# CITY OF ALBUQUERQUE

*Planning Department*
Brennon Williams, Director

*Mayor Timothy M. Keller*

August 6, 2021

Caleb J. Flake, P.E.
McClure
1700 Swift Street, Suite 100
North Kansas City, MO 64116

**RE: WAQ1 – Albuquerque**
**7300 Meridian Pl NW**
**Revised Grading & Drainage Plan**
**Engineer's Stamp Date: 07/26/21**
**Hydrology File: K10D023J**

Dear Mr. Flake:

Based upon the information provided in your resubmittal received 07/26/2021, the Revised Grading & Drainage Plan is approved for Building Permit.

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

Please provide Drainage Covenant for the stormwater quality ponds per Article 6-15(C) of the DPM prior to Permanent Release of Occupancy. Please submit an electronic file of the Covenant and Exhibit for completeness to Marion G. Velasquez at mgvelasquez@cabq.gov. Once the electronic file is approved for completeness, please hand deliver the original copies along with the **$ 25.00** recording fee check made payable to Bernalillo County to Marion on the 4th floor of Plaza de Sol. Please note that Hydrology will need a pdf copy of the recorded Drainage Covenant prior to Hydrology's approval of Permanent Release of Occupancy.

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

# City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

**Project Title:** WAQ1 - Albuquerque Building Permit #: _____ Hydrology File #: _____

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

Legal Description: All of lots 11, 12 & 13 of Lots 1 thru 23, Meridian Business Park, A subdivision in Albuquerque, Bernalillo County, New Mexico

City Address: 7300 Meridian Pl NW

**Applicant:** McClure Contact: Matt Eblen

Address: 1700 Swift Street (Suite 100)

Phone#: 913-307-2588 Fax#: _____ E-mail: meblen@mcclurevision.com

**Owner:** Angelo Brunacini Contact: _____

Address: 7550 Meridian Pl NW; Albuquerque, NM 87197

Phone#: 505-833-2928 Fax#: _____ E-mail: abrunacini@brunacini.com

**TYPE OF SUBMITTAL:** _____ PLAT (___# OF LOTS) ____ RESIDENCE X DRB SITE ____ ADMIN SITE

IS THIS A RESUBMITTAL?: X Yes _____ No

**DEPARTMENT:** _____ TRAFFIC/ TRANSPORTATION X HYDROLOGY/ DRAINAGE

Check all that Apply:

**TYPE OF SUBMITTAL:**

____ ENGINEER/ARCHITECT CERTIFICATION
____ PAD CERTIFICATION
____ CONCEPTUAL G & D PLAN
X GRADING PLAN
____ DRAINAGE MASTER PLAN
X DRAINAGE REPORT
____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
____ ELEVATION CERTIFICATE
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ TRAFFIC IMPACT STUDY (TIS)
____ OTHER (SPECIFY) _____
____ PRE-DESIGN MEETING?

**TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

X BUILDING PERMIT APPROVAL
____ CERTIFICATE OF OCCUPANCY
____ PRELIMINARY PLAT APPROVAL
____ SITE PLAN FOR SUB'D APPROVAL
X SITE PLAN FOR BLDG. PERMIT APPROVAL
____ FINAL PLAT APPROVAL
____ SIA/ RELEASE OF FINANCIAL GUARANTEE
____ FOUNDATION PERMIT APPROVAL
X GRADING PERMIT APPROVAL
____ SO-19 APPROVAL
____ PAVING PERMIT APPROVAL
____ GRADING/ PAD CERTIFICATION
____ WORK ORDER APPROVAL
____ CLOMR/LOMR
____ FLOODPLAIN DEVELOPMENT PERMIT
____ OTHER (SPECIFY) _____

DATE SUBMITTED: 07/26/2021 By: Matt Eblen

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____

McCLURE™

1700 Swift Street, Suite 100
North Kansas City, MO 64116
P 816.756.0444

www.mecresults.com

July 26, 2021

Renee Brissette, P.E.
Hydrology Section
600 2nd NW
Albuquerque, NM 87102

Re: 7300 Meridian Pl NW—Updates to Grading & Drainage Plan (Project Number: BP-2020-53488)

Dear Renee:

Grades were changed on the north side of the existing building to better access the loading area under the canopy. No drainage patterns or percent impervious changes were made, but doors were removed on this side of the building and a resubmittal was made for building permit. Based on comments received from the City on 7/15/2021, we are resubmitting our Grading & Drainage Plan with a more recent date for your review and approval.

