# CITY OF ALBUQUERQUE

*Planning Department*
David Campbell, Director

*Mayor Timothy M. Keller*

July 10, 2018

Fred Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. N.E
Albuquerque, NM 87108

RE: **Global Storage- Coors**
**3421 Coors Blvd NW**
**Grading and Drainage Plan**
**Engineer's Stamp Date 6/26/18**
**Hydrology File: G11D071**

Dear Mr. Arfman:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Based on the submittal received on 6/26/18 the above-referenced submittal is approved for Site Plan Building Permit and Variance for a 0.5' waterblock along Atrisco.

Prior to Building Permit:

1. Remove all Conceptual markings.
2. There appear to be a few areas around the dumpster access where impervious areas are not being retained on-site. Please add detail to show how these areas are being captured. If unable to capture and retain on-site, quantify the first flush bypass volume and state on plans. Payment of fee in-lieu will then be required at building permit.
3. A Drainage Covenant is required for the stormwater quality ponds and for the detention ponds and their outfall structures. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee ($25, payable to City of Albuquerque) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants.
4. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).
5. Additional comments may be provided at Building Permit, based on the outcome of the above remarks and level of detail shown on plans.

Prior to Certificate of Occupancy:

6. Engineer's Certification, per the DPM Chapter 22.7: *Engineer's Certification Checklist For Non-Subdivision* is required.

7. City acceptance and close-out of the public Work Order will be required, unless a financial guarantee has been posted.

8. The Drainage Covenant must be recorded with Bernalillo County and a copy included with the drainage certification.

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

# City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

**Project Title:** Global Storage - Coors Building Permit #: _____ City Drainage #: G11D071

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

Legal Description: Tract A-36-A, Town of Atrisco Grant, Northeast Unit

City Address: 3421 Coors Blvd. NW - Albuquerque, NM 87120

**Engineering Firm:** Isaacson & Arfman, PA Contact: Fred C. Arfman / Bryan J. Bobrick

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: _____ E-mail: freda@iacivil.com
bryanb@iacivil.com

**Owner:** _____ Contact: _____

Address: _____

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

**Architect:** Armando Lopez Architecture Contact: _____

Address: 221 N Main Street, Studio E - Las Cruces, NM 88001

Phone#: (575) 652-5540 Fax#: _____ E-mail: armando@alopezarc.com

**Other Contact:** _____ Contact: _____

Address: _____

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

Check all that Apply:

**DEPARTMENT:**

X HYDROLOGY/ DRAINAGE
_____ TRAFFIC/ TRANSPORTATION
_____ MS4/ EROSION & SEDIMENT CONTROL

**TYPE OF SUBMITTAL:**

_____ ENGINEER/ ARCHITECT CERTIFICATION

X CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ DRAINAGE MASTER PLAN
X DRAINAGE REPORT
_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

_____ OTHER (SPECIFY) _____

**CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

_____ 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
_____ GRADING PERMIT APPROVAL
_____ SO-19 APPROVAL
_____ PAVING PERMIT APPROVAL
_____ GRADING/ PAD CERTIFICATION
_____ WORK ORDER APPROVAL
_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING
_____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: X Yes _____ No

DATE SUBMITTED: June 26, 2018 By: Fred C. Arfman

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

ISAACSON & ARFMAN, P.A. Consulting Engineering Associates
Thomas O. Isaacson, PE(RET.) & LS(RET.) . Fred C. Arfman, PE . Åsa Nilsson-Weber, PE

June 26, 2018

City of Albuquerque
Hydrology Dept.
Attn: Dana Peterson P.E.

**RE: GLOBAL STORAGE – COORS**
**Conceptual Grading and Drainage Plan**
**Hydrology File: G11D071**

Dear Mr. Peterson:

Attached with this letter is a copy of the revised Conceptual Grading and Drainage Plan for the above referenced project. Revisions are based on your numbered review comments dated May 8, 2018 as follows:

Prior to Site Plan for Building Permit comment responses:

1. See attached Supplemental Grading & Drainage Information packet (SG&D) for revised calculations.
2. See attached SG&D packet for clarification of impervious vs pervious surfacing. Per our e-mail conversations, the covered RV storage areas (base course pervious paving) are calculated as impervious for First Flush calculations and as Land Treatment 'C' for site discharge calculations with the caveat that the RV canopies discharge into and through the compacted base course paving.
3. The First Flush / detention ponds along Coors are shown with vertical walls and areas. Final depths and orifice sizes will be determined as part of building permit set. A note is provided on the plan that "*No work shall be performed in the N.M.D.O.T. ROW including stormwater discharge to the N.M.D.O.T. storm drain system without an approval from N.M.D.O.T.*"

Prior to Building Permit comment responses:

