

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

August 12, 2022

James E. Lopez, P.E.
Wilson & Company
440I Masthead St. NE
Albuquerque, NM 87113

RE: Office / Warehouse
541 Airport Dr NW
Grading & Drainage Plans
Engineer's Stamp Date: 06/22/22
Hydrology File: K10D023K

Dear Mr. Lopez:

PO Box 1293

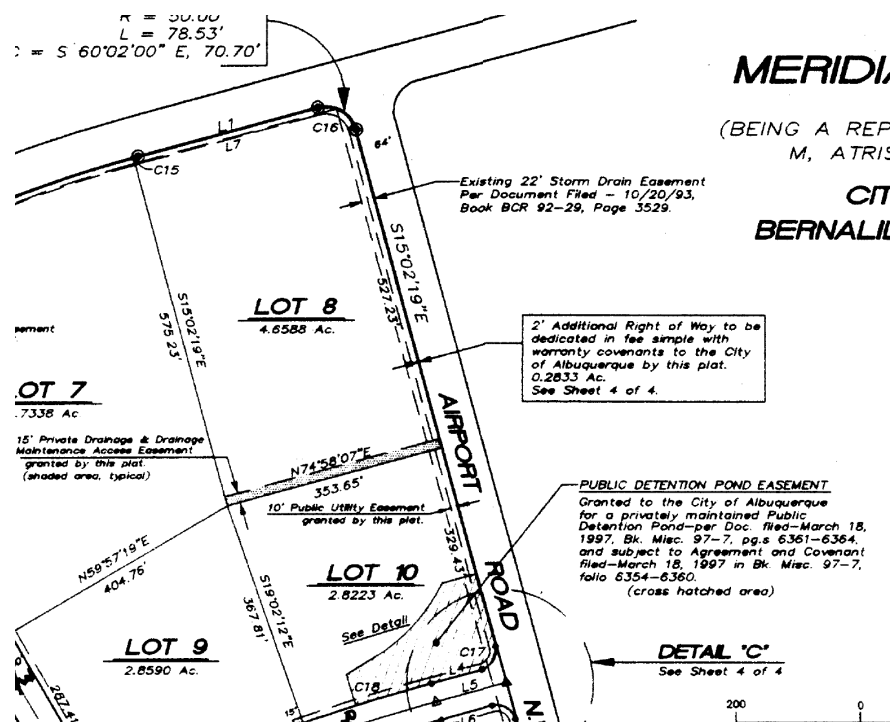
Based upon the information provided in your submittal received 08/04/2022, the Grading & Drainage Plans **are not** approved for Building Permit. The following comments need to be addressed for approval of the above referenced project:

Albuquerque

1. Please show and label all existing easements that are shown on the recorded plat. (see attachment)

NM 87103

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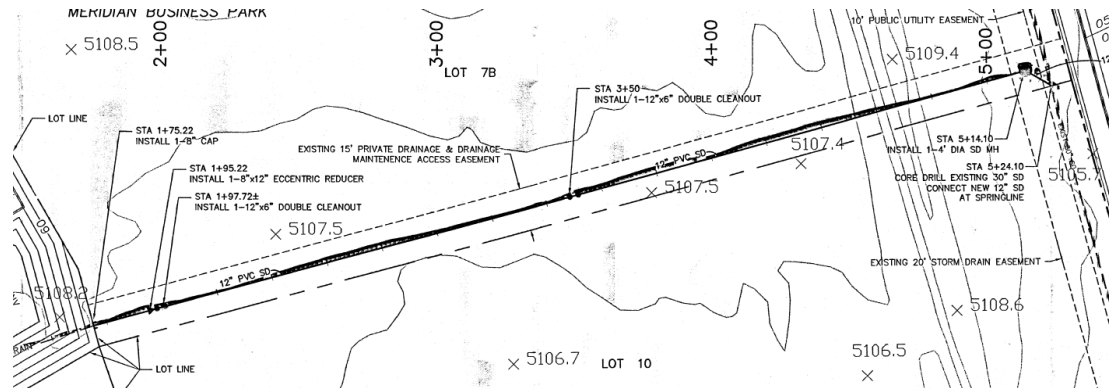
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- Please show and label the existing 12-in PVC storm pipe within the existing 15' Private drainage easement. (see attachment)



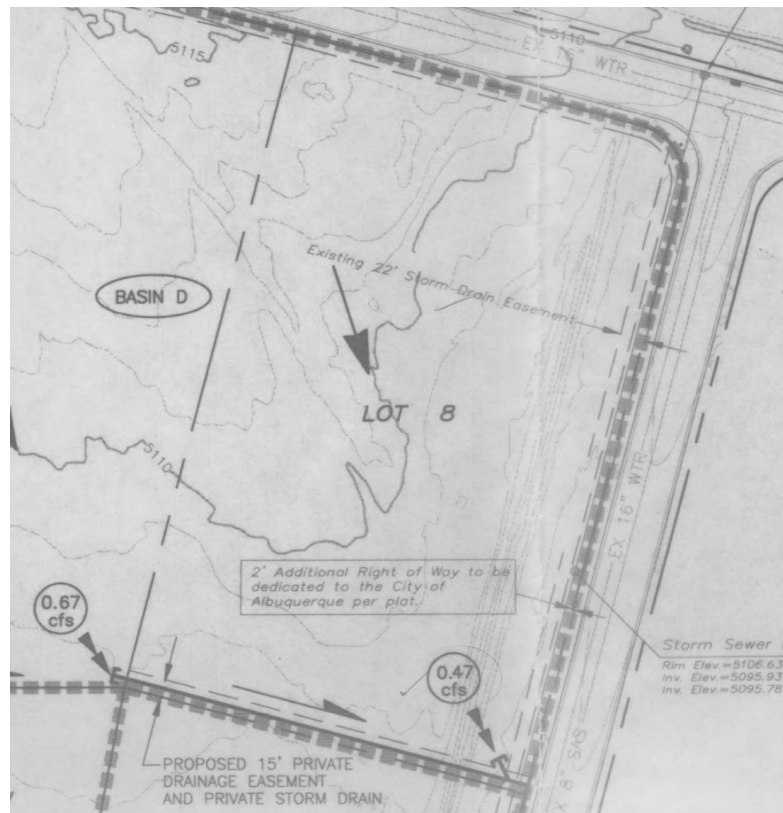
- Please follow the current Meridian Business Park DMP. Only Lot 10 can drain to the Public Detention Pond at the southeast corner of Lot 10. Lot 8 has to have its own detention pond with the allowable rate of **0.47 cfs**. This pond will then discharge into the existing 12" PVC within the existing private drainage easement.

