from Building #2 to Building #1, with improved sidewalk connections from West Jemez Road, providing pedestrian access from the crosswalk on West Jemez, through the parking lot, to Building #2.

There are two conditions recommended by the Interdepartmental Review Committee (IDRC) in order to meet these criteria:

- Condition of Approval #2 "Per County Engineer, Public Works: The applicant shall coordinate with appropriate LANL/Traffic staff ingress/egress and circulation of vehicles, bicycle and pedestrians within the LANL transportation network".
- Condition #4: Per County Engineer, Public Works: The applicant shall provide the County with confirmation that LANL staff is satisfied with any traffic and storm water mitigation measures proposed.
- (c) The necessary provisions shall be made for controlling stormwater drainage on-site and offsite as required by the county engineer in accordance with the county's storm drainage construction standards or such other ordinances or storm water management plans as may exist.

<u>Applicant Response:</u> A hydrologic analysis of the existing and proposed conditions will be done to assess the peak runoff flow rates in accordance with the County Public Works Design and Construction Standards. For this project we plan to use AHYMO for the analysis. The input parameters for the analysis will be as specified in Section 4 of the County Standards. There is an existing storm drain that will be impacted by the proposed building location. This storm drain intercepts flow from West Jemez. This storm drain will be re-routed around the building and discharge in approximately in the same location as it currently does. No new building or site drainage will be routed to this storm drain.

Development of this site will increase the total impervious area. Onsite detention pond(s) will be designed to reduce the peak flow to at or below the current peak discharge for the overall site. The detention ponds will be located in the northern portion of the site. The drainage management plan contains a narrative and supporting calculations.

<u>Staff Response:</u> All drainage configurations are shown on the site plan and are subject to any technical corrections from the County Engineer. There are two conditions recommended by the Interdepartmental Review Committee (IDRC) in order to meet this criterion:

- Condition #3. "Per County Engineer, Public Works: The applicant shall coordinate with appropriate LANL/EM staff for providing storm water management and erosion control measures including, but not limited to the following:
  - a. Divert increased storm water runoff from the proposed development away from an existing SWMU to ensure flow is not increased through the SWMU site;
  - b. Utilize LANL's 2017 Low Impact Development Standards where appropriate; and
  - c. Ensure adjacent trails are not impacted by the proposed development and storm water runoff.
- Condition #4. "Per County Engineer, Public Works: The applicant shall provide the County with confirmation that LANL staff is satisfied with any traffic and storm water mitigation measures proposed".
- (d) The necessary easements shall be provided for both existing and proposed utilities, on-site and off-site. No existing easement shall be terminated without provision of alternate service, and all new services shall be provided.

<u>Applicant Response:</u> Existing utilities within the project site are within easements. The only new easement that is anticipated is a drainage easement for the realigned storm drain described in Criteria C.

<u>Staff Response:</u> The IDRC recommended condition of approval #1(b) requires an easement plan at the construction phase of the project: "1(b). An Easement Plan dedicating easements for new and existing utilities shall be filed prior to occupying the building".

(e) The site plan shall include a conceptual landscape plan that will enhance the site and immediate vicinity and provide adequate screening and buffering, if appropriate, between properties. The final landscape plan shall conform to the requirements set forth in sections 16-574 and 16-575.

Applicant Response: The landscape improvements for this project offer a modern and geometric aesthetic that responds to the architecture of the building. Further away from the building footprint, the vegetation becomes more natural in appearance to blend into the native surroundings. Much of the planted areas surrounding the site will be from native seed blends derived from local naturalized or native species. Much of the existing vegetation surrounding the parking area consists of mature evergreens that already provide a visual screen. The site plan complies with the landscape ordinances listed with the exception of the requirement for providing vegetation throughout the parking area, addressed in the waiver application. These areas are not vegetated or irrigated due to the proposed parking structure slated for future development (see WVR-2019-0087).

<u>Staff Response</u>: The applicant has submitted a landscape plan in accordance with site plan requirements in Sec. 16-575, with 10.1% total landscape area provided, exceeding the 5% required by Code. Landscape plans may be subject to minor technical corrections prior to building permit. A waiver has been submitted to delay the meeting of the parking landscaping requirements (See WVR-2019-0087). There is a condition recommended by the Interdepartmental Review Committee (IDRC) in order to meet these criteria:

- Condition #5: Per Planning Division: Applicant will provide a bond for waived landscaping requirements before a Certificate of Occupancy is issued. The bond is to ensure the parking lot landscaping requirements are met with, or without, construction of a parking garage within 5 years.
- (f) Parking lots, outside storage areas, outside mechanical equipment and outdoor lighting shall be designed to serve the intended use of the development while minimizing adverse impacts adjacent properties or public right-of-way.

<u>Applicant Response:</u> The parking lot lighting and any outdoor lighting will be NM Night Sky compliant and is arranged to minimize lighting leaving the site to adjacent properties. The outside mechanical equipment will be designed to serve the intended purpose of the development and will be placed on the north side of the building to minimize adverse impacts of noise and views.

<u>Staff Response</u>: The proposed parking lot is in conformance to lighting standards and additional outdoor lighting shall be in accordance with Sec. 16-276.

(g) Structures, site grading, and all other aspects of the development shall meet all applicable design standards or guidelines, as may be adopted and made a part of this code, and shall preserve, to the extent practical, outstanding topographical features and natural amenities on the site.

<u>Applicant Response:</u> The building is designed to resemble the landform as it steps and slopes down towards the east, following the sloping contour of the natural grade along the site. It conforms to the maximum height requirements set forth in the LARP Master Plan, with the exception of the greenhouse which is addressed in the attached waiver. The existing pond on site is preserved and celebrated in this design; a pathway is provided from the building to the trails surrounding the pond, and an outdoor patio overlooks the natural landscape.

The proposed design and siting of the building meets Los Alamos County requirements and applicable codes. The building location and limits of grading minimize impacts to both existing improvements and undeveloped areas; in particular the existing wetland area and trail are preserved. Minor construction activities may be necessary across the trail for drainage conveyance. The trail will be restored to preconstruction condition upon completion of the project.

<u>Staff Response:</u> All site grading is subject to approval by the County Building Safety Division. For the site, all ADA Accessible parking is subject to the State of New Mexico guidelines, as administered by the LAC Chief Building Official.

(h) The capacity of those public services and facilities required to serve the proposed development (including but not limited to water, sanitary sewer, electricity, gas, storm sewer, streets, etc.) shall conform with, or if improvements are required, shall be made to conform with the requirements of the county's construction standards.

<u>Applicant Response</u>: To the best of our knowledge the existing utilities within the project area have adequate capacity to serve the new facility. If it is determined that there are utility capacity issues, then the respective utility will be improved and in conformance with the requirements of the County's Design and Construction Standards.

<u>Staff Response:</u> Detailed drawings of water, sanitary sewer, electrical, gas, storm sewer will demonstrate conformance prior to submittal of building permits should the Planning & Zoning Commission approve the site plan. There is a condition recommended by the Interdepartmental Review Committee (IDRC) in order to meet these criteria:

- Condition #1: Per Department of Utilities:
  - a. Applicant shall submit final utility plans, stamped by a New Mexico professional engineer, with the application for building permit.
  - b. An Easement Plan dedicating easements for new and existing utilities shall be filed prior to occupying the building.
  - c. See the attached sheets for additional DPU comments.
- (i) Provisions shall be made to serve the development with tot lots and/or neighborhood parks in accordance with the adopted comprehensive plan. A fee may be paid as approved by county council to accomplish the purpose of the comprehensive plan in lieu of the development of tot lots or neighborhood parks.

<u>Applicant Response:</u> A new landscaped pedestrian promenade lines the south face of the building, leading to the existing building on the Los Alamos Research Park site. Along this promenade are located two protected south-facing patio areas, oriented towards the promenade, which encourage social interaction along the walkway. A west-facing patio area provides views to the existing pond and natural topography of the site. Newly created walkways connect the promenade and patio areas to the existing trail network to the north and west.

A vegetated "commons" space is provided between the existing and new buildings, enhancing the region surrounding the pond. Re-seeding is proposed in all areas that may be disturbed during the course of construction. Existing trails run through the site, and will be maintained in the new design; the building sitework will connect into the existing trail network.

<u>Staff Response:</u> The proposed landscape plan includes trails, a pedestrian promenade, patios, and landscaped and native vegetation plantings. These elements satisfy the requirements for this criterion.

Under the provisions within Section 16-53 (c)(1)(b), the Planning and Zoning Commission shall have the following power and duties:

(c) Final action.

- 1. The planning and zoning commission shall hold a public hearing in accordance with the requirements of article XI and shall have the authority to approve, conditionally approve or disapprove the following applications:
  - b. Application for approval of a site plan with waiver where the waiver is part of a site plan application and a separate waiver application has not been filed for a hearing with the board

of adjustment. The planning and zoning commission may take a single vote to approve the site plan and either approve or deny the waiver. If the planning and zoning commission votes to deny the site plan the waiver shall also be denied. Such powers shall not include the consideration of waiver to design and construction standards promulgated or administered by the public works department as described in section 16-572 nor in association with a special plan (SP) district application.

#### **WAIVER REQUIREMENTS: WVR-2019-0086**

The Los Alamos County Code of Ordinances, Chapter 16, Development Code, Sec. 16-157 establishes four (4) criteria upon which to base a decision to approve, approve with conditions and limitations, or deny a waiver request. The decision shall depend upon the extent to which the request meets or fails to meet these criteria:

(a) Granting of the waiver will not cause an intrusion into any utility or other easement unless approved by the owner of the easement.

<u>Applicant Response:</u> The greenhouse is entirely positioned on the lower roof of the proposed building; a waiver for its height has no impact on any existing or proposed utilities or easements.

<u>Staff Response:</u> Waiving the building height requirement will have no practical effect on any utility realignments or other easements.

(b) The waiver request is caused by a practical difficulty or hardship inherent in the lot or lot improvements and the difficulty or hardship has not been self-imposed.

Applicant Response: For the greenhouse to function, it:

- 1. Must be in reasonable proximity to the laboratory spaces,
- 2. Can not be shaded, whether by any adjacent structures, existing trees, or topography, and
- 3. Be constructed to a reasonable height in order to house day-to-day operations and have the roof sloped to drain.

Given these restrictions, it must be close to or incorporated within the building itself, but can not be located at grade in close proximity to the proposed building due to shading. The offset distance required for it to be outside of shaded areas would be prohibitive.

The greenhouse therefore is located on the lower roof area of the proposed building, offset from the higher roof so as not to be shaded by the building structure to the west. The top of the greenhouse can not be lowered below the existing maximum allowable height while still adequately housing greenhouse operations and providing sufficient roof slope to drain.

<u>Staff Response:</u> The waiver for a maximum of 12' over the maximum building height, is a practical difficulty and hardship due to the special nature of the flex lab facility. In order to accommodate a greenhouse for research purposes, and the difficulty in locating a greenhouse close to the main building while avoiding shade from structures, topography, and vegetation, a waiver is requested for the greenhouse to rise above the 50' height limit of the Research & Development District.

(c) Granting of the waiver will not create a health or safety hazard or violate building code requirements.

<u>Applicant Response:</u> Allowing for the height increase for the greenhouse does not impact other areas of the building or site and will be in compliance with all applicable codes and regulations.

<u>Staff Response:</u> Waiving the building height requirement will not create a health or safety hazard or violate building code requirements.

(d) Granting of the waiver will not create any significant negative physical impacts on property within 100 yards of the subject property such as reduced sight lines, loss of privacy, decreased security, increased noise, objectionable odors, intrusion of artificial light, the casting of unwanted shadows, or similar negative impacts.

<u>Applicant Response:</u> The greenhouse is not located within close proximity to any adjacent property; therefore the allowance for a maximum height increase will not significantly impact any areas outside the property.

<u>Staff Response:</u> Granting of the waiver will not create negative physical impacts. Research and development land use and federal lands surround the proposed development. Chapter 16 provides requirements for mitigation of all nuisances described above.

#### **WAIVER REQUIREMENTS: WVR-2019-0087**

The Los Alamos County Code of Ordinances, Chapter 16, Development Code, Sec. 16-157 establishes four (4) criteria upon which to base a decision to approve, approve with conditions and limitations, or deny a waiver request. The decision shall depend upon the extent to which the request meets or fails to meet these criteria:

(a) Granting of the waiver will not cause an intrusion into any utility or other easement unless approved by the owner of the easement.

<u>Applicant Response:</u> Striping the parking lot in lieu of paving or landscaping has no impact on any existing or proposed easements or utilities; it does not change the overall configuration of the parking area.

<u>Staff Response:</u> Waiving the parking lot landscaping requirement will have no practical effect on any utility realignments or other easements.

(b) The waiver request is caused by a practical difficulty or hardship inherent in the lot or lot improvements and the difficulty or hardship has not been self-imposed.

<u>Applicant Response:</u> Site access has changed since the master plan was originally developed. Due to the events of 9/11 a new security gate was added at West Jemez and Diamond Road. This severely restricts access to the site by virtue of restricting access to West Jemez Road, the intended main access to the site.

Prior to the construction of the security gate, West Jemez Road had provided access along the entire south perimeter of the site and to areas west of the existing building in the research park. This would have

allowed access to portions of site where surface parking or parking structures could have been easily built. Once the security gate was added, and security barriers installed on Casa Grande within the Los Alamos Research Park, it restricted general access such that only the eastern portion of the site can be easily accessed by vehicles.

Between the setbacks and the challenging topography, limited area is available for surface parking. The surface parking as shown is adequate for the existing Building One and the proposed Building Two. The anticipated future laboratory research buildings will require additional parking on the site, which will be necessitate the construction of a parking structure as shown on the attached conceptual phasing diagram. Due to the site and access constraints, the future parking structure will be located in the south portion of the east parking lot, north of West Jemez, with access from Diamond Road. The development anticipates that the design and construction of this parking structure will occur in the near future.

<u>Staff Response:</u> The request for a waiver on the parking lot landscaping is a practical difficulty due to the anticipated construction of a parking garage on the site and avoid the possibility of removing parking lot landscaping soon after being put in place. There is a condition recommended by the Interdepartmental Review Committee (IDRC) in order to ensure the landscaping criteria is eventually met:

- Per Planning Division: Applicant will provide a bond for waived landscaping requirements before a
  Certificate of Occupancy is issued. The bond is to ensure the parking lot landscaping requirements
  are met with, or without, construction of a parking garage within 5 years.
- (c) Granting of the waiver will not create a health or safety hazard or violate building code requirements.

<u>Applicant Response:</u> The granting of the waiver will not create a health or safety hazard or violate building code requirements. The request is that at this time, not to require a curb and gutter, raised pedestrian sidewalks through the parking lot, and required landscape within the parking lot. The perimeter of the proposed parking area will include be landscaped per county requirements.

Pedestrian walkways through the parking lot areas will be clearly designated for pedestrian safety. ADA parking is provided adjacent to the sidewalks. Painted areas will be clearly marked and visually apparent, and will not impact the function of the parking area. The existing parking area is currently painted with no interior curbs or landscape elements and will be updated to designate the new pedestrian walkways.

<u>Staff Response:</u> Waiving the parking lot landscape requirement will not create a health or safety hazard or violate building code requirements.

(d) Granting of the waiver will not create any significant negative physical impacts on property within 100 yards of the subject property such as reduced sight lines, loss of privacy, decreased security, increased noise, objectionable odors, intrusion of artificial light, the casting of unwanted shadows, or similar negative impacts.

<u>Applicant Response:</u> The waiver request is very similar to the existing parking lot conditions. Painting and striping in lieu of curbs and planters will not create any significant negative impacts on the property or

surrounding area; the only adjacent property is LANL which will not be affected by this waiver. The dimensions of the parking delineations in plan are the same as they would be with curbs and planters. This decision creates a positive long term impact given that less demolition will be required when the parking structure is constructed in the future.

<u>Staff Response:</u> Granting of the waiver will not create negative physical impacts. Research and development land use and federal lands surround the proposed development. Chapter 16 provides requirements for mitigation of all nuisances described above.

#### STAFF RECOMMENDATION

Staff has applied the applicable review criteria for both Site Plan and Waivers and recommends approval for the construction of a research & development building totaling 83,798 SF located at 4200 W Jemez. Furthermore, staff recommends that the building height requirements and parking lot landscaping requirements be waived for the subject site.

#### **FINDINGS OF FACT**

- The Site Plan application is a request for construction of a research & development building totaling 83,798 SF, located at 4200 W Jemez. The property is zoned Research & Development (R&D).
- In accordance with Sec. 16-53 (c)(1)(b), the Planning Commission has final action authority for approval of a site plan with waiver where the waiver is part of a site plan application.
- The Site Plan application includes a Waiver application from maximum building height requirements per Section 16-537 of the Los Alamos County Development Code.
- The Site Plan application includes a Waiver application from the minimum parking lot landscaping requirements per Section 16-574(b) of the Los Alamos County Development Code.
- The Site Plan review criteria, Section 16-152A, has been applied and was met.
- The Waiver review criteria, Section 16-157, has been applied and is satisfied.
- Notice of this public hearing, setting forth the nature of the request, the specific parcel of property affected, and the date, time and place of the public hearing, was announced and published in <a href="The Los Alamos Daily Post">The Los Alamos Daily Post</a>, the official newspaper of record; and property owners of real property located within 100 yards of the subject property were notified of this public hearing by U.S. mail, all in accordance with the requirements of §16-192 of the Los Alamos County Development Code.

#### **EXHIBITS**

Exhibit 1: Vicinity Map

Exhibit 2: Application Submittal – Site Plan and Waivers & Drainage Report

Exhibit 3: Site Plans

Exhibit 4: Notification Map- 100 yards (300') from site location

Exhibit 5: Exhibit Renderings

#### Exhibit 6: IDRC Conditions and Comments



# \$200 W JEMEZ RD | SIT- 2019-0037

Mapping information is for reference only. Users are solely responsible to confirm data accuracy. Los Alamos County assumes no liability for errors associated with the data.







500 250 0



#### SITE PLAN APPLICATION

Los Alamos County Community Development Department 1000 Central Ave, Suite 150, Los Alamos NM 87544 (505) 662-8120

Address and Use of Property to which the application applies:						
4200 W Jemez Building #2, Los Alamos Research Park, Los Alamos, 87544; Research & Development						
Current Use:						
Zoning District: R&D Acreage: 38.34 Lot Coverage: 3	Related Applications (if any): See attached waiver applications.					
APPLICANT (Unless otherwise specified, all communication reg	arding this application shall be to Applicant):					
Name: Donna Marion Phone: (505) 8	Cell #: (734) 604-9400					
Company Name: Studio Southwest Architects						
Address: 2101 Mountain Road NW, Albuquerque NM 87104	Email: dmarion@studioswarch.com					
Bonna Marion "Dignally signed by Do Date 3-05, Everyment Date 3-05 12 20 10	nns Marion ngjadoswarch com, OUA <sup>-1</sup> , OA <sup>-1</sup> Studio Southwest Architects, Inc. <sup>1</sup> , CN=Donne Manon 30 10-07/00*					
SIGNATURE	DATE					
PROPERTY OWNER	Check here if same as above					
Name: Patrick Sullivan, Los Alamos Commerce & Development Corporation Phone: (505)	661-4854Cell #: (469) 438-1328					
Please Print						
Address: 190 Central Park Square, Los Alamos, NM 87544  Owner's Address	Email: patrick@losalamos.org					
My signature below indicates that I authorize the Applicant to I	nake this Amendment application on my behalf.					
tanna	12/20/2019					
SIGNATURE	DATE					
Pre-Application Meeting Date(s):	IDRC Date:					
December 4, 2019	December 20, 2019					
THIS SECTION TO BE COMPLETED BY THE COMMI	JNITY DEVELOPMENT DEPARTMENT					
Date of Submittal:	Staff Initial:					
CDD Application Number:	Fees Paid:					

#### SITE PLAN REVIEW CRITERIA

The Los Alamos County Code of Ordinances, Chapter 16, Development Code, Sec. 16-152A establishes the following criteria for recommendation by IDRC, or for determination by the CDD Director or P&Z, of approval, conditional approval or denial of the application. Please review each of the criteria listed and provide short comments on how your application meets the criteria in the space provided. (Attach additional sheets if needed.)

	ditional approval or denial of the application. Please review each of the criteria listed and provide shouments The space provided. (Attach additional sheets if needed.)
(a)	The site plan shall substantially conform to the comprehensive plan and shall not be materially detrimental to the health, safety and general welfare of the county.
	Refer to attached narrative response document, response Qa.
(b)	Ingress, egress, traffic circulation and parking on the site shall be accomplished with safety for motorists, bicyclists and pedestrians. Provisions shall be made for the safe ingress, egress and circulation of vehicles, bicyclists and pedestrians.
	Refer to attached narrative response document, response Qb.
(c)	The necessary provisions shall be made for controlling stormwater drainage on-site and off-site as required by the county engineer in accordance with the county's storm drainage construction standards or such
	other ordinances or storm water management plans as may exist.  Refer to attached narrative response document, response Qc.
(d)	The necessary easements shall be provided for both existing and proposed utilities, on-site and off-site. No existing easement shall be terminated without provision of alternate service, and all new services shall be provided.
	Refer to attached narrative response document, response Qd.

(e)	The site plan shall include a conceptual landscape plan that will enhance the site and immediate vicinity and provide adequate screening and buffering, if appropriate, between properties. The final landscape plan shall conform to the requirements set forth in sections 16-574 and 16-575.
	Refer to attached narrative response document, response Qe.
<b>(f)</b>	Parking lots, outside storage areas, outside mechanical equipment and outdoor lighting shall be designed to serve the intended use of the development while minimizing adverse impacts on adjacent properties or public rights-of-way.
	Refer to attached narrative response document, response Qf.
(g)	The capacity of those public services and facilities required to serve the proposed development (including but not limited to water, sanitary sewer, electricity, gas, storm sewer, streets, etc.) shall conform with, or if improvements are required, shall be made to conform with the requirements of the county's construction standards.
	Refer to attached narrative response document, response Qg.
(h)	Structures, site grading, and all other aspects of the development shall meet all applicable design standards or guidelines, as may be adopted and made a part of this code, and shall preserve, to the extent practical, outstanding topographical features and natural amenities on the site.
	Refer to attached narrative response document, Qh.