4. The retention areas along Atrisco will be sized to retain the 100-year 10-day volume (see SG&D Drainage Basin calculations for Basins A1 and A2). Per the note on sheet CG-101, *No work shall be performed in the public ROW without an approved work order or excavation permit.*" Per the calculations, Basin A2 will generate 0.7 cfs. Approximately half of this basin will drain to Pond A2 via the 2' wide curb opening in the entrance drive. Per the weir calculation (see SG&D), a 2' wide curb opening would pass 2.36 cfs at 0.5' depth (top of waterblock) which supports the smaller waterblock.
5. Final first flush retention ponding will be provided as part of the construction document submittal for Building Permit. All first flush discharge from impervious areas will be routed to on-site first flush retention ponds. We understand that, in the event this



*128 Monroe St. N.E. * Albuquerque, NM 87108 * (505) 268-8828 * www.iacivil.com*

cannot be accomplished as part of the building permit design, the Owner will be required to submit the payment of fee in-lieu prior to building permit approval.

6. A Drainage Covenant for the stormwater quality ponds and for the detention ponds and their outfall structures will be provided and submitted for routing and recording.

7. We will assist the property owner in obtaining and submitting an ESC Plan to Stormwater Quality Engineer (Curtis Cherne, PE).

8. See comment 5.

9. We understand additional comments may be provided as part of the Building Permit review.

Prior to Certificate of Occupancy comment responses:

10. Drainage Covenant will be required and a copy included with the drainage certification.

Please contact me or Fred Arfman at 268-8828 or bryanb@iacivil.com if you have any questions or comments.

Sincerely,
Isaacson & Arfman, PA

*Bryan J. Bobrick*
Bryan J. Bobrick
Project Manager

JUNE 26, 2018

# Supplemental Grading & Drainage Information

for

## Global Storage

## 3421 Coors Road NW

by


*ISAACSON & ARFMAN, P.A.*
*Consulting Engineering Associates*

*Thomas O. Isaacson, PE(RET.) & LS(RET.)*
*Fred C. Arfman, PE*
*Åsa Nilsson-Weber, PE*

## CALCULATIONS: GLOBAL SELF STORAGE :

Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE

AREA OF SITE: 176180 SF = 4.0

100-year, 6-hour

**HISTORIC FLOWS:**

| | | Treatment SF | % |
|---|---|---|---|
| Area A | = | 0 | 0% |
| Area B | = | 176180 | 100% |
| Area C | = | 0 | 0% |
| Area D | = | 0 | 0% |
| Total Area | = | 176180 | 100% |

**DEVELOPED FLOWS:**

| | | Treatment SF | % |
|---|---|---|---|
| Area A | = | 0 | 0% |
| Area B | = | 19732 | 11% |
| Area C | = | 45807 | 26% |
| Area D | = | 110641 | 63% |
| Total Area | = | 176180 | 100% |

**EXCESS PRECIP:**

Precip. Zone 1

$E_A$ = 0.44

$E_B$ = 0.67

$E_C$ = 0.99

$E_D$ = 1.97

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

$$\text{Weighted } E = \frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$$

| | | | | | | |
|---|---|---|---|---|---|---|
| Historic E | = | 0.67 in. | | Developed E | = | 1.57 in. |

On-Site Volume of Runoff: V360 = E*A / 12

| | | | | | | |
|---|---|---|---|---|---|---|
| Historic $V_{360}$ | = | 9837 | CF | Developed $V_{360}$ | = | 23044 CF |

On-Site Peak Discharge Rate: $Qp = Q_{pA}A_A + Q_{pB}A_B + Q_{pC}A_C + Q_{pD}A_D / 43{,}560$

For Precipitation Zone 1

| | | | | | | |
|---|---|---|---|---|---|---|
| $Q_{pA}$ | = | 1.29 | | $Q_{pC}$ | = | 2.87 |
| $Q_{pB}$ | = | 2.03 | | $Q_{pD}$ | = | 4.37 |
| Historic $Q_p$ | = | 8.2 | CFS | Developed $Q_p$ | = | 15.0 CFS |

This historic discharge from the property is 8.2 cfs (based on 100% land treatment 'B') directed to the public storm drain inlet in the adjacent Coors Blvd. R.O.W.

Per discussion with NMDOT (Anthony Trujillo, PE), the property will be permitted to discharge the historic rate. Therefore, on-site detention ponding will be required. 15.0 cfs – 8.2 cfs = 6.8 cfs to be detained on-site.

Discharge to NMDOT Storm Drain System in Coors Blvd: The following e-mail from Timothy R. Trujillo (NMDOT) clarifies the discharge will be held to the Historic Condition.