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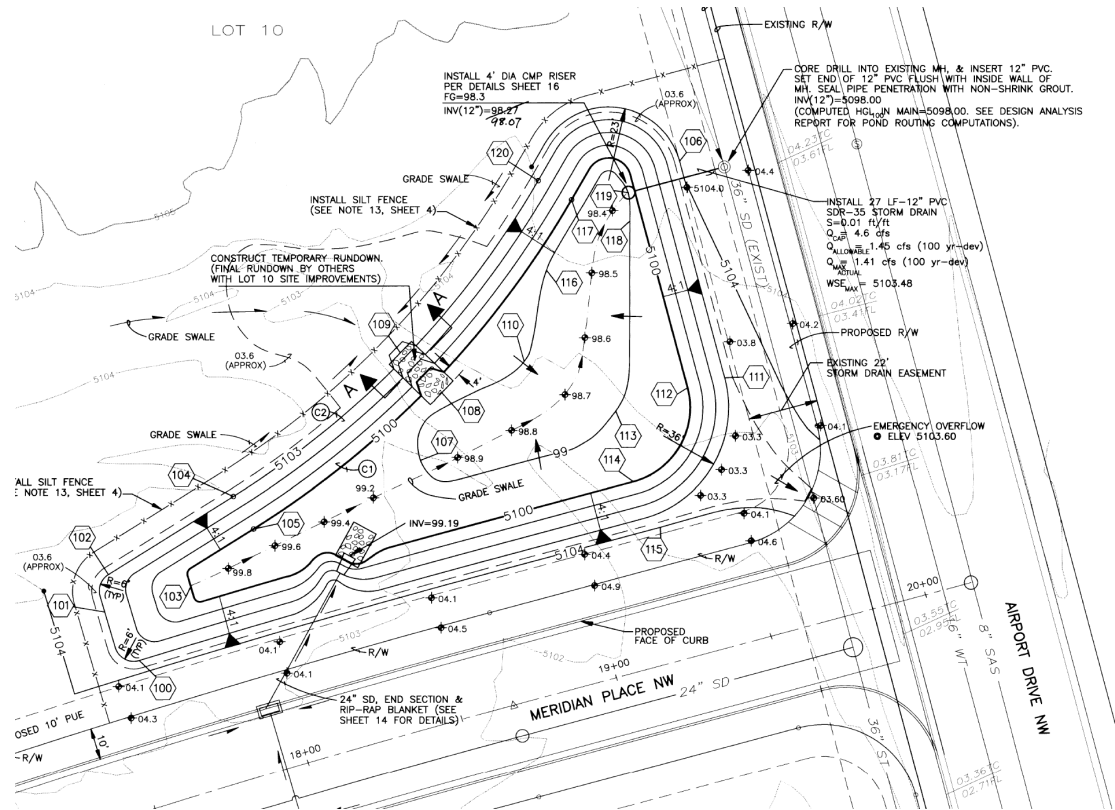
4. This being said, both Lot 8 & Lot 10 will need to provide for their own Storm water Quality as outlined in the DPM Article 6-12 Stormwater Quality and Low-Impact Development for the sizing calculations and provide the required calculations. To calculate the required SWQV, multiply only the proposed impervious area (buildings, sidewalks, and paving) draining to the BMP by 0.42 inches for new development sites which this project falls under.
5. As for the existing detention pond, it is in bad shape and needs to be re-established which looks like you were planning. Please note that the original pond design currently violates the current DPM. The pond needs a valid spillway which cannot use the ADA ramp and the pond needs one foot of freeboard from the water surface 100 yr detention elevation and the top of the pond. Also, the existing 24-in inlet pipe on Meridian Place needs to be re-established since it appears to be partially filled in with dirt. Finally, please inspect the existing outfall structure for the pond. If this needs to be replaced during the pond re-construction than please do so. Below is the original design of the pond when it was built back in 1998.

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Hydrology will eventually need an updated Agreement & Covenant for the Public Detention Pond. It is very obviously that this pond was never maintained. This can be done prior to CO.

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

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

Sincerely,

Renée C. Brissette

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



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

Project Title: PC Brunacini Meridian BP Building Permit # _____ Hydrology File # _____

DRB# _____ EPC# _____

Legal Description: Lot 7-B and Lot 10 Plat of Meridian Business Park City Address OR Parcel 541 Airport Dr. NW

Applicant/Agent: Wilson & Company Contact: James Lopez

Address: 4401 Masthead St. NE Phone: (505) 730-8013

Email: James.Lopez@wilsonco.com

Applicant/Owner: Brunacini Development Ltd CO. Contact: Angelo Brunacini

Address: 7550 Meridian Pl NW Phone: (505) 833-2928

Email: abrunacini@brunacini.com

TYPE OF DEVELOPMENT: ___ PLAT (#of lots) ___ RESIDENCE ___ DRB SITE ☒ ADMIN SITE: ___

RE-SUBMITTAL: ___ YES ___ NO

DEPARTMENT: ___ TRANSPORTATION ☒ HYDROLOGY/DRAINAGE

Check all that apply:

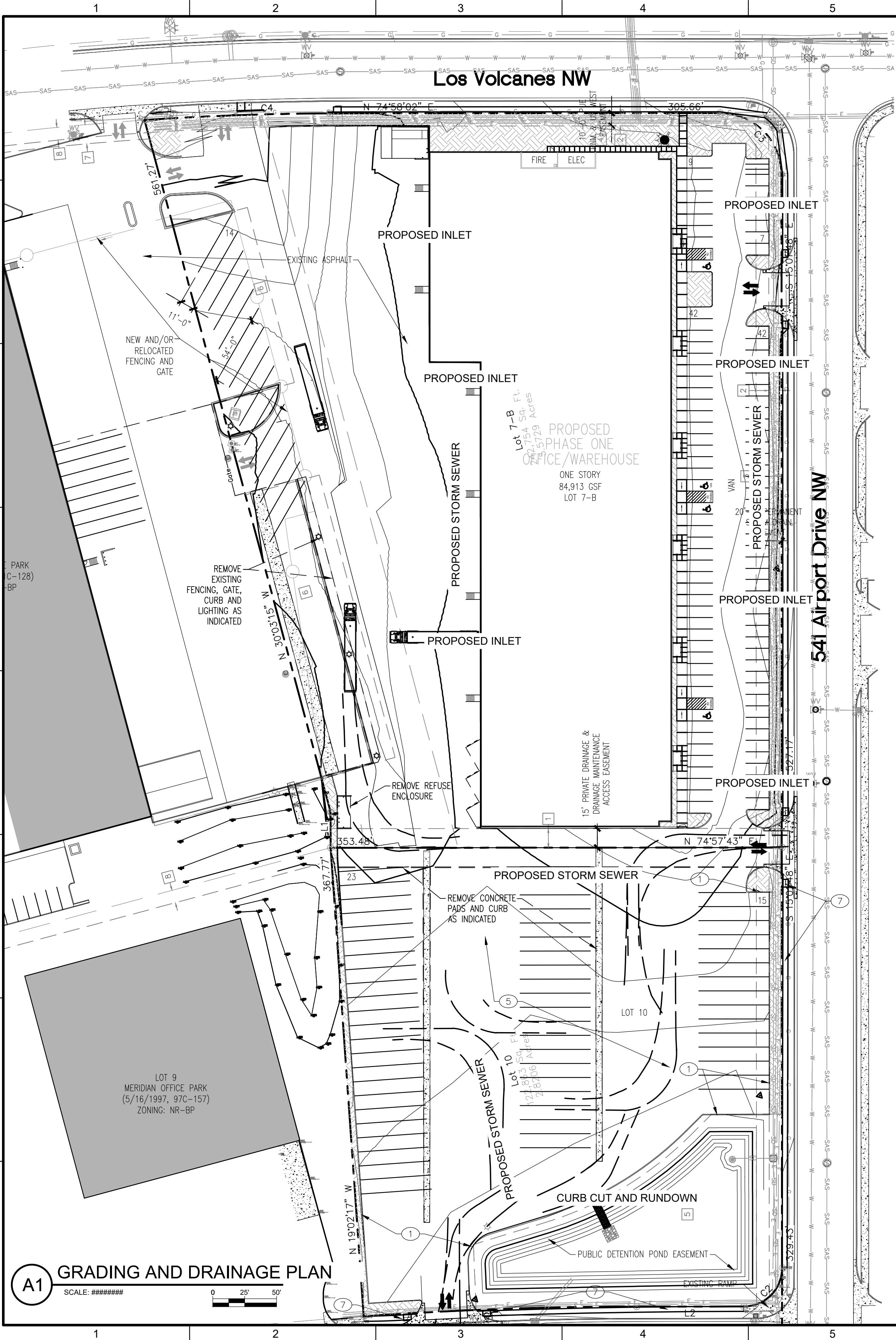
TYPE OF SUBMITTAL:

- ___ ENGINEER/ARCHITECT CERTIFICATION
- ___ PAD CERTIFICATION
- ___ CONCEPTUAL G&D PLAN
- ☒ GRADING PLAN
- ☒ DRAINAGE REPORT
- ___ DRAINAGE MASTER PLAN
- ___ FLOOD PLAN DEVELOPMENT PERMIT APP.
- ___ ELEVATION CERTIFICATE
- ___ CLOMR/LOMR
- ___ TRAFFIC CIRCULATION LAYOUT (TCL)
- ___ ADMINISTRATIVE
- ___ TRAFFIC CIRCULATION LAYOUT FOR DRB APPROVAL
- ___ TRAFFIC IMPACT STUDY (TIS)
- ___ STREET LIGHT LAYOUT
- ___ OTHER (SPECIFY)
- ___ PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY
- ___ CONCEPTUAL TCL DRB APPROVAL
- ___ PRELIMINARY PLAT APPROVAL
- ___ SITE PLAN FOR SUB'D APPROVAL
- ___ SITE PLAN FOR BLDG PERMIT APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ SIA/RELEASE OF FINANCIAL GUARANTEE
- ___ FOUNDATION PERMIT APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ SO-19 APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ GRADING PAD CERTIFICATION
- ___ WORK ORDER APPROVAL
- ___ CLOMR/LOMR
- ___ FLOOD PLAN DEVELOPMENT PERMIT
- ___ OTHER (SPECIFY) _____

DATE SUBMITTED: 06/22/2022



Drainage Narrative

Introduction

The project site is located in northwest Albuquerque at 541 Airport Dr. NW. The site is bounded by Airport Drive NW to the east, Los Volcanes Road NW to the north, Gallatin Place NW to the west, and Meridian Pl. NW to the south. The existing site and proposed improvements are generally contained within Lots 7-B and 10 of Tract M as identified in the Conceptual Master Grading and Drainage Plan prepared for Lots 1-23 of the Meridian Business Park by Easterling & Associates, Inc. in August 1996. The site is labeled as Zone X in the FEMA flood plain map, see firm map 35001C03281.

Existing Conditions

The existing site topography in Lot 7-B generally drains from northwest to southeast in the conceptual plans prepared by Easterling and was confirmed on a site visit. A berm has been constructed on the eastern edge of the lot that appears to block water from exiting the site in this direction, and instead forces water to flow south into Lot 10 and inevitably into the existing public drainage pond on the southern edge of the lot. The Easterling plans suggested that there be an inlet to receive flow on the southeastern corner of this lot, though no such drainage infrastructure was observed on the site. The site includes a portion of Lot 7-A that is currently developed and includes parking and an access road to the trailer parking in Lot 10. Flow in this segment tends to drain southwest and is seemingly directed toward the existing drainage pond that has been constructed for the development in Lot 7-A west of the site.

Lot 10 drains from north to south (and into the proposed rectangular drainage pond) in the Easterling plan, and this was observed to be generally true by a preliminary site visit. A large majority of Lot 10 consists of compacted dirt and gravel. The remainder is undisturbed aside from a large drainage pond. Currently, the pond discharges to the east toward an existing storm drain system adjacent to Airport Dr. NW via a standpipe with circular 3 in. diameter inlet orifices set at varying elevations and a 5" diameter plate orifice on the outlet pipe. The downstream connection point is an existing storm drain line adjacent to Airport Dr. NW. Some sediment and debris have accrued on the bottom of the pond and the lowermost tiers of orifices on the standpipe have been blocked. According to the Easterling plan, the pond has a design capacity of 1.0404 ac-ft, though topography data of the area shows the current capacity to be 0.8563 ac-ft.