(i) 	Provisions shall be made to serve the development with tot lots and/or neighborhood parks in accordance with the adopted comprehensive plan. A fee may be paid as approved by county council to accomplish the purpose of a comprehensive plan in lieu of the development of tot lots or neighborhood parks.
	Refer to attached narrative response document, Qi.
	SUBMITTALS:
indi	vide all information necessary for a complete review of the Site Plan request. Check each of the boxes to cate which information you have provided. Provide two hard copies of all plans and also provide one plete copy of all materials on disk:
Ø	Agent Authorization, if applicable.
$\checkmark$	Proof of property ownership (Warranty deed, recorded Plat, etc.).
$\blacksquare$	Scaleable copies of Site Plan drawings including:
	Footprint and square footage of all buildings and structures on the site.
	Building/structure elevations.  Existing and proposed lot coverage.
	All existing and proposed easements.
	All existing and proposed setbacks.
	✓ Existing and proposed trails.
	· · · · · · · · · · · · · · · · · · ·
	Preliminary Utilities Plan.
Add	e: Final construction plan set will be required at Building Permit. itionally, per Sec. 16-571, at or before the first IDRC meeting, the County Engineer may require the wing Impact Studies:
	Traffic impact analysis (TIA).
$ \mathbf{V} $	
님	Utility capacity analysis.
$\vdash$	Soils report.
ш	Other. Describe:
	are advised to meet with the County Engineer early in the planning process to determine which studies be required.
Plea	se provide any other information that you believe is relevant to or supports this application.



2101 Mountain Road NW Suite B | Albuquerque NM 87104 505-843-9639 | mail@studioswarch.com | www.studioswarch.com

#### **Site Plan Application Responses**

SITE PLAN NARRATIVE RESPONSES Date: 2019.12.20

Project Name: FlexLab Project Number: 1906

#### SITE PLAN APPLICATION:

Qa: The site plan shall substantially conform to the comprehensive plan and shall not be materially detrimental to the health, safety and general welfare of the county.

A: The property is zoned as Research & Development, described as follows:

Research and development district (R&D). The R&D research and development district is intended to accommodate scientific research and development establishments, except for those scientific activities which could endanger or become detrimental to persons or property.

The building contains laboratories and office spaces which do not incur the production of hazardous waste.

This project design will follow all applicable life safety codes, and conforms to the Los Alamos Comprehensive Plan and the Los Alamos Research Park Master Plan including the following strategies:

- "Promote a strong and diverse economic base by encouraging new business growth"
  - The development of this property will support economic development by providing additional jobs in Los Alamos.
- "Collaborate with Los Alamos National Laboratory as the area's #1 employer"
  - The anticipated building tenant is a well established laboratory and research organization that works closely with Los Alamos National Laboratory and aligns with their overall mission. Creating a building that houses their operations is a means of continuing the collaborative relationship with LANL.
- "Trails/Open Space System: provide long-term protection of the community's natural and recreational landscapes"
  - The design includes thoughtful integration with nature, maintaining the existing pond and connecting into the existing trails on the site; the building design mimics the sloping topography natural to the site and respecting the context of nearby architecture. Open green spaces are established between the buildings, referred to as "commons" in the master plan. The building also includes a patio area on the west side, overlooking the pond, commons area, and sloping topography adjacent to the site.
- "Create designated safe, convenient, and well-maintained bike and pedestrian pathways and sidewalks"
  - The deep setback is landscaped and pedestrian-oriented, providing a safe and scenic promenade between the buildings in the research park. Retractable bollards between the east and west parking areas maintain the existing security barrier, allowing pedestrian, bike, and emergency vehicle access, while prohibiting vehicular access for the general public.

**Qb**: Ingress, egress, traffic circulation and parking on the site shall be accomplished with safety for motorists, bicyclists and pedestrians. Provisions shall be made for the safe ingress, egress and circulation of vehicles, bicyclists and pedestrians.

A: The site design maintains the current vehicular access from Diamond Road and West Jemez Road to the parking areas. Retractable bollards between the two parking areas allow for pedestrian, cyclist, and emergency vehicle

access but maintain the existing security barrier and do not allow vehicular access for the general public. Adequate site distance and turning radii are provided throughout the site in order to promote safe pedestrian, vehicular, and emergency vehicle access.

A designated pedestrian pathway is provided through the parking lot to the sidewalk along West Jemez, while a landscaped pedestrian promenade connects the proposed building to the existing building to the west in the research park.

Qc: The necessary provisions shall be made for controlling stormwater drainage on-site and off-site as required by the county engineer in accordance with the county's storm drainage construction standards or such other ordinances or storm water management plans as may exist.

A: A hydrologic analysis of the existing and proposed conditions will be done to assess the peak runoff flow rates in accordance with the County Public Works Design and Construction Standards. For this project we plan to use AHYMO for the analysis. The input parameters for the analysis will be as specified in Section 4 of the County Standards. There is an existing storm drain that will be impacted by the proposed building location. This storm drain intercepts flow from West Jemez. This storm drain will be re-routed around the building and discharge in approximately in the same location as it currently does. No new building or site drainage will be routed to this storm drain.

Development of this site will increase the total impervious area. Onsite detention pond(s) will be designed to reduce the peak flow to at or below the current peak discharge for the overall site. The detention ponds will be located in the northern portion of the site. The drainage management plan contains a narrative and supporting calculations.

Qd: The necessary easements shall be provided for both existing and proposed utilities, on-site and off-site. No existing easement shall be terminated without provision of alternate service, and all new services shall be provided.

A: Existing utilities within the project site are within easements. The only new easement that is anticipated is a drainage easement for the realigned storm drain described in Criteria C.

Qe: The site plan shall include a conceptual landscape plan that will enhance the site and immediate vicinity and provide adequate screening and buffering, if appropriate, between properties. The final landscape plan shall conform to the requirements set forth in sections 16-574 and 16-575.

A: The landscape improvements for this project offer a modern and geometric aesthetic that responds to the architecture of the building. Further away from the building footprint, the vegetation becomes more natural in appearance to blend into the native surroundings. Much of the planted areas surrounding the site will be from native seed blends derived from local naturalized or native species. Much of the existing vegetation surrounding the parking area consists of mature evergreens that already provide a visual screen. The site plan complies with the landscape ordinances listed with the exception of the requirement for providing vegetation throughout the parking area, addressed in the waiver application. These areas are not vegetated or irrigated due to the proposed parking structure slated for future development.

Qf: Parking lots, outside storage areas, outside mechanical equipment and outdoor lighting shall be designed to serve the intended use of the development while minimizing adverse impacts on adjacent properties or public rights-of-way.

A: The parking lot lighting and any outdoor lighting will be NM Night Sky compliant and is arranged to minimize lighting leaving the site to adjacent properties.

The outside mechanical equipment will be designed to serve the intended purpose of the development and will be placed on the north side of the building to minimize adverse impacts of noise and views.



**Qg**: The capacity of those public services and facilities required to serve the proposed development (including but not limited to water, sanitary sewer, electricity, gas, storm sewer, streets, etc.) shall conform with, or if improvements are required, shall be made to conform with the requirements of the county's construction standards

A: To the best of our knowledge the existing utilities within the project area have adequate capacity to serve the new facility. If it is determined that there are utility capacity issues, then the respective utility will be improved and in conformance with the requirements of the County's Design and Construction Standards.

**Qh**: Structures, site grading, and all other aspects of the development shall meet all applicable design standards or guidelines, as may be adopted and made a part of this code, and shall preserve, to the extent practical, outstanding topographical features and natural amenities on the site.

A: The building is designed to resemble the landform as it steps and slopes down towards the east, following the sloping contour of the natural grade along the site. It conforms to the maximum height requirements set forth in the LARP Master Plan, with the exception of the greenhouse which is addressed in the attached waiver. The existing pond on site is preserved and celebrated in this design; a pathway is provided from the building to the trails surrounding the pond, and an outdoor patio overlooks the natural landscape.

The proposed design and siting of the building meets Los Alamos County requirements and applicable codes. The building location and limits of grading minimize impacts to both existing improvements and undeveloped areas; in particular the existing wetland area and trail are preserved. Minor construction activities may be necessary across the trail for drainage conveyance. The trail will be restored to preconstruction condition upon completion of the project.

Qi: Provisions shall be made to serve the development with tot lots and/or neighborhood parks in accordance with the adopted comprehensive plan. A fee may be paid as approved by county council to accomplish the purpose of a comprehensive plan in lieu of the development of tot lots or neighborhood parks.

A: A new landscaped pedestrian promenade lines the south face of the building, leading to the existing building on the Los Alamos Research Park site. Along this promenade are located two protected south-facing patio areas, oriented towards the promenade, which encourage social interaction along the walkway. A west-facing patio area provides views to the existing pond and natural topography of the site. Newly created walkways connect the promenade and patio areas to the existing trail network to the north and west.

A vegetated "commons" space is provided between the existing and new buildings, enhancing the region surrounding the pond. Re-seeding is proposed in all areas that may be disturbed during the course of construction. Existing trails run through the site, and will be maintained in the new design; the building sitework will connect into the existing trail network.





## LOS ALAMOS RESEARCH PARK

July 31, 2019

To Whom It May Concern,

LACDC authorizes Studio Southwest Architects to act as an authorized agent for the development project to be constructed in the Los Alamos Research Park, northwest of the intersection of Diamond Rd and West Jemez Rd in Los Alamos, NM. Studio Southwest Architects shall be authorized to act on all matters regarding this property.

Sincerely,

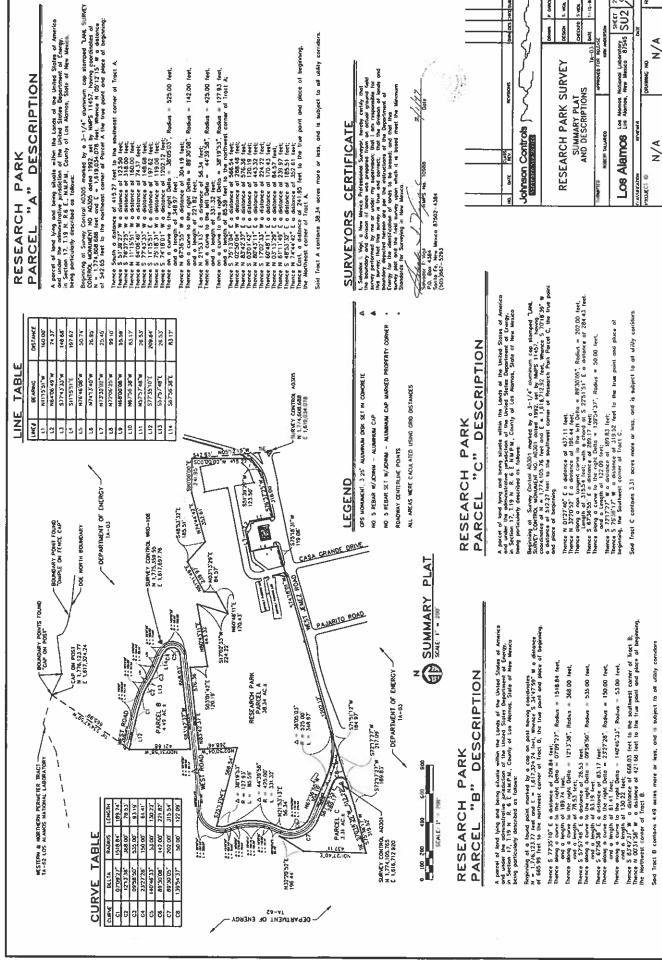
Patrick Sullivan,

LACDC Executive Director

# LAT

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Document #	Book	Page	Surveyor (Grantor)	Owner (Grantee)	701	Tract	Subdivision	Date	Time	Envelope	ADD	





Eno. 1784.3

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#### 12.1 DRAINAGE REPORT INFORMATION SHEET

Project Title: Los Alamos Researc	h Park Flex Lab
Project Address:	
Legal Description: Research Park Parcel	Α
Engineering Firm: Bohannan Huston, Inc.	Contact: Glenn Broughton
Address: 7500 Jefferson NE	Phone: 505-798-7872
Owner:	Contact:
Address:	Phone:
Architect: Studio Southwest Architects	Contact: Donna Marion
Address: 2101 Mountain	Phone: 505-843-9639
Surveyor:	Contact:
Address:	Phone:
Pre-Design Meeting:	
X No	
Yes	
Copy of meeting minutes attached	
Date Submitted: 12/20/19	
Submitted by: SleBM	BHI
Name	Title

# DRAINAGE REPORT FOR LOS ALAMOS RESEARCH PARK FLEX LAB DRAFT

**DECEMBER 20, 2019** 

Prepared for:

Studio Southwest Architects 2102 Mountain Road, NW Albuquerque, NM 87104

Prepared by:

### Bohannan A Huston

Engineering
Spatial Data
Advanced Technologies



# DRAINAGE REPORT FOR LOS ALAMOS RESEACH PARK FLEX LAB LOS ALAMOS, NM

**DECEMBER 20, 2019** 

Prepared for:

STUDIO SOUTHWEST ARCHITECTS 2102 MOUNTAIN ROAD, NW ALBUQUERQUE, NM 87104

Prepared by:

BOHANNAN HUSTON, INC.

COURTYARD I

7500 JEFFERSON STREET NE

ALBUQUERQUE, NM 87109

Prepared by:	
Glenn Broughton, P.F.	Date

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#### **APPENDICES**

APPENDIX A: EXISTING PUBLIC STORM DRAIN ANALYSIS

APPENDIX B: AHYMO INPUT AND OUTPUT FILES

APPENDIX C: FEMA FLOOD ZONE MAP

#### **EXHIBITS**

**EXHIBIT 1: EXISTING CONDITIONS BASIN MAP** 

**EXHIBIT 2: PROPOSED DRAINAGE MANAGEMENT PLAN** 

#### I. INTRODUCTION

This drainage report summarizes hydrologic and hydraulic analysis for existing and proposed site conditions for the Los Alamos Research Park Flex Lab. The site is located on the north side of West Jemez Road, east of Diamond Drive.

The total site is approximately 3 acres and generally slopes from the southwest to the north - northeast. Elevations in the project area vary between 7,410 and 7,360 feet above sea level. The southern portion of the site is developed with paved parking. The northern portion of the site is undeveloped with conifers, shrubs and grasses.

#### II. HYDROLOGIC ANALYSIS

The hydrologic analysis was performed to quantify surface water runoff rates for existing and proposed conditions. The methodology, basin characteristics, and results of the hydrologic analysis are discussed in the following sections.

#### A. METHODOLOGY

The methodology selected to compute runoff volumes, peak flow rates, and runoff hydrographs in small watershed basins is an Arid Lands Hydrologic Model (AHYMO). The site was analyzed for the 100 year, 24-hour design storm event. Rainfall values for the site were obtained from the Los Alamos County Design and Construction Standards. This methodology utilizes coefficients based on four different hydrologic land treatments: A, B, C, and D. Hydrologic Land Treatments are used to describe land conditions associated with each type. Hydrologic Group "A" is for natural ground cover with slopes less than 10%, Group "B" is for grassed areas (lawns, parks, etc.) or natural ground cover with slopes between 10% to 20%, Group "C" is for gravel paving, trails, dirt roads and otherwise areas disturbed by human activity, and Group "D" is pavement, sidewalk, and otherwise impervious areas.

#### PRECIPITATION DEPTHS

A 100-year, 24-hour rainfall distribution based on SCS II-A with a peak at 6 hours will be used. AHYMO input data is a Type 5 rainfall distribution with rainfall depths for the quarter hour, 1-hour, 6-hour and 24-hour storm duration are 1.87, 2.35, 2.80 and 2.90 inches respectively.

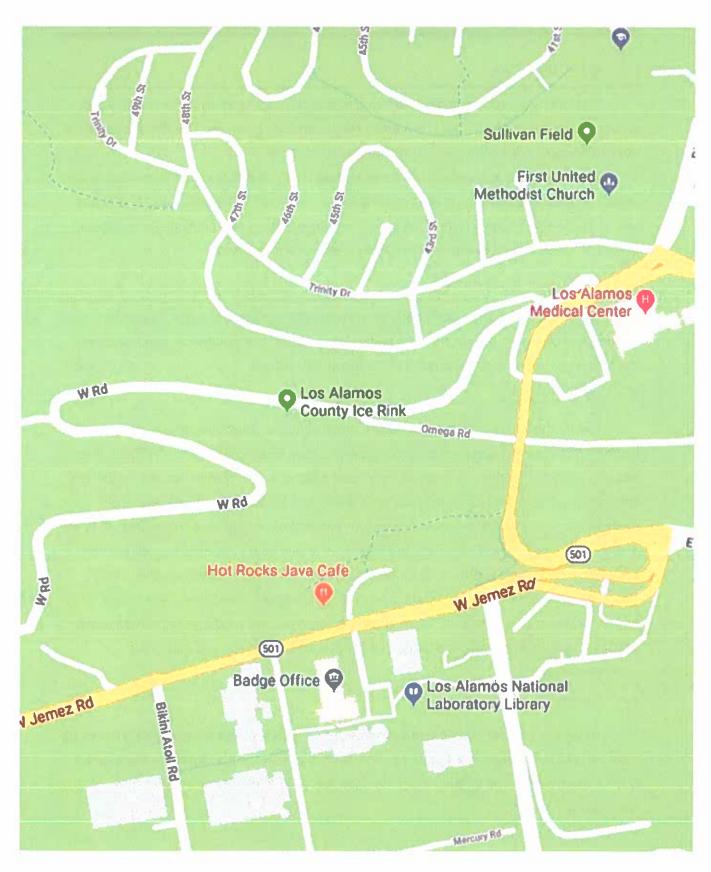


Figure 1—Vicinity Map

### B. BASIN CHARACTERISTICS

### EXISTING BASIN AREA

The developed portion of the site slopes to the northeast corner and is intercepted by a slotted drain and storm drain inlet. The pipe drains to the north and discharges into the canyon. The northern part of site is undeveloped and generally slopes north and also drains into the canyon. An existing fire station site is located south of the project area. The fire station slopes down to the north. Runoff from the site is intercepted in a culvert which conveys runoff under the existing site parking access road. Runoff form this area drains north to a small retention pond. A public storm drain which intercepts runoff from West Jemez Road crosses the site as well. This storm drain free discharge to the canyon. The total peak discharge from the site in the existing condition is 50.1 cfs. This peak flow rate includes the fire station, or the public storm drain mentioned above. The existing onsite basins, land treatments and peak flow rates are shown on **EXHIBIT 1**.

### III. HYDRAULIC ANALYSIS

### A. EXISTING CONDITIONS DRAINAGE ANALYSIS

Information on the existing public storm drain was not available. Survey data was obtained for the downstream storm drain inlet in West Jemez and the outfall of the storm drain pipe. This storm drain is an 18" CMP. The maximum capacity of the downstream reach of the storm drain system was estimated based on a maximum water surface at the top of grate and pipe flowing full. The estimated capacity of the pipe is 9 cfs, see *APPENDIX A* for calculations. The proposed building will require that this storm drain be realigned. The realigned storm drain will be designed based on the peak flow calculated for the existing pipe.

### B. PROPOSED CONDITIONS DRAINAGE ANALYSIS

The site has been divided into 7 basins. Basin 1 drains to Detention Pond 1. Pond 1 enlarges the existing retention pond and converts it to a detention pond. The pond outfall discharges to the north and ultimately into the canyon north of the site. The offsite basin OS1 (Fire Station), Basins B3, B4 and B5 are also conveyed to Pond 1. Basin 6 free discharge from the site. Basin 7 drains to a detention pond (Pond 2) located north of the existing paved parking and east of the proposed building. The outlet for Pond 2 discharges to the north and ultimately into the canyon to the north. Basin 2, which drains to the existing

storm drain at the northwest corner of the site is slightly smaller in the developed condition and the peak flow to the storm drain is reduced from 23.4 cfs to 22.2 cfs.

Pond volumes were analyzed and calculated using a volume per elevation analysis in AutoCAD Civil3D. This data was used to create the storage discharge table utilized on the AHYMO model. This information is shown on **EXHIBIT 2**.

Basin 1 is located in the western portion of the site and flows northwest on the surface to Pond 1. Basin 3 and 4 is the building roof area. Basin 5 is an area north of the building. The basins describe, offsite basin 1 and public storm drain are routed to Pond 1. Pond 1 has a total storage volume of 0.25 Ac-Ft. The peak discharge is 20.1 cfs and a maximum water surface elevation of 7376.7. The spillway elevation is 7377.0 which provides 0.3 feet of free board.

Basin 7 includes a portion of the new parking lot. The basin is routed through Pond. Pond 2 has a total storage volume 0.05 Ac-Ft. The peak discharge from Pond 2 is 1.2 cfs with a required detention volume of 0.03 Ac-Ft and a maximum water surface elevation of 7366.75. The pond spillway elevation is 7367.5 which provides 0.75 feet of freeboard.

The outlet pipes for the detention ponds were analyzed as an orifice and controls the discharge flow rate from the ponds. See *EXHIBIT 2* for more information detention ponds storage discharge table.

The total peak discharge from the site is 43.9 cfs which is approximately 6.2 cfs less than peak discharge rate from the existing undeveloped site. AHYMO input and output files are located in *APPENDIX B*.

### IV. FEMA FLOOD HAZARD AREA

The site is not located within a FEMA Flood Hazard Area. A portion of the FEMA Flood Insurance Rate Map (FIRM) Number 35028C0040C dated July 18, 2011 showing the site has been included in this report as **APPENDIX C**.

### V. RESULTS AND RECOMMENDATIONS

With the development of this site the peak flow rate discharge will be slightly less than the 100-year, 24-hout peak flow rate in the existing condition. This drainage management plan demonstrates that the onsite storm drain system and detention pond design will mitigate the peak flow from the 100 year, 24-hour storm event in accordance with the Los Alamos County requirements.