---------- Forwarded message ----------
From: **Trujillo, Timothy R, NMDOT** <TimothyR.Trujillo@state.nm.us>
Date: Tue, Apr 10, 2018 at 10:01 AM
Subject: RE: For your review (self-storage project Coors & Atrisco)
To: Sam Biggs <samb@iacivil.com>
Cc: Bryan Bobrick <bryanb@iacivil.com>, "Arfman, Frederick" <freda@iacivil.com>

Sam,

Typically we hold the development to the Historic Condition. Adding 4.3 CFS may seem trivial, but it's how we protect downstream infrastructure and neighboring properties. If you have any questions please get back to me.

Regards,

Tim Trujillo, PE
NMDOT – D3 Drainage
(505) 798-6690

On-site Drainage Calculations: The following e-mails between CABQ Hydrology (Dana Peterson) and I&A address the handling of the covered compacted base course parking areas for the RV storage:

**Peterson, Dana M.** May 9
to me, Sam, Fred

Hi Bryan-
I spoke with Doug about this and we'll accept this reasoning with the roofs drained to the north to create the desired effect.
v/r,
Dana

**From:** Bryan Bobrick [mailto:bryanb@iacivil.com]
**Sent:** Tuesday, May 08, 2018 10:54 AM
**To:** Peterson, Dana M.
**Cc:** Sam Biggs; Fred Arfman
**Subject:** Re: Global Self Storage - Coors Blvd

Good morning Dana,

Regarding the covered RV storage area, we would need to look at this from two different perspectives. Regarding first flush, I can see that there would be a need for calling the area impervious. Regarding overall 100-yr 6-hr Q or volume, I would think there is justification to call it Treatment C since the upstream portion of the stormwater in the pavement would drain into the pervious portion as it passes to the southeast - it would also depend on how the covers discharge - if we discharge to the north side, stormwater would then drain into the pervious portion.

I would suggest
100% impervious regarding first flush
100% Treatment C regarding design storm Q/vol

Let me know -

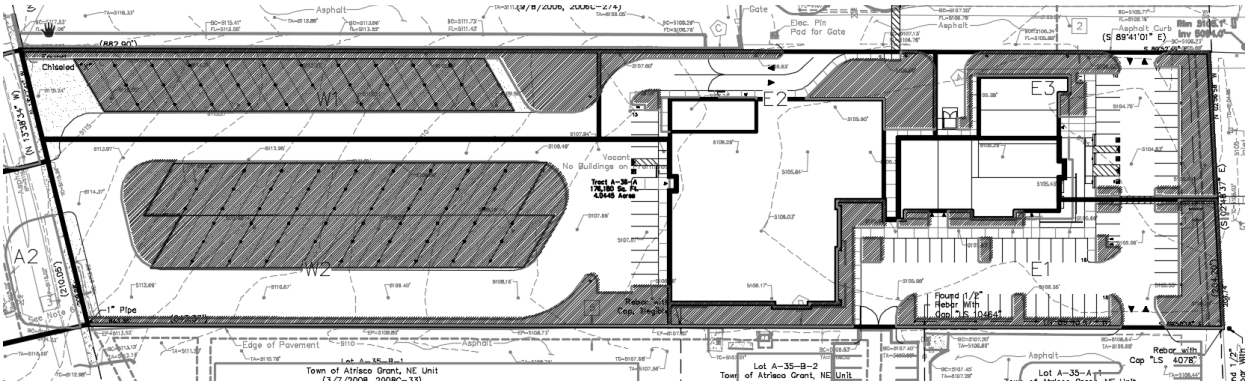
B

**Bryan Bobrick**
**Isaacson & Arfman, P.A.**
128 Monroe N.E.
Albuquerque, NM 87108
(505) 268-8828

For site discharge requirements: As noted in the e-mail, the compacted base course will be considered land treatment C with regards to design storm runoff rates and storm volumes as long as the roof areas discharge on the uphill side of the basin so that flow passes through the compacted base course. The image below shows the pervious areas hatched with the compacted base course as Land Treatment 'C'.

Total pervious = 65,347 sf (37%).

Total impervious = 110,833 sf (63%).