In its current condition, the on-site basin contributing flow to the pond is delivering up to 17.3 cfs for the 100-year 24-hour event to the pond. This corresponds to a volume of 0.5205 ac-ft prior to development.

Interim Conditions (Phase 1)

The proposed site will maintain the general flow from northwest to southeast toward the detention pond in Lot 10. The boundaries of construction in phase 1 are primarily limited to the undeveloped area that comprises Lot 7-B. The existing developed area on the western side of Lot 7-B will be improved in Phase 2. A 73,969 square-foot tenant space is to be constructed, with paved parking, sidewalk, and desert-landscaped median features constructed on the eastern and northern faces of the spaces. On the western face of the building, an asphalt swale will be constructed with slopes less than or equal to 2% up to 50 feet away from the edge of the truck bay. Area inlets and pipe connections will be installed in the swale to collect and distribute flows to the existing detention pond in Lot 10. The parking lot on the eastern face of the building will be super-elevated to drain east toward a series of inlets along the eastern curb line. These inlets and the corresponding pipe connections will send the flows south toward the detention pond. The pipe networks on the western and eastern faces of the building will meet at a junction in Lot 10 north of the pond before discharging to the pond via an opening mitered to slope. Most of the vacant lot will become paved and impervious. As mentioned before, the area west of the fence line is not to be disturbed during construction of Phase 1 in order to maintain the access road.

The existing detention pond in Lot 10 will need to be improved such that it can accommodate the increase in flow from both Phase 1 and 2 during Phase 1. This includes laying the pipe that discharges flow from Phase 1 through Lot 10 prior to Phase 2.

The discharge from the site will increase to 25.4 cfs after development, which corresponds to a difference of 8.1 cfs. The discharge from the site corresponds to a volume of 1.1333 ac-ft for the 100-year 24-hour event after the construction of Phase 1, with a difference in volume of 0.6128 ac-ft between existing and interim conditions. This volume is already higher than the current capacity of the pond in both the conceptual Easterling staging, as well as the staging developed from current topography. The pond will be regraded with 3:1 side slope in order to maximize the capacity of the pond without expanding the footprint beyond the boundary of the public detention pond easement. The base pond elevation will also be dropped below the base of the standpipe outlet, which will provide increased retention and capacity to meet general pond requirements and MS4 water quality requirements. Approximately 0.25 ac-ft of runoff needs to be retained in order to meet MS4 requirements, and the pond will retain approximately 0.30 ac-ft. The preliminary grading for the pond yields a capacity of 1.5326 ac-ft, which is sufficient to contain the post Phase 2 required capacity without consideration of the existing standpipe outlet. This outlet structure may be rebuilt as needed to accommodate required grading changes.

Final Conditions (Phase 2)

The proposed site will maintain the general flow from northeast to southwest toward the detention pond in Lot 10. A large portion of Lot 10, minus the ponding area and landscaping, will be paved and the grading and drainage scheme developed in Phase 1 will be maintained to deliver flows to the existing detention pond. Curb-cuts and a concrete rundown will be installed on the perimeter of the pond to deliver overland flows from the area in Phase 2 and reduce erosion of the pond side slopes. In the previously developed area on the western edge of Lot 7-B, work will be done to expand the northernmost column of parking, including the removal of some previous landscaping. The western edge of Lot 7-B currently drains to the off-site detention pond on the southeast corner of Lot 7-A, and it is recommended that this grading be maintained if repaving occurs.

The improvements in Lot 10 will increase the discharge from the site to 28.4 cfs. This corresponds to a total volume of 1.4298 ac-ft for the 100-year 24-hour event, with a difference in volume of 0.2957 ac-ft between interim and final conditions, and a difference in discharge of 3 cfs between interim and final conditions.

Conclusion

In summary, inlets and storm drain will be installed to capture on-site flows from Phase 1 and deliver the water to the detention pond in Lot 10. The pond will be regraded in order to accommodate the increase in discharge from Phase 1 and Phase 2 at this time, and the pipe network constructed in Phase 1 will be taken to the pond at this time. The area in Phase 2 will be paved and a concrete rundown and curb cut constructed at the pond in order to receive the overland flow from the site. Calculations suggest that the pond will have sufficient capacity to retain MS4 and accommodate the entire 100-yr 24-hr storm volume from the site without consideration of the existing standpipe structure.

Meridian Pond - Topographic Data

| Stage | Area | Storage | Cumulative Storage | Cumulative Storage |
|------------|-----------------|-----------------|--------------------|--------------------|
| Elev. (ft) | ft ² | ft ³ | ft ³ | Ac-ft |
| 5102 | 3050 | 0.000 | 0 | |
| 5103 | 6318 | 4684.350 | 4684 | |
| 5104 | 9019 | 7688.775 | 12353 | |
| 5105 | 12042 | 10530.730 | 22884 | |
| 5106 | 16790 | 14416.320 | 37300 | 0.8563 |

Meridian Pond - Proposed Staging

| Stage | Area | Storage | Cumulative Storage | Cumulative Storage |
|------------|-----------------|-----------------|--------------------|--------------------|
| Elev. (ft) | ft ² | ft ³ | ft ³ | Ac-ft |
| 5100.5 | 7622 | 0.000 | 0 | |
| 5102 | 9912 | 13150.317 | 13150 | |
| 5103 | 11704 | 10808.176 | 23958 | |
| 5104 | 13375 | 12539.702 | 36498 | |
| 5105 | 15114 | 14244.680 | 50743 | |
| 5106 | 16921 | 16017.755 | 66761 | 1.5326 |

MS4 Calculations

| Basin | Area | Volume | Volume |
|-------|-----------------|-----------------|--------|
| | ft ² | ft ³ | Ac-ft |
| 101 | 310698.37 | 10874.44 | 0.25 |
| | | Total | 0.25 |