### APPENDIX A: EXISTING PUBLIC STORM DRAIN ANALYSIS

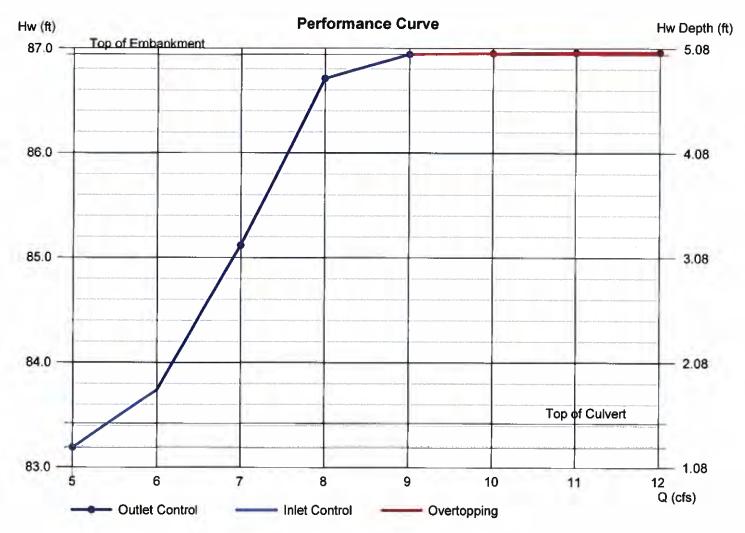
### **Culvert Report**

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Tuesday, Dec 10 2019

### **Circular Culvert**

Invert Elev Dn (ft)	= 78.42	Calculations	
Pipe Length (ft)	= 319.00	Qmin (cfs)	= 5.00
Slope (%)	= 1.10	Qmax (cfs)	= 12.00
Invert Elev Up (ft)	= 81.92	Tailwater Elev (ft)	= Crown
Rise (in)	= 18.0		
Shape	= Circular	Highlighted	
Span (in)	= 18.0	Qtotal (cfs)	= 5.00
No. Barrels	= 1	Qpipe (cfs)	= 5.00
n-Value	= 0.024	Qovertop (cfs)	= 0.00
Culvert Type	<ul> <li>Circular Corrugate Metal Pipe</li> </ul>	Veloc Dn (ft/s)	= 2.83
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 4.77
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 79.92
		HGL Up (ft)	= 82.78
Embankment		Hw Elev (ft)	= 83.19
Top Elevation (ft)	= 86.94	Hw/D (ft)	= 0.85
Top Width (ft)	= 300.00	Flow Regime	= Inlet Control
Crest Width (ft)	= 300.00	_	



	Q		Ve	loc	Depth
Total	Pipe	Over	Dn	Up	Dn
(cfs)	(cfs)	(cfs)	(ft/s)	(ft/s)	(in)
5.00	5.00	0.00	2.83	4.77	18.00
6.00	6.00	0.00	3.40	3.40	18.00
7.00	7.00	0.00	3.96	3.96	18.00
8.00	8.00	0.00	4.53	4.53	18.00
9.00	8.13	0.87	4.60	4.60	18.00
10.00	8.14	1.86	4.61	4.61	18.00
11.00	8.15	2.85	4.61	4.61	18.00
12.00	8.15	3.85	4.61	4.61	18.00

Depth		н	GL	
Up	Dn	Up	Hw	Hw/D
(in)	(ft)	(ft)	(ft)	
10.32	79.92	82.78	83.19	0.85
18.00	79.92	83,47	83.74	1.21
18.00	79.92	84.75	85.12	2.13
18,00	79.92	86.23	86.71	3.19
18.00	79.92	86.45	86.94	3.35
18.00	79.92	86.45	86.95	3.35
18.00	79.92	86.46	86.96	3.36
18.00	79.92	86.47	86.96	3.36

APPENDIX A: EXISTING 18" CMP PUBLIC STORM DRAIN HYDRAULIC ANALYSIS

				U/S TOC Surface Elev	€	87.05	87.22
					£	3 83.34	3
				EGLa	<b>(£</b> )	86.93	87 33
				Ea	(#)	5.09	5.41
Slope		1.10%	1.10%	HGLi	ŧ	86.45	86,85
Crown Drop	€	N/A	N/A	EGU	(#)	86.85	87,25
nvert Elevation D/S	( <del>)</del> )	78.43	81.84	Total Pipe Loss	(ft)	6.52	0.16
Velocity DesignInvert Elevation U/Sinvert Elevation D/Sicrown Drog Slope	(¥)	81.84	81.92	Sŧ		0.02	0.02
Velocity Design	(fVs)	5.09	5.09	HGLo	(ft)	79.93	86.69
Velocity Fully	(fVs)	3.69	3.69	EGLo	(tt)	80.33	87,09
Full O	(ca. fl/sec)	6.52	6.52	v^2/2/2g	€	0.40	0.40
Pipe Dia	(¥)	1.5	1.5	ခွ	€	0	0
Total Q	(cu. fl/sec)	0.6	0.6	ס	(£)	1.5	1.5
Known Q	(cu. fl/sec)	0	თ	>	(ft/s)	5.09	5.09
To BD Length - Center to Cente	(£)	310.0	7.5	_	(tt)	310.0	7.5
BD Le		3	4	_	96	0.0	9.0
		I SDMH	SDMH	σ	(cu. ft/sec	5	3
From		SDMH4	SDMH2 SDN	ab	(E)	1	1.
Pipe		SD2	SD1	#Line Struct. II		JCT2	JCT1
#Line		-	2	#Line			2

### APPENDIX B: AHYMO INPUT AND OUTPUT FILES

```
*S
     AHYMO FILE FOR LARP FLEX LAB - LOS ALAMOS, NM , BH PROJ # 20200128
*S
     100 YEAR - 24 HOUR STORM
*S
*S
     INPUT FILE -- P:\20200128\CDP\HYDRO\AHYMO/100YR.HYM
*S
     OUTPUT FILE -- P:\20200128\CDP\HYDRO\AHYMO/100YR.OUT
*AHYMO FOR EXISTING CONDITION.
     CONVERT TO SFHYMO
START TIME=0.0 HR
                 PUNCH CODE=0
SANTA FE,
NEW MEXICO
*****************
     24 HR RAINFALL TABLE
*****************
*100 YEAR - 24 HOUR
RAINFALL
                 TYPE=5 RAIN QUARTER=1.87
                 RAIN ONE=2.35 IN RAIN SIX=2.80 IN
                 RAIN DAY=2.90 IN
                                 DT=0.05 HRS
*5
*S ------
    COMPUTE BASIN EXISTING CONDITIONS
*S ---------
*S
*S
COMPUTE NM HYD ID=1
                 HYD=OSB1 AREA=.000730S0 MI
                 PER A=0 PER B=0 PER C=6 PER D=94
                 TP=0.1333 HR MASS RAIN=-1
PRINT HYD
                 ID=1 CODE=20
COMPUTE NM HYD ID=2
                 HYD=EXB1 AREA=.0021028SQ MI
                 PER A=0 PER B=37 PER C=33 PER D=30
                 TP=0.1333 HR MASS RAIN=-1
PRINT HYD
                 ID=2 CODE=20
COMPUTE NM HYD ID=3
                 HYD=EXB2 AREA=.005345SQ MI
                 PER A=0 PER B=0 PER C=28 PER D=72
                 TP=0.1333 HR
                            MASS RAIN=-1
PRINT HYD
                 ID=3 CODE=20
```

		100YR.HYM
*		
COMPUTE NM HYD PRINT HYD	ID=4	HYD=EXB3 AREA=.001498SQ MI PER A=0 PER B=65 PER C=35 PER D=0 TP=0.1333 HR MASS RAIN=-1 ID=4 CODE=20
*		1D-4 CODE-20
COMPUTE NM HYD	ID=5	HYD=EXB4 AREA=.000513SQ MI PER A=0 PER B=65 PER C=35 PER D=0 TP=0.1333 HR MASS RAIN=-1
PRINT HYD		ID=5 CODE=20
*		**************
*5	<b>•••••</b> •	
<del>-</del>		EVELOPED CONDITIONS
*\$		
*S		
*S		
*S		
COMPUTE NM HYD	ID=6	HYD=B1 AREA=.0022045SQ MI PER A=0 PER B=0 PER C=45 PER D=55 TP=0.1333 HR MASS RAIN=-1
PRINT HYD *		ID=6 CODE=20
COMPUTE NM HYD	ID=8	HYD=B2 AREA=.0050025SQ MI PER A=0 PER B=0 PER C=22 PER D=78 TP=0.1333 HR MASS RAIN=-1
PRINT HYD *		ID=8 CODE=20
COMPUTE NM HYD	ID=9	HYD=B3 AREA=.0005118SQ MI PER A=0 PER B=0 PER C=0 PER D=100 TP=0.1333 HR MASS RAIN=-1
PRINT HYD *		ID=9 CODE=20
COMPUTE NM HYD	ID=10	HYD=B4 AREA=.0006045SQ MI PER A=0 PER B=0 PER C=0 PER D=100 TP=0.1333 HR MASS RAIN=-1
PRINT HYD *		ID=10 CODE=20
	ID=11	HYD=B5 AREA=.0001399SQ MI PER A=0 PER B=0 PER C=89 PER D=11 TP=0.1333 HR MASS RAIN=-1
PRINT HYD		ID=11 CODE=20
	ID=12	HYD=B6 AREA=.0000987SQ MI PER A=0 PER B=0 PER C=100 PER D=0 TP=0.1333 HR MASS RAIN=-1

PRINT HYD ID=12 CODE=20

\*

COMPUTE NM HYD ID=13 HYD=B7 AREA=.0006103SQ MI

PER A=0 PER B=0 PER C=37 PER D=63

TP=0.1333 HR MASS RAIN=-1

PRINT HYD ID=13 CODE=20

\*

\*S THIS IS BASIN IS SIMULATING THE OFFSITE PUBLIC STORM DRAIN WITH 9 CFS.

COMPUTE NM HYD ID=14 HYD=OFFSITE AREA=.00193SQ MI

PER A=0 PER B=0 PER C=0 PER D=100

TP=0.1333 HR MASS RAIN=-1

PRINT HYD ID=14 CODE=20

\*

\* ADD HYDROGRAPH FROM BASIN B1 AND OFFSITE BASIN OSB1 (FIRE STATION)

ADD HYD ID=30 HYD=SUM ID I=6 ID II=1

PRINT HYD ID=30 CODE=20

\*

\* ADD HYDROGRAPH FROM B3 AND B4

ADD HYD ID=35 HYD=SUM ID I=9 ID II=10

PRINT HYD ID=35 CODE=20

\*

\* ADD HYDROGRAPH FROM B3, B4 AND B5

ADD HYD ID=40 HYD=SUM ID I=35 ID II=11

PRINT HYD ID=40 CODE=20

.

\* ADD HYDROGRAPH FROM B1, OS1 AND B3, B4, B5

ADD HYD ID=45 HYD=SUM ID I=30 ID II=40

PRINT HYD ID≈45 CODE=20

Ċ

\* ADD HYDROGRAPH FROM B1, OS1, B3, B4, B5 AND OFFSITE PUBLIC STORM DRAIN

ADD HYD ID=45 HYD=\$UM ID I=45 ID II=14

PRINT HYD ID=45 CODE=20

\*S ROUTE BASIN B1, OFFSITE BASIN OSB1 (FIRE STATION), B3, B4, B5 \*AND PUBLIC STORM DRAIN INTO POND 1. OUTFLOW BASED ON 24" ORIFICE

ROUTE	RESERVOIR	ID=50	HYD=POND1	INFLOW ID=45 CO	DE=20
			OUTFLOW (CFS)	STORAGE(AC-FT)	ELEV (FT)
			0.0	0.00	7374.0
			7.0	0.06	7375.0
			15.6	0.14	7376.0
			22.1	0.25	7377.0

PRINT HYD ID=50 CODE=20

\*

*		10	OIK.IIII	
*S ROUTE BASIN E	37 INTO	POND 2. OUTFLOW	BASED ON 6" ORIF	ICE
ROUTE RESERVOIR	ID=55	HYD=POND1	INFLOW ID=13 CO	DE=20
		OUTFLOW (CFS)	STORAGE(AC-FT)	ELEV (FT)
		0.0	0.00	7365.0
		0.8	0.01	7366.0
		1.3	0.04	7367.0
		1.6	0.05	7367.5
PRINT HYD ****** FINISH	ID=55	CODE=20		

### 100yr.out

AHYMO PROGRAM (AHYMO-S4)	PROGRAM (AHYMO-S4) RIN DATE (MON/DAY/YR) = 12/19/2019	- Version: S4.01a - Rel: 01a
START TIME INPUT FILE	START TIME (HR:MIN:SEC) = 13:53:25	USER NO.= AHYMO_Temp_User:20122010 YMO\100yr.HYM
ຄນ ຄນ ຄ	FILE FOR LARP FLEX LAB - 100 YEAR - 24 HOUR STORM	LOS ALAMOS,NM , BH PROJ # 20200128
ν ŵ ¨	INPUT FILE P:\20200128\CDP\HYDRO\AHYMO/100YR.HYM	CDP\HYDRO\AHYMO/100YR.HYM
ژن ن	OUTPUT FILE P:\20200128\CDP\HYDRO\AHYMO/100YR.OUT	\CDP\HYDRO\AHYMO/100YR.OUT
AHYMO FOR EXISTING CONDITION.	CONDITION.	
TART *********	CONVERT TO SFHYMO TART TIME=0.0 HR PUNCH CODE=0  ***********************************	=0 ****** LOCATION SANTA FE, NEW M
***	**************************************	**
**************************************	**************************************	ER=1.87 .35 IN RAIN SIX=2.80 IN .90 IN DT=0.05 HRS
COMPL = TO	JTED S.C.S. TYPE II-a RAINFA 0.050000 HOURS END	COMPUTED S.C.S. TYPE II-a RAINFALL DISTRIBUTION FOR NEW MEXICO DT = 0.050000 HOURS END TIME = 24.000002 HOURS

0.0050 0.0113 0.0179

0.0042 0.0103 0.0169 0.0239 0.0314

0.0033 0.0094 0.0159 0.0228

0.0150 0.0218

0.0017 0.0077 0.0140 0.0208

0.0008 0.0068 0.0131 0.0198

0.0000 0.0059 0.0122 0.0188

0.0292

0.0270

0.0260

9.0025 0.0086 0.0249

			18	·.out		
. 033	. 034	. 035	$\sim$	. 038	. 63	. 64
. 041	43	4	045	Ō	8	0.0495
. 050	0.0522	53	54	.05	. 05	. 05
990.	. 062	63	65	990.	. 96	.07
.071	.073	7	9/	.078	88	86.
. 083	. 085	87	. 089			9
697	.100	0.1022	.104	10	10	.11
.114	.116	.119	.122	.12	. 12	.13
.133	.136	.140	.143	.14	15	.15
.158	.162	.166	.171	.17	18	.18
.191	.197	.203	.210	.21	.22	.23
.247	.259	.272	.286	.71	.14	.57
. 992	.430	.463	.486	.58	.51	.53
.543	.552	.561	. 569	.57	.58	.58
. 595	.601	.696	.611	.61	.61	.62
.627	.631	.634	.638	.64	.64	.64
.650	.653	.655	.658	99.	99.	99.
.668	.670	.672	.674	.67	.67	.68
2.6826	00	2.6863	2.6882	9	2.6917	2.6934
.695	969.	.698	.699	.78	.78	.70
. 705	.797	.708	.719	.71	.71	.71
.715	.716	.718	.719	.72	.72	.72
.724	.725	.726	.727	.72	.72	.73
.732	.733	.734	.735	.73	.73	.73
.739	.740	.741	.742	74	.74	.74
.746	.746	.747	.748	.74	.75	.75
.752	.753	.753	.754	S	.75	.75
.758	.758	.759	.760	.76	.76	.76
.763	.764	.764	.765	.76	.76	.76
.768	.769	.770	.770	.77	7	77
.773	.774	.775	.776	.77	.77	.77
2.7789	.779	.780	.781	.78	.78	.78
784	.784	.785	.786	.78	. 78	.78
.788	.789	.790	.791	.79	.79	.79
.79	.79	.795	.795	.79	.79	.79
. 798	.799	.799	.800	89	89	89
80	.803	2.8043	804	88	.80	89
			Ċ	0		

2.8112	15	2.8197	2.8238	2.8278	2.8318	2.8357	.839	2.84			2.854	2.8	2.869	2.8643			2.8740	2.8772	2.8803	2.8834	2.8864	2.8893	2.8923	2.8951	2.8980	
•		œ	.82	.827	.831	2.8351	2.8389	•	2.8464	2.8500		2.8570	2.8604	2.8638		2.8704	2.8736	.876	2.8799	2.8829	2.8859	2.8889	2.8918	2.8947	2.8976	
100yr.0ul 33 2.8100	2.8143	•	.822	2.8267	2.8307	2.8346	2.8384	2.8422	.84	2.8495	.85	•	2.8599	•	•	.869	2.8731	.876	2.8794	2.8825	2.8855	.888	2.8914	2.8943	2.8972	2.9000
.89	2.8137	.81	.822	2.8261	2.8301	2.8340	2.8379	2.8416	2.8453	2.8489	2.8525	2.8560	2.8595		2.8662	2.8694	2.8727	2.8758	2.8790	2.8820		2.8881	2.8910	2.8939	2.8968	2.8996
2.8087	$\vdash$	.817	.821	2.8255	2.8295	.833	.837	.841	.844	2.8484	.852	w	2.8590	2.8624	2.8657	.86	2.8722	.87	•	2.8816	2.8846	2.8876	2.8906	2.8935	2.8964	2.8992
2.8081	∞.	2.8167	2.8209	2.8250	2.8290	2.8329	2.8368	2.8406	2.8443	2.8479	2.8515	2.8550	2.8585	2.8619	2.8652	2.8685	2.8718	2.8749	2.8781	2.8812	2.8842	2.8872	2.8902	2.8931	2.8960	2.8988
2.8074	.811	2.8161	2.8203	2.8244	2.8284	2.8324	2.8362	2.8400	2.8437	2.8474	2.8510	2.8545	2.8580	2.8614	2.8647		2.8713	2.8745	2.8776	2.8807	2.8838	2.8868	2.8898	2.8927	2.8956	2.8984

Page 3

ş,

100yr.out

PER C=6 PER D=94 ID=1 HYD=0SB1 AREA=.000730SQ MI. MASS RAIN=-1 PER A=0 PER B=0 TP=0.1333 HR COMPUTE NM HYD

SHAPE CONSTANT, N = 7.106428B = 526.28 P60 = 2.3500 INF = 0.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 HR TP = 0.133300HR K/TP RATIO = 0.545000 2.7092 CFS INTT VALUE 0.000686 SQ MI IA = 0.10000 INCHES K = 0.072649HRUNIT PEAK =

SHAPE CONSTANT, N = 4.271266 P60 = 2.3500B = 372.87 P60 = 2.3 INF = 0.83000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 372.87 K = 0.111281HR TP = 0.133300HR K/TP RATIO = 0.834817 UNIT PEAK = 0.12252 CFS UNIT VOLUME = 0.9002 B = = 0.12252 CFS UNIT VOLUME = 0.9002 0.000044 SQ MI IA = 0.35000 INCHES UNIT VOLUME = AREA =

# PRINT HYD ID=1 CODE=20

## HYDROGRAPH FROM AREA OSB1

FLOW		CFS		0.0		0.0		0.0		0.0		0.0	
TIME		HRS		15.000		16.000		17.000		18.000		19,000	
FLOW		CFS		9.6		0.0		0.0		9.6		9.0	
TIME		HRS		10.000		11.000		12.000		13.000		14.000	
FLOW		CFS		0.0		3.4		9.9		0.0		0.0	
TIME		HRS		5.000		6.000		7.000		8.000		9.666	
FLOW		CFS		0.0		0.0		0.0		9.9		0.0	
TIME	FLOW	HRS	CFS	9.666	0.0	1.000	0.0	2.000	0.0	3.000	0.0	4.000	0.0
	TIME		HRS		20.000		21.000		22.000		23.000		24.000

0.0007 SQ. MI. BASIN AREA = 0.1058 ACRE-FEET 6.050 HOURS AT 3.40 CFS 2.71874 INCHES PEAK DISCHARGE RATE = RUNOFF VOLUME =

×

HYD=EXB1 AREA=.0021028SQ MI ID=2 COMPUTE NM HYD

PER A=0 PER B=37 PER C=33 PER D=30

TP=0.1333 HR MASS RAIN=-1

SHAPE CONSTANT, N = 7.106428 P60 = 2.3500INF = 0.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 526.28 # 8 0.545000 TP = 0.133300HR K/TP RATIO = 0.9951 IA = 0.10000 INCHES UNIT VOLUME = CFS 0.000631 SQ MI UNIT PEAK = 2.4906 K = 0.072649HR

SHAPE CONSTANT, N = 3.788546P60 = 2.3500INF = 1.05200 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 340.82 B K = 0.124447HR TP = 0.133300HR K/TP RATIO = 0.933585 0.9977 0.001472 SQ MI IA = 0.42929 INCHES UNIT VOLUME = CFS UNIT PEAK = 3.7635

PRINT HYD ID=2 CODE=20

HYDROGRAPH FROM AREA EXB1

FLOW		CFS		0.0		9.0		9.0		9.0		0.0	
TIME		HRS		15.000		16.000		17.000		18.000		19.666	
FLOW		CFS		0.0		0.0		0.0		9.0		0.0	
TIME		HRS		10.000		11.000		12.000		13.000		14.000	
FLOW		CFS		9.9		7.7		0.1		0.0		9.9	
TIME		HRS		5.000		6.999		7.000		8.999		9.000	
FLOW		CFS		9.0		0.0		0.0		0.0		0.0	
TIME	FLOW	HRS	CFS	9.999	0.0	1.000	0.0	2.666	0.0	3.000	0.0	4.000	9.0
	TIME		HRS		20.000		21.000		22.000		23.000		24.000