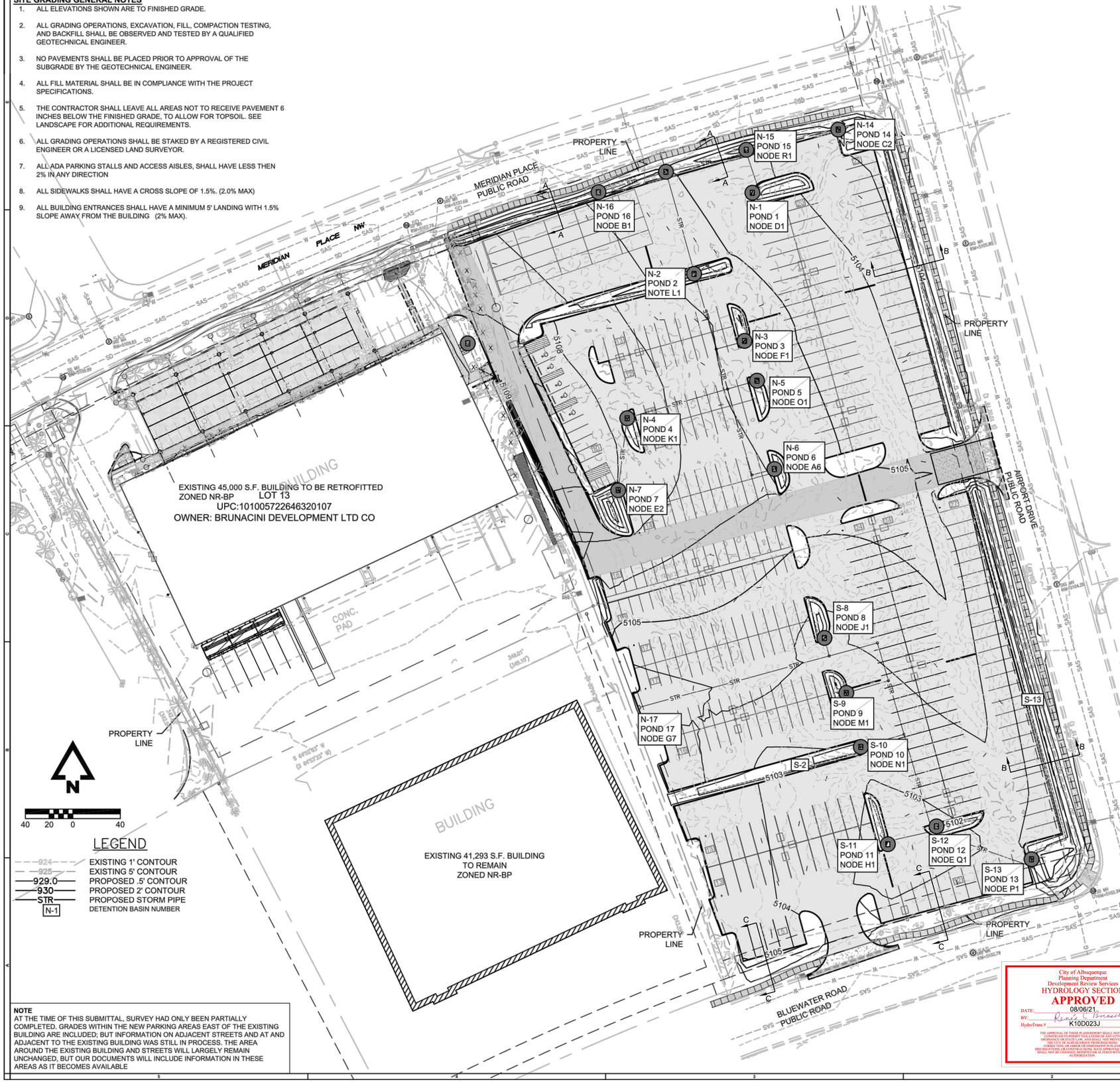
Very truly yours,

Matt Eblen

Matt Eblen, P.E.
meblen@mcclurevision.com
913-307-2588

## SITE GRADING GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE TO FINISHED GRADE.
2. ALL GRADING OPERATIONS, EXCAVATION, FILL, COMPACTION TESTING, AND BACKFILL SHALL BE OBSERVED AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER.
3. NO PAVEMENTS SHALL BE PLACED PRIOR TO APPROVAL OF THE SUBGRADE BY THE GEOTECHNICAL ENGINEER.
4. ALL FILL MATERIAL SHALL BE IN COMPLIANCE WITH THE PROJECT SPECIFICATIONS.
5. THE CONTRACTOR SHALL LEAVE ALL AREAS NOT TO RECEIVE PAVEMENT 6 INCHES BELOW THE FINISHED GRADE, TO ALLOW FOR TOPSOIL. SEE LANDSCAPE FOR ADDITIONAL REQUIREMENTS.
6. ALL GRADING OPERATIONS SHALL BE STAKED BY A REGISTERED CIVIL ENGINEER OR A LICENSED LAND SURVEYOR.
7. ALL ADA PARKING STALLS AND ACCESS AISLES, SHALL HAVE LESS THEN 2% IN ANY DIRECTION
8. ALL SIDEWALKS SHALL HAVE A CROSS SLOPE OF 1.5%. (2.0% MAX)
9. ALL BUILDING ENTRANCES SHALL HAVE A MINIMUM 5' LANDING WITH 1.5% SLOPE AWAY FROM THE BUILDING (2% MAX).




40 20 0 40

### LEGEND

- 924 — EXISTING 1' CONTOUR
- 925 — EXISTING 5' CONTOUR
- 929.0 — PROPOSED .5' CONTOUR
- 930 — PROPOSED 2' CONTOUR
- STR — PROPOSED STORM PIPE
- N-1 — DETENTION BASIN NUMBER

**NOTE**
AT THE TIME OF THIS SUBMITTAL, SURVEY HAD ONLY BEEN PARTIALLY COMPLETED. GRADES WITHIN THE NEW PARKING AREAS EAST OF THE EXISTING BUILDING ARE INCLUDED; BUT INFORMATION ON ADJACENT STREETS AND AT AND ADJACENT TO THE EXISTING BUILDING WAS STILL IN PROCESS. THE AREA AROUND THE EXISTING BUILDING AND STREETS WILL LARGELY REMAIN UNCHANGED, BUT OUR DOCUMENTS WILL INCLUDE INFORMATION IN THESE AREAS AS IT BECOMES AVAILABLE

## DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERNING THE LOT 11 & LOT 12 MERIDIAN BUSINESS PARK GRADING AND DRAINAGE PLAN ARE CONTAINED BELOW:

1. VICINITY MAP
2. GRADING PLAN
3. CALCULATIONS

THE PROPOSED IMPROVEMENTS, AS SHOWN BY THE VICINITY MAP, ARE LOCATED ON THE SOUTH SIDE OF MERIDIAN PLACE NW, ON THE WEST SIDE OF AIRPORT DRIVE NW AND ON THE NORTH SIDE OF BLUEWATER ROAD NW. THE SITE IS UNDEVELOPED AND SLOPES FROM NORTH TO SOUTH AT AN APPROXIMATE SLOPE OF 0.5%. THE SITE IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE ACCORDING TO EFFECTIVE MAPPING FROM F.E.M.A.

THE MASTER DRAINAGE PLAN FOR THIS SUBDIVISION WAS PREPARED BY EASTERLING AND ASSOCIATES. THIS PLAN ESTABLISHED A MAXIMUM SITE DISCHARGE RATE OF 0.10 CFS/ACRE AND REQUIRES TEMPORARY DIVERSION DITCHES AND PONDS TO CONTROL THE RUNOFF GENERATED FROM EACH LOT.

THE SITE IS BOUNDED ON THREE (3) SIDES BY PUBLIC RIGHT-OF-WAY, AND ON THE FOURTH SIDE BY PREVIOUSLY DEVELOPED SITES (INCLUDING LOT 13, FOR WHICH THE PARKING LOT IMPROVEMENTS ARE BEING DEVELOPED). THEREFORE, OFF-SITE FLOWS ARE NOT CONSIDERED SIGNIFICANT.

THE GRADING PLAN SHOWS:

1. THE EXISTING AND PROPOSED GRADES, INDICATED BY CONTOURS AT 0.5' INTERVALS (REFERENCE GENERAL NOTE ON THIS SHEET REGARDING STATE OF SURVEY AT THE TIME OF SUBMITTAL).
2. CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
3. THE LIMIT AND CHARACTER OF EXISTING IMPROVEMENTS, AND
4. THE LIMIT AND CHARACTERR OF PROPOSED IMPROVEMENTS.