Existing Conditions (Pre PH1)

| Basin | Total | Total | A | | B | | C | | D | | Peak | Excess Precip. | Volume | Volume | Volume |
|-------|--------------|-----------|---|----|------|------|------|------|-----|------|--------------|----------------|-----------------------------|------------------------------|-------------------------------|
| | Area (sq ft) | Area (Ac) | % | Ac | % | Ac | % | Ac | % | Ac | Discharge, Q | (Weighted) | (6 _{hr} , acre-ft) | (24 _{hr} , acre-ft) | (10 _{day} , acre-ft) |
| 101 | 310698.37 | 7.133 | 0 | 0 | 71.1 | 5.07 | 23.8 | 1.70 | 5.1 | 0.36 | 17.3 | 0.86 | 0.5108 | 0.5205 | 0.5632 |

Interim Conditions (Post PH1)

| Basin | Total | Total | A | | B | | C | | D | | Peak | Excess Precip. | Volume | Volume | Volume |
|-------|--------------|-------|---|------|------|------|-----|------|-----|------|--------------|----------------|-----------------------------|------------------------------|-------------------------------|
| | Area (sq ft) | Area | % | Ac | % | Ac | % | Ac | % | Ac | Discharge, Q | (Weighted) | (6 _{hr} , acre-ft) | (24 _{hr} , acre-ft) | (10 _{day} , acre-ft) |
| 101 | 310698.37 | 7.133 | 0 | 0.00 | 10.8 | 0.77 | 28% | 2.02 | 61% | 4.34 | 25.4 | 1.71 | 1.0175 | 1.1333 | 1.6437 |

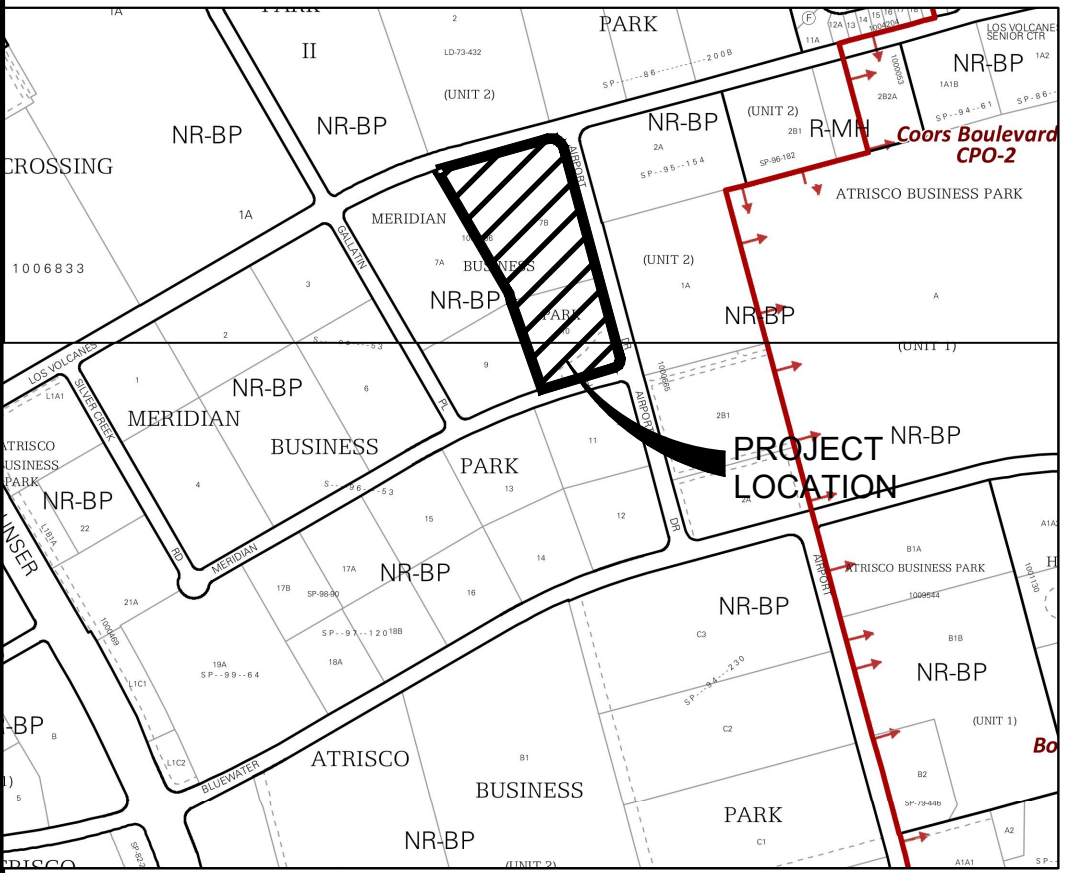
Interim Conditions (Pre PH2)

| Basin | Total | Total | A | | B | | C | | D | | Peak | Excess Precip. | Volume | Volume | Volume |
|-------|--------------|-----------|---|----|------|------|------|------|------|------|------------|-----------------------------|------------------------------|-------------------------------|--------|
| | Area (sq ft) | Area (Ac) | % | Ac | % | Ac | % | Ac | % | Ac | (Weighted) | (6 _{hr} , acre-ft) | (24 _{hr} , acre-ft) | (10 _{day} , acre-ft) | |
| 101 | 310698.37 | 7.133 | 0 | 0 | 10.8 | 0.77 | 28.3 | 2.02 | 60.9 | 4.34 | 25.4 | 1.71 | 1.0175 | 1.1333 | 1.6437 |