100yr.out

0.0021 SQ. MI. BASIN AREA = 0.2311 ACRE-FEET 6.050 HOURS AT 7.78 CFS PEAK DISCHARGE RATE = 7 70 CF

\*

HYD=EXB2 AREA=.005345SQ MI ID=3 COMPUTE NM HYD

PER A=0 PER B=0 PER C=28 PER D=72

TP=0.1333 HR MASS RAIN=-1

SHAPE CONSTANT, N = 7.106428 B = 526.28 · P60 = 2.3500 INF = 0.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 526.28 K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 UNIT PEAK = 15.194 CFS UNIT VOLUME = 0.9985 B = 0.003848 SQ MI IA = 0.10000 INCHES CFS UNIT VOLUME =

SHAPE CONSTANT, N = 4.271266P60 = 2.35000.83000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 B = 372.87K = 0.111281HR TP = 0.133300HR K/TP RATIO = 0.834817 UNIT PEAK = 4.1863 CFS UNIT VOLUME = 0.9991 B = INF = IA = 0.35000 INCHES 0.001497 SQ MI

PRINT HYD ID=3 CODE=20

HYDROGRAPH FROM AREA EXB2

	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
TIME	FLOW							
	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
HRS	CFS							
	0.000	9.0	5.000	6.2	10.000	9.1	15.000	0.0
20.000	9.0							)
	1.000	0.0	6.60	23.2	11.000	0.0	16.000	9.0
21.000	9.0							
	2.000	0.0	7.000	9.4	12.000	6.6	17.000	9.9
22.000	0.0			)				
	3.000	9.9	8.000	0.1	13.000	0.0	18.000	0.0
				Page 6		15		

100yr.out

HYD=EXB4 AREA=.000513SQ MI Page 7 ID=5 COMPUTE NM HYD

100yr.out PER A=0 PER B=65 PER C=35 PER D=0 TP=0.1333 HR MASS RAIN=-1

5 SHAPE CONSTANT, N = 3.695186	= 334.31 P60 = 2.3500	INF = 1.10300 INCHES PER HOUR	ENITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0 ASGAGA
0.95627	8		NIMBER ME
K/TP RATIO = 0.956275	CFS UNIT VOLUME = 0.9912	IA = 0.44750 INCHES	TRATTON
	VOLUME =	0.44750	TON/TNFT
TP = 0.133300HR	UNIT	IA =	ABSTRACT
TP = 0.		SQ MI	INITIAL
K = 0.127471HR T	UNIT PEAK = 1.2866	AREA = 0.000513	RUNOFF COMPUTED BY I

# PRINT HYD ID=5 CODE=20

# HYDROGRAPH FROM AREA EXB4

FLOW	CFS	1.6	
TIME	HRS	6.000	0.0005 SQ. MI.
FLOW	CFS	0.0 0.0	E-FEET BASIN AREA =
TIME	HRS	4.000	0.0473 ACRE-FEET 6.050 HOURS BASIN AREA
FLOW	CFS	0.0	= AT
TIME	HRS	2.000	1.72831 INCHES = 1.65 CFS
FLOW	CFS	0.0 0.0	LUME = HARGE RATE
TIME	HRS	0.000	RUNOFF VOLUME = PEAK DISCHARGE F
12 12 14	HR HR		

******		.45 PER D=55
**************************************	COMPUTE BASIN DEVELOPED CONDITIONS	HYD=B1 AREA=.0022045SQ MI PER A=0 PER B=0 PER C=45 PI .1333 HR MASS RAIN=-1 Page 8
****	E BASIN DE	HYD=B1
****	COMPUT	1D=6 TP
****		*S *S COMPUTE NM HYD
* * * * * * *	, , , , , , , , , , , , , , , , , , ,	*\$ *\$ *\$ COMPUTE 1

100yr.out

SHAPE CONSTANT, N = 7.106428P60 = 2.3500INF = 0.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 B = 526.280.545000 0.9971 K/TP RATIO = IA = 0.10000 INCHES UNIT PEAK = 4.7869 CFS UNIT VOLUME = AREA = 0.001212 SQ MI IA = 0.10000 TP = 0.133300HR K = 0.072649HR

SHAPE CONSTANT, N = 4.271266P60 = 2.3500INF = 0.83000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 B = 372.87K = 0.111281HR TP = 0.133300HR K/TP RATIO = 0.834817 0.9975 UNIT PEAK = 2.7749 CFS UNIT VOLUME = 0.997

PRINT HYD ID=6 CODE=20

## HYDROGRAPH FROM AREA B1

FLOW		CFS		0.0		0.0		0.0		0.0		0.0	
TIME		HRS		15.000		16.000		17.000		18.000		19.000	
FLOW		CFS		0.0		0.0		0.0		0.0		0.0	
TIME		HRS		10.000		11.000		12.000		13.000		14.000	
FLOW		CFS		0.0		9.2		9.5		0.0		0.0	
TIME		HRS		5.000		6.000		7.000		8.000		9.000	
FLOW		CFS		0.0		9.9		0.0		0.0		0.0	
TIME	FLOW	HRS	CFS	0.000	9.9	1.000	0.0	2.000	9.0	3.000	9.9	4.000	9.9
	TIME		HRS		20.000		21.000		22.000		23.000		24.000

0.0022 SQ. MI. BASIN AREA = 0.2787 ACRE-FEET 6.050 HOURS **■** ¥ 9.26 CFS 2.37055 INCHES PEAK DISCHARGE RATE = RUNOFF VOLUME =

100yr.out COMPUTE NM HYD ID=8 HYD=B2 AREA=.00500255Q MI

PER A=0 PER B=0 PER C=22 PER D=78

TP=0.1333 HR MASS RAIN=-1

SHAPE CONSTANT, N = 7.106428 P60 = 2.3500INF = 0.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 526.28 8 II K/TP RATIO = 0.545000UNIT PEAK = 15.405 CFS UNIT VOLUME = 0.9985 **0.10000 INCHES** TP = 0.133300HR = VI 0.003902 SQ MI K = 0.072649HR

SHAPE CONSTANT, N = 4.271266P60 = 2.3500INF = 0.83000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 372.87 II K = 0.111281HR TP = 0.133300HR K/TP RATIO = 0.834817 0.9981 0.35000 INCHES CFS UNIT VOLUME = IA = 0.001101 SQ MI UNIT PEAK = 3.0785

PRINT HYD ID=8 CODE=20

HYDROGRAPH FROM AREA B2

FLOW	CFS	0.0	0.0	9.9	9.9	0.0
TIME	HRS	15.000	16.000	17.000	18.000	19.000
FLOW	CFS	0.1	0.0	0.0	0.0	9.0
TIME	HRS	10.000	11.000	12.000	13.000	14.000
FLOW	CFS	0.2	22.0	9.4	0.1	0.1
TIME	HRS	5.000	6.999	7.000	8.000	9.000
FLOW	CFS	9.9	9.9	0.0	0.0	0.0
TIME	HRS	9.666	1.000	2.888	3.000	4.666
TIME		999	21.000	22.000	23.000	24.000

0.0050 SQ. MI. BASIN AREA = 0.6872 ACRE-FEET 6.050 HOURS " **∀** 2.57589 INCHES PEAK DISCHARGE RATE = RUNOFF VOLUME =

PER A=0 PER B=0 PER C=0 PER D=100 MASS RAIN=-1 HYD=B3 AREA=.0005118SQ MI ID=9 COMPUTE NM HYD

TP=0.1333 HR

SHAPE CONSTANT, N = 7.106428 B = 526.28 P60 = 2.3500 INF = 0.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 K = 0.072649HR TP = 0.133300HR K/TP RATIO = 0.545000 0.9941 UNIT PEAK = 2.0206 CFS UNIT VOLUME = 0.994: AREA = 0.0006512 SQ MI IA = 0.10000 INCHES

CODE=20 ID=9 PRINT HYD HYDROGRAPH FROM AREA B3

IME FLOW TIME	FLOW	HRS CFS HRS	CFS	3.666 6.6 5.666	0.0	0.0 0.0 0.001.	2.000 0.0 7.000	0.0	3.000 8.0 8.000	4.000 9.0 9.000	9
FLOW		CFS		0.0		2.4	0.0		0.0	0.0	
TIME		HRS		10.000		11.000	12.000		13.000	14.000	
FLOW		CFS		0.0		0.0	0.0		0.0	0.0	
TIME		HRS		15.000		16.000	17.000		18.000	19.000	
FLOW		CFS		9.0		9.0	0.0		9.9	9.0	

BASIN AREA = 0.0005 SQ. MI. 0.0757 ACRE-FEET 6.050 HOURS = A 2.41 CFS 2.77230 INCHES PEAK DISCHARGE RATE = RUNOFF VOLUME =

100yr.out AREA=.0006045SQ MI HYD=B4 ID=10 COMPUTE NM HYD

PER A=0 PER B=0 PER C=0 PER D=100 MASS RAIN=-1 TP=0.1333 HR

0.133300HR K/TP RATIO = 0.545000

TP =

K = 0.072649HR

SHAPE CONSTANT, N = 7.106428

P60 = 2.35000.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 526.28 Ш В INF = 0.9951 0.10000 INCHES UNIT VOLUME = IA = CFS 0.000605 SQ MI UNIT PEAK = 2.3866 AREA =

ID=10 CODE=20 PRINT HYD

## HYDROGRAPH FROM AREA B4

FLOW		CFS		0.0		9.9		0.0		0.0		0.0	
TIME		HRS		15.000		16.000		17.000		18.000		19.000	
FLOW		CFS		0.0		0.0		0.0		0.0		0.0	
TIME		HRS		10.000		11.000		12.000		13.000		14.000	
FLOW		CFS		0.0		2.8		0.0		0.0		0.0	
TIME		HRS		5.000		6.000		7.000		8.000		9.66	
FLOW		CFS		9.0		9.0		9.0		0.0		0.0	
TIME	FLOW	HRS	CFS	0.000	0.0	1.000	9.9	2.000	0.0	3.000	0.0	4.000	0.0
	TIME		HRS		20.000		21.000		22.000		23.000		24.000

0.0006 SQ. MI. BASIN AREA = 0.0894 ACRE-FEET 6.050 HOURS AT 2.84 CFS 2.77230 INCHES PEAK DISCHARGE RATE = RUNOFF VOLUME =

COMPUTE NM HYD

AREA=.0001399SQ MI PER A=0 PER B=0 PER C=89 PER D=11 MASS RAIN=-1 Page 12 TP=0.1333 HR HYD=B5 ID=11

### 100yr.out

SHAPE CONSTANT, N = 7.106428 P60 = 2.3500INF = 0.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 B = 526.280.545000 0.8994 K/TP RATIO = UNIT PEAK = 0.60757E-01CFS UNIT VOLUME = 0.899. AREA = 0.000015 SQ MI IA = 0.10000 INCHES TP = 0.133300HR 0.000015 SQ MI K = 0.072649HR

SHAPE CONSTANT, N = 4.271266P60 = 2.3500INF = 0.83000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 B = 372.87K = 0.111281HR TP = 0.133300HR K/TP RATIO = 0.834817 9.9662 UNIT PEAK = 0.34828 CFS UNIT VOLUME = 0.966. AREA = 0.000125 SQ MI IA = 0.35000 INCHES 0.000125 SQ MI

PRINT HYD ID=11 CODE=20

## HYDROGRAPH FROM AREA B5

FLOW	CFS	6.5			
TIME	HRS	6.999			0.0001 SQ. MI.
FLOW	CFS	0.0	0.0	E-FEET	3ASIN AREA =
TIME	HRS	4.000	5.000	0.0148 ACRE-FEET	5.050 HOURS E
FLOW	CFS	9.9	0.0	Œ	ΑT
TIME	HRS	2.000	3.000	1.97771 INCHES	E = 0.54 CFS
FLOW	CFS	0.0	0.0	UME =	
TIME	HRS	0.000 0.000	1.000	RUNOFF VOLUME =	PEAK DISCHARGE RAT
TWL		£			

\*

PER A=0 PER B=0 PER C=100 PER D=0 MASS RAIN=-1 AREA=.0000987SQ MI TP=0.1333 HR HYD=86 ID=12 COMPUTE NM HYD

SHAPE CONSTANT, N = 4.271266 P60 = 2.3500INF = 0.83000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 372.87 0.834817 0.133300HR K/TP RATIO = 0.9538 IA = 0.35000 INCHES CFS UNIT VOLUME = AREA = 0.000099 SQ MI H d L UNIT PEAK = 0.27608 K = 0.111281HR

88yr.out

PR	PRINT HYD		ID=12 CODE=20	E=20				
				HYDRO	HYDROGRAPH FROM AREA B6	A B6		
	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
TIME	FLOW			ļ	!	!	!	
	Ŧ	CFS	HRS	CFS	HRS	CFS	HRS	CFS
HRS	CFS							
	0.000	0.0	2.000	0.0	4.660	0.0	6.000	9.4
	1.000	0.0	3.000	0.0	5.000	0.0		
	RUNOFF VOLUME PEAK DISCHARGE	= RATE	1.87951 INCHES = 0.37 CFS AT	= S	0.0099 ACRE-FEET	RE-FEET BASIN ARFA =	0.0099 ACRE-FEET 6.050 HOURS BASTN ARFA = 0.0001 SO MI	
				: :	)		!	•

4

COMPUTE NM HYD ID=13 HYD=B7 AREA=.0006103SQ MI

PER A=0 PER B=0 PER C=37 PER D=63

TP=0.1333 HR MASS RAIN=-1

SHAPE CONSTANT, N = 7.106428 P60 = 2.35000.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 526.28 ш В 0.545000 INF = 0.9928 TP = 0.133300HR K/TP RATIO = 0.10000 INCHES CFS UNIT VOLUME = IA = 0.000384 SQ MI UNIT PEAK = 1.5180 K = 0.072649HR

SHAPE CONSTANT, N = 4.271266 P60 = 2.35000.83000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 372.87 0.834817 INF = K = 0.111281HR TP = 0.133300HR K/TP RATIO = UNIT PEAK = 0.63164 CFS UNIT VOLUME = 0.9823 0.000226 SQ MI IA = 0.35000 INCHES AREA =

PRINT HYD

ID=13 CODE=20

HYDROGRAPH FROM AREA B7

	FLOW		CFS		9.0		0.0		0.0		0.0		0.0	
	TIME		HRS		15.000		16.000		17.000		18.000		19.000	
	FLOW		CFS		0.0		0.0		9.9		9.0		0.0	
out	TIME		HRS		10.000		11.000		12.000		13.000		14.000	
100yr.out	FLOW		CFS		0.0		2.6		0.0		0.0		0.0	
	TIME		HRS		5.000		6.000		7.000		8.000		9.000	
	FLOW		CFS		0.0		0.0		0.0		0.0		0.0	
	TIME	FLOW	HRS	CFS	0.000	0.0	1.000	0.0	2.000	0.0	3.000	0.0	4.000	0.0
		TIME		HRS		20.000		21.000		22.000		23.000		24.000

0.0006 SQ. MI. BASIN AREA = 0.0795 ACRE-FEET 6.050 HOURS Ą 2.64 CFS 2.44197 INCHES PEAK DISCHARGE RATE = RUNOFF VOLUME =

\*S THIS IS BASIN IS SIMULATING THE OFFSITE PUBLIC STORM DRAIN WITH 9 CFS. AREA=.00193SQ MI ID=14 HYD=OFFSITE COMPUTE NM HYD

PER A=0 PER B=0 PER C=0 PER D=100

TP=0.1333 HR MASS RAIN=-1

SHAPE CONSTANT, N = 7.106428= 526.28 P60 = 2.3500 0.04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000 11 8 0.133300HR K/TP RATIO = 0.545000 INF = 0.9978 UNIT VOLUME = 0.9970 IA = 0.10000 INCHES 0.001930 SQ MI K = 0.072649HR TP = UNIT PEAK = 7.6197 ( AREA =

PRINT HYD ID=14 CODE=20

HYDROGRAPH FROM AREA OFFSITE

TIME FLOW TIME FLOW TIME FLOW FLOW TIME TIME

				1	<b>100</b> yr.out			
	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
HRS	CFS							
	0.000	9.0	5.000	0.1	10.000	0.0	15.000	0.0
20.000	0.0							
	1.000	0.0	6.000	80 0.	11.000	0.0	16.000	9.0
21.000	0.0							
	2.000	0.0	7.000	9.2	12.000	0.0	17.000	0.0
22.000	0.0							
	3.000	0.0	8.000	9.1	13.000	9.0	18.000	9.0
23.000	0.0							
	4.000	0.0	9.000	0.0	14.666	9.0	19,000	0.0
24.000	0.0							
	RUNOFF VOLUME =	UME =	2.77230 INCHES	11	0.2854 ACRE-FEET	RE-FEET		
	PEAK DISCHARGE RATE	ARGE RATE	= 9.04 CFS	ΑT	6.050 HOURS	BASIN AREA =	0.0019 SQ. MI.	

\* ADD HYDROGRAPH FROM BASIN B1 AND OFFSITE BASIN OSB1 (FIRE STATION)
ADD HYD
ID=30 CODE=20

HYDROGRAPH FROM AREA SUM

FLOW		CFS		0.0		0.0		0.0		0.0	
TIME		HRS		15.000		16.000		17.000		18.000	
FLOW		CFS		0.0		0.0		9.0		9.0	
TIME		HRS		10.000		11.000		12.000		13.000	
FLOW		CFS		0.1		12.5		0.5		0.1	
TIME		HRS		5.000		6.000		7.000		8.000	
FLOW		CFS		9.0		9.9		9.0		9.9	
TIME	FLOW	HRS	CFS	0.000	0.0	1.000	0.0	2.000	0.0	3.000	9.9
	TIME		HRS		20.000		21.000		22.000		23.000

0.0					FLOW	CFS		6.6	ď	9.	0.0	9	9	0.0		
-51					FL	Ü					_			_		
0	. MI.							0	G	<b>D</b>	0	ď	<b>&gt;</b>	0		. MI.
19.000	) 80				TIME	HRS		15.000	16 000	9	17.000	10 000	9	19.000		1 50
Т	0.0029 SQ.							H	-	-1	7	-	1	Н		0.0011 SQ.
	 <b>∢</b>															   <b>4</b>
9.0	T ARE				FLOW	CFS		9.0	g	9	0.0	ď		0.0		T   ARE
	0.3845 ACRE-FEET 0 0 HOURS BASIN AREA			SUM	щ											0.1650 ACRE-FEET 0 HOURS BASIN AREA
14.000	ACR		=10	HYDROGRAPH FROM AREA SUM	TIME	HRS		10.000	11 000		12.000	13 000	8	14.000		<b>A</b> CR
ut 14.	.3845 HOUR		ID II=10	ROM	I			10.	7	-	12.	4	;	14.		.1658 HOUR
100yr.out 1	0.3845 6.050 HOURS			APH I												0.1650 / 6.050 HOURS
			0=I OI	ROGR	_			0	r	1	1	g	<b>)</b>	0		
0.0	= AT		MUS	H	FLOW	CFS		9.9	7	'n	0.1	G	•	9.9		= a
	INCHES 12.66 CFS		HYD=SUM													INCHES 5.25 CFS
9.000	INC 12.6		35 E=20		TIME	HRS		5.000	999		7.000	8		9.666		INC 5.2
o	2.45698 INCHES = 12.66 C		D B4 COC		_			ın	u	,	_	Q	,	o,		2.77193 INCHES = 5.25 C
	ш		M B3 AND B4 ID=3 ID=35 COD													ш
0.0	= RAT		_		3	v		0.0	o o		0.0	G	•	9.0		RAT
0	UME		PH F		FLOW	CFS		0	G	•	0	G	•	0		.UME IARGE
ø. 0	F VOI		ROGR/		-	3	CFS	0	0 0	9.0	0	0 0 9	9		0.0	F VOI
4.000	RUNOFF VOLUME = PEAK DISCHARGE RAT		440 440 440		TIME	HRS	Ū	0.000	90.00		2.000	900	, ,	4.999		RUNOFF VOLUME = PEAK DISCHARGE RATI
	ææ	ע	* ADD HYDROGRAPH FROM ADD HYD PRINT HYD												90	& <b>G</b>
24.000		*	. ~ u		ļ	- LME	HRS		20.000	21.000		22.000	23.000		24.000	

\* ADD HYDROGRAPH FROM B3, B4 AND B5

		FLOW	CFS	•	0.0	0.0		0.0		0.0		9.0								FLOW	CFS	
		TIME	HRS		15.000	16.999		17.000		18.000		19.000		0.0013 SQ. MI.						TIME	HRS	
	SUM	FLOW	CFS	ı	9.9	0.0		0.0	,	9.9		0.0		E-FEET BASIN AREA =					SUM	FLOW	CFS	
100yr.out D I=35 ID II=11	HYDROGRAPH FROM AREA SUM	TIME	HRS		10.000	11.000		12.000		13.000		14.000		0.1795 ACRE-FEET 6.050 HOURS BASIN			T=38 IN TT=48		HYDROGRAPH FROM AREA S	TIME	HRS	Page 18
Ħ	HYDROGRA	FLOW	CFS		0.0	5.7		0.1	,	9.0		9.0		:S = CFS AT 6.			B5 M TD	1	HYDROGRA	FLOW	CFS	Pag
ID=40 HYD=SUM CODE=20		TIME	HRS		5.000	6.999		7.000		8.000		9.666		2.67986 INCHES = 5.79 CF			OS1 AND B3, B4, TD=45 HVD=SI			TIME	HRS	
ID=40		FLOW	CFS		9.9	0.0		0.0	(	0.0		0.0		RATE			* ADD HYDROGRAPH FROM B1, O ADD HYD	ID=45		FLOW	CFS	
ADD HYD PRINT HYD		TIME	HRS	CFS	0.000	1.000	0.0	2.000	0.0	3.000	0.0	4.000	0.0	RUNOFF VOLUME = PEAK DISCHARGE			D HYDROGRA	PRINT HYD		TIME	HRS	35
ADD PRIN		TTME	į	HRS	900		21.000		22.000	6	23.000		24.000		*	*	* ADD HYD	PRIN		TTME	1 61	Ş