THE PROPOSED IMPROVEMENTS CONSIST OF PARKING AND ASSOCIATED LANDSCAPING ON LOTS 11 & 12 AS WELL AS TENANT IMPROVEMENTS TO LOT 13 (INCLUDING CANOPIES ON THE NORTH AND SOUTH SIDE OF THE EXISTING BUILDING). THE RUNOFF FROM LOTS 11 & 12 INTO THE NORTHERN AND SOUTHERN PONDS. THE NORTHERN PONDS ARE DIVIDED INTO SUB-PONDS (N-1, N-2, N-3, N-4 & N-5) AND THE SOUTHERN PONDS ARE DIVIDED INTO SUB-PONDS (S-1, S-2, S-3 & S-4). EACH POND IS LOCATED WITHIN DEPRESSED ISLANDS WITHIN THE PARKING AREAS, AND WILL EVENTUALLY DISCHARGE INTO PUBLIC STORM SEWERS ALONG MERIDIAN PLACE NW (NORTHERN PONDS) AND BLUEWATER ROAD NW (SOUTHERN PONDS). THE RESPECTIVE RATES OF DISCHARGE FOR THE ACCUMULATED NORTHERN AND SOUTHERN PONDS ARE 0.26 AND 0.26 (BOTH OF WHICH ARE LESS THAN THE 0.1 CFS/ACRE REQUIREMENT PER THE MASTER PLAN).

THE CALCULATIONS ANALYZE THE EXISTING AND PROPOSED CONDITIONS FOR THE 6-HOUR, 100 YEAR RAINFALL EVENT. PER DISCUSSIONS WITH CITY, THE ANALYSIS IS IN ACCORDANCE WITH CHAPTER 6–"DRAINAGE, FLOOD CONTROL AND EROSION CONTROL" DEVELOPMENT PROCESS MANUAL. AS SHOWN BY THESE CALCULATIONS, THE RATE AND VOLUME OF RUNOFF WILL INCREASE BUT THE POND(S) WITH CONTROLLED OUTLETS WILL MITIGATE THE INCREASE. THIS PLAN IS IN CONFORMANCE WITH THE MASTER DRAINAGE PLAN.

### CALCULATIONS

PRECIPITATION ZONE 1

TOTAL SITE AREA (NORTHERN) = 2.65 ACRES, TOTAL SITE AREA (SOUTHERN) = 2.76 ACRES

**NORTHERN BASIN** AREA = 2.65 ACRES

EXISTING CONDITIONS
LAND TREATMENTA = 100%
EQN 6.1: E = [(0.55*2.65)]/2.65 = 0.55 INCHES
EQN 6.2: V360 = (0.55*2.65)/12 = 0.122 ACRE FEET
EQN 6.6: Qp = (1.54*2.65) = 4.08 CFS

PROPOSED CONDITIONS
LAND TREATMENT B = 82.8% (2.19 ACRES), D = 17.2% (0.46 ACRES)
EQN 6.1: E = [(0.93*0.46) + (2.24*2.19)]/2.65 = 2.01 INCHES
EQN 6.2: V360 = (2.01*2.65)/12 = 0.444 ACRE FEET
EQN 6.6: Qp = (2.16*0.46) + (4.12*2.19) = 10.02 CFS

INCREASE IN VOLUME OF RUNOFF = 0.322 ACRE FEET
INCREASE IN RATE OF RUNOFF = 5.94 CFS

**POND VOLUME (NORTHERN BASINS)**
Tc = 0.2 HR, Ad = 2.43 ACRES, At = 2.65 ACRES, 0.25(Ad/At) = 0.229 HR
Tb = 2.107*E*(At/Qp) - 0.25(Ad/At) = 0.891 HR
Tp = (0.7*Tc) + ((1.6-(Ad/At))*12) = 0.197 HR
Vrequired = 19,776 CF

**POND VOLUME AND DISCHARGES**
POND 1 VOLUME = 1,578.28 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*3.23)] = 0.0273 CFS
POND 2 VOLUME = 1,614.13 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*2.84)] = 0.0256 CFS
POND 3 VOLUME = 729.44 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*2.73)] = 0.0251 CFS
POND 4 VOLUME = 614.73 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*3.16)] = 0.0270 CFS
POND 5 VOLUME = 740.57 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*2.69)] = 0.0249 CFS
POND 6 VOLUME = 651.21 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*2.74)] = 0.0251 CFS
POND 7 VOLUME = 1,936.02 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*3.06)] = 0.0265 CFS
POND 14 VOLUME = 7,798.95 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0024) [SQ(2*32.2*3.22)] = 0.0272 CFS
POND 15 VOLUME = 722.25 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*2.36)] = 0.0233 CFS
POND 16 VOLUME = 722.25 CF, 0.76" ORIFICE (AREA = 0.0032 SF), OUTFLOW = 0.6 (0.0032) [SQ(2*32.2*2.55)] = 0.0242 CFS