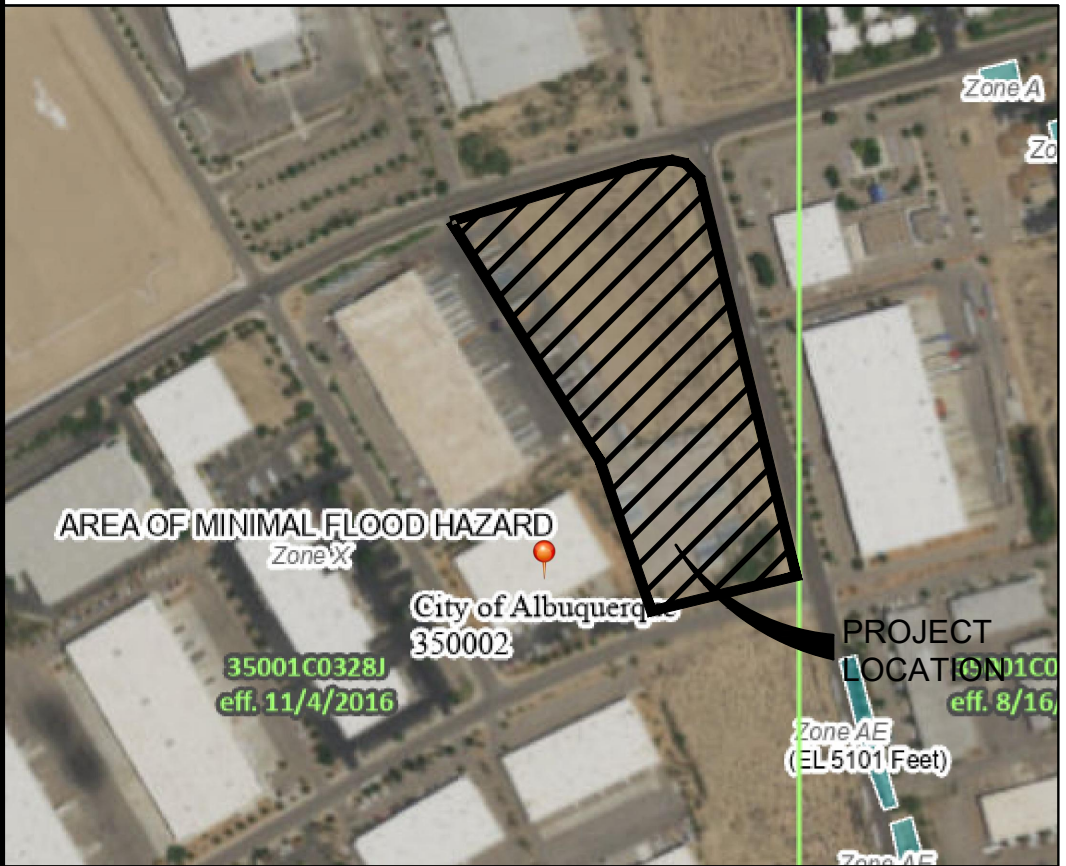
Final Conditions (Post PH2)

| Basin | Total | Total | A | | B | | C | | D | | Peak | Excess Precip. | Volume | Volume | Volume |
|-------|--------------|-------|---|------|-----|------|----|------|-----|------|--------------|----------------|-----------------------------|------------------------------|-------------------------------|
| | Area (sq ft) | Area | % | Ac | % | Ac | % | Ac | % | Ac | Discharge, Q | (Weighted) | (6 _{hr} , acre-ft) | (24 _{hr} , acre-ft) | (10 _{day} , acre-ft) |
| 101 | 310698.37 | 7.133 | 0 | 0.00 | 3.2 | 0.23 | 6% | 0.41 | 91% | 6.48 | 28.4 | 2.11 | 1.2569 | 1.4298 | 2.1916 |

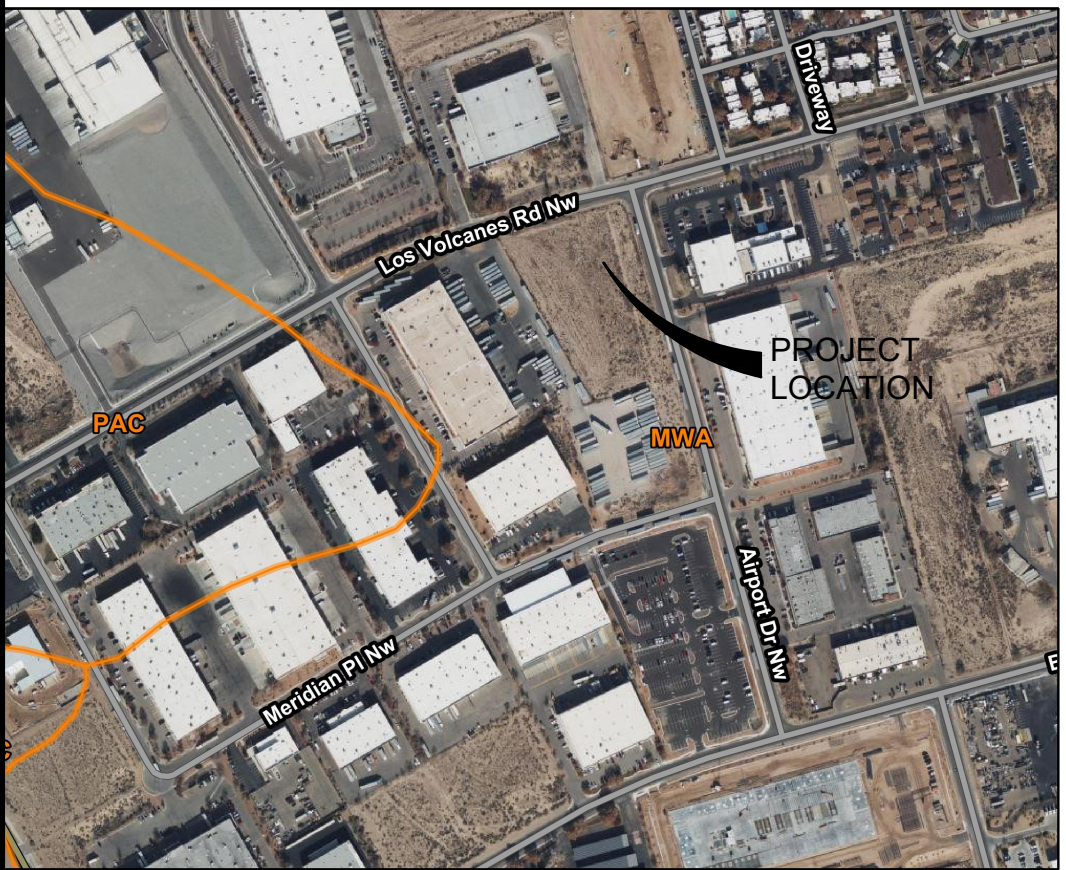
MAPS



LOCATION MAP
ZONE ATLAS MAPS J-10-Z & K-10-Z



FLOOD INSURANCE MAP
REFERENCE: PANEL NO. 35001C0328J



SOILS MAP
REFERENCE: NRCS SOILS DATA

WILSON & COMPANY

4401 WATHEAD ST. NE, SUITE 150
ALBUQUERQUE, NM 87109
PHONE: 505-348-4000
FAX: 505-348-4055
www.wilsonco.com

CONSULTANTS

SEAL

6/22/22

PROJECT NAME

NEW OFFICE/WAREHOUSE
FOR BRUNACINI DEVELOPMENT
541 AIRPORT DRIVE, NW
ALBUQUERQUE, NM 87121

BY

DESCRIPTION

DATE

REV.