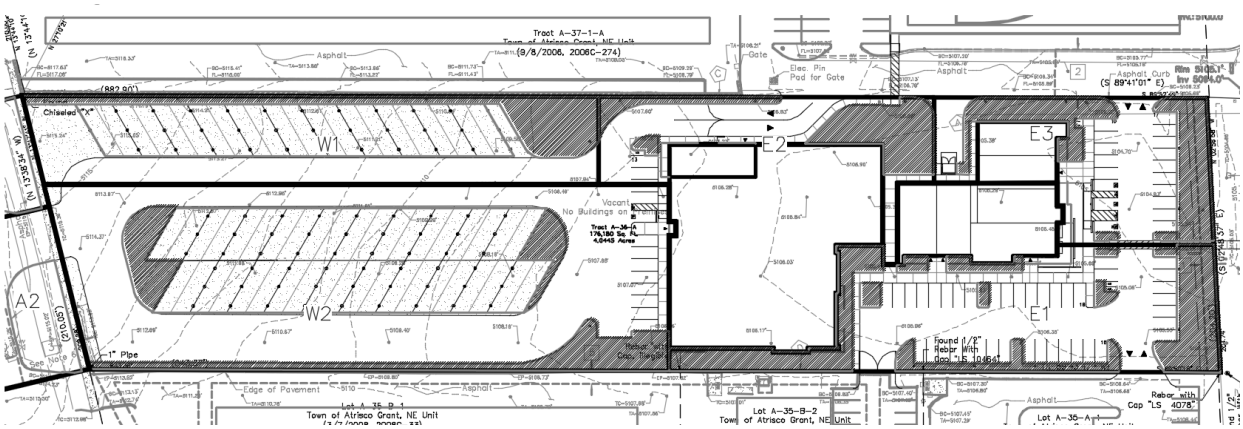



For first flush stormwater retention requirements: With regards to first flush requirements, the area of the overhead canopies will be considered impervious area. The image below shows the pervious areas hatched with the compacted base course as Land Treatment 'D' due to the cover.

Total pervious = 31,977 sf (18.2%).

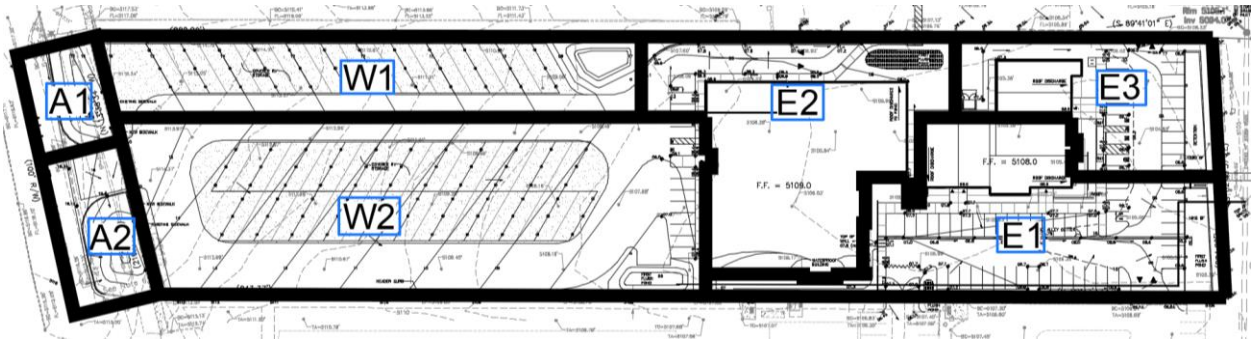
Total impervious = 144,203 sf (81.8%).

First flush required retention = 144,203 sf * 0.34" / 12 = 4,085 cf



Drainage Basins:

The property is divided into five on-site drainage basins (W1 and W2 to the west and E1, E2 and E3 to the east) and two off-site drainage basins (A1 and A2)




The portion of Atrisco Road along the property frontage will be ponded within the adjacent R.O.W. The ponds will be constructed to retain the 100-year 10-day storm event. As noted on the plan, no work shall be performed in the public row without an approved work order or excavation permit.

| | |
|---|---|
| $V_{360}$ (from previous calculation) | 630 |
| Area Treatment D (SF) | 2609 |
| Zone | 1 |

For 10 Day Storms:

$V_{10day} = V_{360} + A_D * (P_{10day} - P_{360})*43560$ SF/AC

| | | |
|---|---|---|
| $V_{360}$ | = | 630 |
| $A_D$ (SF) | = | 2609 |
| Zone | = | 1 |
| $P_{10day}$ | = | 3.67 |
| $P_{360}$ | = | 2.2 |

| | | |
|---|---|---|
| $V_{360}$ | = | 630 |
| + imp. area | = | 320 |

| | | |
|---|---|---|
| Total Pond Volume ($V_{10\ day}$) | = | 949 |

| | |
|---|---|
| $V_{360}$ (from previous calculation) | 1084 |
| Area Treatment D (SF) | 5309 |
| Zone | 1 |

For 10 Day Storms:

$V_{10day} = V_{360} + A_D * (P_{10day} - P_{360})*43560$ SF/AC

| | | |
|---|---|---|
| $V_{360}$ | = | 1084 |
| $A_D$ (SF) | = | 5309 |
| Zone | = | 1 |
| $P_{10day}$ | = | 3.67 |
| $P_{360}$ | = | 2.2 |

| | | |
|---|---|---|
| $V_{360}$ | = | 1084 |
| + imp. area | = | 650 |

| | | |
|---|---|---|
| Total Pond Volume ($V_{10\ day}$) | = | 1734 |

| **BASIN NO. A1** | | **DESCRIPTION** | | |
|---|---|---|---|---|
| Area of basin flows = | 5551 | SF | = | 0.1 Ac. |
| The following calculations are based on Treatment areas as shown in table to the right | | | | LAND TREATMENT |
| Sub-basin Weighted Excess Precipitation (see formula above) | | | | A = 0% |
| Weighted E | = | 1.36 in. | | B = 28% |
| Sub-basin Volume of Runoff (see formula above) | | | | C = 25% |
| $V_{360}$ | = | 630 CF | | D = 47% |
| Sub-basin Peak Discharge Rate: (see formula above) | | | | |
| $Q_P$ | = | 0.4 cfs | | |

| **BASIN NO. A2** | | **DESCRIPTION** | | |
|---|---|---|---|---|
| Area of basin flows = | 8427 | SF | = | 0.2 Ac. |
| The following calculations are based on Treatment areas as shown in table to the right | | | | LAND TREATMENT |
| Sub-basin Weighted Excess Precipitation (see formula above) | | | | A = 0% |
| Weighted E | = | 1.54 in. | | B = 20% |
| Sub-basin Volume of Runoff (see formula above) | | | | C = 17% |
| $V_{360}$ | = | 1084 CF | | D = 63% |
| Sub-basin Peak Discharge Rate: (see formula above) | | | | |
| $Q_P$ | = | 0.7 cfs | | |

# Weir Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Tuesday, Jun 26 2018

## Atrisco Off-Site Basin A2 to 2' wide curb opening

**Rectangular Weir**

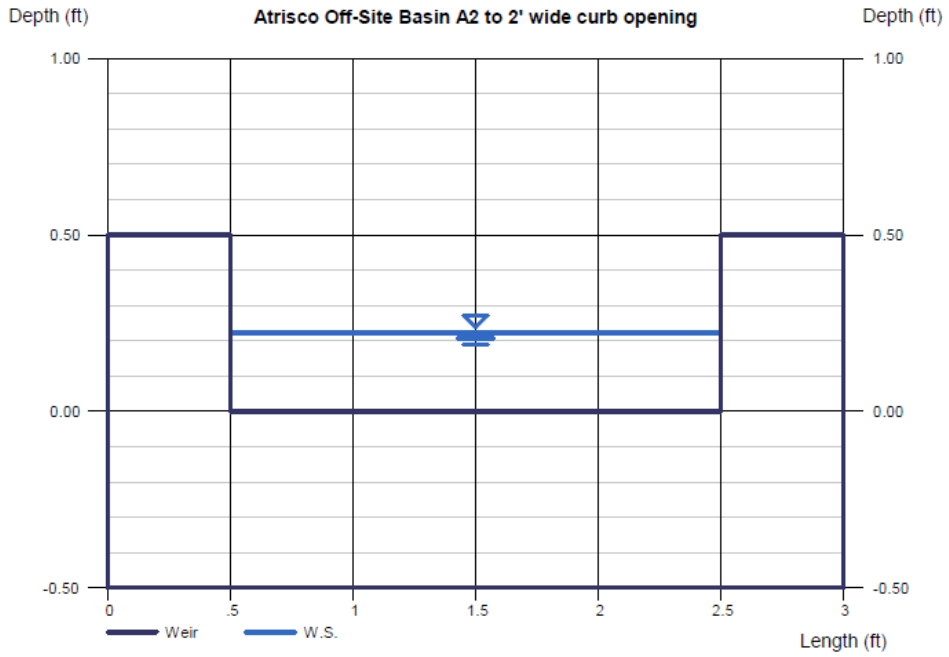
| | |
|---|---|
| Crest | = Sharp |
| Bottom Length (ft) | = 2.00 |
| Total Depth (ft) | = 0.50 |

**Calculations**

| | |
|---|---|
| Weir Coeff. Cw | = 3.33 |
| Compute by: | Known Q |
| Known Q (cfs) | = 0.70 |

**Highlighted**

| | |
|---|---|
| Depth (ft) | = 0.22 |
| Q (cfs) | = 0.700 |
| Area (sqft) | = 0.45 |
| Velocity (ft/s) | = 1.57 |
| Top Width (ft) | = 2.00 |




| Depth | Q | Area |
|---|---|---|
| (ft) | (cfs) | (sqft) |
| 0.05 | 0.074 | 0.10 |
| 0.10 | 0.211 | 0.20 |
| 0.15 | 0.387 | 0.30 |
| 0.20 | 0.596 | 0.40 |
| 0.25 | 0.833 | 0.50 |
| 0.30 | 1.094 | 0.60 |
| 0.35 | 1.379 | 0.70 |
| 0.40 | 1.685 | 0.80 |
| 0.45 | 2.010 | 0.90 |
| 0.50 | 2.355 | 1.00 |

For drainage calculations, the basin W1 and W2 covered compacted base course areas are considered land treatment ‘C’.