				100y	100yr.out			
	0.000	0.0	5.000	9.1	10.000	0.0	15.000	0.0
20.000	0.0							
	1.000	0.0	6.999	18.3	11.666	0.0	16.000	0.0
21.000	9.9							
	2.000	0.0	7.000	6.3	12.666	9.0	17.000	0.0
22.000	9.9							
	3.000	9.9	8.000	0.1	13.000	0.0	18.000	9.9
23.000	0.0							
	4.000	9.9	9.666	0.1	14.600	0.0	19.000	0.0
24.000	0.0							
	RUNOFF VOLUME =		2.52379 INCHES	11	0.5641 ACRE-FEET	-FEET		
	PEAK DISCH	RATE	18.45 CFS	ΑŢ	6.050 HOURS B	BASIN AREA =	0.0042 SQ. MI.	
*								
*								
* A ADD PRT	* ADD HYDROGRAPH FROM ADD HYD PRINT HYD	APH FROM B1, TD=45	OS1, B3, B4, ID=45 HYD= CODE=20	B4, B5 AND OFFSI <sup>-</sup> HYD=SUM ID I=45 )	B5 AND OFFSITE PUBLIC STORM DRAIN SUM ID I=45 ID II=14	TORM DRAIN		
	<b>)</b>							
				HYDROGRA	HYDROGRAPH FROM AREA SUM	SUM		
	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW
TIME	FLOW							
	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS
HRS	CFS							
	0.000	0.0	5.000	0.5	10.000	0.1	15.000	0.0
20.000	0.0							
	1.000	0.0	6.000	27.2	11.000	0.1	16.000	0.0
21.000	0.0							
	2.000	0.0	7.000	9.4	12.000	0.0	17.000	0.0
22.000	9.9							
;	3.000	0.0	8.000	0.1	13.000	0.0	18.000	0.0
23.000	0.0							
	4.000	9.6	9.66	0.1		9.0	19.000	0.0
				Page	je 19			

100yr.out

0.0 24.000

0.0061 SQ. MI. BASIN AREA = 0.8494 ACRE-FEET 6.050 HOURS ΑT II 27.49 CFS 2.60209 INCHES PEAK DISCHARGE RATE = RUNOFF VOLUME =

\*S ROUTE BASIN B1, OFFSITE BASIN OSB1 (FIRE STATION), B3, B4, B5 \*AND PUBLIC STORM DRAIN INTO POND 1. OUTFLOW BASED ON 24" ORIFICE

ELEV (FT) STORAGE (AC-FT) INFLOW ID=45 CODE=20 OUTFLOW (CFS) 0.0 HYD=POND1 ID=50 ROUTE RESERVOIR

7374.0 9.66

7375.0 7376.0 9.00 0.14 15.6 7.0

7377.0 0.25

22.1

OUTFLOW VOLUME ELEV INFLOW TIME

9.09 9.09 9.00 9.00 9.17 (CFS) 9.999 9.999 9.999 0.000 (AC-FT) (FEET) 7374.00 7374.00 7374.00 7374.00 9.99 9.99 9.99 9.92 (CFS) 1.00 2.00 3.00 4.00 5.00 7.00 8.00 0.00 (HRS)

0.60 0.005 0.156 0.001 7376.15 7374.09 0.20

0.000

7374.00 7374.02

																					FLOW		CFS		0.0	Ó	9.	0.0		0.0	d	<i>o</i>
																					TIME		HRS		15.000	000	16.666	17.000		18.000	000	13.000
																6		0.050000HRS		ONDI	FLOW		CFS		0.1	Ţ	۵.۲	0.0		9.9	Ġ	z z
100yr.out 0.09	9.97	9.06	0.05	9.05	0.04	9.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	AT HOUR 6.10		INCREMENTAL TIME=		HYDROGRAPH FROM AREA POND1	TIME		HRS		10.000	7	11.000	12.000		13.000	4.000	14.000 Page 21
0.001					0.000	0.000		0.000	0.000	0.000	0.000	0.000		0.000	0.000	OCCUR	7376.689			HYDROGR	FLOW		CFS		0.5		10.6	9.6		0.1		<b>6</b>
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9.69	9.67	9.00	0.02	0.02	9.64	9.94	0.04	9.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03		R SURFACE	AGE =	ä		FLOW		CFS		9.0	d	e e	9.9		0.0	d	9.
99.6	19.99	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	24.00	PEAK DISCHARGE	MAXIMUM WATER SURFACE	MAXIMUM STORAGE	PRINT HYD		TIME	TIME FLOW	뚬	HRS CFS	9.06	7,000	1.000 21 000 0	2.08	22.000 0.0	3.06	0.0 000 0.02	4.000

9.0 24.000

0.0061 SQ. MI. BASIN AREA = 0.8494 ACRE-FEET 6.100 HOURS ΑT 20.08 CFS 2.60210 INCHES PEAK DISCHARGE RATE = RUNOFF VOLUME =

INFLOW ID=13 CODE=20 HYD=POND1 ID=55 ROUTE RESERVOIR

\*S ROUTE BASIN B7 INTO POND 2. OUTFLOW BASED ON 6" ORIFICE

ELEV (FT) 7365.0 STORAGE (AC-FT) 9.99 OUTFLOW (CFS) 9.0

7366.0

0.01

8.0

7367.0

0.04 1.3

7367.5 9.02

1.6

9.99 9.99 9.99 9.91 0.94 0.10 0.01 OUTFLOW (CFS) 0.000 0.000 0.000 0.000 0.000 0.019 9.999 0.001 (AC-FT) VOLUME ELEV (FEET) 7365.00 7365.00 7365.00 7365.00 7365.00 7365.02 7366.29 7365.13 7365.01 7365.01 INFLOW (CFS) 9.99 9.99 9.99 0.02 0.03 2.61 0.01 1.00 2.00 3.00 4.00 5.00 6.88 7.88 8.88 9.88 (HRS) TIME

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100yr.out	0.01	9.99	1.175 CFS - PEAK OCCURS AT HOUR	.750	INCREMENTAL TIME=
	0.000	0.000	S - PEAK O	= 7366.750	
	7365.01	7365.01	1.175 CF	ELEVATION	0.0325 AC-FT
	0.01	9.00	11	SURFACE	<b>三</b> 是
	10.00	11.00	PEAK DISCHARGE	MAXIMUM WATER SURFACE ELEVATION =	MAXIMUM STORAGE

CODE=20 ID=55 PRINT HYD

# HYDROGRAPH FROM AREA POND1

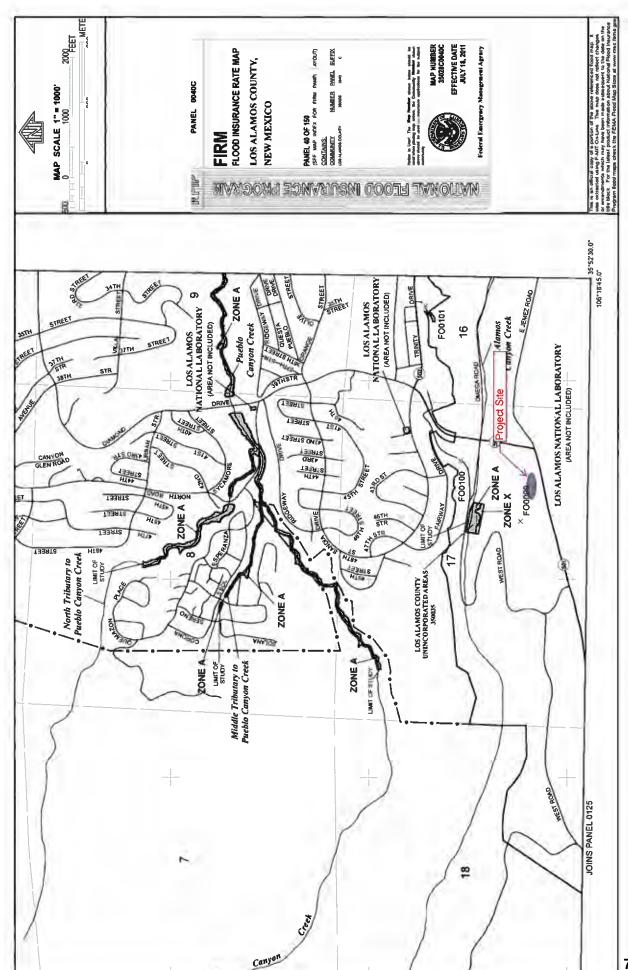
FLOW	CFS		0.0		9.9		9.9		9.9		0.0	
TIME	HRS		15.000		16.000		17.000		18.000		19.000	
FLOW	CFS		9.0		0.0		9.0		9.0		0.0	
TIME	HRS		10.000		11.000		12.000		13.000		14.000	
FLOW	CFS		0.0		<b>6</b> .0		6.1		0.0		0.0	
TIME	HRS		2.000		6.000		7.000		8.000		9.666	
FLOW	CFS		0.0		9.9		9.9		9.9		9.0	
TIME	HRS	CFS	0.000	0.0	1.000	0.0	2.000	0.0	3.000	0.0	4.000	0.0
TTME	1	HRS		20.000		21.000		22.000		23.000		24.000

0.0795 ACRE-FEET 6.150 HOURS BASIN AREA = 0.0006 SQ. MI. RUNOFF VOLUME = 2.44163 INCHES = PEAK DISCHARGE RATE = 1.18 CFS AT

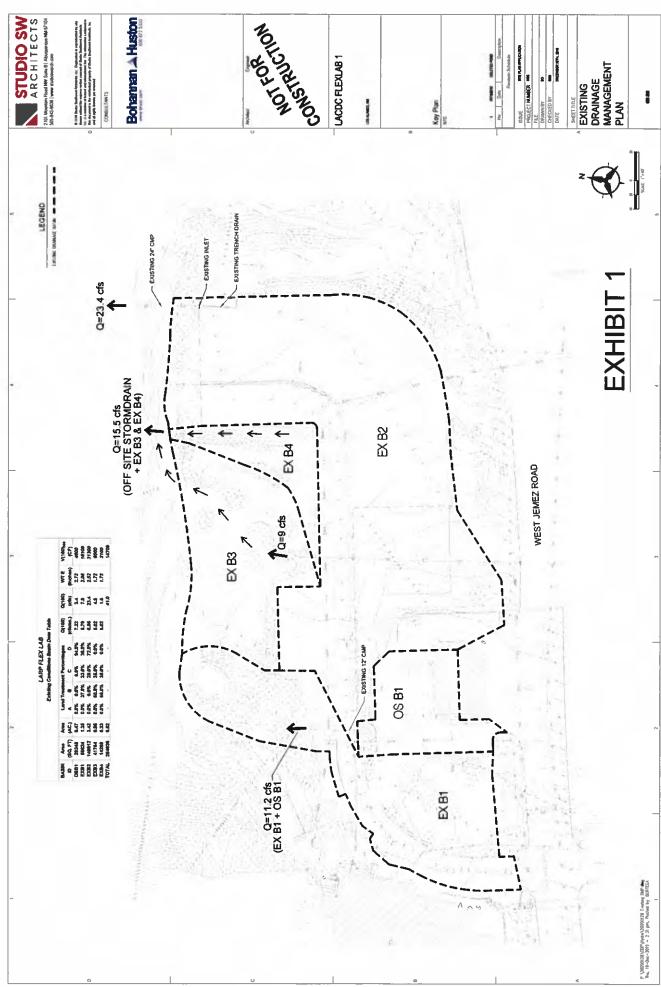
\*\*\*\*\*\* FINISH

69

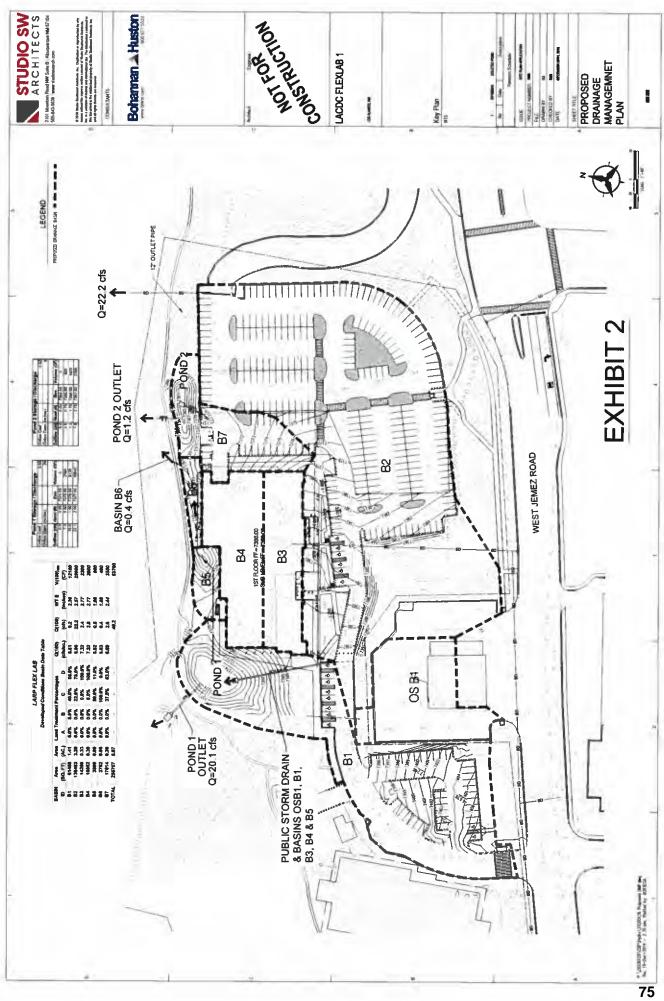
# APPENDIX C: FEMA FLOOD ZONE MAP



# EXHIBIT 1: EXISTING CONDITIONS BASIN MAP



# EXHIBIT 2: PROPOSED DRAINAGE MANAGEMENT PLAN





## **WAIVER APPLICATION**

#### **Los Alamos County Community Development Department**

1000 Central Ave, Suite 150, Los Alamos NM 87544 (505) 662-8120

Note: The Board of Adjustment considers Applications for Waivers at a public hearing. Waiver means an adjustment of dimensional requirements, parking regulations, or design standards contained in the Land Development Code. Waivers shall not apply to regulations controlling density or land use.

Describe the Waiver req	uest:			
Address of Property to v	which the Waiver	Request applies:		
Zoning District:	Acreage:	Lot Coverage:	Related Applications (if any):	
APPLICANT (Unless othe	rwise specified, a	II communication regardi	ng this application shall be to Applicant):	
Name:Please Print		Phone:	Cell #:	
Address:		Em	ail:	
SIGNATURE		DATE		
PROPERTY OWNER (If di	fferent from App	licant)	Check here if same as above	
Name:Please Print		Phone:	Cell #:	
Address:Owner's Address		Em	ail:	
My signature below indic	cates that I autho	rize the Applicant to make	e this Waiver application on my behalf.	
SIGNATURE			DATE	
THIS SECTION For County Use:	ON TO BE COMPL	ETED BY THE COMMUNIT	TY DEVELOPMENT DEPARTMENT	
Date of Submittal:			Staff Initial:	
CDD Application Number	r:		Fees Paid:	

	WAIVER REVIEW CRITERIA:
The Los Alamos County Code of Ordinances, Chapter 16, Development Code, Sec. 16-157 establishes four (criteria upon which the Board of Adjustment shall base its decision to approve, approve with conditions as imitations, or deny the waiver request. The Board's decision shall depend upon the extent to which the request meets or fails to meet these criteria. Please review each of the criteria listed and provide show the comments on how your application meets the criteria in the space provided. (Attach additional sheets if needed	
•	ranting of the waiver will not cause an intrusion into any utility or other easement unless approved by ne owner of the easement; and
riteria ( imitatio equest commer (a) Gr	Alamos County Code of Ordinances, Chapter 16, Development Code, Sec. 16-157 establishes four (4) upon which the Board of Adjustment shall base its decision to approve, approve with conditions and ons, or deny the waiver request. The Board's decision shall depend upon the extent to which the meets or fails to meet these criteria. Please review each of the criteria listed and provide short on how your application meets the criteria in the space provided. (Attach additional sheets if needed.) Franting of the waiver will not cause an intrusion into any utility or other easement unless approved by

•	est meets or fails to meet these criteria. Please review each of the criteria listed and provide short ments on how your application meets the criteria in the space provided. (Attach additional sheets if needed.)
(a)	Granting of the waiver will not cause an intrusion into any utility or other easement unless approved by the owner of the easement; and
	Refer to attached Greenhouse Waiver response document, response Qa.
(b)	The waiver request is caused by a practical difficulty or hardship inherent in the lot or lot improvements and the difficulty or hardship has not been self-imposed; and
	Refer to attached Greenhouse Waiver response document, response Qb.
(c)	Granting of the waiver will not create a health or safety hazard or violate building code requirements; and
	Refer to attached Greenhouse Waiver response document, response Qc.
(d)	Granting of the waiver will not create any significant negative physical impacts on property within 100 yards of the subject property such as reduced sight lines, loss of privacy, decreased security, increased noise, objectionable odors, intrusion of artificial light, the casting of unwanted shadows, or similar negative impacts.  Refer to attached Greenhouse Waiver response document, response Qd.
indic	SUBMITTALS:  ide all information necessary for a complete review of the Waiver request. Check each of the boxes to cate which information you have provided, and, if possible, also provide one complete copy of all erials on disk:
	Proof of property ownership.
	A scaleable drawing including all information pertinent to the waiver request:
	Existing and proposed lot coverage.  Show and label the footprint of all existing buildings and structures on the site.
	Show, dimension and label all existing and proposed easements.
	Show, dimension and label all existing and proposed setbacks.
	Show, dimension and label building/structure elevations.  Other. Describe:

## Waiver Response – GreenHouse Height

NARRATIVE RESPONSES Date: 2019.12.20

Project Name: FlexLab Project Number: 1906

#### **WAIVER APPLICATION [GREENHOUSE HEIGHT]:**

**Qa**: Granting of the waiver will not cause an intrusion into any utility or other easement unless approved by the owner of the easement; and

A: The greenhouse is entirely positioned on the lower roof of the proposed building; a waiver for its height has no impact on any existing or proposed utilities or easements.

**Qb**: The waiver request is caused by a practical difficulty or hardship inherent in the lot or lot improvements and the difficulty or hardship has not been self-imposed; and

A: For the greenhouse to function, it:

- 1. Must be in reasonable proximity to the laboratory spaces,
- 2. Can not be shaded, whether by any adjacent structures, existing trees, or topography, and
- 3. Be constructed to a reasonable height in order to house day-to-day operations and have the roof sloped to drain.

Given these restrictions, it must be close to or incorporated within the building itself, but can not be located at grade in close proximity to the proposed building due to shading. The offset distance required for it to be outside of shaded areas would be prohibitive.

The greenhouse therefore is located on the lower roof area of the proposed building, offset from the higher roof so as not to be shaded by the building structure to the west. The top of the greenhouse can not be lowered below the existing maximum allowable height while still adequately housing greenhouse operations and providing sufficient roof slope to drain.

Qc: Granting of the waiver will not create a health or safety hazard or violate building code requirements; and

A: Allowing for the height increase for the greenhouse does not impact other areas of the building or site and will be in compliance with all applicable codes and regulations.

**Qd**: Granting of the waiver will not create any significant negative physical impacts on property within 100 yards of the subject property such as reduced sight lines, loss of privacy, decreased security, increased noise, objectionable odors, intrusion of artificial light, the casting of unwanted shadows, or similar negative impacts.

A: The greenhouse is not located within close proximity to any adjacent property; therefore the allowance for a maximum height increase will not significantly impact any areas outside the property.



## **WAIVER APPLICATION**

#### **Los Alamos County Community Development Department**

1000 Central Ave, Suite 150, Los Alamos NM 87544 (505) 662-8120

Note: The Board of Adjustment considers Applications for Waivers at a public hearing. Waiver means an adjustment of dimensional requirements, parking regulations, or design standards contained in the Land Development Code. Waivers shall not apply to regulations controlling density or land use.

Describe the Waiver req	uest:			
Address of Property to v	which the Waiver	Request applies:		
Zoning District:	Acreage:	Lot Coverage:	Related Applications (if any):	
APPLICANT (Unless othe	rwise specified, a	II communication regardi	ng this application shall be to Applicant):	
Name:Please Print		Phone:	Cell #:	
Address:		Em	ail:	
SIGNATURE		DATE		
PROPERTY OWNER (If di	fferent from App	licant)	Check here if same as above	
Name:Please Print		Phone:	Cell #:	
Address:Owner's Address		Em	ail:	
My signature below indic	cates that I autho	rize the Applicant to make	e this Waiver application on my behalf.	
SIGNATURE			DATE	
THIS SECTION For County Use:	ON TO BE COMPL	ETED BY THE COMMUNIT	TY DEVELOPMENT DEPARTMENT	
Date of Submittal:			Staff Initial:	
CDD Application Number	r:		Fees Paid:	

crite limit requ	WAIVER REVIEW CRITERIA:  Los Alamos County Code of Ordinances, Chapter 16, Development Code, Sec. 16-157 establishes four (4) ria upon which the Board of Adjustment shall base its decision to approve, approve with conditions and ations, or deny the waiver request. The Board's decision shall depend upon the extent to which the est meets or fails to meet these criteria. Please review each of the criteria listed and provide short ments on how your application meets the criteria in the space provided. (Attach additional sheets if needed.)
(a)	Granting of the waiver will not cause an intrusion into any utility or other easement unless approved by the owner of the easement; and
	Refer to attached Parking Landscape response document, response Qa.
(b)	The waiver request is caused by a practical difficulty or hardship inherent in the lot or lot improvements and the difficulty or hardship has not been self-imposed; and
	Refer to attached Parking Landscape response document, response Qb.
(c)	Granting of the waiver will not create a health or safety hazard or violate building code requirements; and  Refer to attached Parking Landscape response document, response Qc.
(d)	Granting of the waiver will not create any significant negative physical impacts on property within 100 yards of the subject property such as reduced sight lines, loss of privacy, decreased security, increased noise, objectionable odors, intrusion of artificial light, the casting of unwanted shadows, or similar negative impacts.  Refer to attached Parking Landscape response document, response Qd.
	SUBMITTALS:  ide all information necessary for a complete review of the Waiver request. Check each of the boxes to
	cate which information you have provided, and, if possible, also provide one complete copy of all erials on disk:
	Proof of property ownership.  A scaleable drawing including all information pertinent to the waiver request:  Existing and proposed lot coverage.