PROJECT NO: 22-600-175-00

DESIGNED BY: JEL

DRAWN BY: DY

CHECKED BY: JEL



DATE: JUNE 2022

SHEET TITLE

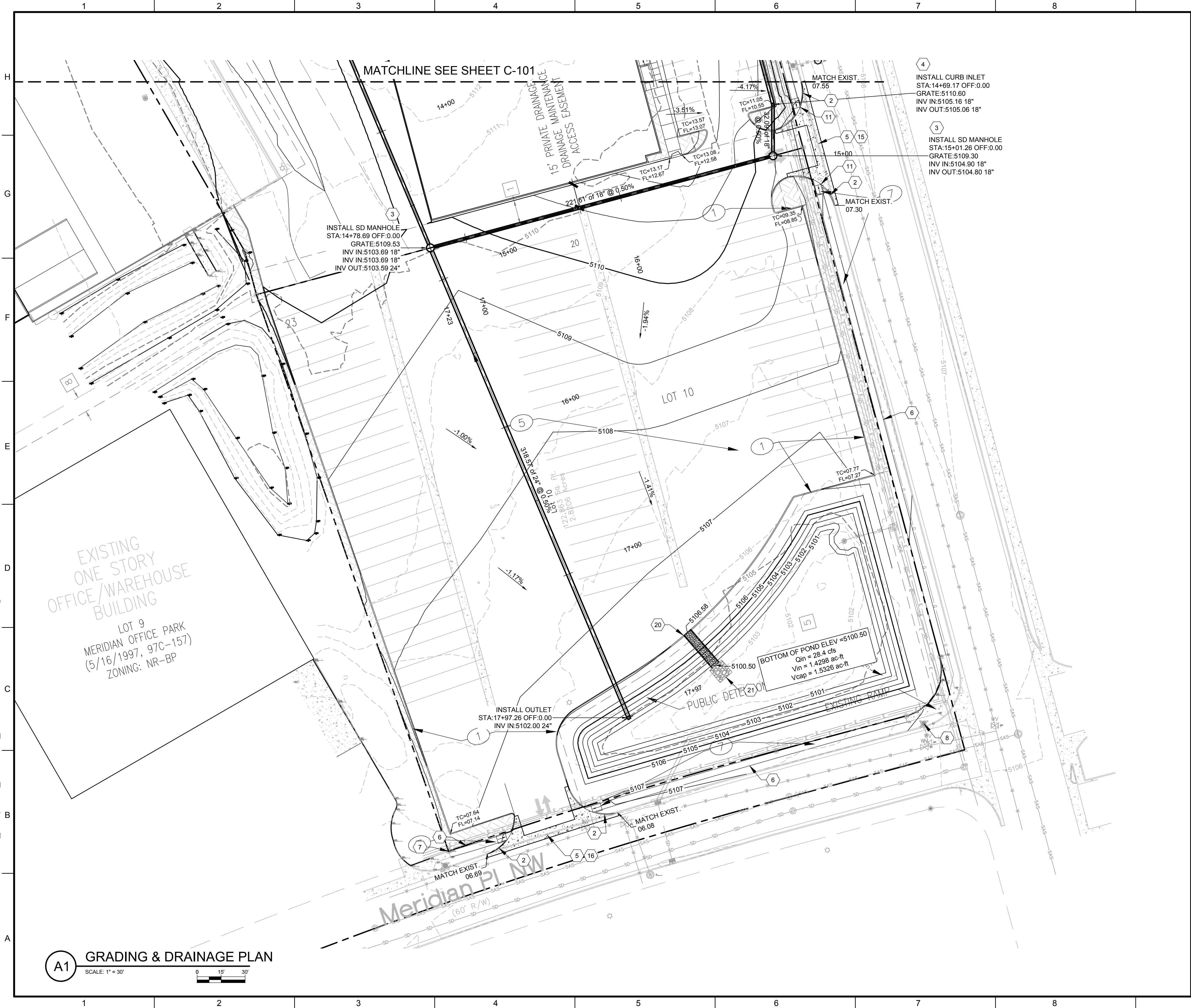
GRADING AND
DRAINAGE PLAN

SHEET NO:



| | | | |
|---|---------------|---|-----|
|  | | 4401 MASTHEAD ST., NE, SUITE 150 ALBUQUERQUE, NM 87109 PHONE: 505-348-4000 FAX: 360-346-4055 www.wilsonco.com | |
| CONSULTANTS | |  | |
| PROJECT NAME | | <p>NEW OFFICE/WAREHOUSE FOR BRUNACINI DEVELOPMENT</p> <p>541 AIRPORT DRIVE, NW</p> <p>ALBUQUERQUE, NM 87121</p> | |
| PROJECT NO: | 22-600-175-00 | DESIGNED BY: | JEL |
| DRAWN BY: | | CHECKED BY: | JEL |
| DATE: | JUNE 2022 | REV. | |
| SHEET TITLE | | DESCRIPTION | BY |
| GRADING & DRAINAGE PLAN | | | |
| SHEET NO: | | C-101 | |

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GENERAL NOTES

1. SIDEWALK AND CURB RAMPS SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA). THE CONTRACTOR SHALL CONTACT THE CITY STAFF TO SCHEDULE INSPECTIONS.