TOTAL OUTFLOW = 0.2561 CFS, ALLOWABLE OUTFLOW = 2.65*0.1 = 0.265 CFS

**SOUTHERN BASIN** AREA = 2.76 ACRES

EXISTING CONDITIONS
LAND TREATMENTA = 100%
EQN 6.1: E = [(0.55*2.76)]/2.65 = 0.55 INCHES
EQN 6.2: V360 = (0.55*2.76)/12 = 0.127 ACRE FEET
EQN 6.6: Qp = (1.54*2.76) = 4.25 CFS

PROPOSED CONDITIONS
LAND TREATMENT B = 82.8% (2.29 ACRES), D = 17.2% (0.47 ACRES)
EQN 6.1: E = [(0.93*0.47) + (2.24*2.29)]/2.76 = 2.02 INCHES
EQN 6.2: V360 = (2.02*2.65)/12 = 0.465 ACRE FEET
EQN 6.6: Qp = (2.16*0.47) + (4.12*2.29) = 10.45 CFS

INCREASE IN VOLUME OF RUNOFF = 0.338 ACRE FEET
INCREASE IN RATE OF RUNOFF = 6.20 CFS

**POND VOLUME (SOUTHERN BASINS)**
Tc = 0.2 HR, Ad = 2.53 ACRES, At = 2.76 ACRES, 0.25(Ad/At) = 0.229 HR
Tb = 2.107*E*(At/Qp) - 0.25(Ad/At) = 0.895 HR
Tp = (0.7*Tc) + ((1.6-(Ad/At))*12) = 0.197 HR
Vrequired = 20,700 CF

**POND VOLUME AND DISCHARGES**
POND 8 VOLUME = 1,302.38 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2*32.2*3.42)] = 0.0438 CFS
POND 9 VOLUME = 1,134.13 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2*32.2*3.92)] = 0.0469 CFS
POND 10 VOLUME = 2,314.64 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2*32.2*2.47)] = 0.0372 CFS
POND 11 VOLUME = 4,276.89 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2*32.2*2.90)] = 0.0404 CFS
POND 12 VOLUME = 4,385.21 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2*32.2*2.87)] = 0.0402 CFS
POND 13 VOLUME = 8,151.86 CF, 0.72" ORIFICE (AREA = 0.0028 SF), OUTFLOW = 0.6 (0.0028) [SQ(2*32.2*4.52)] = 0.0289 CFS
POND 17 VOLUME = 1,860.71 CF, 0.95" ORIFICE (AREA = 0.0049 SF), OUTFLOW = 0.6 (0.0049) [SQ(2*32.2*2.57)] = 0.0380 CFS

TOTAL OUTFLOW = 0.2755 CFS, ALLOWABLE OUTFLOW = 2.76*0.1 = 0.276 CFS

**TOTAL VOLUME**
TOTAL VOLUME PROVIDED (NORTH AND SOUTH BASINS) = 40,542.62 CF
TOTAL VOLUME REQUIRED (NORTH AND SOUTH BASINS) = 40,446.00 CF

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
**APPROVED**
DATE: 08/06/21
BY: Rosey Brunetto
HydroTrans # K10D023J

THE APPROVAL OF THESE PLANS/REPORT SHALL NOT BE CONSTRUED TO PERMIT VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW. ANY DEVIATION FROM THE CITY OF ALBUQUERQUE STANDARDS AND SPECIFICATIONS, CORRECTION, OR ERROR OR DIMENSIONS IN PLANS, SPECIFICATIONS, OR CONSTRUCTIONS, SUCH APPROVED PLANS SHALL NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.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Revisions

| NO. | DATE | DESCRIPTION |
|---|---|---|

WAQ1 - Albuquerque, NM

**WAQ1 - Albuquerque, NM**
7300 Meridian Pl NW
Albuquerque, NM 87121

Project Manager: CJF
Checked By: MVE
Drawn by: ELM
Document date: 06/18/2020

Project No.
30000481 MEC# 191313-000

Professional Seal

CODY LANDON DAILEY
NEW MEXICO
24214
PROFESSIONAL ENGINEER
07.26.2021

Sheet Title
STORM SEWER CALC SHEET

Sheet No.
C3.06

PLOT DATE: 11/10/2020 11:47 AM
BY: KHANSON
\\MCECMCIPRJ01\PROJECTS\191313-000\06-DRAWINGS\CIVIL\SITE PLAN SHEETS\191313-000 GRAD.DWG