Show and label the footprint of all existing buildings and structures on the site.

Show, dimension and label all existing and proposed easements.
Show, dimension and label all existing and proposed setbacks.
Show, dimension and label building/structure elevations.

Other. Describe: \_\_\_\_\_

81

### Waiver Response – Parking Landscape

NARRATIVE RESPONSES Date: 2019.12.20

Project Name: FlexLab Project Number: 1906

#### WAIVER APPLICATION [PARKING LANDSCAPE]:

**Qa**: Granting of the waiver will not cause an intrusion into any utility or other easement unless approved by the owner of the easement; and

A: Striping the parking lot in lieu of paving or landscaping has no impact on any existing or proposed easements or utilities; it does not change the overall configuration of the parking area.

**Qb**: The waiver request is caused by a practical difficulty or hardship inherent in the lot or lot improvements and the difficulty or hardship has not been self-imposed; and

A: Site access has changed since the master plan was originally developed. Due to the events of 9/11 a new security gate was added at West Jemez and Diamond Road. This severely restricts access to the site by virtue of restricting access to West Jemez Road, the intended main access to the site.

Prior to the construction of the security gate, West Jemez Road had provided access along the entire south perimeter of the site and to areas west of the existing building in the research park. This would have allowed access to portions of site where surface parking or parking structures could have been easily built. Once the security gate was added, and security barriers installed on Casa Grande within the Los Alamos Research Park, it restricted general access such that only the eastern portion of the site can be easily accessed by vehicles.

Between the setbacks and the challenging topography, limited area is available for surface parking. The surface parking as shown is adequate for the existing Building One and the proposed Building Two. The anticipated future laboratory research buildings will require additional parking on the site, which will be necessitate the construction of a parking structure as shown on the attached conceptual phasing diagram. Due to the site and access constraints, the future parking structure will be located in the south portion of the east parking lot, north of West Jemez, with access from Diamond Road. The development anticipates that the design and construction of this parking structure will occur in the near future.

Qc: Granting of the waiver will not create a health or safety hazard or violate building code requirements; and

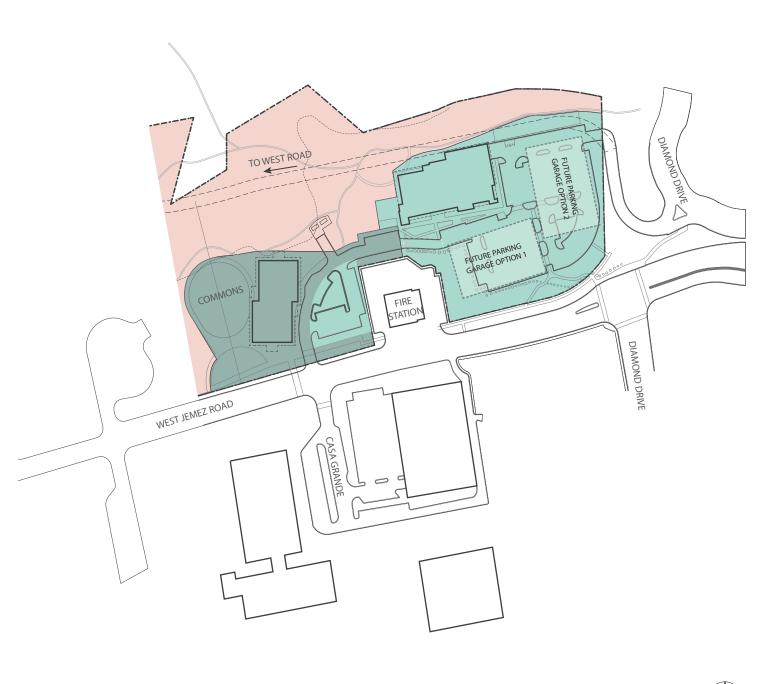
A: The granting of the waiver will not create a health or safety hazard or violate building code requirements. The request is that at this time, not to require a curb and gutter, raised pedestrian sidewalks through the parking lot, and required landscape within the parking lot. The perimeter of the proposed parking area will include be landscaped per county requirements.

Pedestrian walkways through the parking lot areas will be clearly designated for pedestrian safety. ADA parking is provided adjacent to the sidewalks. Painted areas will be clearly marked and visually apparent, and will not impact the function of the parking area. The existing parking area is currently painted with no interior curbs or landscape elements and will be updated to designate the new pedestrian walkways.

**Qd**: Granting of the waiver will not create any significant negative physical impacts on property within 100 yards of the subject property such as reduced sight lines, loss of privacy, decreased security, increased noise, objectionable odors, intrusion of artificial light, the casting of unwanted shadows, or similar negative impacts.

A: The waiver request is very similar to the existing parking lot conditions. Painting and striping in lieu of curbs and planters will not create any significant negative impacts on the property or surrounding area; the only adjacent property is LANL which will not be affected by this waiver. The dimensions of the parking delineations in plan are the same as they would be with curbs and planters. This decision creates a positive long term impact given that less demolition will be required when the parking structure is constructed in the future.





LEGEND



PHASE B

PHASE C

NO DEVELOPMENT

**CONCEPTUAL PHASING** 



MOT FOR MONTHON

LACDC FLEXLAB 1

MAGE IS CONCEPTUAL IN NATURE AND MA NOT DEPICT THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS

Sheets 500 - Architectural Site STE PLAN - CVERALL

**DRAWING INDEX** Sheets 000 - General - Shell COVER SHEET, PROJECT DIRECTORY Sheets 510 - Architectural
A-201 EXTEROR BULDNG ELEVATIONS
A-202 EXTEROR BULDNG ELEVATIONS
A-203 HEIGHT RESTRICTIONS

SHEETS - ELECTRICAL

SHEETS - LANDSCAPE

LC-101 LANDSCAPE CONSTRUCTION PLA LP-101 LANDSCAPE PLANTNG PLAN LP-102 LANDSCAPE SITE PLAN

SHEETTINE
COVER SHEET,
PROJECT DIRECTORY

VICINITY MAP/LOCATION MAF

MEP ENGINEER
BRIDGERS & PATCHO CONSLITHGENGINEERS
ABOLD MANCHONANGER BLUN BROAD
BRIDGEROLE NA 81101
FONDE GEORGISSE-HITT
GOOTHOLT-HEBAS SHRAM
BANL ASHRANGENCE COM

STRUCTURAL ENGINEER

CHARZ GRENES CONSULTING BYBINE
SAL SETERSONS THE
ALBUCKENALE NIM STING
THE (ES) SHAPPE
CONTINCT GEORGE BRADLEY
BANL GRADLEY SPOCENSISS COM

ARCHITECT STUDO SOUTHWEST ARCHITE 230 I MOUNTAIN ROAD NA ABLOLGENGE, IM 8719 PANE (80) 843-83 RX (80) 843-88 RX (80) 843-88 GOYLACT: ROA BLRSTEIN SAME PRUFSTEIN SSTUDOS

OWNERICLIENT
LOS MAMOS COMIEDES E ADENELOPI
COS MAMOS COMEDE PARS SOLME
LOS ALAMOS NA 87541
COS MACHE (50) BIEN 4814
CONTACT: PARIOS SULLIWM
EMMLE PATRICK SULLIWM
EMMLE PATRICK SULLIWM

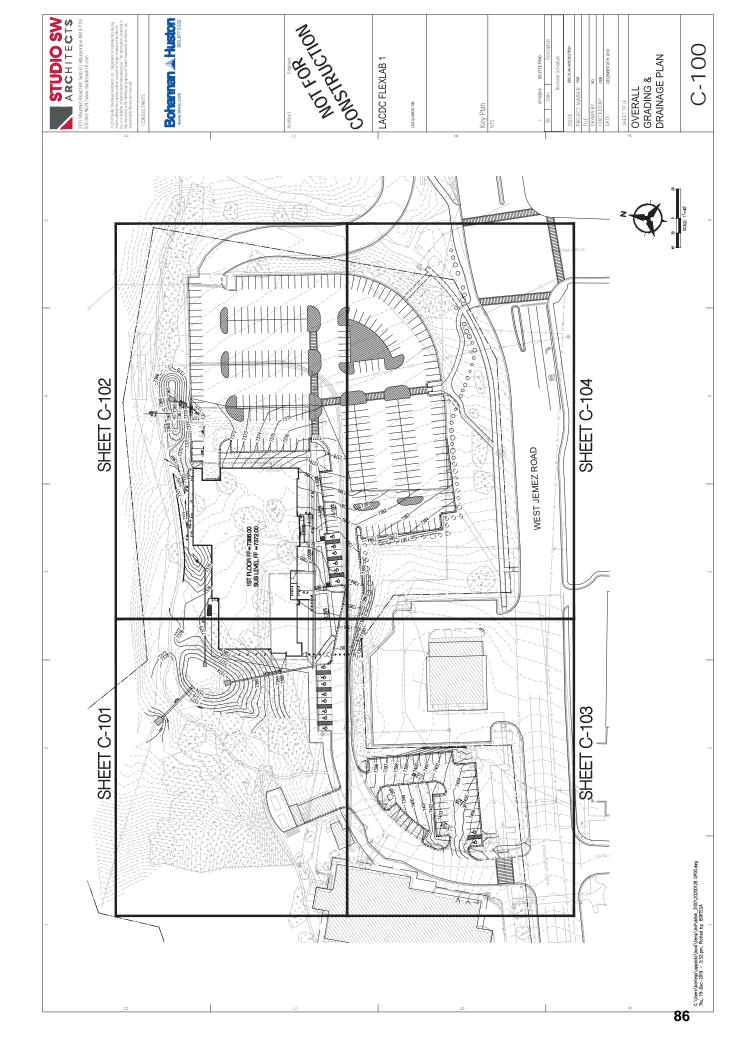
PROJECT DIRECTORY

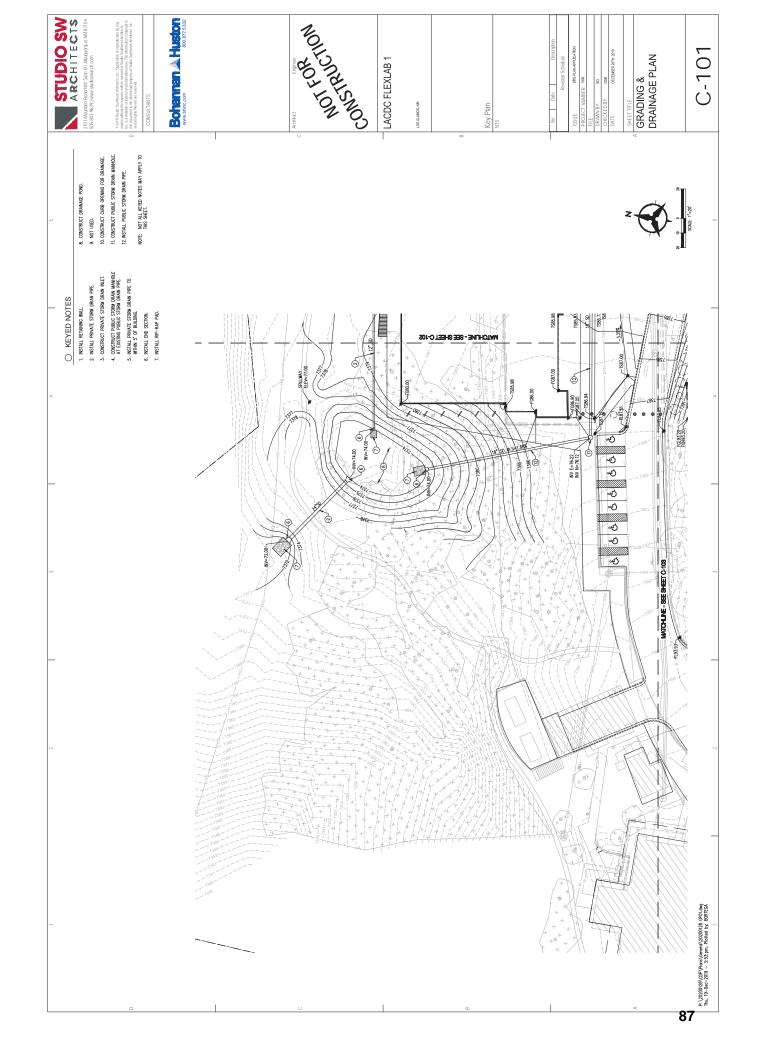
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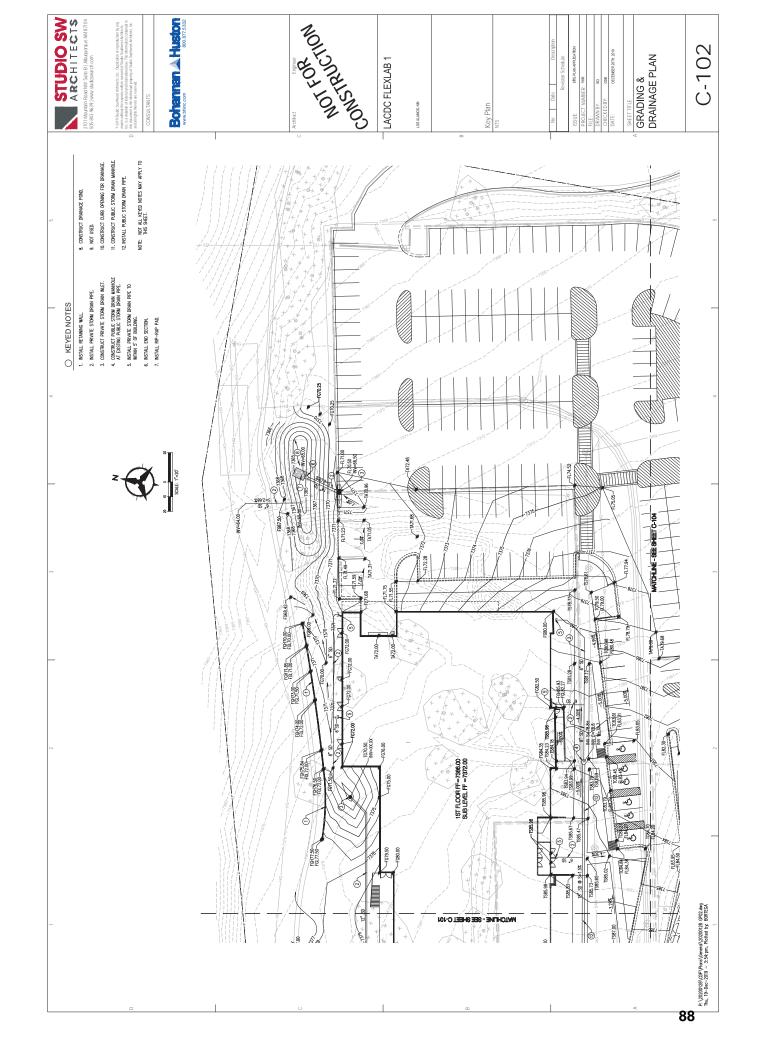
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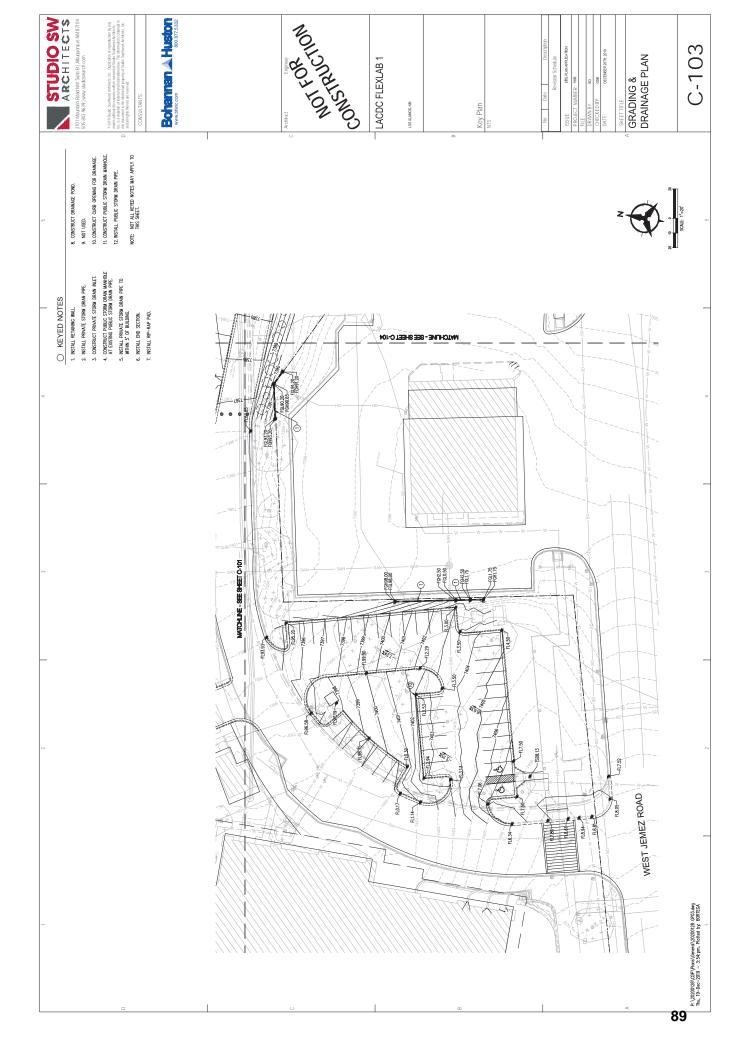
ACDC FLEXLAB1