KEYNOTES

1. CONSTRUCT MEDIAN CURB & GUTTER PER COA STD DWG #2415A.
2. CONSTRUCT STANDARD CURB & GUTTER PER COA STD DWG #2415A.
3. CONSTRUCT 6" DIA. TYPE "C" MH PER COA STD DWG #2101.
4. INSTALL CURB INLET TYPE "C" PER COA STD DWG #2205.
5. CONSTRUCT DRIVE PAD PER COA STD DWG #2425.
6. CONSTRUCT NEW 4" PCC SIDEWALK PER DETAIL SHEET C-103.
7. MATCH EXIST. SIDEWALK. SAWCUT TO NEAREST JOINT.
8. EXISTING FIRE HYDRANT TO REMAIN. PROTECT IN PLACE.
9. REFER TO LANDSCAPE PLANS FOR JOINT PATTERNS.
10. CONSTRUCT ADA RAMP DETAIL "A" PER COA STD DWG #2443.
11. CONSTRUCT ADA RAMP DETAIL "C" PER COA STD DWG #2443.
12. CONSTRUCT MODIFIED ADA RAMP DETAIL "A" PER COA STD DWG #2443.
13. SLOPE NOT TO EXCEED 2% IN ANY DIRECTION.
14. ENTRANCE "A" ELEVATIONS PER SHEET C-103.
15. ENTRANCE "B" ELEVATIONS PER SHEET C-103.
16. ENTRANCE "C" ELEVATIONS PER SHEET C-103.
17. ADA RAMP "D" ELEVATIONS PER SHEET C-103.
18. ADA RAMP "E" ELEVATIONS PER SHEET C-103.
19. ADA RAMP "F" ELEVATIONS PER SHEET C-103.
20. 5-FOOT CONCRETE RUNDOWN.
21. 10'x10' RIP-RAP PAD.

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PROJECT NAME

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541 AIRPORT DRIVE, NW
ALBUQUERQUE, NM 87121**

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
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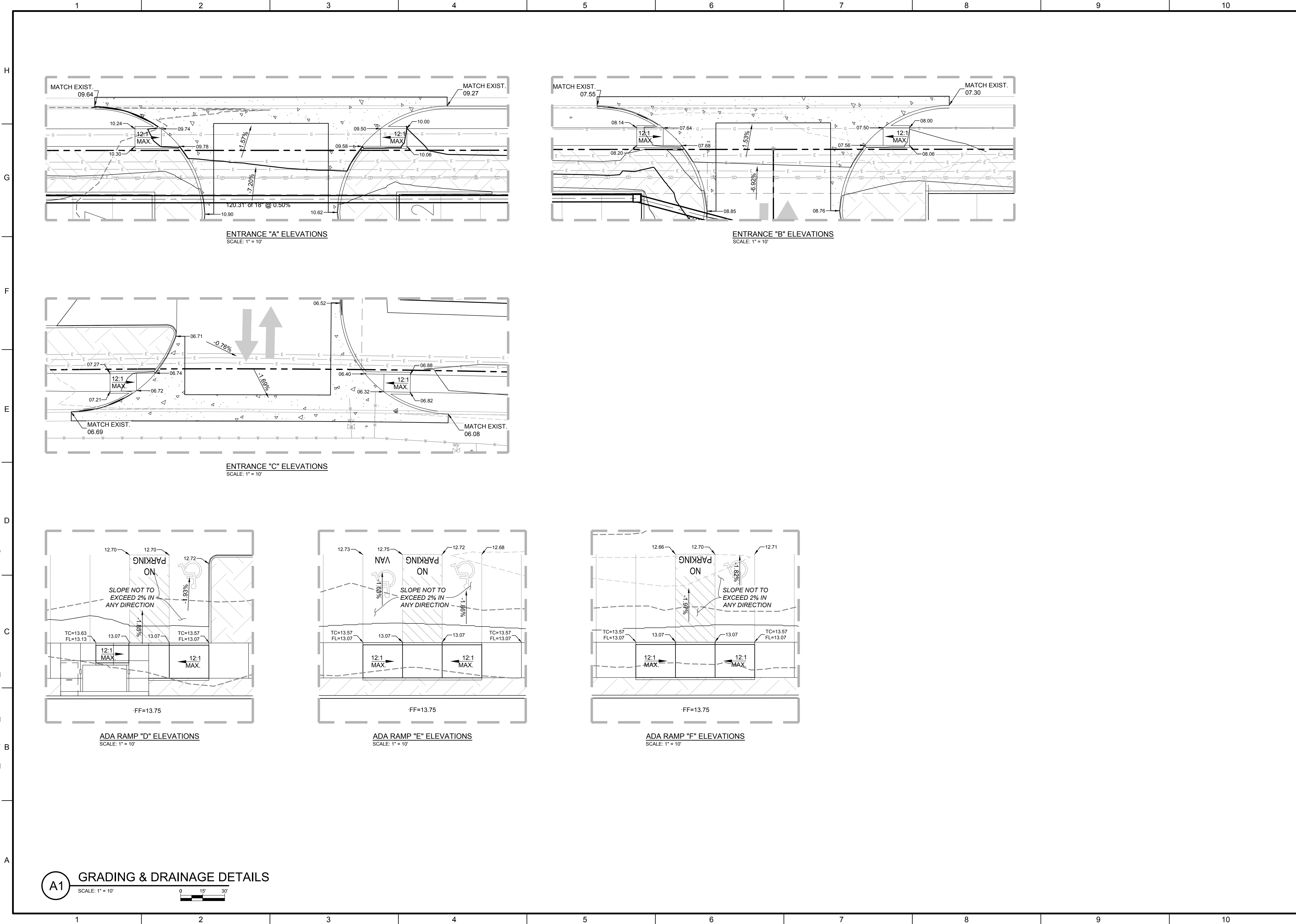
PROJECT NO: 22-600-175-00
DESIGNED BY: JEL
DRAWN BY: DY
CHECKED BY: JEL
DATE: JUNE 2022
SHEET TITLE

**GRADING &
DRAINAGE PLAN**

SHEET NO:

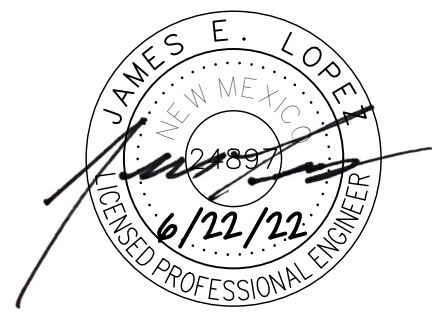
C-102

6/22/2022 M:\MSD\22-600-175-002_Disciplines_SHEETS\2_Sheets - civil\2260175-GD02.dwg



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**NEW OFFICE/WAREHOUSE
FOR BRUNACINI DEVELOPMENT
541 AIRPORT DRIVE, NW
ALBUQUERQUE, NM 87121**

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
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PROJECT NO: 22-600-175-00
DESIGNED BY: JEL
DRAWN BY: DY
CHECKED BY: JEL
DATE: JUNE 2022

SHEET TITLE
**GRADING &
DRAINAGE DETAILS**

SHEET NO:
C-103