| BASIN NO. E1 | | DESCRIPTION | | | |
|---|---|---|---|---|---|
| Area of basin flows = | 34276 | SF | = | 0.8 | Ac. |
| The following calculations are based on Treatment areas as shown in table to the right | | | | LAND TREATMENT | |
| Sub-basin Weighted Excess Precipitation (see formula above) | | | | A = | 0% |
| Weighted E = | 1.66 | in. | | B = | 9% |
| Sub-basin Volume of Runoff (see formula above) | | | | C = | 20% |
| $V_{360}$ = | 4733 | CF | | D = | 71% |
| Sub-basin Peak Discharge Rate: (see formula above) | | | | FIRST FLUSH VOL. | |
| $Q_P$ = | 3.0 | cfs | | 690 | CF |

| BASIN NO. E2 | | DESCRIPTION | | | |
|---|---|---|---|---|---|
| Area of basin flows = | 33568 | SF | = | 0.8 | Ac. |
| The following calculations are based on Treatment areas as shown in table to the right | | | | LAND TREATMENT | |
| Sub-basin Weighted Excess Precipitation (see formula above) | | | | A = | 0% |
| Weighted E = | 1.83 | in. | | B = | 5% |
| Sub-basin Volume of Runoff (see formula above) | | | | C = | 8% |
| $V_{360}$ = | 5110 | CF | | D = | 87% |
| Sub-basin Peak Discharge Rate: (see formula above) | | | | FIRST FLUSH VOL. | |
| $Q_P$ = | 3.2 | cfs | | 827 | CF |

| BASIN NO. E3 | | DESCRIPTION | | | |
|---|---|---|---|---|---|
| Area of basin flows = | 18261 | SF | = | 0.4 | Ac. |
| The following calculations are based on Treatment areas as shown in table to the right | | | | LAND TREATMENT | |
| Sub-basin Weighted Excess Precipitation (see formula above) | | | | A = | 0% |
| Weighted E = | 1.64 | in. | | B = | 10% |
| Sub-basin Volume of Runoff (see formula above) | | | | C = | 20% |
| $V_{360}$ = | 2502 | CF | | D = | 70% |
| Sub-basin Peak Discharge Rate: (see formula above) | | | | FIRST FLUSH VOL. | |
| $Q_P$ = | 1.6 | cfs | | 362 | CF |

| BASIN NO. W1 | | DESCRIPTION | | | |
|---|---|---|---|---|---|
| Area of basin flows = | 27137 | SF | = | 0.6 | Ac. |
| The following calculations are based on Treatment areas as shown in table to the right | | | | LAND TREATMENT | |
| Sub-basin Weighted Excess Precipitation (see formula above) | | | | A = | 0% |
| Weighted E = | 1.22 | in. | | B = | 10% |
| Sub-basin Volume of Runoff (see formula above) | | | | C = | 64% |
| $V_{360}$ = | 2754 | CF | | D = | 26% |
| Sub-basin Peak Discharge Rate: (see formula above) | | | | | |
| $Q_P$ = | 2.0 | cfs | | | |

| BASIN NO. W2 | | DESCRIPTION | | | |
|---|---|---|---|---|---|
| Area of basin flows = | 62937 | SF | = | 1.4 | Ac. |
| The following calculations are based on Treatment areas as shown in table to the right | | | | LAND TREATMENT | |
| Sub-basin Weighted Excess Precipitation (see formula above) | | | | A = | 0% |
| Weighted E = | 1.49 | in. | | B = | 5% |
| Sub-basin Volume of Runoff (see formula above) | | | | C = | 42% |
| $V_{360}$ = | 7833 | CF | | D = | 53% |
| Sub-basin Peak Discharge Rate: (see formula above) | | | | | |
| $Q_P$ = | 5.2 | cfs | | | |

Basin W2 will discharge a maximum of 5.2 cfs to the NMDOT storm drain system. The remaining drainage basins will drain to the detention pond system along the east side of the property (9.8 cfs) and release at a rate not to exceed a total discharge rate of 8.2 cfs (= historic). The east ponds will be required to detain approximately 11,000 cf of stormwater. With a pond area of 3270 sf, the depth of pond will be approximately 3.5 deep. Guardrails and vertical walls may be required depending on final pond configuration. The building permit submittal will provide fully detailed calculations including hydrograph and routing calculations as well as full pond details.

# PROJECT DATA

PROPERTY: THE SITE IS AN UNDEVELOPED PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP G–11. THE SITE IS BOUND TO THE EAST BY COORS BLVD, TO THE WEST BY ATRISCO DR., TO THE NORTH BY A STORAGE FACILITY COMPLEX AND TO THE SOUTH BY DEVELOPED COMMERCIAL PROPERTY.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE TWO COMMERCIAL BUILDINGS WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING, AND LANDSCAPING.