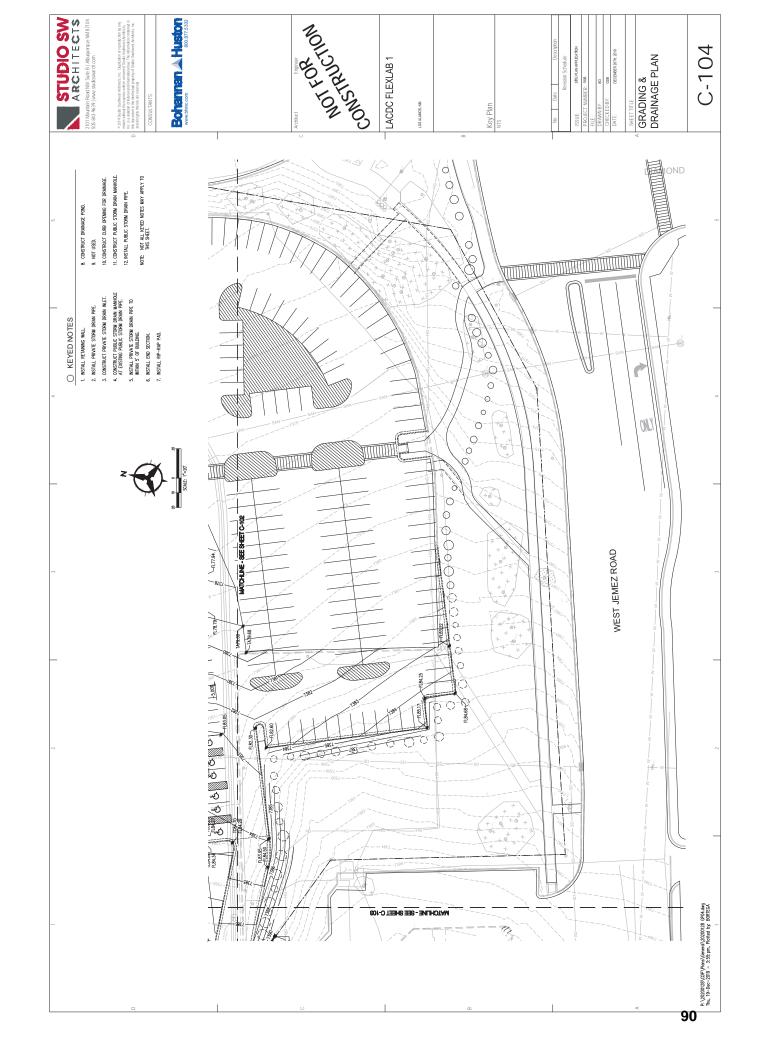
DECEMBER 20, 2019 SITE PLAN APPLICATION

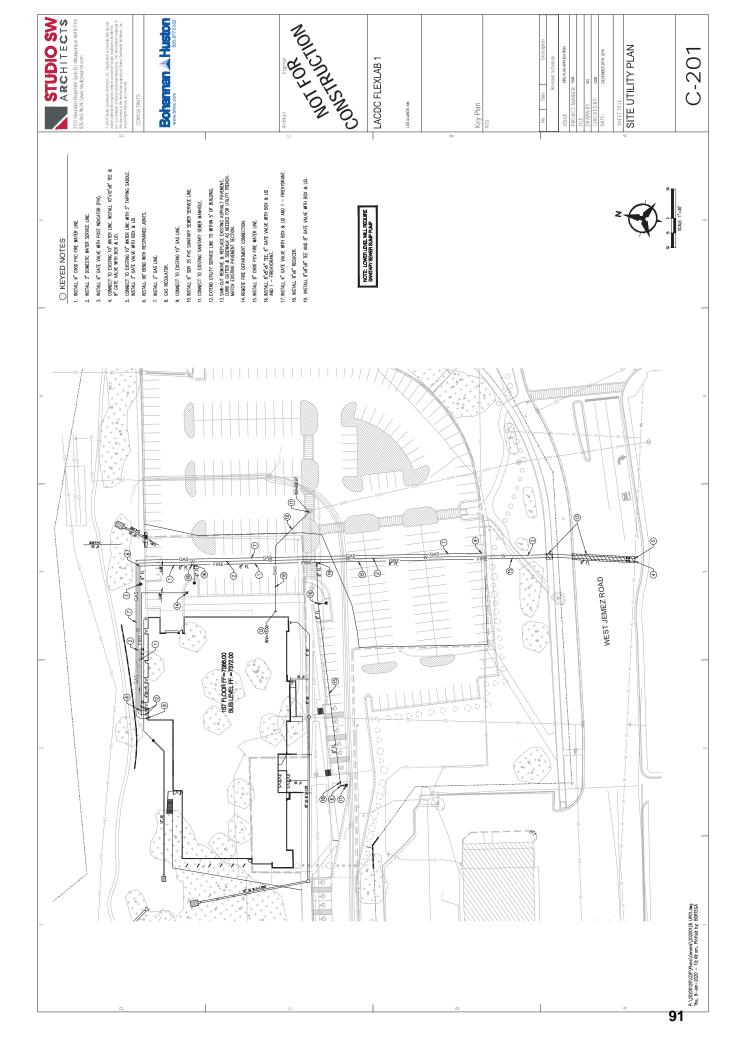


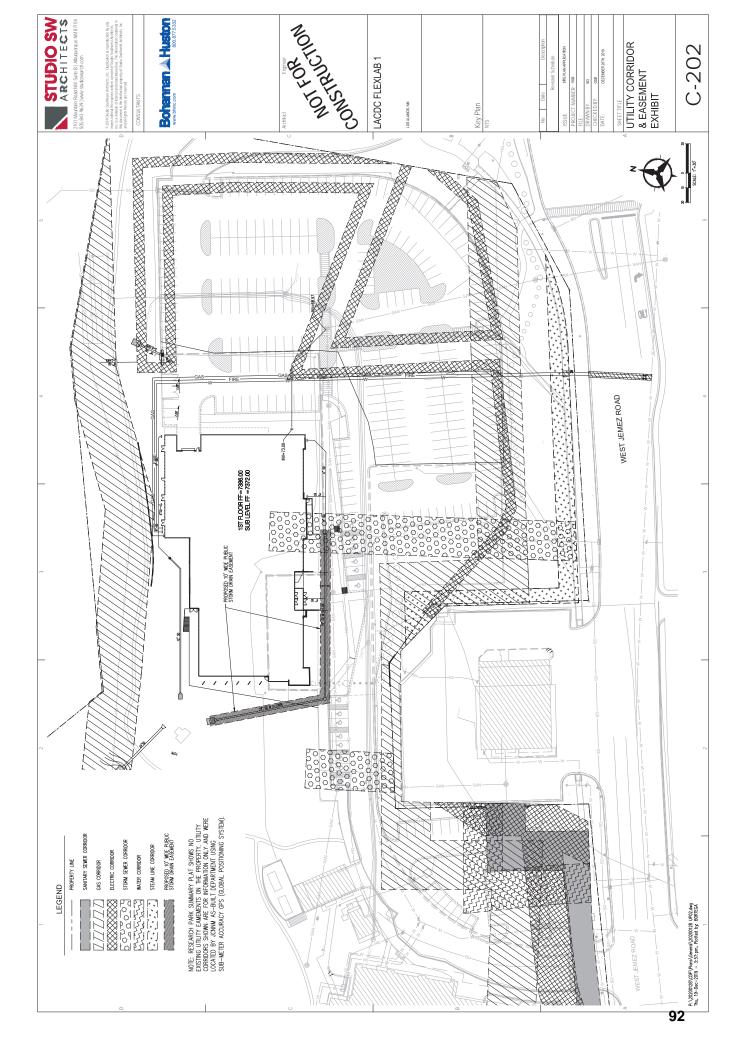


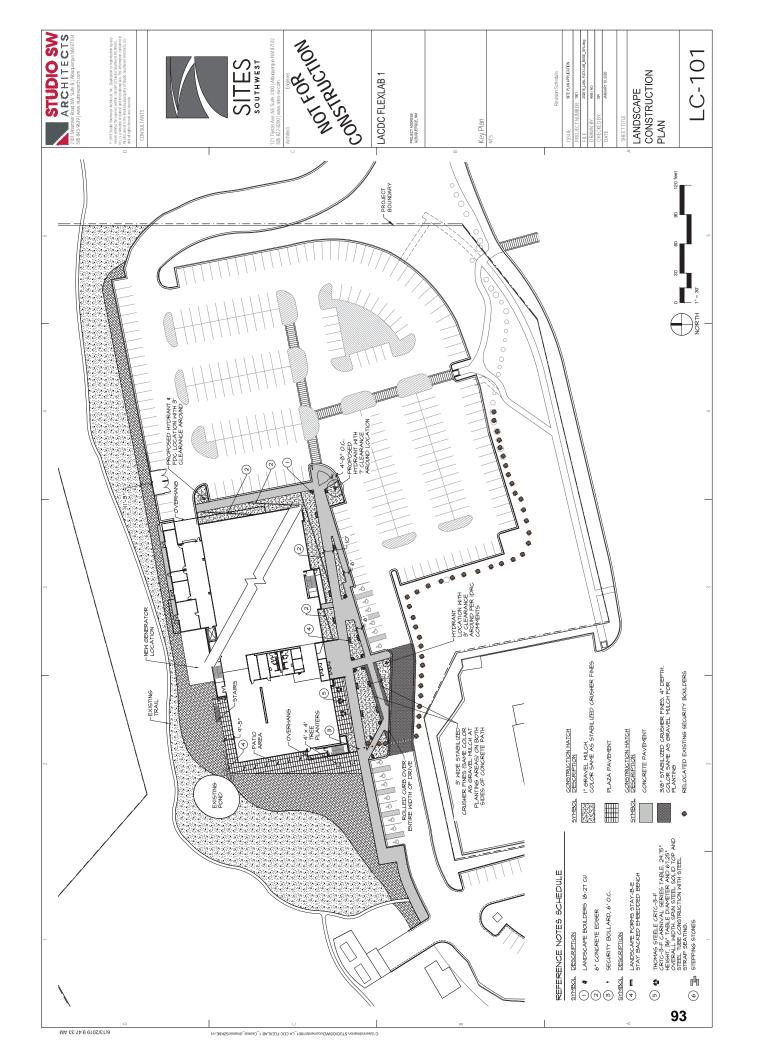


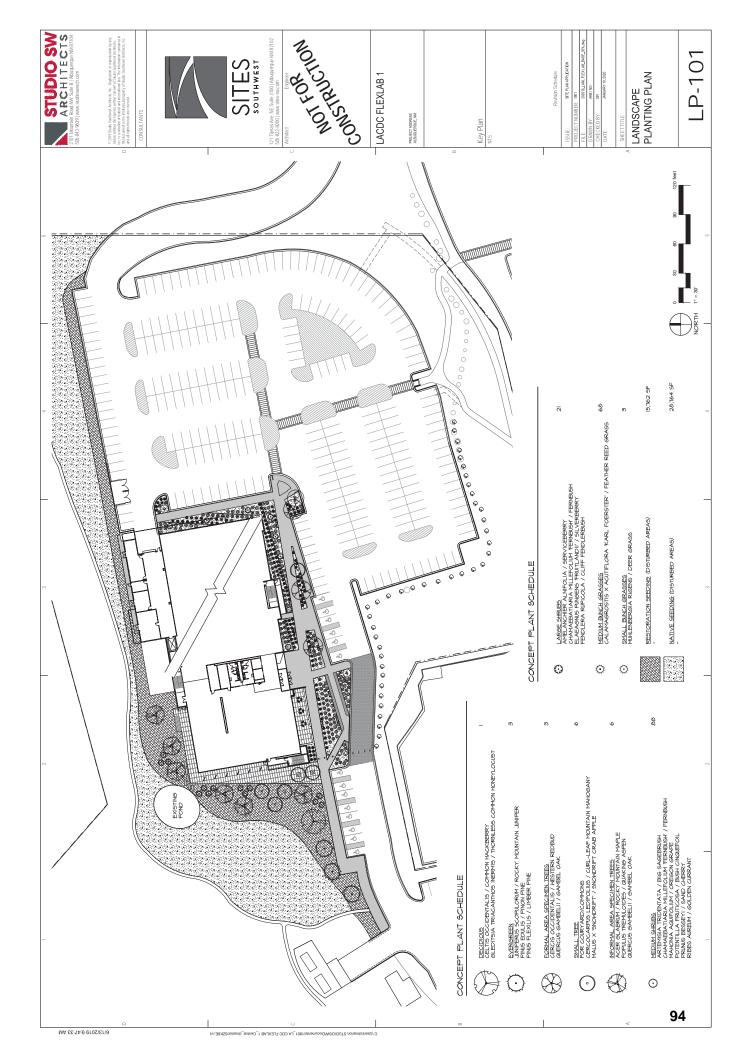


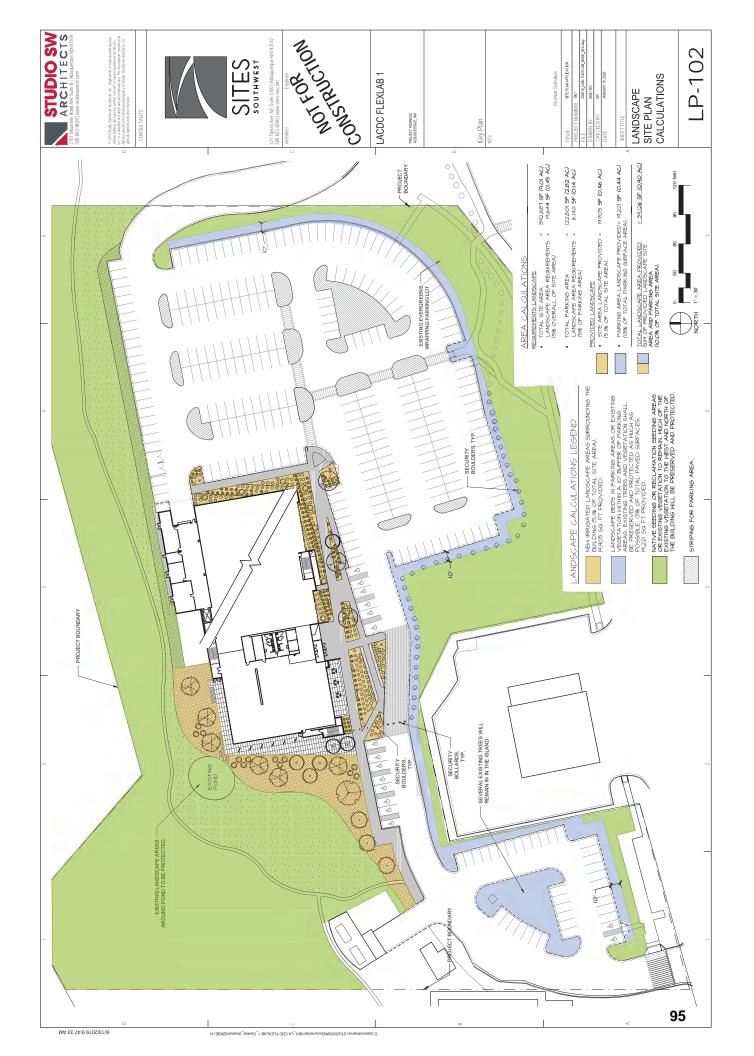


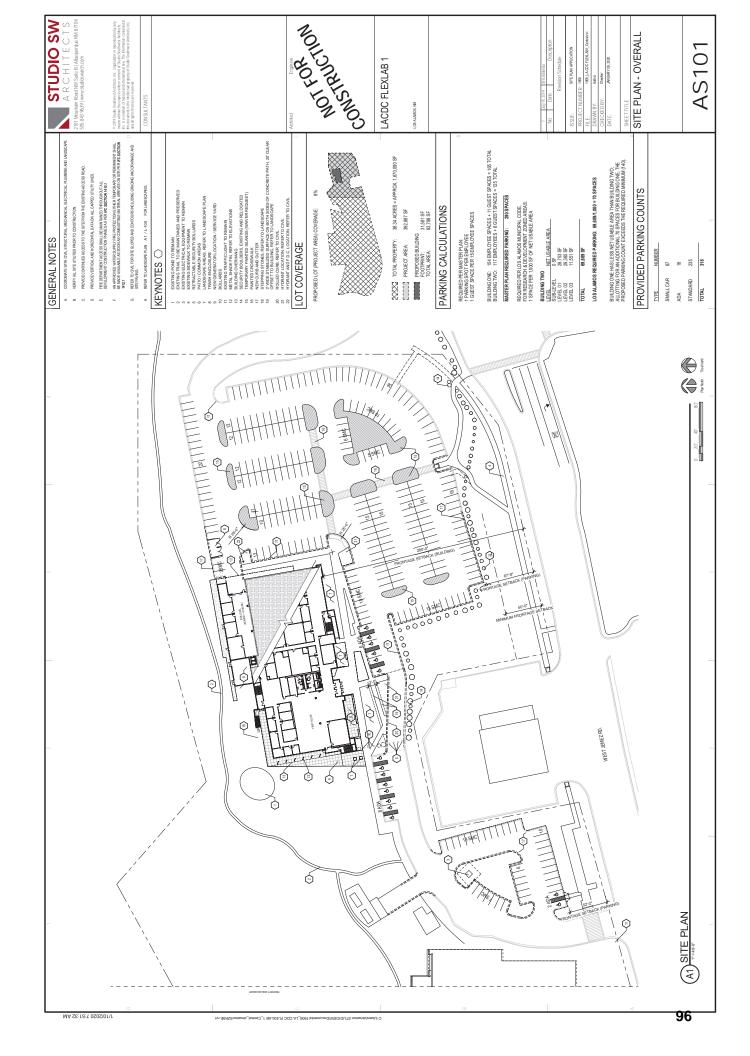


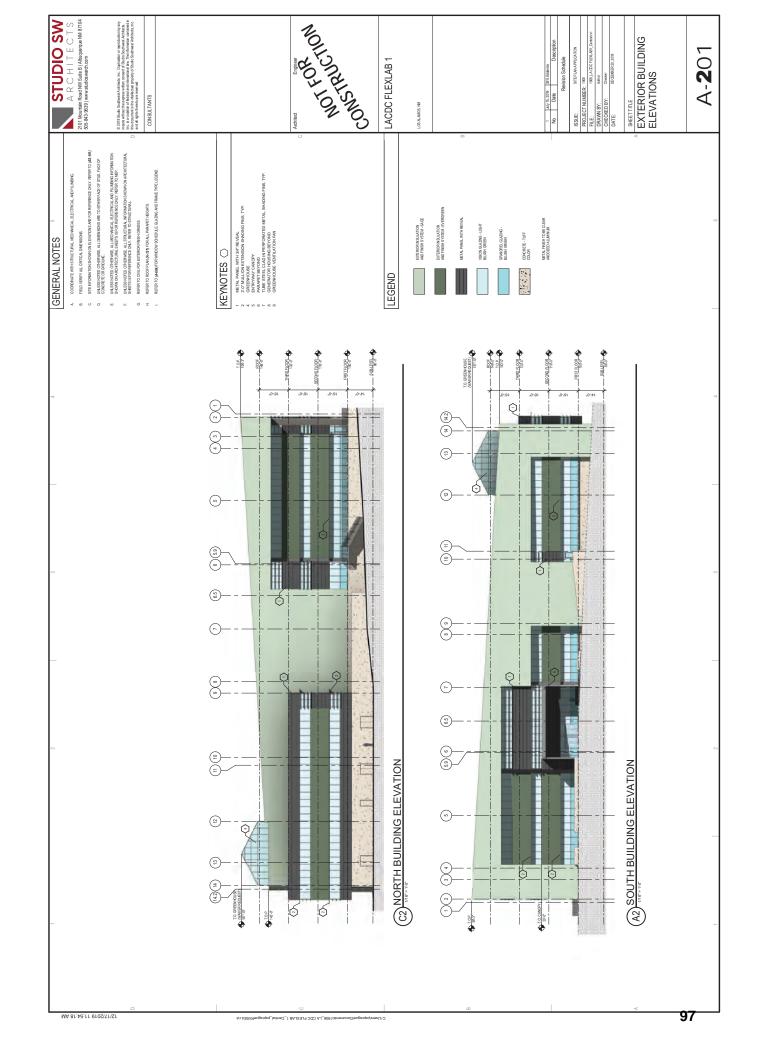


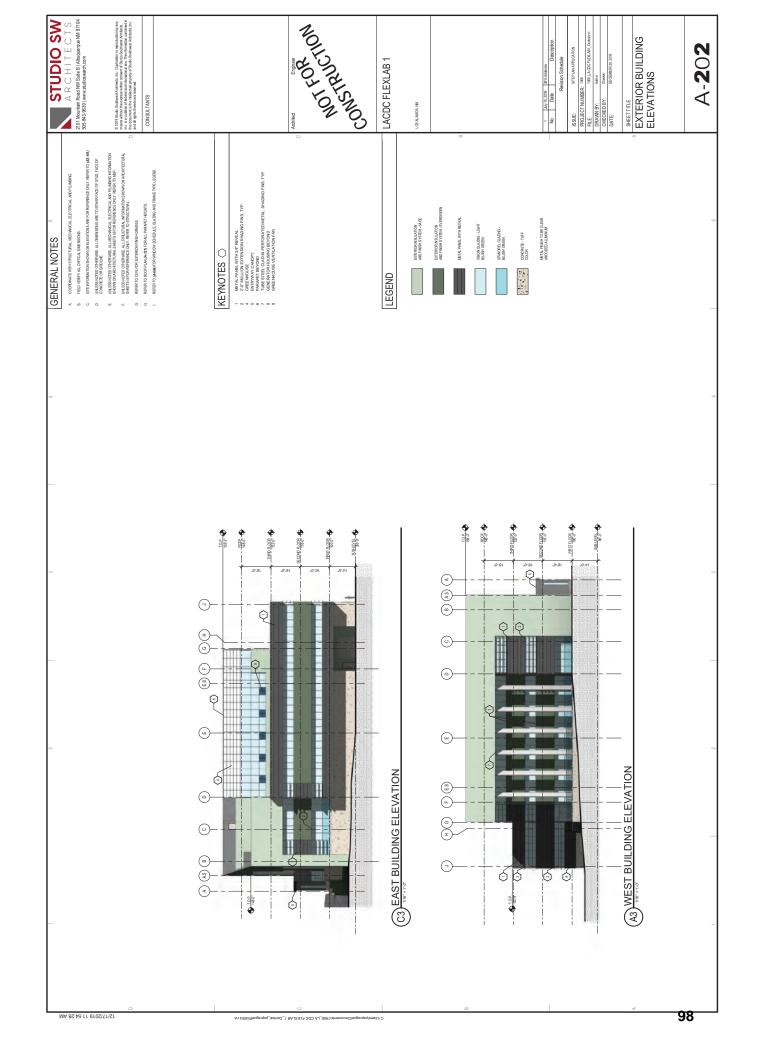


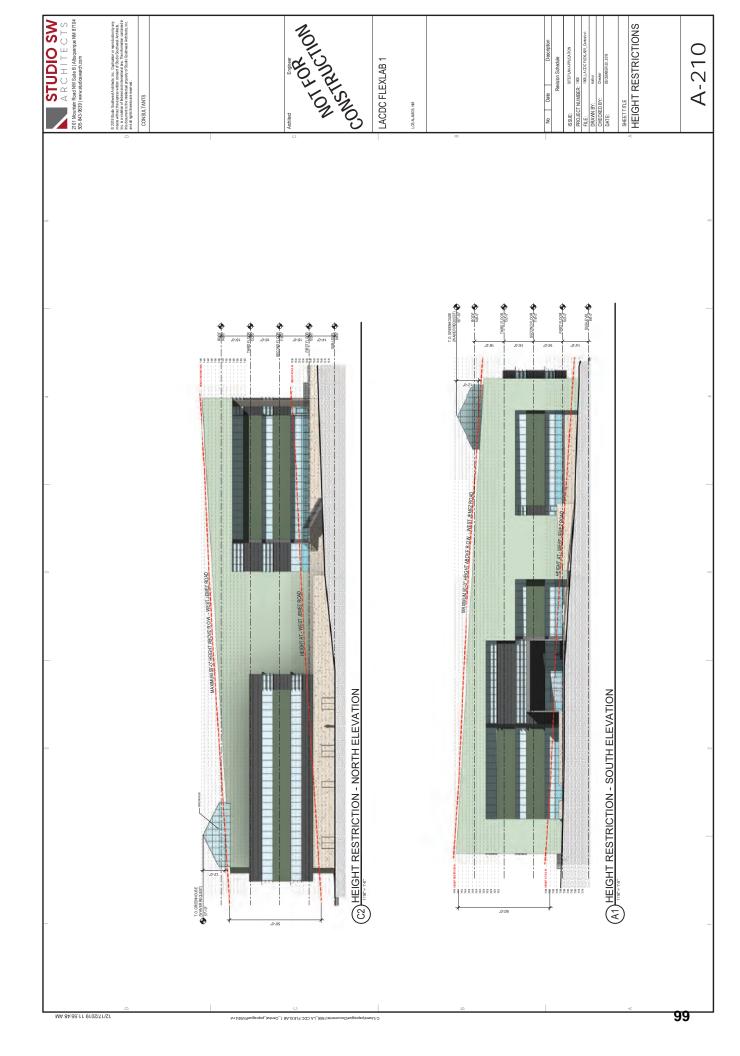


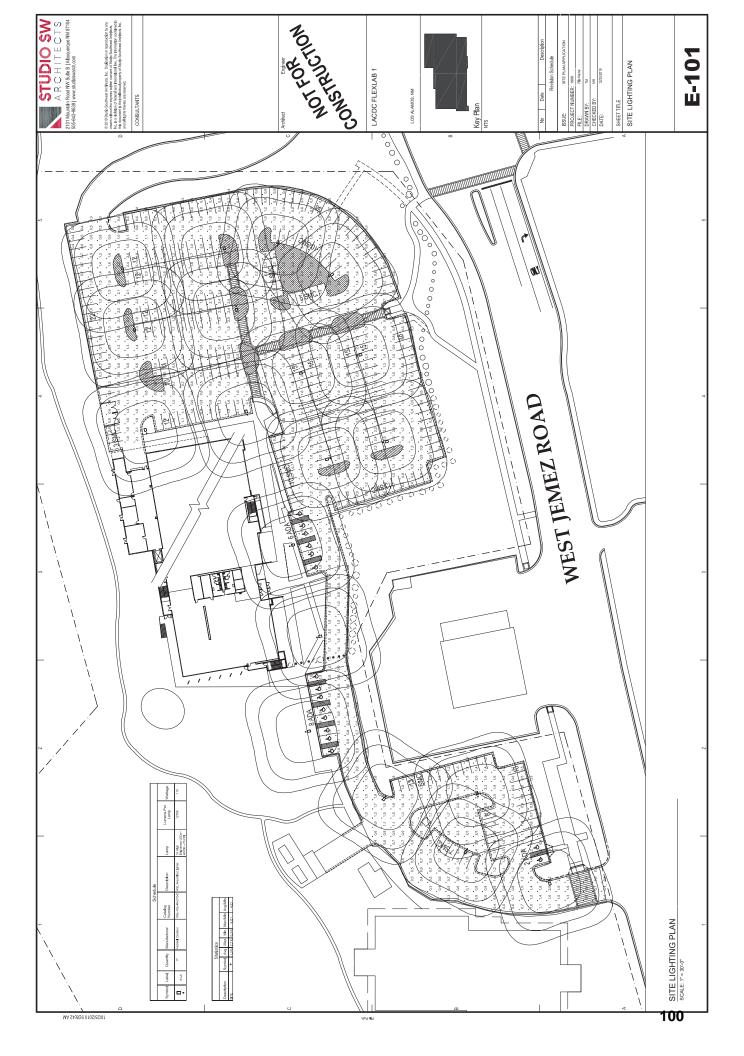


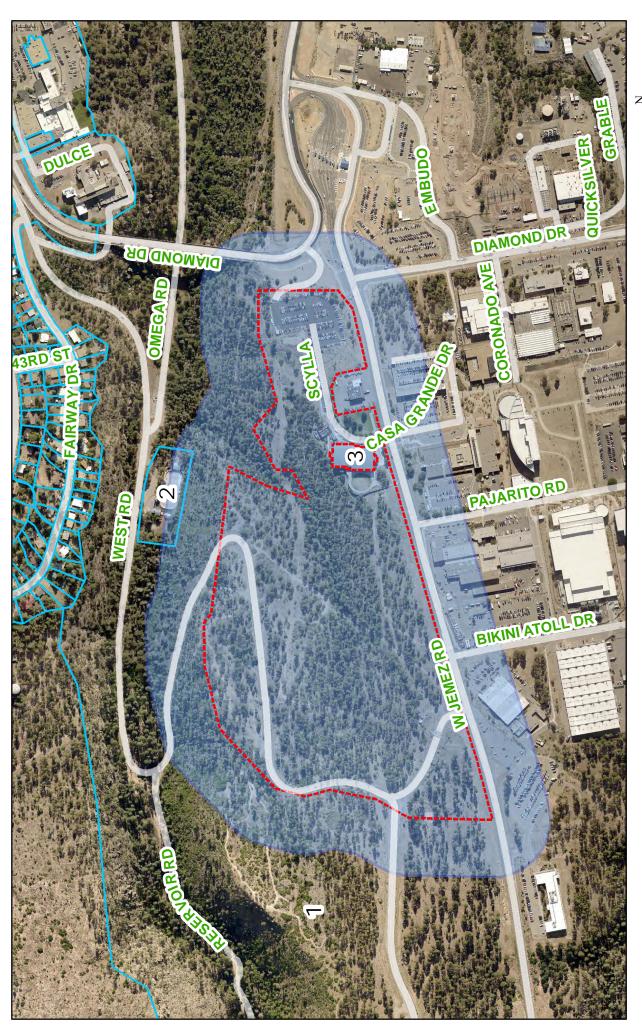












# 4200 W JEMEZ RD

4 LOS ALAMOS NATIONAL LABORATORY, PO BOX 1663, LOS ALAMOS, NM 87547
2. INCORPORATED COUNTY OF LOS ALAMOS, PO BOX 30, LOS ALAMOS, NM 87544
3. LOS ALAMOS COMMERCE & DEVELOPMENT CORPORATION, 190 CENTRAL PARK SQUARE, LOS ALAMOS, NM 87544

Mapping information is for reference only. Users are solely responsible to confirm data accuracy. Los Alamos County assumes no liability for errors associated with the data.



300' NOTIFICATION BUFFER

PROJECT SITE

January 6, 2020

#### Dear Property Owner:

This is to inform you that the Los Alamos County has scheduled a public hearing before the Planning and Zoning Commission to be held on Wednesday, January 22, 2020, beginning at **5:30 p.m.** in the Los Alamos County Municipal Building, located at 1000 Central Ave., Los Alamos, New Mexico, to discuss and act on the following case:

# Case No. SIT-2019-0037, WVR-2019-0086, WVR-2019-0087: Site Plans and Waivers for Research & Development Building

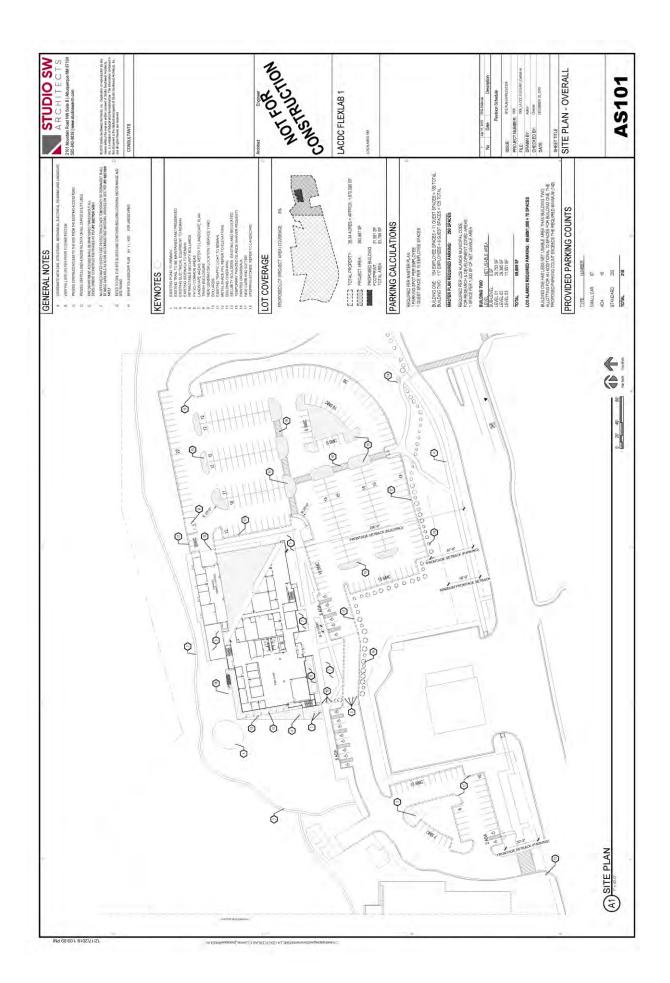
Donna Marion, Studio Southwest Architects, requests Site Plan and Waivers approval for the construction of a research & development building totaling 83,798  $\rm ft^2$  to be located at 4200 W Jemez, Los Alamos Research Park. The property consists of approximately 38.34 acres; is located adjacent to an existing lab/office building on the property and is zoned Research & Development (R&D). In addition, there is a request for waivers for building height and parking lot landscaping, in association with the Site Plan.

As a property owner within 100 yards of the of the subject site, you are invited to attend the meeting and provide comments; ask questions and voice any opposition or support you may have for the request. Your personal testimony has the most bearing in a given case; more so than written comments.

Please be advised that Planning & Zoning Commission hearings follow parliamentary procedures and rules of conduct. Land-Use cases — including reviewing and approving Site Plans — are treated with a certain level of formality. As such, staff, applicants and concerned citizens, who will be testifying, will be required to be sworn-in and is subject to cross-examination. This is not meant to discourage attendance or participation but is the quasi-judicial process.

If you have any comments or questions that could be answered by County staff, please contact the Community Development Department in advance of the meeting so that a response can be prepared.

Ryan Foster, Principal Planner (505) 662-8120 planning@lacnm.us



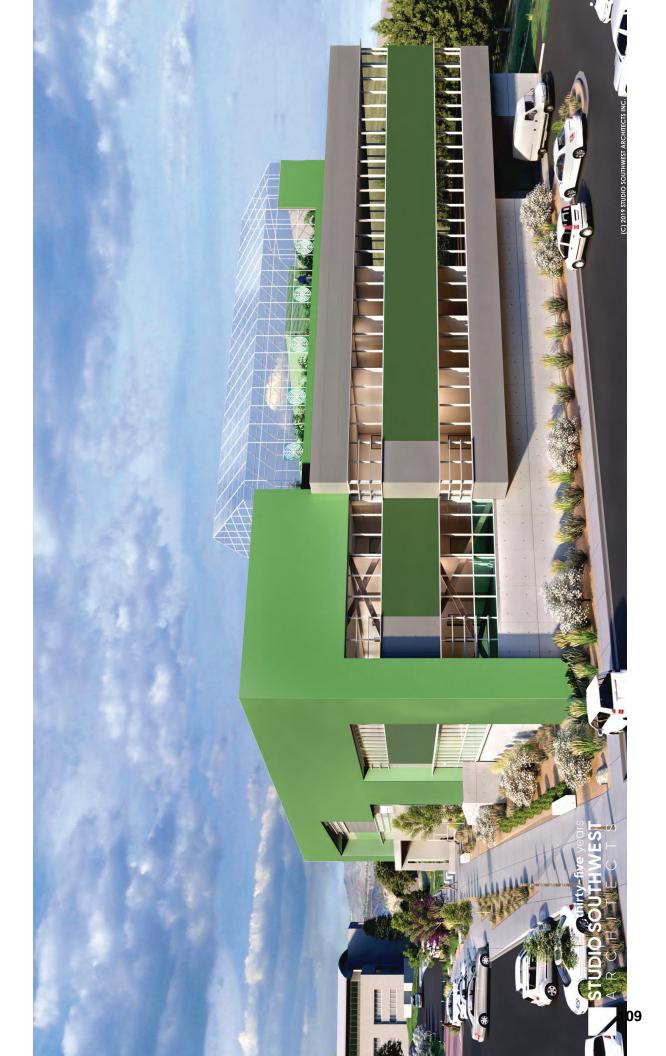














#### IDRC CONDITIONS & COMMENTS: Flex Lab, January 2, 2020

#### **CONDITIONS FOR SITE PLAN APPROVAL**

#### 1 Per Department of Utilities:

- 1. Applicant shall submit final utility plans, stamped by a New Mexico professional engineer, with the application for building permit.
- 2. An Easement Plan dedicating easements for new and existing utilities shall be filed prior to occupying the building.
- 3. See the attached sheets for additional DPU comments.

3

#### Per County Engineer, Public Works:

The applicant shall coordinate with appropriate LANL/Traffic staff ingress/egress and circulation of vehicles, bicycle and pedestrians within the LANL transportation network.

4

#### Per County Engineer, Public Works:

The applicant shall coordinate with appropriate LANL/EM staff for providing storm water management and erosion control measures including, but not limited to the following:

- Divert increased storm water runoff from the proposed development away from an existing SWMU to ensure flow is not increased through the SWMU site;
- Utilize LANL's 2017 Low Impact Development Standards where appropriate; and
- Ensure adjacent trails are not impacted by the proposed development and storm water runoff.

5

#### Per County Engineer, Public Works:

The applicant shall provide the County with confirmation that LANL staff is satisfied with any traffic and storm water mitigation measures proposed.

#### 6 Per Fire Department:

The following comments are regarding the site plan application for the Flex Lab at Research Park. (see attached sheet related to the comments below).

- 1. A Fire Hydrant and the Fire Department Connection for the fire sprinkler system need to be shown as located in the parking island that is the closet one to the loading dock on the NE corner of the building.
- 2. The sidewalk shown in the landscape area on the south side of the building at the SW corner will need to be constructed as a stabilized surface 12 feet wide with a drive over curb that allows for an approach from the west after passing through the retractable bollards.

- 3. A second fire hydrant needs to be installed in the landscape area at the curb directly south from the front doors.
- 4. The landscape plan needs to be adjusted to indicate no trees in the area between the stabilized surface and the building or a minimum distance of 20 feet from all sides of the stabilized surface.
- 5. A third fire hydrant needs to be indicated in the island at the SE corner of the building.

7

#### Per Planning Division:

Applicant will provide a bond for waived landscaping requirements before a Certificate of Occupancy is issued. The bond is to ensure the parking lot landscaping requirements are met with, or without, construction of a parking garage within 5 years.

#### ADDITIONAL COMMENTS TO CONSIDER

1

#### Public Works (Streets Division):

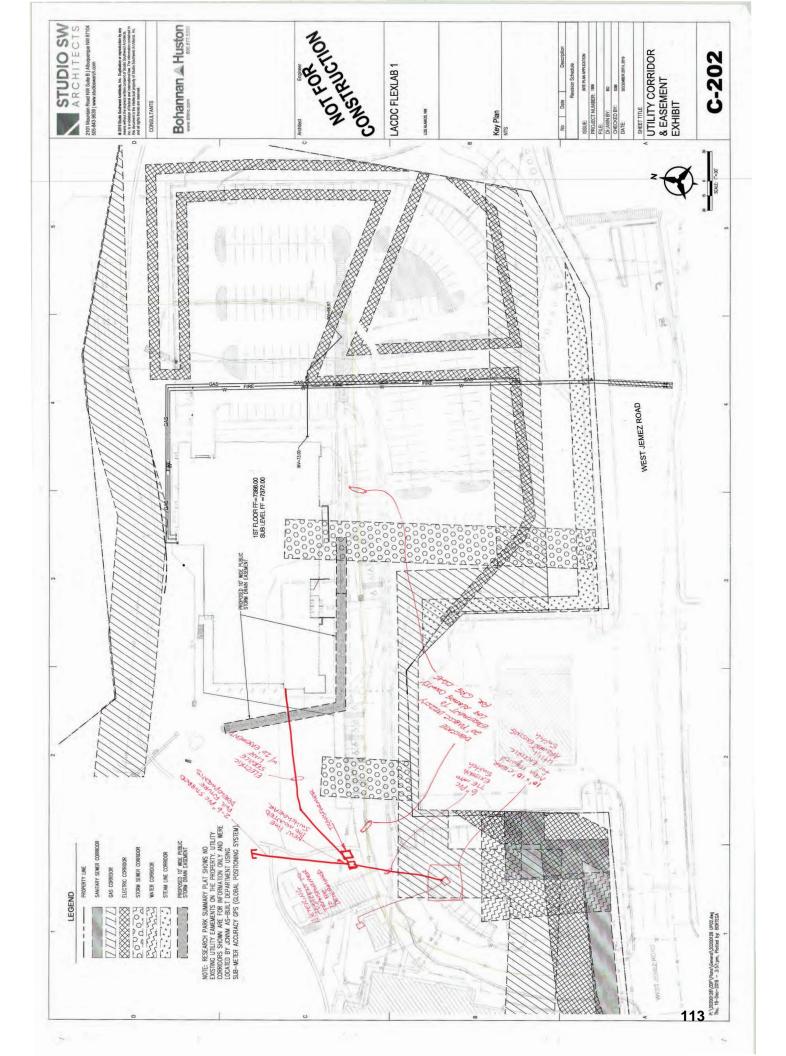
A section of the parking lot in front of Building 1 has a 7% slope, consider a design for the parking (parallel, angled, etc.) to ensure the parking can be safely utilized, especially since winter conditions could make a 7% slope hazardous on snow and ice.

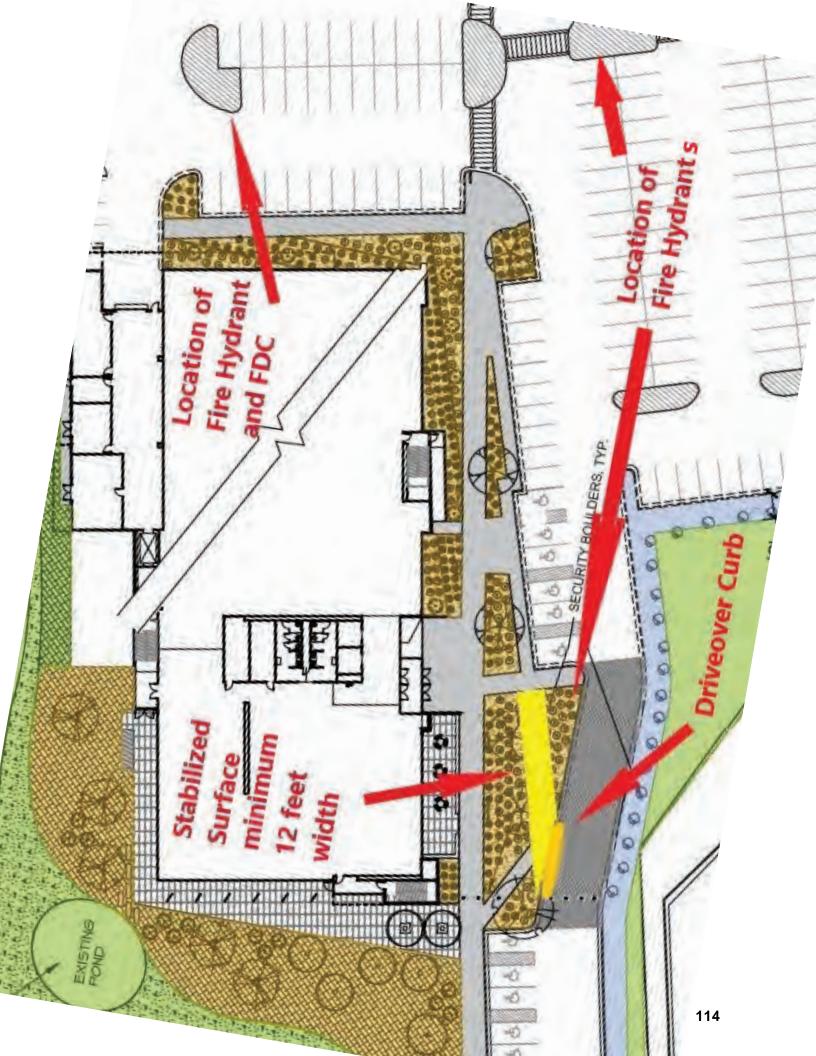
2

#### **General IDRC Comment:**

Consider the location of the existing utility line connecting to Building 2 when planning for the construction of a future parking garage.









## County of Los Alamos Staff Report

January 22, 2020

ff Report

Los Alamos, NIVI 87544	
www.losalamosnm.us	

Agenda No.:	A.

**Index (Council Goals):** 

**Presenters:** 

Legislative File: 12720-20

#### **Title**

Minutes from the Planning And Zoning Commission Meeting(s) on December 11, 2019.

#### **Recommended Action**

I move that the Commission approve the Minutes for December 11, 2019.

#### **Attachments**

A - Draft Minutes for December 11, 2019

County of Los Alamos Printed on 1/17/2020

# LOS ALAMOS

## County of Los Alamos Minutes

1000 Central Avenue Los Alamos, NM 87544

### **Planning and Zoning Commission**

Terry Priestley, Chair; Beverly Neal-Clinton, Vice-Chair; Melissa Arias; Jean Dewart; Michelle Griffin; Craig Martin; Neal Martin; April Wade, and Sean Williams, Commissioners

Wednesday, December 11, 2019

5:30 PM

Council Chambers 1000 Central Avenue

#### 1. CALL TO ORDER/ROLL CALL

Present 8 - Commissioner Martin, Commissioner Arias, Commissioner Martin,
Commissioner Priestley, Commissioner Dewart, Commissioner Wade,
Commissioner Williams and Commissioner Griffin

Absent 1 - Commissioner Neal-Clinton

- 2. PUBLIC COMMENT
- 3. APPROVAL OF AGENDA
- 4. PUBLIC HEARING(S)
- A. Case No.SUB-2019-0009: A Preliminary and Final Subdivision Request for 4015 Arkansas- Homes at North Community

A motion was made by Member Dewart, seconded by Member Arias, that this item be Approval. The motion passed by the following vote:

- Yes: 8 Commissioner Arias, Commissioner N. Martin, Commissioner Dewart, Commissioner Wade, Commissioner C. Martin, Commissioner Priestley, Commissioner Griffin and Commissioner Williams
- Absent: 1 Commissioner Neal-Clinton
- B. Case No. SIT-2019-0041: A Site Plan Amendment for the Aquatic Center Addition of a Kiddie Pool.

A motion was made by Griffin, seconded by Member Martin, that this item be The motion passedwith the following vote:

- Yes: 8- Commissioner Arias, Commissioner N. Martin, Commissioner Dewart, Commissioner Wade, Commissioner C. Martin, Commissioner Priestley, Commissioner Griffin and Commissioner Williams.
- Absent: 1 Commissioner Neal-Clinton

#### 5. PLANNING AND ZONING COMMISSION BUSINESS

A. Minutes from the Planning And Zoning Commission Meeting on November

13, 2019.

I move that the Commission approve the Minutes for November 13, 2019.

Yes: 8 - Commissioner Arias, Commissioner Wade, Commissioner Priestley, Commissioner Priestley, Commissioner Priestley, Commissioner Priestley, Commissioner Griffin and Commissioner Williams

Abstain: 3 - Commissioner Martin, Commissioner Dewart and Commissioner

Martin

Absent: 1 - Commissioner Neal-Clinton

#### 6. COMMISSION/DIRECTOR COMMUNICATIONS

- A. Department Report
- B. Chair's Report
- C. Commissioners' Comments
- 7. PUBLIC COMMENT

#### 8. ADJOURNMENT

PLEASE NOTE: Any action by the Planning and Zoning Commission in granting approval, conditional approval or disapproval of an application may be appealed by the applicant or by persons who have a personal or pecuniary interest adversely affected by the decision as defined by Section 16-454 of the County Code. Such appeals must be filed with the Community Development Department within 15 days of the action in accordance with Section 16-492.

If you are an individual with a disability who is in need of a reader, amplifier, qualified sign language interpreter, or any other form of auxiliary aid or service to attend or participate in the hearing or meeting, please contact the County Human Resources Division at 505-662-8040 at least one week prior to the meeting or as soon as possible.

Public documents, including the agenda and minutes can be provided in various accessible formats. Please contact the personnel in the Community Development Department Office at 505-662-8006 if a summary or other type of accessible format is needed.