LEGAL: TRACT A–36–A TOWN OF ATRISCO GRANT NORTHEAST ADDITION, ALBUQUERQUE, NM

SITE AREA: 4.04 ACRES

BENCHMARK: ACS BRASS TABLET STAMPED "8–G11", ELEVATION = 5116.009 FEET (NAD 1983)

OFF–SITE FLOW: WEST PROPERTY R.O.W. HISTORICALLY DRAINS INTO SITE. A WATER BLOCK WILL BE PROVIDED TO CONTAIN FLOWS WITHIN ATRISCO RD. THE UNDEVELOPED R.O.W. PORTION BETWEEN THE STREET AND PROPERTY LINE WILL BE GRADED TO SELF–POND.

FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP #35001C0327J, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500–YEAR FLOODPLAIN.

ENGINEER: FRED C. ARFMAN: NMPE 7322
ISAACSON & ARFMAN, PA
128 MONROE NE 87108
505–268–8828

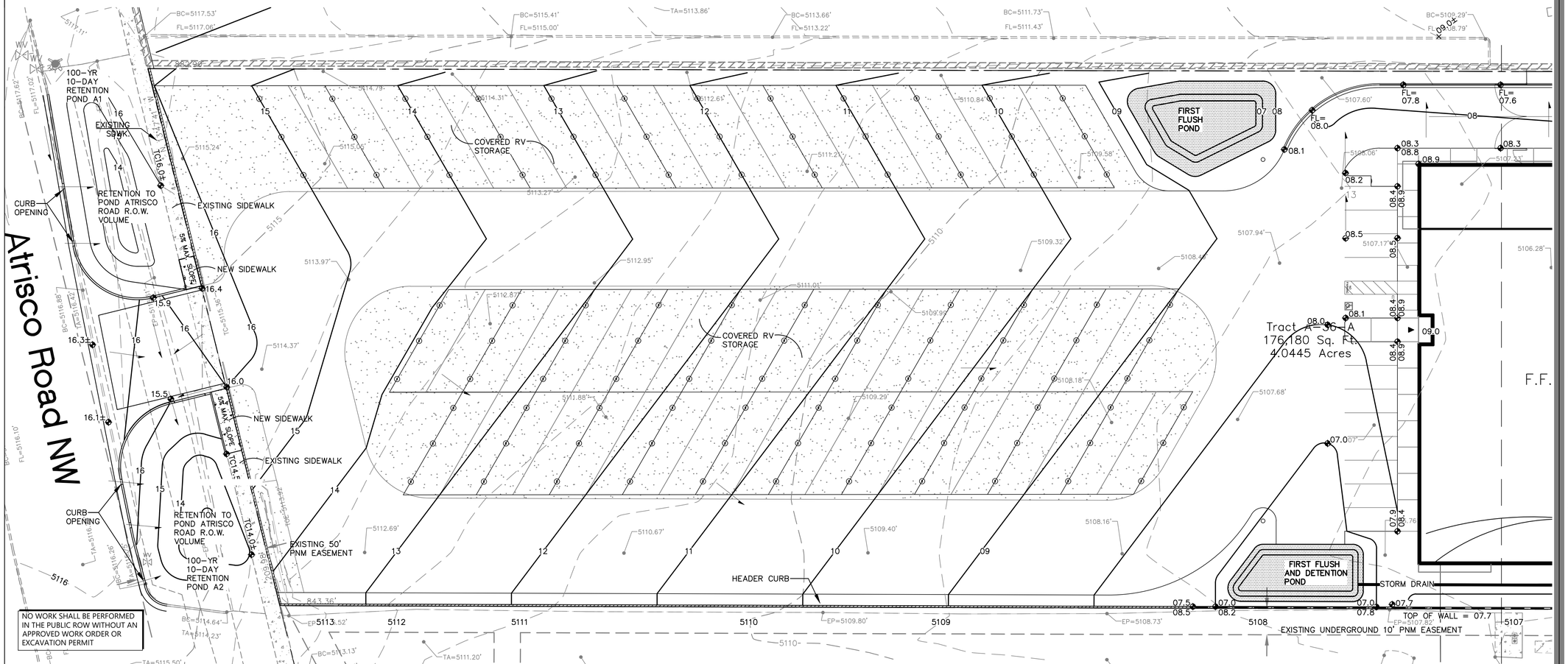
SURVEYOR: WILL PLOTNER JR: NMPS NO. 14271
CARTESIAN SURVEYS, INC
P.O. BOX 44414 RIO RANCHO, NM 87174
505–896–3050

# VICINITY MAP


# LEGEND

- 5105.65' — EXISTING SPOT ELEVATION
- –5110– — EXISTING CONTOUR
- 12 — PROPOSED CONTOUR (1' INCREMENT)
- 10 — PROPOSED CONTOUR (0.5' INCREMENT)
- 08.9 — PROPOSED SPOT ELEVATION
- FLOW ARROW
- PROPOSED FIRST FLUSH RETENTION POND

0 10 20 40 60
SCALE 1"=20'





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CONCEPTUAL NOT FOR CONSTRUCTION JUNE 26, 2018

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PROJECT

GLOBAL STORAGE - COORS

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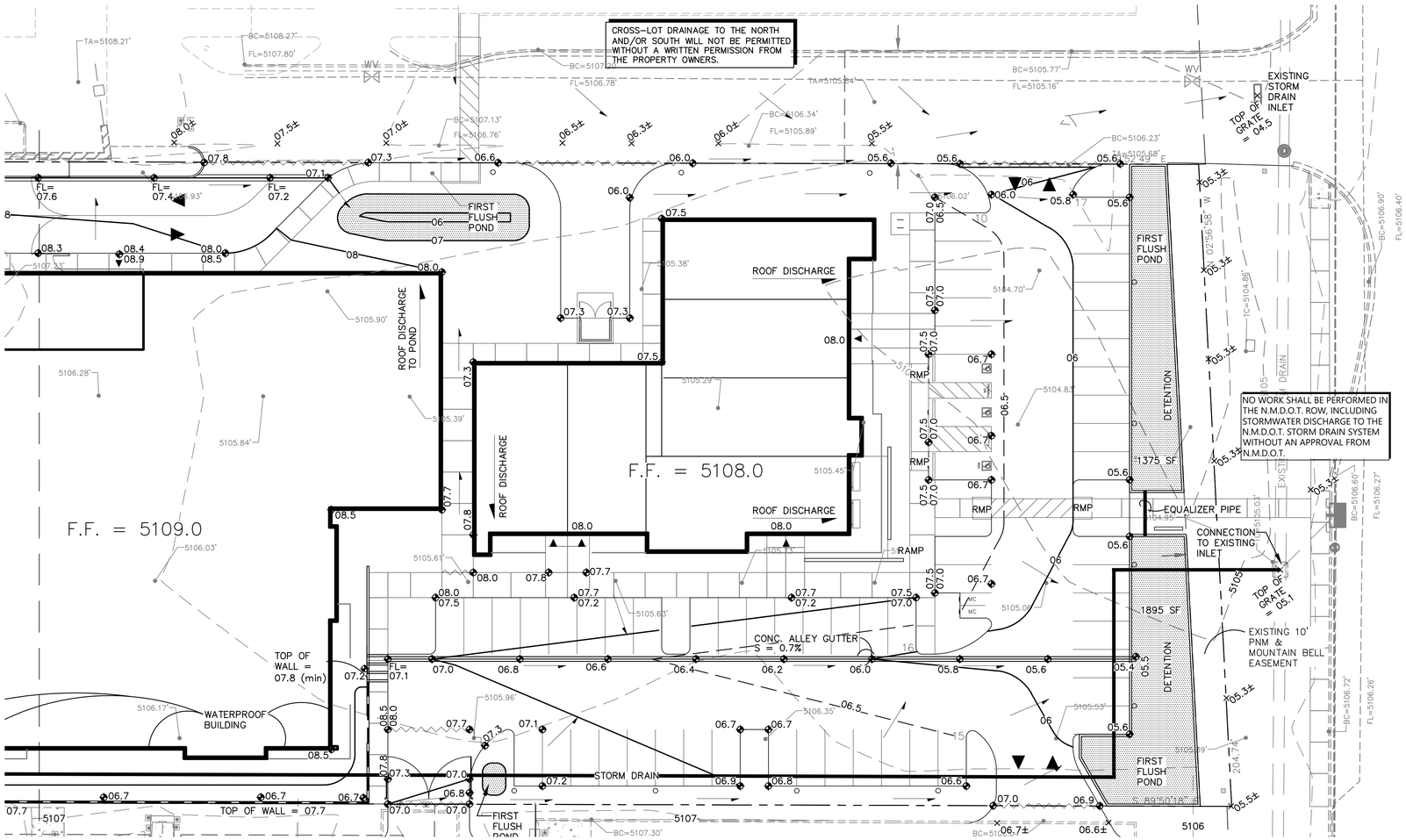
NORTH

CONCEPTUAL GRADING & DRAINAGE PLAN 1 OF 2

CG-101




0 10 20 40 60

SCALE 1"=20'

## LEGEND

| | |
|---|---|
| 5105.65' | EXISTING SPOT ELEVATION |
| 5110 | EXISTING CONTOUR |
| 12 | PROPOSED CONTOUR (1' INCREMENT) |
| 10 | PROPOSED CONTOUR (0.5' INCREMENT) |
| 08.9 | PROPOSED SPOT ELEVATION |
| | FLOW ARROW |
| | PROPOSED FIRST FLUSH RETENTION POND |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